Additional Phase II Site Investigation Report Greater Strawberry Point Martin State Airport Middle River, Maryland

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ACRONYMS

θ_w	water filled soil porosity
θ_a	air filled soil porosity
ρ_b	dry bulk soil particle density
τ	lag time
A	trench area
ABS	absorption factor
ABS_{GI}	absorption efficiency in the gastrointestinal tract
ACH	air changes per hour
ADAF	age dependent adjustment factor
AF	skin adherence factor
AST	aboveground storage tank
AT	averaging time
ATC	anticipated typical concentration
ATSDR	(federal) Agency for Toxic Substances and Disease Registry
AVS	acid volatile sulfides
B	dimensionless ratio of the permeability coefficient of a compound through the *stratum corneum* (outermost layer of skin, consisting of dead cells) relative to its permeability coefficient across the viable epidermis
BAF	bioaccumulation factor
BaPEq	benzo(a)pyrene equivalents
BERA	baseline ecological risk assessment
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
BW	body weight
C_{air}	concentration of chemical in air
CAL/EPA	California Environmental Protection Agency
CDI	chronic daily intake
CERCLA	(federal) Comprehensive Environmental Response, Compensation, and Liability Act
CF	conversion factor
C_f	chemical concentration in food
C_{gw}	chemical concentration in groundwater
cm	centimeter

COC	chemical(s) of concern
COPC	chemical(s) of potential concern
cpm	counts per minute
C_s	chemical concentration in soil
CSF	cancer slope factor
CSM	conceptual site model
Css	chemical concentration in surface soil
CTE	central tendency exposure
CVOC	chlorinated volatile organic compound
D_a	apparent diffusivity
DAD	dermally absorbed chemical dose from water
DA_{event}	dermally absorbed dose per event
DAF	dilution attenuation factor
D_i	diffusivity in air
DoD	United States Department of Defense
DPT	direct push technology
DRO	diesel range organics
D_s	shower duration
D_t	total time in bathroom
D_w	diffusivity in water
dw	dry weight
EC	exposure concentration
ECD	electron capture detector
Eco SSLs	ecological soil screening levels
ED	exposure duration
EEQ	ecological effects quotient
EF	exposure frequency
Eh	redox potential
EM	electromagnetic
EPC	exposure point concentration
ERA	ecological risk assessment
ESA	environmental site assessment
EU	exposure unit
F	fraction of floor
FA	fraction absorbed
FAA	Federal Aviation Administration
FI	fraction ingested

FID	flame ionization detector
FOL	field operations leader
FS	feasibility study
gm	grams
GPR	ground penetrating radar
GPS	global positioning system
GRO	gasoline- range organics
GSL_{vapor}	groundwater screening levels for vapor intrusion
GSP	Greater Strawberry Point
H	Henry's Law constant
HASP	health and safety plan
HEAST	Health Effects Assessment Summary Tables
HHRA	human health risk assessment
HI	hazard index (indices)
HMW	high molecular weight
HQ	hazard quotient
IDW	investigation derived waste
If	food ingestion rate
ILCR	incremental lifetime cancer-risk
IR	ingestion rate
IRIS	Integrated Risk Information System
IR_w	groundwater ingestion rate
Is	soil ingestion rate
IUR	inhalation unit risk
°K	degrees Kelvin
K	mass transfer coefficient
KC	former Critical Test Building
K_d	soil water partition coefficient
kg	kilogram
kG,H2O	gas phase mass transfer coefficient of water vapor at 25°C
kg/day	kilogram(s) per day
K_i	contaminant's overall mass transfer coefficient
k_iG	gas phase mass transfer coefficient
k_iL	liquid phase mass transfer coefficient
kL,O2	liquid phase mass transfer coefficient of oxygen at 25°C
K_p	permeability coefficient of water through skin
KS	former Radioisotope Laboratory

LMW	low molecular weight
LOAEL	lowest observed adverse effect level
Lockheed Martin	Lockheed Martin Corporation
m	meter
MAA	Maryland Aviation Administration
MCL	maximum contaminant level
MDANG	Maryland Air National Guard
MDE	Maryland Department of the Environment
MDOT	Maryland Department of Transportation
µg/kg	microgram(s) per kilogram
µg/l	microgram(s) per liter
µV	microvolt
mg/kg	milligram(s) per kilogram
mg/kg-day	milligram(s) per kilogram per day
mg/L	milligram(s) per liter
MIP	membrane interface probe
mmho/m	millimho(s) per meter
MRC	Middle River Complex
MRL	minimal risk level
MSA	Martin State Airport
MSL	mean sea level
MTBE	methyl tert-butyl ether
MW	molecular weight
MW_i	molecular weight of component i (g/mole)
MWO_2	molecular weight of oxygen (g/mole)
n	total soil porosity
NAVD	North American Vertical Datum
NCEA	National Center for Environmental Assessment
NOAA	National Oceanic and Atmospheric Administration
NOAEL	no observed adverse effect level
NPDES	National Pollutant Discharge Elimination System
NRC	(federal) Nuclear Regulatory Commission
OPPTS	(USEPA) Office of Prevention, Pesticides, and Toxic Substances
ORNL	(United States Department of Energy) Oak Ridge National Laboratory
OSWER	(USEPA) Office of Solid Waste and Emergency Response
π	pi
PAH	polycyclic (or polynuclear) aromatic hydrocarbon

PCBs	polychlorinated biphenyls
PCE	tetrachloroethene
pCi/g	picocurie(s) per gram
PEF	particulate emission factor
pH	a measure of hydrogen ion concentration used to express the acidity or alkalinity of a solution
PID	photoionization detector
PPRTV	Provisional Peer Reviewed Toxicity Values
PVC	polyvinyl chloride
R	rejected data
Ra	air exchange rate
RAGS	*Risk Assessment Guide for Superfund*
RCRA	(federal) Resource Conservation and Recovery Act
REC	Recognized Environmental Conditions
RfC	reference concentration
RfD	reference dose
RME	reasonable maximum exposure
RSL	regional screening level
S	volatile chemical generation rate
SA	surface area
SDWA	(federal) Safe Drinking Water Act
SEM	simultaneously extracted metals
SERA	screening level ecological risk assessment
SP	Strawberry Point
SPCC	spill prevention, control, and countermeasures plan
SQGs	soil quality guidelines
SQL	sample quantitation limit
SSL	soil screening level
SSL_{sair}	soil screening level for chemical migration from soil to air
SSSL	surface soil screening level
SVOC	semivolatile organic compound
SwSL	surface water screening level
t*	time to reach steady state
TCE	trichloroethene
TCLP	Toxicity Characteristic Leaching Procedure
TEF	toxicity equivalency factor
Tetra Tech	Tetra Tech, Inc.

t_{event}	event duration
TIC	tentatively identified compound
TOC	Top of casing (polyvinyl chloride well casing)
TPH	total petroleum hydrocarbon
TRV	toxicity reference values
UCL	upper confidence limit
USEPA	United States Environmental Protection Agency
UST	underground storage tank
UXO	unexploded ordnance
V	trench volume
VDEQ	Virginia Department of Environmental Quality
VF	volatilization factor
VOC	volatile organic compound

Section 1
Introduction

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc. (Tetra Tech) has prepared this additional Phase II site investigation report for the Greater Strawberry Point (GSP) portion of the former Glenn L. Martin Airport (now known as Martin State Airport [MSA]) in Baltimore County, Maryland. The investigations described herein supplement the Phase II investigations at Greater Strawberry Point in October 2010. The Greater Strawberry Point study area is comprised of approximately 75 acres and is defined as the area extending from the southern end of the peninsula to the northern end, bordering Taxiway J, and eastward from Stansbury Creek to Taxiway F. Figure 1-1 depicts the location of Greater Strawberry Point.

The objective of this investigation is to better evaluate, via surface and subsurface explorations and testing, whether hazardous materials may have been placed or spilled (i.e., released to the environment) in the northern area of Greater Strawberry Point. The investigations sought to further characterize those areas of soil and groundwater impacts initially identified during the first round of the Phase II site investigation in October 2010. Current and potential human health and ecological risks posed by site conditions were assessed to quantify risks to human receptors and the ecological effects resulting from exposure to chemicals detected in the environment at Greater Strawberry Point.

Specifically, this investigation aims to provide additional environmental data for four Recognized Environmental Conditions (RECs) in two general areas of the Greater Strawberry Point study area to evaluate if hazardous materials may have historically been released as a result of Lockheed Martin predecessor firms' (i.e., Glenn L. Martin Co. and Martin Marietta Corporation) operations, or the operations of others. These two general areas of the Greater Strawberry Point study area are as follows:

- the clearing between the wooded area and Taxiway F, which includes Recognized Environmental Conditions #8, #9, and #10 (approximately 16 acres)

- the Northern Area (approximately two acres), which includes Recognized Environmental Condition #11 (the former Material Storage, former Critical Test Building [KC[1]]), and former Radioisotope Lab (KJ) buildings

Locations of the Recognized Environmental Conditions are shown in Figure 1-2. The four Recognized Environmental Conditions investigated as part of this study include:

REC* number	REC name
REC #8	Former Induction Test, former Engine Test, former Propulsion Test, and former Compressor Shed buildings
REC #9	Former Propellant Storage, former Acetylene Storage Shed, and former Furnace Building
REC #10	Former Coupon Test Shed and former Block House
REC #11	Former Critical Test Building (KC), former Radioisotope Lab (KJ), and former Transformer Pad

* REC: Recognized Environmental Condition

The following task-specific field activities were implemented to achieve the study objective:

- obtained an access agreement and associated permits for intrusive investigations from Lockheed Martin Corporation, Maryland State Airport, the Maryland Aviation Administration (MAA), and the Federal Aviation Administration (FAA) to conduct the planned field activities

- advanced 40 soil borings, consisting of 10 soil borings in the area of Recognized Environmental Condition #9, 10 soil borings in Recognized Environmental Condition #10, and 20 soil borings in Recognized Environmental Condition #11, along with collecting soil samples for laboratory analysis

- excavated 12 test pits in Recognized Environmental Conditions #9 and #10 that assessed buried materials/debris at geophysical anomalies identified by the previous geophysical survey in 2010

[1] *Buildings are generally designated using two letters or combinations of letters and numbers. The first letter is based on major operational areas such as the airport or Strawberry Point. For example, the first letter for peripheral airport buildings such as the former Radioisotope Lab is designated by a first letter "K." The second letter of a building designation is usually assigned alphabetically beginning with "A," but for some buildings the second letter is based on the first letter of the building name or use. The former Critical-Test Building is designated as "KC," where "K" represents the Nuclear Test and Oil Farm Area and "C" represents the first word (Critical) in the building name.*

- installed eight two-inch-diameter groundwater monitoring wells at three Recognized Environmental Conditions (#9 through #11) using a low-profile Mini-Sonic drill rig to a depth of approximately 32 feet below ground surface (bgs)

- collected and analyzed samples from the eight newly installed wells and eight existing temporary groundwater monitoring wells

- surveyed locations of new soil borings, test pit excavations, and monitoring wells using a Maryland-licensed surveyor

- collected, stored, and characterized investigation derived waste (IDW) and disposed of the waste at an off-site Lockheed Martin Corporation-approved treatment and disposal facility

- performed laboratory analysis and data validation

- evaluated environmental sampling data

- completed human health and ecological risk assessments based on environmental sampling data from Recognized Environmental Conditions #9 through #11

This site investigation report is organized as follows:

Section 2—Site Background: Presents a brief overview of the site and its history and describes background conditions based on limited investigations. This section also describes the regional and site-specific subsurface geology and hydrogeology, based on the scientific literature and soil borings advanced at the site.

Section 3—Investigation Approach and Methodology: Presents the investigation's technical approach and describes the field methodologies used.

Section 4—Results: Presents the field program's investigation results.

Section 5—Human Health Risk Assessment: Compares the chemical results of the soil and groundwater samples against toxicological criteria using selected exposure scenarios to evaluate potential risk to human health.

Section 6—Ecological Risk Assessment: Compares the chemical results of the soil and groundwater samples against ecologic toxicological criteria to evaluate potential risk to ecological receptors.

Section 7—Summary: Summarizes the investigation findings.

Section 8—References: Cites references used to compile this report.

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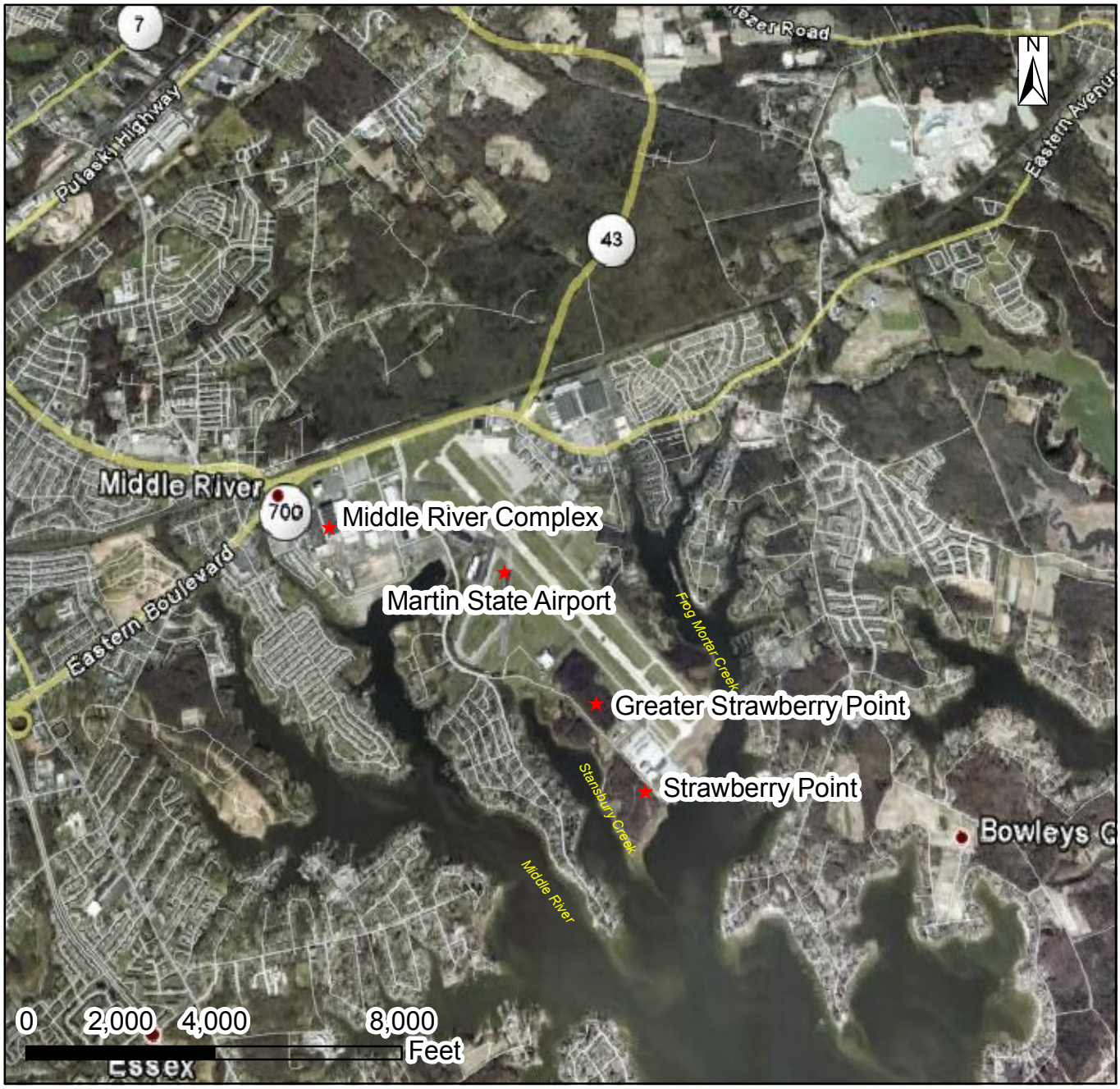

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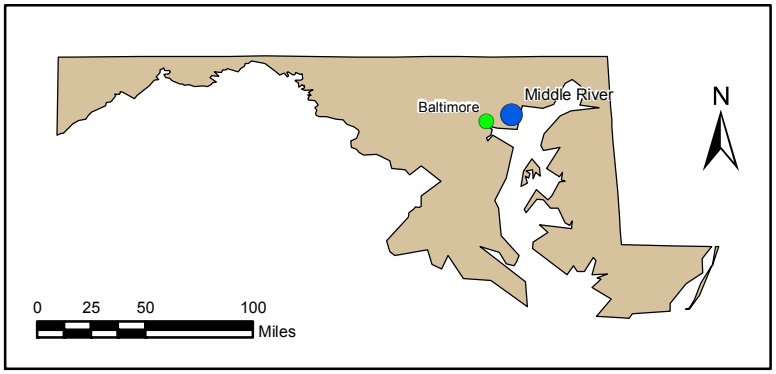

Figure 1-1

Greater Strawberry Point Location Map

Lockheed Martin, Martin State Airport
Middle River, Maryland

DATE MODIFIED:	CREATED BY:
11/14/11	MP

Tetra Tech, Inc.

Figure 1-2

Locations of Recognized Environmental Conditions Greater Strawberry Point

LEGEND

- 2010 SoiL Boring (SB)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- Historic Structures
- MTN Tanks
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- 9 REC Number

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole

REC #	REC Name
REC 8	Former Induction Test, Former Engine Test, Former Jet Test Shed, Former Storage Building Former Propulsion Test and Former Compressor Shed Buildings
REC 9	Former Propellant Storage, Former Acetylene Storage Shed, Former Furnace Building, Former Hyper-Therm Test Facilities, and Former Vanguard Tower
REC 10	Former Coupon Test Shed and Former Block House
REC 11	Former Critical Test Building (KC), Former Radioisotope Lab (KJ) and Former Transformer Pad

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 50 100 200 Feet

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DATE MODIFIED: 10/05/11

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Section 2
Site Background

2.1 LOCATION AND HISTORY

2.1.1 Martin State Airport

Martin State Airport (MSA) is in eastern Baltimore County on the peninsula between Frog Mortar Creek and Stansbury Creek, both of which are tributaries of Middle River. Eastern Boulevard (Route 150) bounds MSA to the north; Lockheed Martin's Middle River Complex (MRC) borders MSA to the west. Figure 2-1 shows the location of MSA and surrounding properties. MSA is a regional airport for private and corporate use and includes a flight training school. MSA also serves as the airport for the Maryland Air National Guard (MDANG). MDANG occupies the northeastern corner of the airport property (see Figure 2-1).

The MDANG facilities were first occupied in 1955 by the 104th Tactical Fighting Group, later reorganized as the 175th Wing of the Air National Guard. In the 1960s and 1970s, the 135th Tactical Air Group was situated southwest of the MDANG facility at MSA and then relocated to the current MDANG facilities in October 1980. The MDANG facility currently leases 175 acres from the Maryland Aviation Administration (MAA) in the northeastern quadrant of the approximately 775-acre property owned by the Maryland Department of Transportation (MDOT), known today as MSA. The facility is fenced and has a separate entrance from Eastern Boulevard. The MDANG facility is developed, with runways, parking aprons, operations and training buildings, general supply and ammunition storage facilities, fuel storage structures, maintenance shops and sheds, and aircraft hangars.

The MSA Main Terminal facility (west of the MDANG facility and north of Greater Strawberry Point [GSP]) is at 701 Wilson Point Road, Middle River, Maryland. The current MSA property was part of the Glenn L. Martin Company's approximately 1,260-acre property, including surrounding areas containing manufacturing facilities. A search of Maryland land records and deeds indicates that the Glenn L. Martin Company purchased six parcels of land from private landowners during

the spring and summer of 1929, identified as 701 Wilson Point Road. During the 1940s and 1950s, nine additional parcels at this location were acquired from private landowners. In 1969, the Glenn L. Martin Company (then known as the Martin Marietta Corporation) transferred the properties to Chesapeake Park, Inc. (a subsidiary company of Martin Marietta Corporation), which then transferred the property to the State of Maryland in 1975.

Historical aerial photographs indicate that many of the original MSA main terminal facilities (three runways, Hangars 1–6, and the administration building) were constructed between 1939 and 1941. When the property was transferred to the State of Maryland in 1975, MAA assumed ownership and operation of MSA and the main terminal. Since then, MDANG has continued to lease the 175-acre portion of the 775-acre MSA property, and continued use of some of the taxiway and runway facilities on the main terminal property (see Figure 2-1).

2.1.2 Strawberry Point and Greater Strawberry Point Facility

Strawberry Point (SP) is within the confines of MSA, and is at the southern tip of the peninsula, at the confluence of Stansbury Creek and Frog Mortar Creek (see Figure 2-1). The previously investigated SP wooded area is at the south end of the peninsula and covers approximately 25 acres. The wooded area is bounded by earthen berms near the water line, with thick brush and trees covering most of the area.

Much of the SP wooded area was filled during the 1940s, reportedly by deposition of dredge spoils from Stansbury Creek and Frog Mortar Creek. A locked gate controls the entrance to the wooded area. The remainder of the area now under investigation, referred to as GSP, is a cleared and partially developed 75-acre area housing a former seaplane ramp, former delivery hangar, tank farm, police building, and maintenance buildings. It extends from the southern end of the peninsula to the northern end, which borders Taxiway J, and eastward from Stansbury Creek to Taxiway F. The airport runway is northeast of GSP.

The United States Navy leased GSP from the Glenn L. Martin Company from 1943 until 1963. At that time, the Navy used the facility and supporting structures, including a large hangar, for seaplane maintenance, launching, and recovery. During Navy occupancy, the former hangar and surrounding GSP area was known as the Naval Weapons Industrial Reserve Plant No. 148. The Air Force occupied the facility (Permit No. 1-N-MD-714) from 1963 until 1967.

During the United States Department of Defense (DoD) use (i.e., Navy and Air Force operations), the southern portion of the GSP near the wooded part of the site contained more than 10 buildings. These included the Beach House (Building 3), the Pumping Station (Building 4), the Chlorination Station (Building 5), two Power Fence Service Houses (Buildings 6 and 9), Solvent Storage (Building 7), the Equipment Storage Building (Building 8), Power Fence Switch House (Building 10), Delivery Hangar (Building ND/11), and a general storage building (Building 12). A tank farm containing aboveground storage tanks (ASTs) (used to store aircraft fuels) was adjacent to the wooded area near the southernmost tip of the developed area. Locations of current and historical MSA buildings are shown in Figure 2-2.

During the same period (1940s–1960s), the northern portion of GSP was developed with several improvements related to naval weapons research. These structures included the Induction Test Building (Building 13), Control House (Building 14), Noise Suppression Building (Building 15), Jet Test Shed (Building 16), Storage Building (Building 17), Propulsion Test Building (Building 22), Compressor Shed (Building 23), Engine Test Building (Building 24), and Vibration Slosh Test Building (near the current ground surface mounding). A missile testing area was once along a straight road northwest of the Propulsion Test building that included the Hyper-Therm Test facility (Building 25), Propellant Storage Shed (Building 18), Furnace building (Building 19), Acetylene Storage Shed (Building 20), Vanguard Tower (Building 21), Block House (Building 26), and three Coupon Test Sheds (Buildings 27, 28, and 29).

Several buildings dedicated to nuclear research and testing were constructed farther northwest, along a former dirt road connecting Strawberry Point Road to the historical airfield maintenance storage building (Building 37). Two main research buildings were designated as the Critical Test Building (Building 36/Building KC) and the Radioisotope Lab (Building 35/Building KJ). These research labs operated under federal Nuclear Regulatory Commission (NRC) permits. The buildings were decontaminated in the late 1980s and NRC terminated the licenses in 1995. A third building, known as the Liquid Metal Test facility (Building 34), was just south of the labs. Other buildings near the nuclear labs included several sheds (including an organic material storage shed) that were removed by Martin Marietta Corporation to allow for construction of Taxiway J.

Historical records indicate that two underground storage tanks (USTs) were installed during DoD's use of the southern GSP facilities. A 10,000-gallon heating oil UST was adjacent to the hangar (Building ND) to provide fuel to the hangar's heating system. This UST was closed in place in 1987 (post-DoD period) when the hangar's heating system was converted from fuel oil to natural gas. Both the lease and permit for the Air Force expired on November 30, 1967.

Eleven USTs have been removed from MSA since 1983, and no evidence of leakage has been reported. The large hangar (designated as Building ND) was demolished in 1989, and two adjacent hangars (currently housing the Maryland State Police) were constructed in 1989 and 1990. The southern portion of GSP is occupied by the Baltimore County Marine Police.

GSP currently contains a tank farm consisting of 12 ASTs containing jet fuel, fuel oil, and gasoline, along with a pump house and other ancillary buildings currently used by the airport. As many as six ASTs at the tank farm are used by other airport tenants. An oil spill was reported during construction of the new hangar in 1989 and 1990, when a fuel oil return and receiving line to two 12,000-gallon ASTs in the tank farm was severed. No additional information can be found on this spill in Maryland Department of the Environment (MDE) records (DERP-FUDS, 1991).

2.2 PHYSICAL FEATURES

2.2.1 Land Use

MSA is generally characterized as a moderately developed tract in a largely suburbanized, moderate density, populated setting. Land use surrounding MSA is a combination of mixed suburban, industrial, and commercial lightly to moderately developed tracts; some undeveloped woodland tracts are also present. MSA is bordered on the north by Eastern Boulevard (Maryland Route 150) and Amtrak railroad lines. Undeveloped woodland tracts and low-density residential properties are north of MSA and the Amtrak line. The eastern, southern, and western boundaries of MSA are bordered by Frog Mortar Creek and Stansbury Creek, which are wide, brackish, tidal tributaries of the Chesapeake Bay.

Lockheed Martin's MRC, which currently assembles military launch electronics and aircraft parts, is along MSA's northwestern boundary. Low-to-medium density residential land use and light commercial land use (i.e., shopping centers, convenience stores, restaurants, etc.) lie beyond the

creeks east, south, and west of MSA. Farther east and west from MSA are the high-density residential communities of Bengies Corner and Hawthorne Park.

2.2.2 Climate

The climate at MSA is characterized as humid temperate, with hot humid summers and relatively mild winters. The Middle River, Maryland area receives an average of 42 inches of precipitation annually. This amount is distributed evenly throughout the year. Rainfall normally occurs in the summer months in the form of showers and thunderstorms. In winter, precipitation is in the form of light to heavy rain or snow. Tropical storms in late summer and fall, and occluded, meso-scale, frontal systems (i.e., coastal low-pressure systems) in winter and spring, occasionally provide short term above average precipitation to the area.

2.2.3 Physiography

MSA is in the western shore of the Coastal Plain physiographic province. The Coastal Plain consists of sediments composed of alluvium from the Pleistocene Epoch and the Potomac Group from the Cretaceous Period. Coastal Plain sediments begin at the fall line and follow a regional dip to the southeast at approximately 110 feet per mile (Hansen and Edwards, 1986). The fall line is the division between the Piedmont and Atlantic Coastal physiographic provinces. The name refers to an imaginary line connecting waterfalls or changes in stream flow between the hard rock upland areas of the Piedmont and the soft sediment lowland areas of the Coastal Plain. The Coastal Plain is generally characterized by low topographic relief. However, steep embankments and hills are found along stream channels, rivers, and the Chesapeake Bay.

2.2.4 Topography

Most of the land surface at MSA is generally flat to gently sloping in the areas of the airport runway, taxiways, and surrounding support operations. The airport runway forms a northwest-southeast trending topographic ridge (or drainage divide) that slopes gently from the northwest end down to the southeast end. Runway elevations range from slightly over 20 feet above mean sea level (MSL) at the northern end of the runway to slightly over 10 feet above MSL at the southern end of the runway. The land also slopes northeastward and southwestward, away from the runway, toward Frog Mortar Creek and Stansbury Creek.

GSP is southwest and south of the runway. Site topography ranges from flat to gently sloping to the southwest, toward Stansbury Creek. In the northern portion of GSP, land elevations range from approximately 11 feet above MSL near the runway to nearly mean sea level along the Stansbury Creek shoreline. In the southern wooded area of SP, land elevations are approximately eight- to nine-feet above MSL. At the southern wooded area, an embankment slopes steeply along the western shoreline of Frog Mortar Creek and along the eastern shoreline of Stansbury Creek. The top of the Frog Mortar Creek embankment is slightly over 20 feet above MSL; the top of the Stansbury Creek embankment is approximately eight feet above MSL.

2.2.5 Surface Water Hydrology

MSA's eastern, southern, and western boundaries are bordered by Frog Mortar Creek and Stansbury Creek, which are wide, brackish, tidal tributaries of the middle Chesapeake Bay. Surface water runoff from MSA enters these creeks via localized gullies in the eastern and western undeveloped portions, or by storm sewers that drain the airport runway, taxiways, and developed portions of the facility. MSA encompasses 47 drainage areas within three watersheds (Frog Mortar Creek, Stansbury Creek, and Dark Head Cove) to form a total drainage area of approximately 700 acres. The airport drainage areas range in size from seven acres to more than 170 acres. A variety of owner occupied and commercial tenant hangars and buildings are within several drainage areas.

Surface drainage from GSP discharges via multiple outfalls to Stansbury Creek and Frog Mortar Creek. Stansbury Creek receives drainage from Outfalls 07, 12, and 06, and Frog Mortar Creek receives drainage from Outfalls 05 and 03. Outfalls are shown in Figure 2-2. Outfall 07 has a drainage area of 30 acres and receives drainage from runway access, parking, commercial tenant buildings, private tenant hangars, and a wetland mitigation site. The drainage area also includes grassy surfaces along Wilson Point Road and Strawberry Point Road. Impervious areas include aircraft and vehicle parking areas. The airport's wetland mitigation site and bordering vegetated areas cover this drainage area. Outfall 07 is at the exit of an existing 24-inch storm drain system.

Outfall 12 receives drainage from about 172 acres of pervious and impervious areas, including fueling areas, parking, vehicle/equipment maintenance, vehicle washing area, de-icing operations, chemical storage, the runway and taxiways, taxi lanes, runway access, airport rescue and firefighting, MDANG facilities/buildings, commercial tenant buildings, private tenant

hangars, and two storm water management water quality basins. The two storm water management water quality basins collect drainage from the watershed drainage areas and outfalls into Stansbury Creek. The water is conveyed via Outfall 12 at the exit of the 4.5-foot by 4.5-foot box culvert downstream of the water quality basin.

Outfall 06 receives drainage from about 85 acres of pervious and impervious areas, including vehicle/equipment maintenance, de-icing operations, chemical waste storage, taxiway and runway access, parking, maintenance and auto shop, private tenant hangars, and storage piles of soil, asphalt millings, and stone. The area includes grassy surfaces along Strawberry Point Road and between parking areas, and dense tree zones. Impervious areas include portions of the Strawberry Point Road, Taxiway S, and aircraft and vehicle parking areas. Other areas include airport maintenance service, storage buildings, private hangars, and a fuel farm. Monitoring for Outfall 06 is at the exit of an existing storm drain system discharging into Stansbury Creek.

Outfall 05 receives drainage from about 18 acres of pervious and impervious areas, including fueling, painting, vehicle/equipment maintenance, vehicle/equipment washing, de-icing operations, material loading, industrial waste management, emergency firefighting, police, maintenance and storage, marine rescue, fuel farms, and the helicopter landing site. The area also includes grassy surfaces adjacent to parking areas, dense tree zones, aircraft and vehicle parking areas, and runway access. Monitoring for Outfall 05 is at the entrance to a grass lined swale discharging into Frog Mortar Creek. Outfall 03 receives drainage from pervious and impervious areas, including grassy surfaces adjacent to runway access, runways, and taxiways covering 61 acres. Monitoring for Outfall 03 is at the entrance to the exit of an existing 54-inch storm drain discharging into Frog Mortar Creek.

These facility outfalls are monitored monthly to ensure that no oily discharges to surface water occur. Secondary containment drains are also routinely inspected and emptied of storm water. All storm water runoff originating from Martin State Airport discharges to outfall areas, as specified in the facility's General National Pollutant Discharge Elimination System (NPDES) permit (No. MDR 05501), General Discharge permit (No. 05-SF-5501). The permit has an effective date of November 12, 2004 and expiration date of November 12, 2009. However, MDE has administratively extended the permit until they issue a new general permit, so the current permit remains in effect.

The site's general industrial permit has no monitoring requirements. However, limited monitoring is performed as part of the Municipal Separate Storm Sewer System permit required for the Illicit Discharge Detection and Elimination program. This limited monitoring includes laboratory analysis for ammonia, dissolved oxygen, surfactants, fecal coliform, potassium, water temperature, conductivity, pH, and fluoride concentrations in monitored outfalls during annual inspections. Visual inspections are routinely performed and annual reports are submitted to MDE.

2.2.6 Regional Geologic and Hydrogeologic Conditions

MSA is in the western shore of the Coastal Plain physiographic province. Regional and local studies (Vroblesky and Fleck, 1991; Chapelle, 1985) indicate that the facility lies on the Patapsco Formation, which consists of complex and interbedded mixtures of gray, brown, and red sands, silts, and clays originating from sediment deposited in a low coastal plain traversed by low gradient meandering streams. Below the Patapsco Formation is a regionally extensive, thick clay confining unit known as the Arundel Formation. It is a massive and probably impermeable unit underlying MSA and surrounding area.

The Arundel Formation outcrops northwest of MSA and dips and thickens to the southeast. It extends as far east as Cambridge, Maryland, where it is more than 600 feet thick. In 2010, four deep soil borings were advanced to depths ranging from 216–316 feet below grade at the MRC. A series of alternating sand and silt aquifers and clay aquitards lies beneath the lower surficial aquifer. Beneath these alternating layers, 73 feet of contiguous clay were encountered in the northern portion of the MRC, starting at an elevation of 164 feet below MSL (189 feet below grade) and ending at an elevation of approximately 237 feet below MSL (262 feet below grade). The top surface of this clay was also encountered at elevations of approximately 174 and 183 feet below MSL in the central and southern portions of the MRC. This thick clay is considered the main portion of the Arundel Formation.

The Patuxent Formation is found below the Arundel Formation. The Patuxent Formation is a multiaquifer unit, as evidenced by various interbedded sand and silt/clay layers and the rapid changes in deposited material types over short distances. Permeable, sand rich units range from bounded sand sheets to isolated sand bodies (Glaser, 1969). In the MSA area, potentiometric

maps of the Patuxent Formation indicate that groundwater flows to the south and southwest in response to industrial wells withdrawing water southwest and west of the site (Chapelle, 1985).

2.2.7 Vicinity Subsurface Conditions

An extensive, ongoing, subsurface investigation has been conducted at MSA's Dump Road site, which is east of the GSP area and adjacent to Frog Mortar Creek. As part of the Dump Road investigation, numerous shallow and deep soil borings were advanced to collect soil samples for subsurface lithologic information. Synoptic water levels, single-well permeability tests, and pumping tests were conducted to characterize subsurface hydraulic conditions at MSA.

Early studies at the Dump Road site indicate that the subsurface hydrogeology is comprised of a surficial aquifer (i.e., the Patapsco Formation) containing highly heterogeneous mixtures of unconsolidated sand, silt, gravel/sand mixtures, and clay. A layer of fill, consisting of heterogeneous sand, silt, and clay, overlies these native sediments. For data evaluation and correlation, the surficial aquifer was divided into the upper, intermediate, and lower surficial aquifer zones. The lower surficial aquifer zone is encountered up to approximately 45–73 feet below MSL and overlies at least several feet of stiff, dense clay.

A 2008 study investigated the lithology beneath the lower surficial aquifer in the Dump Road area of MSA. Lithologic data from four deep wells indicate six to 40 feet of clay beneath the lower surficial aquifer. Deep well logs also indicate alternating sand and silt aquifers and clay aquitards beneath the lower surficial aquifer. These sandy units are referred to as the deep confined aquifer zones.

2.2.7.1 Surficial Aquifer

At the Dump Road area of MSA, all but four wells are screened in the surficial aquifer system, but at different elevations, to provide hydrologic and chemical data across the entire water bearing zone. Excluding several abandoned small diameter wells (i.e., abandoned wells TT-12, TT-13 and TT-14) and the new wells installed during the current GSP Phase II follow-on work, 35 groundwater monitoring wells are screened in the upper surficial aquifer, which is the portion from the ground surface to an elevation of approximately 15 feet below MSL. Generally, the upper surficial aquifer consists of fill that occurs in the uppermost 10–20 feet below grade, and native soils beneath the fill materials. Thirty-two wells are screened in the intermediate surficial

aquifer, which is the portion of the aquifer system at elevations between 15–45 feet below MSL. Twenty wells are screened in the lower surficial aquifer, which occurs at elevations from approximately 45–73 feet below MSL.

2.2.7.2 Deep Confined Aquifers

Four wells at MSA are screened in deep confined aquifers underlying the lower surficial aquifer. The deep well logs indicate that alternating sand and silt aquifers and clay aquitards lie beneath the lower surficial aquifer. Lithologic data from the four deep wells indicate six to 40 feet of clay beneath the lower surficial aquifer. Beneath this clay bed is a series of alternating sand and clay layers with top surfaces occurring at approximate elevations of 120–130 feet below MSL (sand), 140–160 feet below MSL (clay), 190 feet below MSL (sand), 197–205 feet below MSL (clay), and 245 feet below MSL (sand).

2.2.7.3 Groundwater Levels

Static groundwater levels measured in wells in the Dump Road area of MSA are reported at depths ranging from five to 18 feet below grade in the upper surficial aquifer wells, three to 18 feet in the intermediate surficial aquifer wells, and four to 18 feet in the lower surficial aquifer wells. Shallow groundwater is encountered in the recharge areas of the western portion of Dump Road near the runway. Deeper groundwater is found in the high topographic areas at the top of the embankment along the shoreline (i.e., wells DMW2, DMW4, DMW5, etc.).

Groundwater in the surficial aquifer generally follows surface topography. At the Dump Road Area, groundwater flows northeast from the airport runway and taxiway toward Frog Mortar Creek. Groundwater in the intermediate surficial aquifer also flows northeast from the runway and taxiway toward Frog Mortar Creek. Groundwater flows south in the southern portion of the Dump Road site.

Groundwater potentiometric levels in the lower surficial aquifer are similar to those of the intermediate surficial aquifer. Both the intermediate and lower surficial aquifers have northern components of flow in the northern portion of the site and southern groundwater flow in the southern portion of the site. Groundwater flows from the northwest to the southeast in the deep confined aquifer.

2.3 SUMMARY OF PREVIOUS INVESTIGATIONS

Studies to date include Phase I environmental site assessment (ESA) activities and Phase II intrusive investigations. The Phase I ESA and historical records review address both the wooded area (Recognized Environmental Condition [REC] #1) of SP, and the remaining 75 acre GSP facility. Various levels of assessment were completed during Phase II, including one investigation that addressed only the wooded area, and a broadened Phase II investigation in 2010 covering the entire GSP area. Details of these studies are summarized below.

2.3.1 Strawberry Point Phase I Investigations

A Phase I ESA of the SP facility was conducted in the winter of 2007–2008 to evaluate historical site activities pertaining to the wooded area, tank farm, former hangar area (Building ND), facility maintenance yard, and nuclear research buildings (Tetra Tech, Inc. [Tetra Tech], 2009b). The investigation reviewed historical facility documents, drawings, photographs, aerial photographs, and government records (NRC, USEPA, MDE, and Baltimore County) of appropriate permits and any violations. These investigations also included interviews with former and current employees, a visual site inspection, and geophysical investigations of the wooded area. The subsurface geophysical survey in September 2008 included electromagnetic (EM) and surface gamma surveys.

The *Phase I ESA* presents the following conclusions:

- Review of historical aerial photographs from 1938 to the present identified evidence of ground disturbances throughout SP, including additional dredging and filling, to prevent shoreline erosion, and/or increase usable land space. Shoreline changes are evident on all sides of SP, with smoothing of the edges from dredge spoil fillings.

- Tetra Tech identified 11 RECs in the GSP area, including the wooded area, based on the historical investigation. Some operations were combined as RECs if they were in close proximity.

- Of the listed RECs, additional investigation of REC #1 (SP-Wooded Area) was recommended to characterize the subsurface soils and groundwater quality. Historical information suggests that dredge spoils may have been deposited in the wooded area.

- Two buildings dedicated to nuclear research and testing during the 1950s and 1960s were decontaminated in the late 1980s. NRC terminated the licenses for these facilities in 1995. These buildings were later demolished.

- Violations in the handling of hazardous and non-hazardous substances at SP have been reported. Most significantly, approximately 200 55-gallon drums containing hazardous and non-hazardous materials were stored at the facility maintenance yard area. They were removed after a state inspection in 1989.

- Minor spills of petroleum constituents resulting from overfills and line ruptures related to site ASTs have been reported.

- Most of the historical structures that existed in the 1960s have been demolished. Several older buildings remain but are dilapidated.

2.3.2 2008 Phase II Investigations at REC #1

The following Phase II field activities were completed during August–September 2008 in the SP area of MSA. The investigation included excavating 20 test pits to 10 feet below grade. Twenty soil samples were collected for chemical analysis of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs). Of these 20 samples, five were also analyzed for radionuclides.

Eleven soil borings were advanced via direct push technology (DPT) to 15 feet below surface. Soil samples were collected and analyzed for VOCs, SVOCs, metals, and PCBs. Five temporary well points were installed in DPT soil borings, and groundwater samples were collected and analyzed for VOCs, SVOCs, metals, and PCBs. Additional tasks included well gauging, surveying soil borings, test pits, and well points, and waste characterization and disposal at a Lockheed Martin-approved waste disposal facility.

Here is a summary of these activities:

- Soil borings indicate that the top 10 feet of soil at the site is comprised of varying amounts of sand, silt, and clay, underlain by fine-to-medium sand from a depth of 10 to approximately 16 feet.

- The water table at the site was observed to be between 2.83 and 3.86 feet below grade.

- Groundwater elevations indicate that groundwater beneath SP flows in a southwestern direction toward Stansbury Creek.

- No evidence of contaminated fill material was found during excavation of the test pits. No visual discolorations were encountered in test pit and soil boring soils.

- Test pit soil sample analyses indicate low levels of two VOCs: 2-butanone and acetone. Detection of both of these VOCs may be due to laboratory contaminants.

- Low levels of SVOCs, including polycyclic aromatic hydrocarbons (PAHs), were detected in test pit soils.

- Metals were found throughout the 20 test pits. Detected concentrations of aluminum, arsenic, total chromium, iron, manganese, and vanadium exceed MDE residential soil criteria. In general, metals concentrations appear consistent with local background concentrations in soil and do not indicate a release at the SP wooded site.

- Five test pit soil samples were analyzed to confirm gamma anomalies. Gross alpha (maximum concentration of 24.5 picocuries/gram [pCi/g]) and gross beta (maximum concentration of 28.5 pCi/g) were detected in all five samples. Radionuclide concentrations were distributed evenly across the site, and all concentrations are similar.

- Geophysical investigations revealed conductivity, in-phase, and natural gamma anomalies at the SP wooded area.

- The EM in-phase data show one linear anomaly, possibly an abandoned utility.

- The survey delineated three areas with coincident elevated in-phase readings and terrain conductivity readings.

- Five areas of terrain conductivity only anomalies were identified on the southern end of the survey area.

- The surface gamma survey results show two areas of above background, gross count gamma readings.

- Metals were found throughout the 11 soil boring locations. Concentrations of aluminum, arsenic, total chromium, iron, manganese, and vanadium exceed MDE residential soil standards. In general, metal concentrations in soil appear consistent with local background concentrations and do not indicate a release at the SP wooded site.

- Several PAHs were detected in the groundwater sample from an upgradient well point (WP2/SB 2). PAHs were detected at low concentrations (0.55–2.9 micrograms per liter [µg/L]); nevertheless, some detected concentrations exceed MDE groundwater standards.

- Metals were detected in groundwater samples from all well points. Specifically, aluminum, arsenic, beryllium, cadmium, iron, manganese, nickel, vanadium, and zinc concentrations exceed MDE groundwater criteria for both total and dissolved metals. In general, concentrations of these metals increase in the downgradient direction, consistent with decreasing pH and dissolved-oxygen concentrations in groundwater. These data suggest that metals may be moving into the dissolved phase due to these geochemical conditions. The wooded area has generally low pH levels, exhibiting more acidic soil conditions compared to upgradient open areas. Elevated concentrations of aluminum, iron, and manganese in well points correspond to those found in a commonly low-pH environment containing acidic soils in shady, moist, peat soils.

2.3.3 2010 Phase II Site Investigation

A second Phase II environmental investigation was conducted in April and May 2010 at the GSP area of MSA to determine the nature and extent of environmental impacts in soil and groundwater at 10 RECs (RECs #2 through #11) in three main areas of GSP. The study identified specific chemical constituents and their concentrations in soil and groundwater, using field screening techniques and fixed laboratory analyses to provide definitive chemical data. The chemical analytical results were screened against State of Maryland human health soil and groundwater standards to assess the need for additional sampling, or to support no further action. The following field investigations were completed:

- EM geophysical surveys were conducted across the approximately 10 acres of RECs #7-#10 to detect and delineate possible subsurface metallic objects and buried building remnants. Site history suggests that items that could possibly be found in the survey area could include demolition debris from razed buildings, abandoned in place USTs, buried drums, abandoned utilities, active utilities, and remnants of concrete pads.

- Soil and groundwater were screened using membrane interface probes (MIPs) at 20 locations to a maximum depth of 43 feet below grade at RECs #2 through #4 to help locate and delineate possible areas of subsurface impacts. Horizontal and vertical coordinates were surveyed for the MIP borings.

- Soil borings were advanced to a depth of 25-feet at 89 locations. Soils were collected for soil lithologic information and screened in the field for VOCs using a portable photoionization detector (PID). Soil samples were collected and sent to a fixed laboratory for chemical analyses for VOCs, SVOCs, PCBs, metals, total petroleum hydrocarbon (TPH) diesel-range organics (DRO), and TPH gasoline-range organics (GRO).

- DPT-probe groundwater samples were collected at seven locations and submitted to a fixed laboratory for chemical analyses for VOCs, SVOCs, PCBs, metals, TPH-DRO and TPH-GRO.

- Temporary wells were installed at 16 DPT soil boring locations. Groundwater samples were collected from these 16 temporary wells and submitted to a fixed laboratory for chemical analyses for VOCs, SVOCs, PCBs, total and dissolved metals, TPH-DRO, and TPH-GRO.

- Static groundwater levels were measured at the 16 newly installed temporary wells over two events in June and August 2010. These levels were used to develop groundwater elevation contour maps for both events.

- Horizontal and vertical coordinates were surveyed for the MIP borings.

Here is a summary of the results of the initial Phase II field investigation:

- The lithology encountered in the soil borings varies across the RECs. On the eastern side of REC #2, the top 10 feet consists of clayey silt and clay with fine sandy silt from depths of 10-5 feet. From the central portion of REC #2 to REC #6, the subsurface lithology consists of gray and brown clay and silty clay to a depth of 25 feet, with occasional thin, silty-sand, and sandy-silt layers/lenses. In the REC #7 area, gray and brown silty-sand and sandy silt with occasional clay lenses are encountered to a depth of 25 feet. The subsurface lithology at RECs #8 and #9 is similar to REC #7, except for a thick clay layer from approximately 14–22 feet below grade. This clay layer thickens somewhat at REC #10 to the west. The REC #11 subsurface lithology varies somewhat and ranges from an area in the north comprised of nearly all silty clay to a depth of 25 feet, to an area in the center of REC #11 consisting of 12 feet of silty sand and sandy silt overlying 13 feet of clay, to an area in the south comprised mostly of sandy silt and few clay layers.

- The water table at the site ranges from just below the ground surface to nearly eight feet below grade. Shallower groundwater levels tend to be found along the eastern portion of GSP in areas of higher ground elevations (9–11 feet MSL) and where near surface sandy or gravelly materials overlie shallow clay (e.g., SB/WP66, SB/WP-44, SB/WP-13, SB/WP-33, SB/WP-39, and SB/WP-40). The deepest groundwater levels were found at wells to the west (SB/WP-54, SB/WP-61, and SB/WP-71) and south (SB/WP-02).

- Groundwater elevations indicate that groundwater beneath the GSP generally flows in a southerly direction toward Stansbury Creek and Frog Mortar Creek. Groundwater mounding at REC #7 appears to create localized radial flow.

- MIP screening indicates the possible limited presence of chlorinated VOCs in soil at RECs #2–#4. MIP screening results do not indicate petroleum related VOCs.

- Trace to low concentrations of VOCs were detected in soil samples collected at all RECs. However, these levels are less than Maryland residential and non-residential soil standards, and many appear to be artifacts of the laboratory analyses. Trichloroethene (TCE), a chlorinated solvent detected at the Dump Road Area of MSA, was detected at low concentrations in shallow soil samples at REC #4 and in deep soil samples at RECs #9 and #11. TCE was detected at concentrations up to a maximum of 1,100 micrograms per kilogram (µg/kg) in a soil sample from the 20–22 feet depth at REC #9.

- SVOCs were detected in soil at several RECs. However, most SVOC concentrations are less than residential and non-residential standards. SVOC concentrations slightly exceed residential standards at several RECs, and exceed non-residential standards at RECs #9 and #11. The highest concentrations of SVOCs, and greatest number of non-residential exceedances, are associated with samples from RECs #9 and #11. However, these exceedances are limited to surface and shallow soils from a maximum depth of seven feet below grade.

- PCB concentrations ranging from 3,100–12,000 µg/kg in three shallow soil samples at REC #11 exceed Maryland residential and non-residential soil standards of 320 and 1,400 µg/kg (respectively). A fourth shallow sample at REC #11, with a PCB concentration of 1,200 µg/kg, exceeds the residential standard only.

- Concentrations of arsenic, total chromium, iron, manganese, nickel, and vanadium in soil exceed standards at most sites. Iron and manganese concentrations vary greatly, and elevated concentrations of these constituents may be due to metals in soil fill materials, former buildings, or other ground structures. Arsenic and vanadium frequently exceed their risk-based standards. However, in general, concentrations of these two metals are similar to MDE's anticipated typical concentrations (ATCs), or "regional background" concentrations, for the eastern region of Maryland. Therefore, concentrations of these metals appear consistent with local background and not indicative of a release at GSP.

- Concentrations of arsenic, beryllium, iron, manganese, nickel, and vanadium exceed groundwater standards in one or more groundwater samples. Several exceedances appeared to be the result of high turbidity in probe groundwater samples or temporary well samples. VOCs and SVOCs detected in groundwater samples did not exceed standards, and the chemicals detected are typically common laboratory contaminants and artifacts of laboratory analyses.

2.4 CURRENT SITE CONDITIONS AND OPERATIONS

Currently, GSP includes the SP wooded area, an airport maintenance area, hangars, a fuel storage tank farm, the southern terminus of the MSA runways, and associated aprons. GSP is part of the larger MSA property owned by MDOT. The Maryland State Police lease the large hangar near the SP wooded area and use it for light aircraft and helicopters. This hangar was constructed in the early 1990s near the former Delivery Hangar (Building No. 11) that was demolished in 1989. Farther south, a small building (Building No. 003) near Frog Mortar Creek is occupied by the Baltimore County Marine Police.

The MSA maintenance area is approximately 700 feet northwest of the Police Hangar. Buildings currently in use in the maintenance area include a salt dome (Building No. 049), a sand dome (Building No. 050), and a maintenance building (Building No. 022). These structures were built in the early 1990s. Immediately north of GSP is the new Lockheed Martin hangar (Building No. 051) and the Black and Decker hangar (Building No. 052). These buildings were constructed near the former nuclear research labs in the late 1990s. Refer to Figure 2-2 for their locations.

The MSA fuel storage tank farm is on the southern edge of the airport, close to Frog Mortar Creek. Thirteen MAA ASTs, with a total capacity of nearly 95,000 gallons, store Jet A fuel, aviation gasoline, unleaded gasoline, diesel fuel, and waste oil. Secondary containment at the tank farm consists of concrete containment dikes with ancillary oil and water separators that discharge into a nearby drainage ditch (NPDES monitoring Outfall 005), which flows into Frog

Mortar Creek. The oil and water separators remove petroleum from storm water runoff conveyed through the drainage systems from various impervious areas of the airport, and are maintained via periodic inspections and cleaning.

The tank farm is divided into east and west sides. The east side is further divided into the north and south containment areas. Tanks MAA 1 through MAA 3 are in the north containment area; each stores 12,000-gallons of Jet A fuel or aviation gasoline. Tanks MAA 4 through MAA 6 are in the south containment area, each with a capacity of 12,000 gallons (MAA, 2008). Details of the MSA tanks are in the *Spill Prevention, Control, and Countermeasures Plan* (SPCC). Figure 2-2 shows the location of the fuel-storage tank farm.

Tanks in this area are used by both MAA and the Maryland State Police. Buried pipes from the containment areas deliver fuel to the Maryland State Police fuel rack. The fuel tanks are filled under contract with Exxon Mobil. Tank trucks are filled at these containment areas; these trucks transport fuel to airplanes throughout the airport.

The southern portion of the eastern portion of the tank farm contains two 6,000-gallon unleaded gasoline tanks (MAA 7 and MAA 8) and one 6,000-gallon diesel fuel tank (MAA 9) owned by MAA. These tanks provide fuel for state-owned vehicles, including the tank trucks. A 4,000-gallon AST (MAA 21) stores aviation gasoline. The tank farm has two waste oil tanks (MAA 22 and MAA 23) in two different containment areas: the first is a 275-gallon AST in the containment dike with ASTs MAA 4 through MAA 6; the second is a 350-gallon AST in the containment dike with ASTs MAA 7 through MAA 9. An additional 275-gallon tank (MAA 26), in the containment dike with ASTs MAA 1 through MAA 3, captures vapor from the pressure release valve on filter vessels; used fuel does not enter this tank.

Several tenant owned ASTs are also at the tank farm: two 30,000-gallon and two 12,000-gallon Jet A fuel tanks, one 500-gallon waste oil tank, and two 275-gallon waste oil tanks. All tanks in the tank farm are within secondary containment dikes. An additional six fixed storage containers are throughout the facility: three 500-gallon diesel fuel tanks (MAA 18 through MAA 20) inside the Fire Pump House; an out of service 500-gallon tank near the Maintenance Shop; and an out of service 55-gallon drum inside the storage shed. Site records indicate that, except for the unused ASTs, all of these tanks have adequate secondary containment.

Drums are routinely stored at the airport in designated storage areas. Two such areas are in the Maintenance and Auto Shop (MAA 15 and MAA 16); a third is inside the Maintenance Shed southeast of the Maintenance and Auto Shop (MAA 17). Unopened stocks of motor oil, transmission fluid, and hydraulic fluid are stored in the area designated MAA 17; stock currently in use is stored in the area designated MAA 15. Small drums of waste oil are stored in the area designated MAA 16. All other drum storage areas typically store no more than five drums, although the number of drums stored in each area may vary depending on operational needs. All drum storage areas have secondary containment pallets on which the drums are stored. The results of the first round (October 2010) of the Phase II site investigation and current site conditions led to the additional Phase II investigation described herein (see Section 3) to further characterize soil and groundwater conditions at the GSP study area.



Figure 2-1
Location of Strawberry Point and Greater Strawberry Point

Legend

- Dump Road Site
- Greater Strawberry Point
- Strawberry Point
- Maryland Air National Guard (MDANG)
- Martin State Airport Main Terminal

MRC - Middle River Complex

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 300 600 1,200 Feet

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Figure 2-2
Index Map for Current and Historical Structures as Existed in 1968, Greater Strawberry Point

Historic Building	Building Number	Current Building	Current Name	Index
Fuel Storage	001	X		E-4
Adjacent to Beach House	002			E-4
Beach House	003	X	Baltimore County Marine Police	E-4
Pumping Station	004	X		E-4
Chlorination Station	005	X		E-4
Power Fence Service House	006			E-4
Solvent Storage	007	X	Maryland State Police	E-4
Equipment Storage Building	008	X	Maryland State Police	E-4
Power Fence Service House	009	X		E-4
Power Fence Switch House	010			E-4
Delivery Hanger	011	X	new hangers	E-3
Storage Building	012			E-3
Induction Test Building	013			D-3
Control House	014			D-3
Noise Suppression Building	015			D-2
Jet Test Shed	016			E-2
Storage Building	017			D-2
Propellent Storage	018			D-2
Furnace Building	019			D-2
Acetylene Storage Shed	020			D-2
Vanguard Tower	021			D-2
Propulsion Test Building	022	X	Maintence Building	D-3
Compressor Shed	023	X		D-3
Engine Test Building	024	X		D-3
Hyper-Therm Test Facilities	025			D-2
Block House	026			D-2
Coupon Test Shed	027			D-2
Coupon Test Shed	028			D-2
Coupon Test Eq Shed	029			D-2
Softball Fields	030			C-2, C-3
GFE Storage Shed	031			C-2
GFE Storage Shelter	032			C-2
Surplus Storage Shed	033			C-2
Liquid Metal Test Facilities	034			C-2
Radio Isotope Lab	035			C-1
Critical Test Building (Nuclear)	036			C-1
Maintenance Storage	037			C-1
Organic Material Storage Shed	038			C-1
Anechoic Chamber	039			B-2
Office	040			C-2
Electrical Storage	041			C-2
Electric Power Shed	042			B-2
Guard House	043			B-2
Antenna Test Tower	044			C-1
Antenna Test Building	045			C-2
Plating Material Storage Shed	046			C-2
Antenna Test Building	047			B-2
Antenna Test Tower	048			B-2
	049	X	Salt Dome	D-3
	050	X	Sand Dome	D-3
	051	X	LMC new hanger	C-2
	052	X	Black & Decker Hanger	C-1
		X	AST	
Transformer Pad	054			E-4
Guard House	055			E-3

Legend

- Membrane Interface probe (MIP)
- Soil Borings (SB)
- Oil Filled Operational Equipment
- Drum Storage
- MTN Tanks
- MSA GW Wells
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Historic Structures
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole

REC #	REC Name
REC 1	Strawberry Point Wooded Areas
REC 2	Fuel Storage Tank Farm
REC 3	Old Wastewater Treatment Plant
REC 4	Former Solvent Storage Area
REC 5	Transformer Pad
REC 6	Former Hangar (Building ND) Former Storage Building
REC 7	Facility Maintenance Area
REC 8	Former Induction Test, Former Engine Test, Former Jet Test Shed, Former Storage Building Former Propulsion Test and Former Compressor Shed Buildings
REC 9	Former Propellant Storage, Former Acetylene Storage Shed, Former Furnace Building, Former Hyper-Therm Test Facilities, and Former Vanguard Tower
REC 10	Former Coupon Test Shed and Former Block House
REC 11	Former Critical Test Building (KC), Former Radioisotope Lab (KJ) and Former Transformer Pad

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 150 300 600 Feet

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Section 3
Investigation Approach and Methodology

The findings of the 2010 Phase II site investigations led to recommendations that soil and groundwater be further characterized to better evaluate whether hazardous materials (if present) may have been placed or spilled (i.e., released to the environment) in the northern area of Greater Strawberry Point (GSP) as a result of previous Lockheed Martin Corporation (Lockheed Martin) operations at the site. Today this area is largely wooded; historically, it was the site of multiple facilities that have since been demolished. The area characterized during this GSP Phase II investigation is approximately 12 acres and includes:

- a clearing between the wooded area and Taxiway F
- the Jet Test Shed
- former propellant and acetylene storage sheds
- a compressor shed
- a former coupon test shed
- a former Noise Suppression Building
- a storage building
- engine test and current maintenance sheds
- a former furnace building
- a former block house

This area had been previously defined as Recognized Environmental Conditions (RECs) #8 through REC #10. Additional areas to be characterized include the former maintenance storage, critical test and radioisotope buildings, and the former transformer pad, comprising approximately 2.5 acres immediately south of Taxiway J (REC #11).

The additional Phase II study included soil borings, test pit excavations, and installation and sampling of groundwater monitoring wells to evaluate and characterize the subsurface for the presence of hazardous materials in soil and groundwater at RECs #8 through #11. The following site activities were conducted as part of this Phase II investigation:

- obtained site access and utility clearance
- obtained Lockheed Martin, Maryland State Airport (MSA), and Maryland Aviation Administration (MAA) permits for intrusive investigations
- coordinated with MAA, Maryland State Police, and other MSA tenants to schedule work
- excavated test pits and collected soil samples for chemical analyses
- advanced soil borings using direct push technology (DPT) and collected soil samples for chemical analyses
- installed temporary well points in drilled soil boring locations and collected groundwater samples for chemical analyses
- installed, developed, and sampled new groundwater monitoring wells for chemical analyses
- surveyed locations of test pits, DPT soil borings, and monitoring wells
- collected, managed, and disposed of investigation derived waste (IDW)
- performed laboratory analyses and data validation
- evaluated environmental sampling data
- completed human health and ecological risk assessments using environmental sampling data from RECs #9 through #11[2]

The investigation began with the test pit exploration and sampling, followed by the installation and sampling of soil borings, temporary well points, and groundwater monitoring wells. These activities were performed to detect and characterize subsurface hazardous materials (if present) in soil and groundwater at RECs #8 through #11.

[2]Only one sample from REC #8 (surface-soil sample SB-91) was included in the risk assessment because its location is considered relevant to and at the boundary of REC #9. REC #9 samples were used in the risk assessment because of trichloroethene (TCE) in soils and groundwater within REC #9, as well as other chemicals of concern (COC). In REC #8, TCE and other COC were detected infrequently, and at concentrations below the relevant cleanup criteria in borings and test pits; therefore, the REC #8 area was not considered in the risk assessment.

3.1 MOBILIZATION/DEMOBILIZATION

The Tetra Tech field operations leader (FOL) coordinated mobilization and demobilization, including taking inventory of equipment to ensure that appropriate equipment was available when needed, purchasing and leasing equipment as required, and staging equipment for efficient loading and transport to the site and after each field activity was complete. Mobilization began in May 2011 and included:

- coordinating with Lockheed Martin, MSA facilities, and Maryland State Police personnel
- obtaining utility clearance in the proposed subsurface investigation locations (i.e., test pits, borings, monitoring wells) using a private utility locating firm
- mobilizing subcontractors, equipment, and materials to the site
- implementing a site-specific health and safety plan (HASP)
- arranging a decontamination area
- demobilizing equipment and materials from the site
- general site cleanup and trash removal
- surface restoration
- managing IDW as described in Section 3.10

Tetra Tech, Inc. (Tetra Tech) personnel became familiar with the site-specific HASP and the respective Safe Work Permits included in the HASP. Tetra Tech conducted a daily mandatory health and safety tailgate meeting prior to initiating any fieldwork. Subcontractors present for that day's field activities were included in these meetings. The Tetra Tech FOL documented the topics covered and personnel in attendance.

All required access agreements and permits necessary to conduct the proposed field activities were secured before beginning work. Tetra Tech performed the steps outlined below to obtain all required clearances and permits prior to initiating any intrusive field activities related to the soil investigation:

- notification of the underground utility location center Miss Utility (1-800-257-7777; www.missutility.net)

- reviewed the facility and site utility maps
- followed Enterprise Operations-28 and Lockheed Martin Minimum Requirements for Intrusive Fieldwork Work Plans, completed the digging project form, and obtained the required signatures
- completed the Airport Zoning permit, the Building Inspection form, and the Digging Authorization form through MAA
- contacted Maryland Air National Guard (MDANG) and received approval based on current military air operations
- obtained monitoring well permits
- used a private utility locating firm to identify any subsurface utilities/anomalies

Tetra Tech obtained the required permits (from Lockheed Martin, MSA, and MAA, as applicable) for the fieldwork prior to initiating any intrusive activities. Following the same procedures as for all projects to date at MSA, Tetra Tech worked closely with MSA, MAA, and their tenants to make all parties aware of the field schedule.

Prior to initiating any intrusive field activities, each test pit, soil boring, and monitoring well location was assessed for subsurface utilities. Utility maps were reviewed for the presence of utilities; boring locations were offset to avoid potential subsurface utilities. In addition to calling in a Miss Utility ticket, Enviroscan, Inc. was contracted by Tetra Tech to screen for and mark any possible utilities and other possible subsurface metallic and non-metallic geophysical anomalies.

Enviroscan, Inc. used conventional utility locating equipment representing the best available technology. Equipment included a Radiodetection RD8000 multi-frequency pipe and cable tracer, a Radiodetection C.A.T. and Genny pipe and cable locator/tracer, a Fisher TW-6 EM pipe and cable locator/tracer, and a Geophysical Survey Systems Inc. Subsurface Interface Radar System ground penetrating radar (GPR) system. Utilities within a 30-foot radius of each designated boring and test pit location were located using the appropriate technology and the ground surface was marked with paint of the appropriate colors. Where necessary, test pit, soil boring, and monitoring well locations were offset from the proposed location based on the subsurface utility mark out. The utility clearance report is in Appendix A.

Prior to initiating the field activities, site access arrangements were coordinated through MSA Operations to gain access to the GSP work area through the Wilson Point Gate. A gate access code was obtained through MSA Operations. Tetra Tech maintained constant radio communication with the MSA Air Traffic Control Tower during field activities.

3.2 TEST PITS

Twelve test pits were excavated to evaluate possibly buried materials/debris at geophysical anomalies identified in RECs #8, #9 and #10 by a survey conducted in 2010. Table 3-1 describes the rationales for the test pit locations. Test pit locations are presented in Figure 3-1.

The EM-61 survey from the 2010 Phase II Investigation indicated that REC #8 had a large metallic anomaly at its north end possibly associated with a remnant structure. This anomaly was adjacent to a cluster of anomalies extending northwest into REC #9. The survey indicated that REC #9 had several anomalies below the grass adjacent to the taxiway. One major anomaly was associated with a remnant concrete pad. These anomalies may be associated with a historical building no longer standing. REC #10 exhibited many anomalies in the grass adjacent to the taxiway. There is little correlation between the historical structure locations defined in site maps and the EM-61 anomalies identified through the field surveys.

The test pits were excavated using a rubber tired backhoe. Test pits were excavated in areas of anomalies to investigate the nature of the metallic responses, with emphasis on determining the presence of buried remains of remnant structures, tanks, and metallic debris. Test pits were excavated to the water table or below the depth of debris, if observed. Soil type and anthropogenic material encountered in the test pits was photographed and documented in a test pit log. Test pits were approximately 30 feet long and no more than 13 feet deep. The actual pit dimensions varied based on field conditions. Test Pit Log Sheets are in Appendix B; test pit observations and photographs are in Appendix C.

A Tetra Tech geologist and the FOL were present at all times during the excavating to visually monitor the excavation. The geologist inspected the test pits for evidence of waste chemicals (e.g., drums, buckets, liquids, etc.), and other metallic objects. Soil samples were collected from the zone immediately below any observed debris, or from soils with observed staining or odors, or from the base of the excavation if no debris or evidence of soil impacts was observed.

Thirteen soil samples were collected from the test pits for laboratory analysis. One soil sample was collected from each of the 12 test pits, plus one additional sample from test pit #5 (GSP-TP-5E and GSP-TP-5W). Laboratory analytical parameters for the test pit soil samples consisted of:

- volatile organic compounds (VOCs) by SW846 Method 8260C
- semivolatile organic compounds (SVOCs) by SW846 Method 8270D
- polychlorinated biphenyls (PCBs) by SW846 Method 8082A
- total petroleum hydrocarbons (TPH) –gasoline range organics (GRO) and –diesel range organics (DRO) by Method 8015
- Priority Pollutant metals by SW846 Methods 6010C/7471A

During the test pit excavations, a Tetra Tech unexploded ordnance (UXO) technician was present at all times to visually monitor the excavation. UXO was not discovered during the field activities, including the test pit excavations. All debris removed from the excavations was returned to the excavation before backfilling. Soil excavated from the test pits was backfilled the same day and compacted using the excavator bucket. Test pits were not permitted to remain open overnight.

3.3 DPT INVESTIGATION

From May 31, 2011 to June 6, 2011, soil samples were collected from 40 soil borings using DPT drilling methodology. DPT soil boring locations were distributed as follows:

- 10 borings in the area of REC #9 (former Hyper-Therm Test area, Vanguard tower, Furnace Building, and the Storage Shed area; see Figure 3-2)
- 10 borings in the area of REC #10 (former Coupon Test Shed and former Block House; see Figure 3-2)
- 20 borings in the area of REC #11 (former Buildings KC, KJ, and the transformer pad; see Figure 3-3)

Table 3-2 summarizes the locations and rationales for each DPT soil boring location. Soil boring locations are in Figures 3-2 and 3-3.

Prior to initiating subsurface drilling, soil borings in concrete covered locations were cored to provide access to the soils beneath the concrete. Soil samples were collected using DPT to an approximate depth of 25 feet below grade. Soil was collected continuously at each boring using a

1.5-inch-diameter, four-foot long, stainless steel macro-core sampler fitted with a disposable acetate liner. The sampler was advanced in four-foot increments and the retrieved soil samples were evaluated for field screening and lithologic and visual characteristics.

Soil samples were placed in a zip-top bag and screened with a photoionization detector (PID). As shown in Table 3-2, soil samples for laboratory analyses were collected at various depths from each boring. Certain depth intervals were targeted (e.g., 0–2 feet, 6–8 feet, and 20–22 feet below grade) based on observations and findings from borings advanced in the same area during the 2010 Phase II investigation. Lithologic logging was performed by a qualified Tetra Tech field geologist. All pertinent information, including boring location, soil/lithology description, sample designation and depth, PID readings, sample collection time, etc., were recorded on a Soil Sample Log Sheet and Boring Log form. The Soil Sample Log Sheets and Boring Logs are in Appendix D.

Soil samples from two different depths (e.g., typically 0–2 feet and 6–8 feet, or adjusted as needed based on conditions encountered in the field) in each soil boring were submitted for laboratory analysis. The laboratory analytical parameters for the DPT soil samples included the following:

- volatile organic compounds (VOCs) by SW846 Method 8260C
- semivolatile organic compounds (SVOCs) by SW846 Method 8270D
- polychlorinated biphenyls (PCBs) by SW846 Method 8082A
- total petroleum hydrocarbons (TPH) –gasoline range organics (GRO) and –diesel range organics (DRO) by Method 8015
- Priority Pollutant metals by SW846 Methods 6010C/7471A

In addition, as presented in Table 3-2, a third soil sample was collected deeper than 18 feet below grade in six borings in the area of REC #9 and in 13 borings advanced in the REC #11 area. The soil samples from the deepest intervals (e.g., 18–20 feet, 20–22 feet or 22–25 feet below grade) in borings at REC #9 were analyzed for VOCs and TPH-GRO/DRO only. Soil samples from the deepest intervals (e.g., 18–20, 20–22, or 22–24 feet below grade) in borings at REC #11 were analyzed for VOCs, SVOCs, and TPH-GRO/DRO. The deep soil samples were collected from select locations based on subsurface petroleum and/or VOC impacts identified in soils sampled at

similar depths during the 2010 GSP investigation. Table 3-2 presents the laboratory analytical methods used for each soil sample collected at various depths in the soil borings.

Boring locations where concrete coring was required for sampling were restored with low shrinkage concrete after backfilling. Backfilling used granular bentonite that had been hydrated to provide a seal. Patch material was finished smooth and flush with the existing grade.

3.4 MONITORING WELL INSTALLATION

From June 1–3, 2011, a Maryland-licensed well driller installed groundwater monitoring wells at eight locations (GSP-MW1 to GSP-MW-8) in the study area. The soil boring for each well was drilled using a Rota-Sonic-drill rig. A four-inch by six-inch drill rod/override casing was advanced along with temporary casing to install the well to the desired terminal depth. Table 3-3 summarizes the rationales for groundwater monitoring well locations. Figures 3-4 and 3-5 show the locations of the new monitoring wells.

During borehole advancement, soil was continuously sampled for lithologic characterization and PID screening. Soil cores were collected in each monitoring well borehole using a 10-foot core barrel. Lithologic observations from the well boreholes were recorded on the Boring Logs, presented in Appendix E.

Monitoring wells were constructed of 0.010-inch-slot schedule-40 polyvinyl chloride (PVC) well screen. Screen lengths were adjusted in the field to address the depth to groundwater and to ensure proper installation of a surface seal. At least five-feet of well screen were installed beneath the water table. A sand pack (#1 filter sand) was packed around the well screen to extend at least two feet above the top of the well screen. A 0.010-inch-slot well screen and #1 filter sand pack were used because of the site's fine-grained subsurface formations.

Following placement of the sand pack, the well was pre-developed using a surging technique to settle the sand pack around the well screen. The depth to sand was measured using a weighted tape. If settlement of the sand pack was noticed, additional sand was used to bring the sand pack back up to the desired depth. A two-feet-thick bentonite seal was installed above the sand pack and allowed to hydrate during installation. Grout consisting of Type II Portland cement and powdered bentonite was placed above the bentonite seal to approximately one-foot below the

ground surface. Grout was mixed in proportions comprised of a 94-pound bag of Type II Portland cement, nine pounds of powdered sodium bentonite, and no more than eight gallons of water. The relative thicknesses of the bentonite seal and surface seal and grout were adjusted to accommodate the well depth relative to the ground surface.

Protective eight-inch steel flush mounted well covers were secured over the well casings to protect each well. Prior to installing the flush mounted well covers, well casings were cut below grade and fitted with a water tight, expandable, sanitary seal. Concrete was installed above the grout in the annular space between the borehole and outer well casing up to approximately six-inches below grade to provide a surface seal. The wells were surface completed with a high strength concrete pad.

3.5 GROUNDWATER MONITORING WELL PURGING AND SAMPLING

Groundwater sampling consisted of one round of samples collected in the eight new monitoring wells, as well as collecting samples from eight previously installed GSP temporary well points (SB/WP-50, SB/WP-54, SB/WP-61, SB/WP-66, SB/WP-71, SB/WP-83, SB/WP-84, and SB/WP-89). Samples were collected from the newly installed wells after the wells had been allowed to equilibrate with the aquifer for at least one week following development. Groundwater was sampled June 7–24, 2011. Figures 3-6 and 3-7 show the temporary well point groundwater sampling locations.

Temporary well points were purged with a peristaltic pump using disposable polyethylene tubing. The pumping rate ranged between 100–300 milliliters per minute to minimize drawdown in the well points. During groundwater purging in all wells, water level drawdown measurements and groundwater parameters (including pH, temperature, specific conductance, dissolved oxygen, and oxidation reduction potential) were collected every three to five minutes until purging was complete. Purging was considered complete when the monitored water quality parameters stabilized, when three saturated well casing volumes were removed, or when the well had been purged dry.

Water quality parameters were measured using an inline water quality meter; turbidity was measured with a separate turbidity meter. Stabilization was considered achieved when three

consecutive readings, taken at five-minute intervals, were within ±0.1 for pH, ±3% for specific conductance and temperature, ±10% for dissolved oxygen and oxidation reduction potential, and less than 50 nephalometric turbidity units for turbidity. If a well point was purged dry, the water level was allowed to recover a minimum of 80% of its initial static water level before sampling groundwater.

Data were recorded in the appropriate site-specific logbook, Groundwater Sample Log Sheets, and on Low Flow Purge data sheets. The Groundwater Sample log sheets and Low Flow Purge data sheets are in Appendix F. All purged water was collected as IDW in U.S. Department of Transportation-approved 55-gallon steel drums, which were staged in a facility-approved location for subsequent disposal. IDW disposal is discussed in detail in Section 3.10.

As shown in Table 3-3, groundwater samples from the new wells and temporary well points were analyzed for the following parameters:

- VOCs by SW846 Method 8260C
- SVOCs and 1,4-dioxane by SW846 Method 8270D
- TPH-GRO and TPH-DRO by SW846 Method 8015
- total and dissolved Priority Pollutant metals by SW846 Method 6010C/7471A
- perchlorate by U.S. Environmental Agency (USEPA) Method 314
- hexavalent chromium by USEPA Method 218.6

Each groundwater sample analyzed for dissolved metals was filtered in the field prior to sample preservation using a dedicated, disposable, 0.45-micron filter and a peristaltic pump.

3.6 QUALITY CONTROL SAMPLES, DOCUMENTATION AND CUSTODY

Trip blanks were analyzed at a rate of one per cooler containing VOC samples. No other quality assurance/quality control samples were collected. Samples were analyzed on a standard turnaround of 21 calendar days.

Sample documentation consists of a completed laboratory chain of custody report and matrix specific sample log sheets. The chain of custody report summarizes and documents pertinent

sample information (e.g., sample identification and type, matrix, date, time of collection, preservation, and requested analysis). Sample custody procedures were followed to document sample acquisition and integrity.

3.7 SAMPLE NOMENCLATURE

Each soil sample collected during the investigation was identified with a unique sample identification tag. For this additional Phase II GSP investigation, all sample numbers were prefaced with "GSP." The sample identification tag carries the designation "SB" followed by the boring number and two numbers indicating the collection depth of the "SB" samples. For example, GSP-SB-10-8-10 would be a soil sample collected from GSP at boring location 10 and a depth interval of eight to 10 feet below grade.

Groundwater samples from the new wells were prefaced with "GSP," followed by the well identification (e.g., GSP-MW1), and then followed by the date. Groundwater samples from the temporary well points were designated by "WP," followed by the location number. For example, GSP-SB-WP-15 would be a water sample collected from well point location 15 at soil boring number 15.

3.8 SURVEYING

Following completion of the fieldwork, a Maryland-licensed professional surveyor (Murphy Geomatics of Raleigh, North Carolina) was contracted to provide horizontal and vertical coordinates for the soil borings and monitoring wells. The locations were surveyed with an accuracy to the nearest 0.01 foot for vertical elevations in the North American Vertical Datum 1988 and to the nearest 0.1 foot horizontal coordinates in the North American Datum 1983 at the top of the well casings. The Well Survey Report is in Appendix G.

3.9 SYNOPTIC WATER LEVEL MEASUREMENTS

A round of synoptic water levels was measured in the eight new monitoring wells on July 14, 2011. Water level data provides information on groundwater flow characteristics. The static water level was determined by lowering the meter's probe into the well until the liquid level indicator emitted an audible tone, indicating the air/water interface. The water level was read from the probe cable as the depth to water; water level measurements were recorded to the nearest 0.01-foot on a

groundwater level measurement field form in the appropriate site-specific field logbook. The results of the groundwater level measurement event, including a groundwater contour map, are in Section 4.1.2.

3.10 WASTE MANAGEMENT

Waste management procedures established in Lockheed Martin guidance document EROP-03 were followed in handling and managing wastes generated at the GSP site. All IDW (e.g., drill cuttings, excess soil from sampling, well development water, well purge water and decontamination fluids) was collected in new or reconditioned United States Department of Transportation approved 55-gallon steel drums. All drums were moved to a central staging area on the MSA site for waste characterization, profiling and proper disposal.

Samples of the IDW were collected and submitted for Toxicity Characteristic Leaching Procedure (TCLP) organic and inorganic analyses, corrosivity, ignitability, reactive sulfide, and reactive cyanide. Upon receipt of the IDW analytical data, the generated IDW was removed from GSP by Environmental Quality Company and disposed of at their state-licensed and Lockheed Martin-approved York, Pennsylvania facility, in accordance with federal, state, and local regulations. Personal protective equipment was brushed off, placed in trash bags, and disposed of in a facility trash receptacle.

Table 3-1
Test Pit Summary and Rationale
Greater Strawberry Point, Martin State Airport, Middle River, Maryland

Test pit number[(1)]	Test pit location	Approximate dimensions	Rationale/purpose
GSP-TP-1	Northern portion of REC #10	Length: 30 feet Depth: 12.5 feet	Assess the possible presence of buried materials/structures based on elevated geophysical survey electromagnetic (EM) readings (EM Anomaly A)
GSP-TP-2; GSP-TP-5	South-central portion of REC #10 near historical structures 028 and 029 (Coupon Test Sheds)	Length: 30 feet Depth: 12 feet	Assess the possible presence of buried materials/structures based on elevated geophysical survey EM readings (EM Anomaly C)
GSP-TP-3 GSP-TP-4	Northwestern edge of REC #10	Length: 30 feet Depth: 10 (TP-3) and 12 (TP-4) feet	Assess the possible presence of buried materials/structures based on elevated geophysical survey EM readings (EM Anomaly B)
GSP-TP-6	Northwestern corner of REC #9	Length: 30 feet Depth: 11 feet	Assess the possible presence of buried materials/structures based on elevated geophysical survey EM readings
GSP-TP-7; GSP-TP-8	Western portion of REC #9 near historical structure 025 (Hyper-Therm Test Facility)	Length: 30 feet Depth: 10 (TP-7) and 7.5 (TP-8) feet	Assess the possible presence of buried materials/structures based on elevated geophysical survey EM readings (EM Anomaly D [GSP-TP-7] and southwest of Anomaly D [GSP-TP-8])
GSP-TP-9	Southeastern portion of REC #9	Length: 17 feet Depth: 10 feet	Assess the possible presence of buried materials/structures based on elevated geophysical survey EM readings (northwest of EM Anomaly E)
GSP-TP-10	Northwestern portion of REC #8	Length: 17 feet Depth: 12.5 feet	Assess the possible presence of buried materials/structures based on elevated geophysical survey EM readings (EM Anomaly E)
GSP-TP-11	South-central portion of REC #8 between historical structures 023 (Compressor Shed) and 024 (Engine Test)	Length: 30 feet Depth: 8 feet	Assess the possible presence of buried materials/structures based on elevated geophysical survey EM readings near an existing building and former structures
GSP-TP-12	Near southern boundary of REC #8 southwest of an existing building	Length: 21 feet Depth: 9 feet	Assess the possible presence of buried materials/structures based on elevated geophysical survey EM readings

[1]Soil samples were collected if debris or wastes were encountered, or impact was suspected based on field PID readings or other indicators of impact (staining, odor, etc.). Samples were analyzed for VOCs (USEPA Method 8260C), SVOCs (USEPA Method 8270D), PCBs (USEPA Method 8082A), metals (USEPA Method 6010C), mercury (USEPA Method 7471A), and TPH-GRO/DRO (USEPA Method 8015).

Table 3-2
Summary of Soil Sampling, Chemical Analyses, and Sampling Rationales
Greater Strawberry Point, Martin State Airport, Middle River, Maryland
Page 1 of 2

Soil boring number	Soil boring location	Boring depth	Sampling depth(s) (feet below grade)	Sample analysis (method)	Rationale/ Purpose
GSP-SB-91 and GSP-SB-92	Northern portion of REC #8	25 feet	0–2 6–8[(1)] 18–25[(1,2)]	*VOCs* (8260C) *SVOCs* (8270D) *PCBs* (8082A) *Metals* (6010C) *Mercury* (7471A) *TPH-GRO/DRO* (8015) *VOCs* and *TPH-DRO/GRO* only for 18'–25' samples	Assess extent of PAHs in surface soil at SB-57; TCE detected in soil at 10–12 feet and 20–22 feet at SB-56 and 23–25 feet at SB-57/58; and TPH-GRO at 20–22 feet at SB-56
GSP-SB-93 through GSP-SB-96	Eastern and southeastern portion of REC #9 surrounding 2010 borings GSP-SB-56, GSP-SB-57, and GSP-SB-58	25 feet	0–2 6–8[(1)] 20–24[(1,2)]	*VOCs* (8260C) *SVOCs* (8270D) *PCBs* (8082A) *Metals* (6010C) *Mercury* (7471A) *TPH-GRO/DRO* (8015) *VOCs* and *TPH-DRO/GRO* only for 18'–25' samples	Assess extent of PAHs in surface soil at SB-57; TCE detected in soil at 10–12 feet and 20–22 feet at SB-56 and 23–25 feet at SB-57/58; and TPH-GRO at 20–22 feet at SB-56
GSP-SB-97 through GSP-SB-100	Western and northern portion of REC #9	25 feet	0–2 6–8[(1)]	*VOCs* (8260C) *SVOCs* (8270D) *PCBs* (8082A) *Metals* (6010C) *Mercury* (7471A) *TPH-GRO/DRO* (8015)	Provide additional soil data coverage for western side of REC #9, and delineate extent of PAHs that exceeded screening criteria in shallow 2010 samples at GSP-SB-61 and GSP-SB-67

[1]Sampling depth was modified based on field photo-ionization detector (PID) readings or other indicators of impacts (staining, odor, etc.). Actual depths are listed in the boring logs in Appendix D.

[2]Deep samples (e.g., 18'–25') were collected at GSP-SB-91 through GSP-SB-96, GSP-SB-111, GSP-SB-113 to GSP-SB-115, GSP-SB-117 through GSP-SB-122, GSP-SB-126, and GSP-SB-129 through GSP-SB-130.

Table 3-2
Summary of Soil Sampling, Chemical Analyses, and Sampling Rationales
Greater Strawberry Point, Martin State Airport, Middle River, Maryland
Page 2 of 2

Soil boring number	Soil boring location	Boring depth	Sampling depth(s) (feet below grade)	Sample analysis (method)	Rationale/ purpose
GSP-SB-101 through GSP-SB-110	In REC #10 (former Block House, Coupon Test Sheds)	25 feet	0–2 6–8[(1)]	*VOCs* (8260C) *SVOCs* (8270D) *PCBs* (8082A) *Metals* (6010C) *Mercury* (7471A) *TPH-GRO/DRO* (8015)	Provide additional soil data coverage for REC #10, and delineate extent of PAHs and TPH-DRO that exceeded screening criteria in shallow 2010 REC #10 samples and adjacent REC #9 soil samples
GSP-SB-111 through GSP-SB-130	In and around REC #11 (former Critical Test Building and Radioisotope Lab)	25 feet	0–2 6–8[(1)] 18–24[(1,2)]	*VOCs* (8260C) *SVOCs* (8270D) *PCBs* (8082A) *Metals* (6010C) *Mercury* (7471A) *TPH-GRO/DRO* (8015) VOCs, SVOCs and TPH-DRO/GRO only for 18'–25' samples[2]	Provide additional soil data coverage for REC #11. Delineate extent of PCBs, PAHs and TPH-DRO that exceeded screening criteria in shallow 2010 samples (depths up to 4 feet); delineate TCE detected in soil at GSP-SB-72 through GSP-SB-74 and groundwater at GSP-SB-72, -83, -84, and -89

[1]Sampling depth was modified based on field photo-ionization detector (PID) readings or other indicators of impacts (staining, odor, etc.). Actual depths are listed in the boring logs in Appendix D.

[2]Deep samples (e.g., 18'–25') were collected at GSP-SB-91 through GSP-SB-96, GSP-SB-111, GSP-SB-113 to GSP-SB-115, GSP-SB-117 through GSP-SB-122, GSP-SB-126, and GSP-SB-129 through GSP-SB-130.

Table 3-3
Groundwater Monitoring Well Rationales
Greater Strawberry Point, Martin State Airport, Middle River, Maryland
Page 1 of 2

Well number[(1)]	Soil boring location	Approximate well depth (feet below grade)	Sample analysis (method)[1]	Rationale/purpose
GSPMW-01 through GSPMW-04	In REC #11 (former Critical Test Building and Radioisotope Lab)	15, 31, 35, and 20.5	*VOCs* (8260C) *SVOCs* (8270D) *1,4-dioxane* (8270D) *Metals*: total and dissolved (6010C) *Mercury*: total and dissolved (7471A) TPH-GRO/DRO (8015) *Perchlorate* (Method 314) *Hexavalent chromium* (7199)	Provide risk assessment level groundwater monitoring data for REC #11; assess presence of chlorinated volatile organic compounds (CVOCs) and petroleum hydrocarbons in groundwater based on TCE detections in 2010 groundwater samples GSP-SB-72, -83, -84, -89 (levels at GSP-SB-72 and -89 exceeded the MDE groundwater standard), and TCE detected in deep soil at GSP-SB-72 and GSP-SB-73. TPH-DRO was detected in groundwater at concentrations exceeding the MDE standard at GSP-SB-72 and GSP-SB-80.
GSPMW-05 and GSPMW-06	In REC #10 (former Block House, Coupon Test Sheds)	40 and 22.5	*VOCs* (8260C) *SVOCs* (8270D) *1,4-dioxane* (8270D) *Metals*: total and dissolved (6010C) *Mercury*: total and dissolved (7471A) *TPH-GRO/DRO* (8015) *Perchlorate* (Method 314) *Hexavalent chromium* (7199)	Provide risk assessment level groundwater monitoring data for REC #10; assess petroleum hydrocarbons in groundwater based on TPH-DRO/GRO detections in 2010 groundwater samples GSP-SB-61, GSP-SB-66 and GSP-SB-71, and TPH-DRO detections in deep soil samples at GSP-SB-63 through GSP-SB-67 and GSP-SB-71

[1]Previously installed wells SB/WP-50, SB/WP-54, SB/WP-61, SB/WP-66, SB/WP-71, SB/WP-83, SB/WP-84, and SB/WP-89 were also sampled and analyzed for the parameters listed above.

Table 3-3
Groundwater Monitoring Well Rationales
Greater Strawberry Point, Martin State Airport, Middle River, Maryland
Page 2 of 2

Well number[(1)]	Soil boring location	Approximate well depth (feet below grade)	Sample analysis (method)[1]	Rationale/purpose
GSPMW-07 and GSPMW-08	Eastern portion of REC #9 near 2010 soil borings GSP-SB-56 and GSP-SB-59	22 and 17	*VOCs* (8260C) *SVOCs* (8270D) *1,4-dioxane* (8270D) *Metals*: total and dissolved (6010C) *Mercury*: total and dissolved (7471A) *TPH-GRO/DRO* (8015) *Perchlorate* (Method 314) *Hexavalent chromium* (7199)	Provide risk assessment level groundwater monitoring data for REC #9; assess presence of CVOCs and petroleum hydrocarbons in groundwater based on TCE detected in 2010 soil samples at 10–12 feet and 20–22 feet (1,100 µg/kg) at GSP-SB-56, TCE at 23–25 feet at GSP-SB-57/58, and TPH-GRO at 20–22 feet at GSP-SB-56

[1]Previously installed wells SB/WP-50, SB/WP-54, SB/WP-61, SB/WP-66, SB/WP-71, SB/WP-83, SB/WP-84, and SB/WP-89 were also sampled and analyzed for the parameters listed above.



Figure 3-1

RECs 8-10 Test Pit Locations
Greater Strawberry Point

LEGEND

- Test Pit (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- Historic Structures
- MTN Tanks
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- 9 REC Number

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 30 60 120 Feet

N

DATE MODIFIED: 11/15/11

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Figure 3-2

RECs 8-10 Soil Boring Locations
Greater Strawberry Point

LEGEND

- Soil Boring (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- Historic Structures
- MTN Tanks
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- 9 REC Number

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 30 60 120 Feet

N

DATE MODIFIED: 11/15/11

CREATED BY: MP

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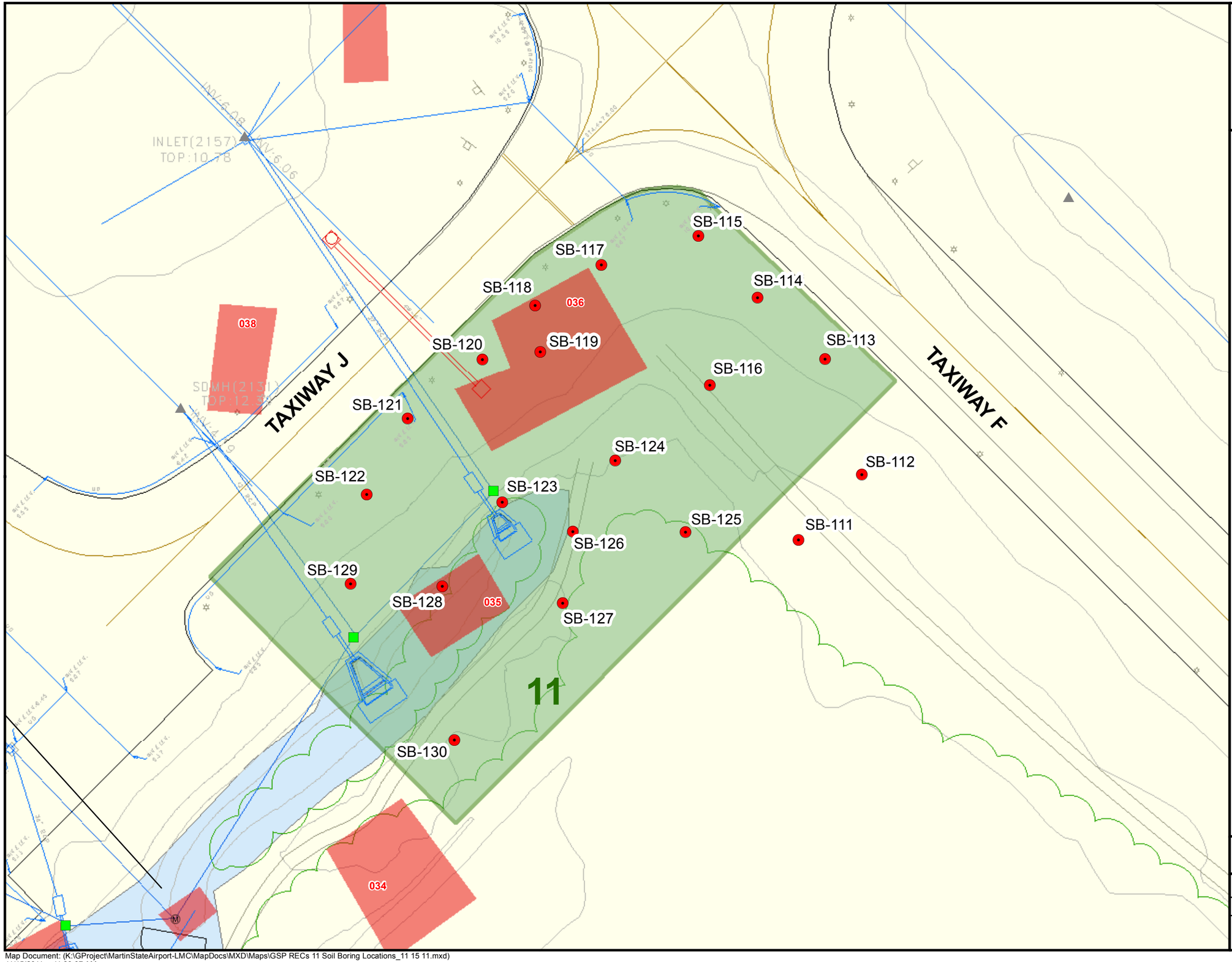

Figure 3-3

REC 11 Soil Boring Locations
Greater Strawberry Point

LEGEND

- Soil Boring (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- Historic Structures
- MTN Tanks
- REC
- Current Structures
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities

11 REC Number

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 15 30 60 Feet

N

DATE MODIFIED: 11/15/11

CREATED BY: MP

TETRA TECH

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Figure 3-4

RECs 8-10 Well Point Groundwater Sample Locations
Greater Strawberry Point



LEGEND

- Well Point Location (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- 9 REC Number

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
TWY - Taxiway

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 30 60 120 Feet

N

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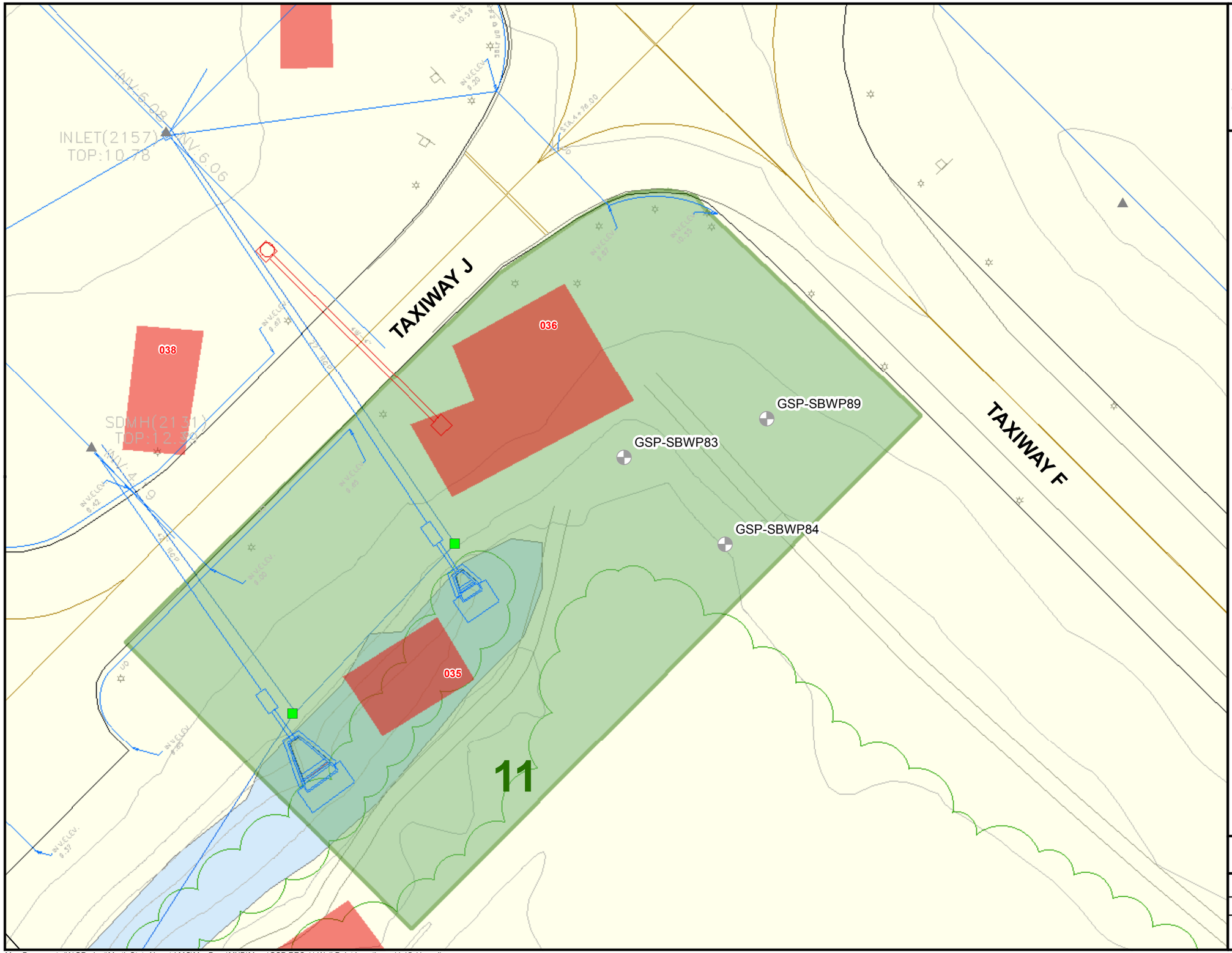

Figure 3-5

REC 11 Well Point Groundwater Sample Locations
Greater Strawberry Point

LEGEND

- Well Point Location (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities

11 REC Number

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 15 30 60 Feet

N

DATE MODIFIED: 11/15/11

CREATED BY: MP

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Figure 3-6

RECs 8-10 Groundwater Monitoring Well Locations
Greater Strawberry Point

LEGEND

- Groundwater Well Location (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities

9 REC Number

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
TWY - Taxiway

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 30 60 120 Feet

N

DATE MODIFIED: 11/15/11

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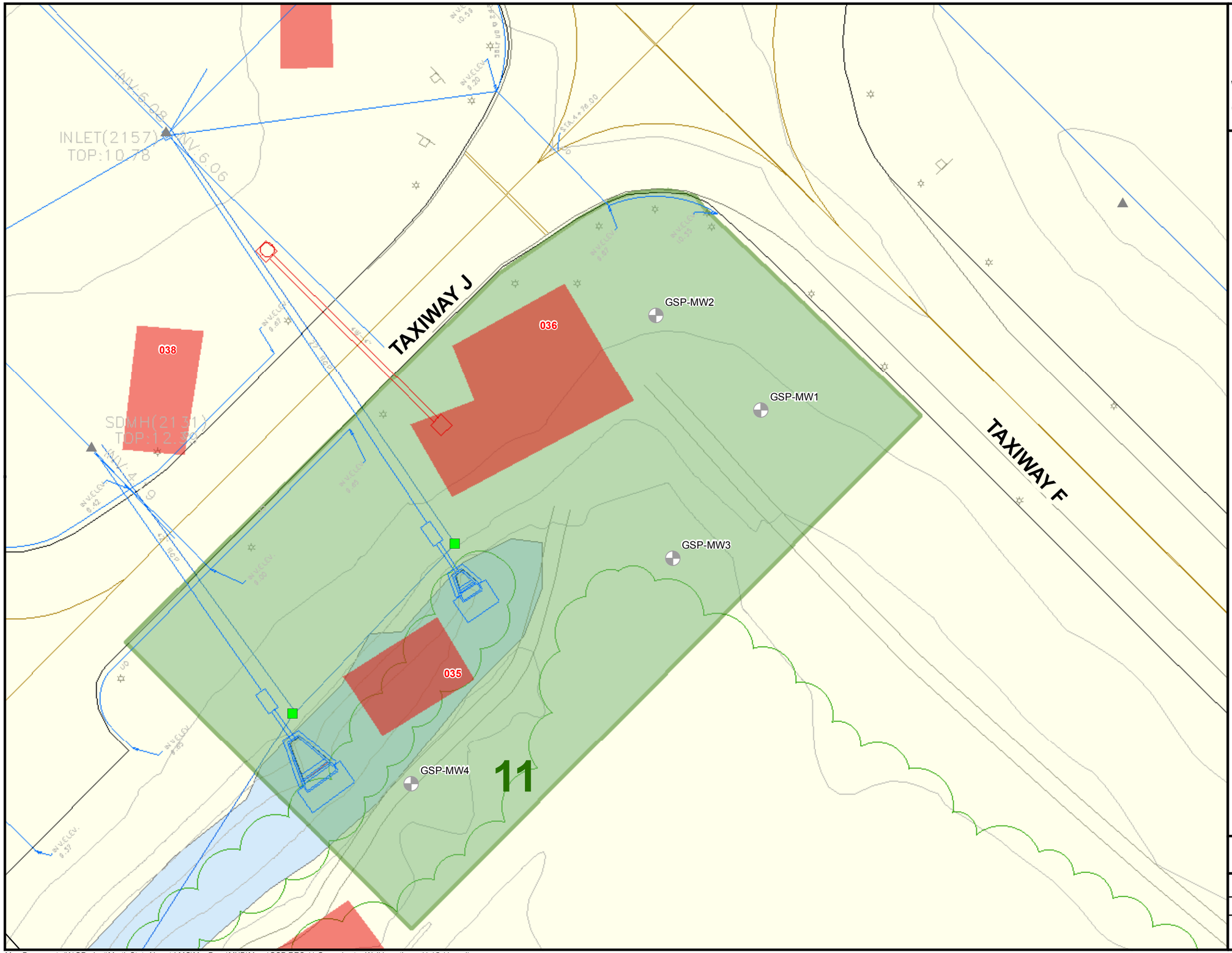

Figure 3-7

REC 11 Groundwater Monitoring Well Locations
Greater Strawberry Point

LEGEND

- Groundwater Well Location (2011)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- REC
- Historic Structures
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
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- Telephone Line
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11 REC Number

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NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
TWY - Taxiway

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 15 30 60 Feet

N

DATE MODIFIED: 11/15/11

CREATED BY: MP

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Section 4
Results

The following sections describe the physical and chemical characteristics of soil and groundwater as determined from the results of this additional Phase II investigation. Section 4.1 briefly discusses the geologic and hydrologic results from the soil boring and groundwater gauging programs at Greater Strawberry Point (GSP). The results of the test pit investigation and chemical analyses of soil and groundwater in the areas of Recognized Environmental Conditions (RECs) #8, #9, #10, and #11, are discussed in Sections 4.2 through 4.4.

Sections 4.2 through 4.6 present the results of the chemical analyses of site soil and groundwater samples relative to human health risk-based screening standards. Human health screening was completed for this investigation because human health risks are considered primary drivers for implementing additional studies and remedial actions. In Sections 4.2 through 4.6, Maryland Department of the Environment (MDE) chemical-specific soil and groundwater standards (MDE, 2008) were used to evaluate concentrations of constituents detected in soil and groundwater. MDE uses these standards to screen sites, and they are useful benchmarks for evaluating site data and potential cleanup goals. The screening objectives are to: (1) gauge the degree of observed impacts in relation to regulatory standards and potential adverse effects on human health or the environment; and (2) to evaluate the need for further sampling or remedial action. Therefore, regulatory risk-based standards are used whenever possible.

For soil, the results of the field investigation were compared to residential and non-residential land use standards. Residential standards are used to provide a relative evaluation for hypothetical future property use. Non-residential screening of the results was conducted because the site is restricted and the facility is likely to remain a state government facility for the indefinite future. Non-residential standards are considered more applicable for current and likely future uses of the property.

Soil results for particular metals were also compared to MDE's anticipated typical concentration (ATC) (State of Maryland, 2008). ATCs are based on naturally occurring levels of metals (e.g., arsenic) in Maryland soils that commonly exceed residential and non-residential risk-based concentrations. MDE developed ATCs to represent reference levels or "background" concentrations for seven metals in three geologic regions of Maryland.

MDE allows for the proposed use of an ATC concentration as an alternative to the residential risk-derived soil standard if the ATC exceeds the risk-derived standard. For example, the arsenic ATC for the eastern region of Maryland, where Martin State Airport (MSA) is located, is 3.6 milligrams per kilogram (mg/kg). For visual identification of metals exceedances in soils (see Figures 4-2 through 4-9), the detected metals concentrations were screened against the eastern Maryland ATCs only. Metals concentrations exceeding the MDE residential/non-residential criteria are not shown on the maps in Section 4.0 except where they also exceed the ATC criteria.

Two types of tables summarizing the chemical analytical results are provided in Sections 4.2 through 4.6. In the first table, statistical summaries detail the number of detections, minimum and maximum concentrations, and average concentrations for each analyte detected. The second table provides a complete listing of concentrations detected in soil and data validation qualifiers for the samples collected during this investigation. Shaded cells in these tables represent constituents for which concentrations exceed MDE screening standards. Data tables presenting all sample analytical results, along with laboratory reporting limits or method detection limits, are in Appendix H. Data validation reports are in Appendix I.

4.1 GEOLOGY AND HYDROLOGY

4.1.1 Geology

The lithology encountered in the soil borings varies across the RECs. In the REC #9 area, gray and brown silty sand and sandy silt with occasional clay lenses is encountered to a depth of 25 feet. The REC #10 subsurface lithology is similar to REC #9, except for a more prominent clay layer, ranging between two and 6.5 feet thick, found primarily 10–20 feet below grade. The REC #11 subsurface lithology varies somewhat, ranging from an area in the north comprised of gray and brown silty sand and sandy silt overlying a thick clay layer (SB-120 and SB-121) to an area farther south (SB-122 and SB-123) that is comprised of nearly all silty sand to a depth of 25 feet.

4.1.2 Hydrology

Static groundwater levels were measured in the newly installed monitoring wells (GSP-MW-1 through GSP-MW-8) on July 14, 2011. The static levels (i.e., depth to water) were measured from the top of each well casing using an electronic water level meter. Using vertical survey coordinates, groundwater level measurements were converted to elevations, as shown in Table 4-1. Groundwater depths to water from the top of the casings ranged from 3.36 feet at GSP-MW4 to 6.92 feet at GSP-MW2. Groundwater elevations ranged from 2.74 feet above mean sea level (MSL) at GSP-MW3 and 5.14 feet above MSL at GSP-MW1 (both at REC #11) to 4.41 feet above MSL at GSP-MW8 (REC #9).

Figure 4-1 shows the groundwater-elevation contours using the July 2011 measurements in Table 4-1. Groundwater flows from areas of higher groundwater elevations (i.e., higher groundwater potential) to areas of lower groundwater elevations. As shown in Figure 4-1, groundwater in the GSP study area generally flows toward Stansbury Creek to the south. The contours indicate an area of possibly localized groundwater mounding in the REC #11 area. Drainage culverts from the runways in this area contribute to the localized mounding effect in times of heavy precipitation.

4.2 TEST PIT INVESTIGATION RESULTS

As described in Section 3.2 and Table 3-1, 12 test pits were advanced to provide subsurface characterization and chemical analytical data for soils near anomalies identified during the 2010 GSP investigation. Thirteen soil samples from the test pits were submitted for the following analyses:

- volatile organic compounds (VOCs) by SW846 Method 8260C
- semivolatile organic compounds (SVOCs) by SW846 Method 8270D
- polychlorinated biphenyls (PCBs) by SW846 Method 8082A
- total petroleum hydrocarbons (TPH) –gasoline range organics (GRO) and –diesel range organics (DRO) by Method 8015
- Priority Pollutant metals by SW846 Methods 6010C/7471A

Seven test pits were advanced in the area of RECs #8 and #9, and five test pits were advanced in the area of REC #10. The observations and results from the test pit sampling program are separated below according to the area of investigation (i.e., each REC #/area). Test pit logs are in Appendix B and test pit photographs and observations are in Appendix C. The laboratory analytical results for the test pit soil samples are summarized in Tables 4-2 and 4-3. In Table 4-2, sampling results are compared to MDE residential and non-residential soil screening criteria.

Figure 4-2 shows the 2011 soil sampling results from the test pits in the REC #8 and REC #9 areas that exceed the comparison criteria. Figure 4-3 shows the results for REC #10 area. For metals, only exceedances of the ATCs for eastern Maryland soils are shown. The discussion below is segregated by REC area to correspond with the figures.

4.2.1 Test Pits in REC #8 and #9 Areas

REC #8 contains the former Control House (Building 14), former Noise Suppression Building (Building 15), former Jet Test Shed (Building 16), former Storage Building (Building 17), former Compressor Shed (Building 23), and former Engine Test Building (Building 24), and encompasses approximately 2.3 acres in the central portion of GSP. REC #9 is the former Propellant Storage Building (Building 18), former Acetylene Storage Building (Building 20), and former Furnace Building (Building 19), an area encompassing approximately 2.8 acres, is adjacent to REC #8 along the southern edge of Taxiway F. The former Vanguard Tower (Building 21) and former Hyper-Therm Test Facilities (Building 25) are in the northwestern portion of REC #9 (see Figures 2-2 and 3-2). These buildings were built in the mid-1950s, based on historical aerial photographs, but have since been demolished. An underground water line runs into REC #8 from the southern area of REC #9.

At REC #8, test pits were advanced as follows: GSP-TP-11 in the south-central portion of REC #8 between historical structures 023 (Compressor Shed) and 024 (Engine Test); GSP-TP-12 near the southern boundary of REC #8 southwest of an existing building; and GSP-TP-10 in the northwestern portion of REC #8, near REC #9. At REC #9, test pits were advanced as follows: GSP-TP-6 near the northwestern corner of REC#9, near REC #10; GSP-TP-7 and –TP-8 in the western portion of REC #9 near historical structure 025 (Hyper-Therm Test Facility); and GSP-TP-9 in the southeastern corner of REC #9. Figure 4-2 shows the locations of the test pits at RECs #8 and #9.

Test pit soil samples from GSP-TP-10-10-12 (10–12 feet below grade), GSP-TP-11-7-8 (seven to eight feet below grade), and GSP-TP-12-8-9 (eight to nine feet below grade), all in the area of REC #8, were submitted for laboratory analysis. Five VOCs and nine metals were detected in sample GSP-TP-10-10-12 collected in REC #8. The laboratory results for three of the detected VOCs were "B"-qualified, indicating they were also found in the laboratory blank. All VOC concentrations detected in GSP-TP-10 are below MDE residential and non-residential soil criteria. The metals concentrations detected in this sample are also below criteria, except for arsenic and vanadium. Arsenic at 1.9 milligrams per kilogram (mg/kg) equals the non-residential criterion, and vanadium at 10 mg/kg, exceeds its residential criterion. However, the arsenic and vanadium concentrations detected in GSP-TP-10-10-12 are below their respective ATCs for eastern Maryland (3.6 and 30 mg/kg, respectively).

Only two VOCs were detected in soil samples collected from GSP-TP-11-7-8 and GSP-TP-12-8-9, and both were "B"-qualified, indicating laboratory blank contamination. Eight metals were detected, with only one metal concentration (vanadium) exceeding MDE residential soil criteria. However, the detected vanadium concentration (11 mg/kg) is below the ATC for vanadium (30 mg/kg).

Soil samples were collected in four test pits in the REC #9 area and submitted for laboratory analysis: GSP-TP-6-4-6, GSP-TP-7-9-10, GSP-TP-8-6-7, and GSP-TP-9-8-10. Laboratory results for GSP-TP-6-4-6 (collected below observed concrete and metal debris) indicate 14 VOCs, 17 SVOCs, 13 metals, and diesel range organics (DRO). The detected concentrations of all VOCs, except naphthalene, are either estimated (i.e., "J"-flagged) or associated with the laboratory blank ("B"-qualified). None exceed MDE's residential or non-residential soil criteria. Five SVOCs were detected in GSP-TP-6-4-6 at concentrations exceeding the residential criteria; the concentrations of one of these five, benzo(a)pyrene, exceed both the residential and non-residential criteria. In addition, three metals were detected at concentrations exceeding their respective MDE residential criteria: arsenic (2.6 mg.kg), thallium (0.69J mg/kg), and vanadium (16 mg/kg). However, the detected concentrations of these metals are all below their ATCs (3.6, 3.9, and 30 mg/kg for arsenic, thallium, and vanadium, respectively).

VOCs and SVOCs were detected sporadically in soil samples GSP-TP-7-9-10, GSP-TP-8-6-7, and GSP-TP-9-8-10. Three or fewer VOCs were detected in each sample; in each case, the

results were "B"-flagged. Four or fewer SVOCs were detected in each sample; all SVOC results are estimated (i.e., "J"-qualified) except fluoranthene, and all are below the MDE residential criteria. Between six and nine metals were detected in these three samples. Arsenic concentrations exceed the residential and/or non-residential soil criteria, but are less than the ATC. Concentrations of the other metals are below the selected criteria.

4.2.2 Test Pits in REC #10 Area

REC #10 includes the former Coupon Test Sheds (Buildings 27, 28, and 29) and former Block House (Building 26) area, encompassing approximately 1.4 acres in the northern portion of GSP (see Figures 2-2 and 3-2). At REC #10, test pits were advanced as follows: GSP-TP-1 in the northern portion of REC #10, GSP-TP-2 (near historical structure 029, the Coupon Test Equalization Shed) and GSP-TP-5 (near historical structure 028, the Coupon Test Shed) both in the central portion of REC #10; GSP-TP-3 and GSP-TP-4 at the northwestern edge of REC #10. Two soil samples were collected from test pit GSP-TP-5: one at the east end of the pit (GSP-TP-5E-10-12) and one at the west end (GSP-TP-5W-10-12). Figure 4-3 presents the REC #10 test pit locations.

At REC #10, soil samples from GSP-TP-1-10-12, GSP-TP-2-10-12, GSP-TP-3-5-7, GSP-TP-4-3-5, and GSP-TP-5E-10-12 and GSP-TP-5W-10-12 were all submitted for analysis. Laboratory results for GSP-TP-1-10-12 indicate that only three VOCs and nine metals were detected in this sample. All three VOCs (acetone, methylene chloride, and toluene) had concentrations that were either "B"- or "J"-qualified, and four of the detected metals had low, estimated ("J"-qualified) concentrations. None of the analytes detected in GSP-TP-1-10-12 were at concentrations exceeding the comparison criteria.

The results for GSP-TP-2-10-12 and GSP-TP-3-5-7 are similar to GSP-TP-1-10-12: the same three VOCs, and a similar number of metals (11 in GSP-TP-2-10-12 and nine in GSP-TP-3-5-7), were detected in these samples. VOC concentrations are less than the comparison criteria. None of the detected metal concentrations exceed criteria, except for arsenic and vanadium. Vanadium exceeded the MDE residential criterion in both samples, and the detected arsenic concentration in GSP-TP-3-5-7 is equal to the MDE non-residential criterion. However, the detected arsenic and vanadium concentrations in these samples are less than their respective ATCs. Laboratory analytical results for the remaining three soil samples from test pits at REC #10 indicate as many

as 12 VOCs, 19 SVOCs, TPH-DRO and/or -GRO, and 15 metals. Detected VOC concentrations in all three soil samples (GSP-TP-4-3-5, GSP-TP-5E-10-12, and GSP-TP-5W-10-12) are all less than residential and non-residential comparison criteria.

In the soil sample from GSP-TP-4-3-5, which was collected from underneath miscellaneous debris (e.g., tires, Styrofoam®, and asphalt; see Appendix C), five SVOCs were detected at concentrations exceeding MDE residential criteria (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, dibenzo[a,h]anthracene, and indeno[1,2,3-cd]pyrene), and one SVOC exceeded both residential and non-residential criteria (benzo[a]pyrene). The TPH-DRO concentration in GSP-TP-4-3-5 also exceeds residential and non-residential criteria. Fifteen metals were detected in this sample. Of these, the detected arsenic, thallium, and vanadium concentrations (3.1, 0.92 J, and 27 mg/kg, respectively) exceed residential criteria, and arsenic exceeds both its residential and non-residential standard. However, the concentrations of arsenic, thallium, and vanadium are less than their ATCs of 3.6, 3.9, and 30 mg/kg, respectively. The chemical analytical results for GSP-TP-4-3-5 indicate that shallow soils in this test pit may have been impacted by former operations associated with the Coupon Test Equalization Shed (structure 029 in Figure 2-2) or its demolition, and/or by miscellaneous debris observed in shallow fill materials in this test pit (see Appendices B and C). The presumed concrete slab of this former shed was encountered during test pit excavation at this location.

Twelve VOCs and 14 SVOCs were detected at concentrations below the comparison criteria in soil sample GSP-TP-5E-10-12. Five SVOCs (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, dibenzo[a,h]-anthracene, and indeno[1,2,3-cd]pyrene) were detected at concentrations exceeding residential criteria, and one SVOC (benzo[a]pyrene) exceeds both its residential and non-residential criteria. The TPH-DRO concentration reported in GSP-TP-5E-10-12 also exceeds the residential and non-residential criteria. TPH-GRO was reported at a concentration less than the comparison criteria. Concentrations of four metals (arsenic, chromium, thallium, and vanadium) exceed residential criteria. The arsenic and thallium concentrations in GSP-TP-5E-10-12 do not exceed their respective ATCs. However, the detected chromium concentration (28 K mg/kg) is equal to its ATC (28 mg/kg), with the “K” qualifier indicating that the detected result is considered biased low as a result of laboratory technical

non-compliance. Vanadium (34 mg/kg) in GSP-TP-5E-10-12 slightly exceeds its ATC (30 mg/kg). Eight other metals were detected at low concentrations below MDE criteria.

Chemical analytical results for the western GSP-TP-5 sample (GSP-TP-5W-10-12) are similar to those for the eastern sample (GSP-TP-5E-10-12), with several of the same VOC detections, along with SVOCs, TPH-GRO, TPH-DRO, and 13 metals. Detected VOC concentrations are less than the residential and non-residential screening criteria. Five SVOCs (benzo[a]anthracene, benazo[a]pyrene, benzo[b]fluoranthene, dibenzo[a,h]-anthracene, and indeno-[1,2,3-cd]pyrene) were detected at concentrations exceeding residential criteria, and one SVOC (benzo[a]pyrene) exceeded residential and non-residential criteria. TPH-DRO was reported in GSP-TP-5W-10-12 at a concentration in excess of its residential criterion, and TPH-GRO was reported at a concentration less than its comparison criterion.

Concentrations of arsenic, thallium, and vanadium exceed residential criteria, with the arsenic concentration also exceeding its non-residential criterion. The arsenic and thallium concentrations reported in GSP-TP-5W-10-12 are less than their ATCs, but the vanadium concentration reported in this sample (36 mg/kg) exceeds its ATC (30 mg/kg). The soil analytical results discussed above and the abundance of concrete and metal debris noted throughout test pit GSP-TP-5 (see Appendices B and C) soils in this area of REC #10 suggest that SVOC, petroleum hydrocarbon, and metal impacts is likely attributable to the observed fill material and/or historical operations at REC #10.

4.3 SOIL BORING AND SOIL SAMPLING RESULTS

As described in Section 3.3 and Table 3-2, 40 soil borings were advanced in the study area. In each boring, surface and subsurface soil samples were collected at depths ranging from 0–2 to 22–25 feet. Ninety-nine soil samples were collected during this investigation for laboratory analyses. Soil samples from each of the soil borings were submitted for the following analyses:

- VOCs by SW846 Method 8260C
- TPH -GRO and -DRO by Method 8015
- PCBs by SW846 Method 8082A
- SVOCs by SW846 Method 8270D
- Priority Pollutant metals by SW846 Methods 6010C/7471A

As shown in Table 3-2, select deep soil samples from RECs #9 and #11 were submitted for limited chemical analyses (e.g., VOCs, SVOCs, and TPH-DRO/GRO at REC #11, and VOCs and TPH-DRO/GRO at REC #9).

Table 4-4 is a statistical summary of contaminants detected in the soil samples collected and analyzed from soil borings during this investigation. Table 4-5 highlights analyte concentrations that exceed Maryland residential and non-residential land use standards. In the discussion below, and in Figures 4-4 through 4-9, benzo(a)pyrene equivalents (BaPEq) are used for comparison instead of individual polycyclic aromatic-hydrocarbon (PAH) compounds, because the list of detected individual compounds for PAHs are typically consistent throughout the RECs, and because the BaPEq concentration is used in the risk assessment calculations. The methodology for calculating the BaPEq is in Section 5.1.2.2. In addition, for metals, only exceedances of the ATCs for eastern Maryland soils are shown in Figures 4-4 through 4-9.

Ten soil borings were advanced in the REC #9 area (GSP-SB-91 through GSP-SB-100), ten in the REC #10 area (GSP-SB-101 through GSP-SB-110), and 20 borings in the REC #11 area. The observations and results from the soil boring sampling program are separated below according to the area of investigation (i.e., each REC #/area). In Figures 4-4 through 4-9, soil results are segregated by REC area and sampling depth (e.g., surface soils [0–2 feet below grade]; subsurface [2–15 feet below grade]; and deep subsurface [greater than 15 feet below grade]).

4.3.1 Borings in REC #8, REC #9, and REC #10 Area

Northern REC #8 and southern REC #9 area—Soil samples were collected from two borings at the northern border of REC #8 (GSP-SB-91 and GSP-SB-92) and from four borings advanced in the southern half of REC #9 (GSP-SB-93 through GSP–SB-96), from two different depths (surface [0–2 feet] and subsurface [6–14 feet below grade]). All samples were submitted for the full list of laboratory analyses. One deeper sample (greater than 18 feet below grade) was collected in each of these six borings and submitted for analysis of VOCs and TPH-DRO/GRO only. Table 4-5 shows the sampling results from these six borings and indicates the analytes with detected concentrations that exceed comparison criteria. The chemical detections exceeding MDE comparison criteria and metals ATCs for soil samples collected over various depth ranges in these six borings are shown in Figure 4-4 (surface soils 0–2 feet), Figure 4-5 (2–15 feet), and Figure 4-6 (greater than 15 feet).

VOCs were not detected at concentrations exceeding MDE comparison criteria in any of the soil samples analyzed from these six borings, with one exception. The trichloroethene (TCE) concentration exceeds its residential screening criteria in the soil sample GSP-SB-92-22-25 (22-25 feet below grade), near the northern border of REC #8. TCE concentrations in three other samples, GSP-SB-93-12-14, GSP-SB-93-22-24, and GSP-SB-95-20-22, exceed the United States Environmental Protection Agency (USEPA) soil-to-groundwater soil-screening level (SSL) of 1.8 micrograms per kilogram (µg/kg) but are below the MDE residential screening level. These borings were in the southern portion of REC #9 near former Buildings 018 (former Propellant Storage) and 019 (former Furnace Building), a location near which TCE was also detected above screening levels during the 2010 investigation. Five other VOCs were detected in one or more soil samples from the six borings in this area, but at concentrations below the comparison criteria. GRO constituents were not detected in any of the REC #8 or REC #9 soil boring samples; DRO was detected in 10 of the samples at low and/or estimated ("J"-flagged) concentrations, which are less than the comparison criteria.

Benzo(a)pyrene is the only SVOC detected at concentrations exceeding the non-residential criteria. The exceedances occurred in four of the surface soil samples (0–2 feet) collected from borings in the southern portion of REC #9. The benzo(a)pyrene concentrations detected in these samples are less than the non-residential screening criteria. The BaPEq values (calculated based on positive detects only) for the northern REC #8 and southern REC #9 samples are less than the screening benchmark of 140 µg/kg, based on the 1×10^{-5} cancer-risk level for residential soils. PCBs were not detected in either of the northern REC #8 borings (GSP-SB-91 and GSP-SB-92). Aroclor-1260 was detected at a low, estimated concentration (63 J mg/kg) in the surface soil sample collected in boring GSP-SB-96, in the southwestern portion of REC #9. The REC #9 borings had no other detections of PCBs.

As many as 13 metals were detected in soil samples from the six northern REC #8 and southern REC #9 area borings. Overall, the highest metal concentrations in this area were detected in the samples from GSP-SB-91 (at 0–2 feet and 8–10 foot depths), along the northern border of REC #8 and next to REC #9. The surface soil sample with the greatest occurrence of metals (with 13 metals detected) is GSP-SB-94-0-2, in the southwest portion of REC #9. Detected concentrations of arsenic in five soil samples from borings in this area exceed both the

residential and non-residential criteria for arsenic. Arsenic in six other soil samples from this area exceeds the residential criterion only. Of the 11 soil samples collected in this area with arsenic concentrations exceeding residential and/or non-residential criteria, only two concentrations, in samples GSP-SB-91-8-10 and GSP-SB-95-6-8, exceed the eastern Maryland ATC of 3.6 mg/kg.

Other metals detected in excess of residential comparison criteria in this area include chromium in one sample (GSP-SB-91-8-10 at 39 mg/kg) and vanadium concentrations in six samples (GSP-SB-91-0-2, GSP-SB-91-8-10, GSP-SB-93-0-2, GSP-SB-94-0-2, GSP-SB-95-6-8, and GSP-SB-96-0-2). Vanadium concentrations in these samples range from 8.6–93 mg/kg. Chromium and vanadium concentrations (39 mg/kg and 93 mg/kg, respectively) in GSP-SB-91-8-10 also exceed their respective ATC criteria of 28 mg/kg and 30 mg/kg.

Northern REC #9 area—In the four borings advanced in the northern portion of REC #9 (GSP-SB-97 through GSP-SB-100), soil samples were collected from two different depths (surface [0–2 feet] and subsurface [6–8 feet below grade]) and submitted for the full list of laboratory analyses specified in Section 4.0. Table 4-5 shows the analytes detected at concentrations exceeding comparison criteria in these four borings. The chemical detections exceeding MDE comparison criteria and ATCs for metal in soil samples collected over various depth ranges in these four borings are shown in Figure 4-4 (surface soils 0–2 feet), Figure 4-5 (2–15 feet), and Figure 4-6 (greater than 15 feet).

VOCs were not detected at concentrations exceeding comparison criteria in any of the soil samples analyzed from the four borings in the northern portion of REC #9. Five VOCs were detected in one or more soil samples from these four borings, but at concentrations below the comparison criteria. GRO constituents were not detected in any of the northern REC #9 soil boring samples. DRO constituents were detected at low, estimated ("J"-qualified) concentrations in two area soil-boring samples (GSP-SB-97-0-2 and GSP-SB-98-6-8). DRO was also detected in two other soil boring samples (GSP-SB-99-0-2 and GSP-SB-99-6-8), but the concentrations were qualified with a "B," indicating the result is attributed to contamination in the laboratory blank. The TPH-DRO concentrations detected in these four samples are all below MDE screening criteria.

Benzo(a)pyrene was detected at a concentration exceeding its non-residential criterion in only two surface soil samples (GSP-97-0-2 and GSP-SB-99-0-2) in the northern REC #9 area. The

concentrations of other SVOCs detected in soil samples from the four northern REC #9 borings are all less than screening criteria. The BaPEq values (calculated based on positive detects only) for the northern REC #9 samples are less than the screening benchmark of 140 µg/kg, based on the 1×10^{-5} cancer-risk level for residential soils. PCBs were not detected in any of the northern REC #9 soil boring samples.

Fourteen different metals were detected in the soil samples from borings in the northern portion of REC #9. Overall, the sample from this area with the most metals detected and the highest concentrations is GSP-SB-99-0-2. Arsenic concentrations detected in four soil samples from the northern REC #9 borings exceed both the residential and non-residential criteria for arsenic. Arsenic in four other northern REC #9 soil samples exceeded the residential criterion only. None of the eight soil samples in this area with MDE exceedances for arsenic had arsenic concentrations in excess of the eastern Maryland ATC of 3.6 mg/kg for arsenic. Vanadium was also detected at concentrations exceeding residential comparison criteria in six of the eight samples from this area (GSP-SB-97-6-8, GSP-SB-98-0-2, GSP-SB-98-6-8, GSP-SB-99-0-2, GSP-SB-99-6-8, and GSP-SB-100-2-4). Vanadium concentrations in these samples range from 8.9–14 mg/kg, all below the ATC of 30 mg/kg.

REC #10 area—Twenty soil samples were collected from 10 borings in the REC #10 Area and submitted for the full list of laboratory analyses specified in Section 4.0. Soil samples were collected at 0–2 feet and 6–8 feet below grade in each boring (GSP-SB-101 through GSP-SB-110). Table 4-5 shows the analytes with detected concentrations exceeding comparison criteria in these 10 borings. Chemicals detected (in soil samples collected over various depth ranges from REC #10 area borings) at concentrations in excess of ATCs for metals and MDE comparison criteria are shown in Figure 4-4 (surface soils 0–2 feet), Figure 4-5 (2–15 feet), and Figure 4–6 (greater than 15 feet).

VOCs were detected infrequently (no more than four detections per boring) in the REC #10 soil boring samples, or the VOCs detected (acetone, methylene chloride, and naphthalene) were qualified as being associated with laboratory control blanks and therefore considered artifacts of the laboratory analyses. None of the detected VOC concentrations exceed the comparison criteria. GRO constituents were not detected in any of the REC #10 soil boring samples. DRO was detected in 15 of the 20 samples from REC #10 borings, with seven of the positive results

designated with a "B" qualifier, indicating the result is attributed to contamination in the laboratory blank. In the remaining eight samples in which TPH-DRO was detected, concentrations in four of the REC #10 samples (GSP-SB-102-6-8, GSP-SB-109-0-2, GSP-SB-109-6-8, and GSP-SB-110-0-2) exceed the residential standard. The remaining four samples had TPH-DRO concentrations less than the comparison criteria.

SVOCs were detected at low to moderate concentrations in approximately half of the REC #10 soil boring samples. Concentrations of one or more SVOCs exceed residential and non-residential standards in only three of the REC #10 borings (GSP-SB-102, GSP-SB-106, and GSP-SB-109), with the greatest occurrence and highest concentrations of SVOCs reported in GSP-SB-109-6-8 (6–8 feet below grade). This boring was in the western portion of REC #10.

As shown in Table 4-5, SVOCs frequently detected in the REC #10 soil samples include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, fluoranthene, phenanthrene, and pyrene. Concentrations of benzo(a)pyrene exceed the non-residential criterion in six of the 20 REC #10 soil samples, and exceed both residential and non-residential criteria in four of the samples (GSP-SB-102-6-8, GSP-SB-106-0-2, GSP-SB-109-0-2, and GSP-SB-109-6-8).

In sample GSP-SB-102-6-8, collected near the central portion of REC #10 between the former Block House and Coupon Test Shed, the detected concentrations of benzo(a)anthracene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene exceed only the non-residential criteria, and benzo(a)pyrene and dibenzo(a,h)anthracene concentrations exceed both residential and non-residential criteria. Similarly, in sample GSP-SB-106-0-2, collected in the northeast portion of REC #10, the same three SVOCs exceed non-residential criteria, and the benzo(a)pyrene concentration exceeds residential and non-residential criteria. In boring GSP-SB-109, benzo(a)pyrene is the only SVOC to exceed both residential and non-residential criteria in the surface soil sample (0–2 feet), whereas in the deeper sample (6–8 feet below grade), five SVOCs exceed both the residential and non-residential criteria. These five SVOCs are benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene.

BaPEq values (calculated based on positive detects only) in four surface soil samples (GSP-SB-101-0-2, GSP-SB-102-0-2, GSP-SB-106-0-2, and GSP-SB-109-0-2) exceed the BaPEq screening benchmark of 140 µg/kg. The BaPEq values calculated for three of the subsurface soil boring samples in REC #10 (GSP-SB-102-6-8, GSP-SB-109-6-8, and GSP-SB-110-6-8) exceed the BaPEq screening benchmark. BaPEq values for the remaining REC #10 samples are less than the screening benchmark for BaPEq.

PCBs were not detected in any REC #10 area soil boring samples, except for Aroclor-1260, which was detected in only one subsurface soil sample (GSP-SB-109-6-8) at a low concentration below MDE screening criteria. Concentrations of four metals (arsenic, total chromium, thallium, and vanadium) exceed soil standards in one or more samples. Arsenic concentrations in nearly all samples exceed both the residential and non-residential soil standards. However, arsenic in soil is not considered a concern because concentrations in this REC are similar to the eastern Maryland ATC for arsenic; therefore, these arsenic concentrations are not considered the result of site-related activities.

The total chromium concentration, in only one subsurface soil sample (GSP-SB-108-6-8), exceeds both the non-residential soil standard and the ATC. In two other samples (GSP-SB-105-6-8 and GSP-SB-108-0-2), total chromium concentrations exceed the non-residential criterion, but not the residential criterion. Thallium concentrations in five samples exceed the non-residential criterion, but are below the residential standard and the ATC. Vanadium concentrations exceed the non-residential soil standard in all 20 of the REC #10 soil boring samples, but none of the vanadium concentrations exceed the residential soil standard. Only four samples (GSP-SB-105-6-8, GSP-SB-108-0-2, GSP-SB-108-6-8 and GSP-SB-110-0-2) had vanadium concentrations in excess of its ATC (30 mg/kg).

4.3.2 Borings in REC #11 Area

Fifty-four soil samples were collected from 20 soil borings (GSP-SB-111 to GSP-SB-130) in the REC #11 Area and submitted for the full list of laboratory analyses specified in Section 4.0. Soil samples were collected in each boring at two different depths (surface [0–2 feet] and subsurface [6–12 feet below grade]). One deeper sample (greater than 18 feet below grade) was also collected in select borings and submitted for analysis of VOCs, SVOCs, and TPH-DRO/GRO. Sampling results for these borings, including identification of analytes with detected

concentrations exceeding screening criteria, are in Table 4-5. Chemical detections exceeding the MDE comparison criteria and/or the metals' ATCs for soil samples collected over various depth ranges from borings in the REC #11 area are in Figure 4-7 (surface soils 0–2 feet), Figure 4-8 (2-15 feet), and Figure 4-9 (greater than 15 feet).

VOCs were detected infrequently, at low concentrations, or were "B" qualified (present in the laboratory control blanks and thus considered artifacts of the laboratory analyses). None of the VOC concentrations detected in the REC #11 soil boring samples exceed the MDE comparison criteria. However, the detected concentrations of TCE in seven REC #11 soil boring samples (GSP-SB-113-22-24, GSP-SB-115-18-20, GSP-SB-118-20-22, GSP-SB-119-6-8, GSP-SB-124-6-8, GSP-SB-126-20-22, and GSP-SB-130-20-22) exceed the USEPA soil-to-groundwater SSL of 1.8 µg/kg. TPH-GRO was detected in only four samples, at low concentrations below comparison criteria. TPH-DRO was detected in 30 of 54 REC #11 samples, with two samples (GSP-SB-115-0-2 and GSP-SB-124-0-2) having exceedances for both the residential and non-residential standards. Five additional samples exceeded the non-residential standard only.

SVOCs were detected at low to moderate concentrations in approximately half of the REC #11 soil boring samples. Concentrations of one or more SVOCs exceed residential and non-residential standards in 10 of the REC #11 borings (GSP-SB-112, GSP-SB-115, GSP-SB-117, GSP-SB-118, GSP-SB-119, GSP-SB-120, GSP-SB-121, GSP-SB-122, GSP-SB-124, and GSP-SB-125). The greatest occurrence and highest concentrations of SVOCs are reported for GSP-SB-120-18-20 (18–20 feet below grade). This boring is in the north-central portion of REC #11, northwest of the former Critical Test Building. As shown in Table 4-5, several SVOCs were frequently detected in the REC #11 soil samples. Concentrations of benzo(a)pyrene exceed the non-residential criterion only in 13 of 54 REC #11 soil samples, and exceed both the residential and non-residential criteria in 14 of the REC #11 soil samples.

The BaPEq values (calculated based on positive detects only) in 17 of the 2011 surface soil samples at REC #11 exceed the BaPEq screening benchmark of 140 micrograms per kilogram (µg/kg), as shown in Figure 4-7. The BaPEq values for six of the subsurface soil boring samples in REC #11 exceed the BaPEq screening benchmark, as shown in Figures 4-8 and 4-9. The BaPEq values for the remaining REC #11 samples are less than the screening benchmark for BaPEq.

The PCB Aroclor-1242 was detected in two soil samples in the REC #11 area at concentrations less than the comparison criteria (GSP-SB-120-6-8 at 21 J µg/kg, and GSP-SB-121-6-8 at 130 µg/kg). Aroclor-1260 was detected in 16 of the REC #11 soil boring samples. Aroclor-1260 concentrations, ranging from 1700–3,400 µg/kg, exceed both the residential and non-residential standards in four samples (GSP-SB-119-6-8, GSP-SB-120-0-2, GSP-SB-121-0-3, and GSP-SB-122-0-2), and exceed only the non-residential standard in two samples (GSP-SB-118-0-2 at 1200 µg/kg and GSP-SB-123-0-2 at 640 µg/kg). Borings GSP-SB-118 and GSP-SB-119 are in the footprint of the former Critical Test Building, and GSP-SB-120 is in the north-central portion of REC #11, northwest of the former Critical Test Building. Soil borings GSP-SB-121, GSP-SB-122, and GSP-SB-123 are immediately south–southwest of this area.

Concentrations of four metals (arsenic, total chromium, thallium, and vanadium) exceed soil standards in one or more samples. Arsenic exceeds residential and non-residential standards in 25 of the 54 REC #11 soil boring samples. Of these 25 arsenic results, eight samples also had arsenic concentrations exceeding the eastern Maryland ATC of 3.6 mg/kg: GSP-SB-111-6-8, GSP-SB-113-0-2, GSP-SB-119-0-2, GSP-SB-121-0-3, GSP-SB-124-0-2, GSP-SB-125-0-2, GSP-SB-126-0-2, and GSP-SB-128-0-2. However, the detected concentrations in all these samples, except for GSP-SB-111-6-8 (i.e., all of the surface soil samples listed), are similar to the eastern Maryland ATC for arsenic, and thus are not considered the result of site-related activities. Therefore, only one arsenic exceedance appears to represent possible site-related impacts: sample GSP-SB-111-6-8, collected east of the REC #11 area, at a concentration of 52 mg/kg.

Other metals exceeding non-residential criteria in REC #11 soil boring samples include chromium (two samples), thallium (four samples), and vanadium (37 samples). Of the 37 vanadium results exceeding the residential standard, 33 are less than the eastern Maryland ATC, and three slightly exceed but are similar to the ATC of 30 mg/kg for vanadium. Only one vanadium result exceeds the residential and non-residential standards as well as the ATC (in sample GSP-SB-111-6-8, the same sample in which arsenic impacts were observed). The concentrations of other metals in the REC #11 soil boring samples are less than their applicable comparison criteria.

4.4 GROUNDWATER RESULTS

Groundwater samples were collected for laboratory analyses in June 2011 from the following monitoring wells:

- eight temporary well points previously installed (2010) at GSP: SB/WP-50; SB/WP-54; SB/WP-61; SB/WP-66; SB/WP-71; SB/WP-83; SB/WP-84; and SB/WP-89
- eight newly installed wells: (GSP-MW-01 through GSP-MW-08)

Groundwater samples were submitted for the following analyses:

- VOCs by SW846 Method 8260C
- SVOCs and 1,4-dioxane by SW846 Method 8270D
- TPH-GRO and TPH-DRO by SW846 Method 8015
- total and dissolved Priority Pollutant metals by SW846 Method 6010C/7471A
- perchlorate by USEPA Method 314
- hexavalent chromium by USEPA Method 218.6

Table 4-6 shows the statistical summary of contaminants detected, and Table 4-7 highlights analyte concentrations that exceed the Maryland groundwater standards for the temporary well point samples. Table 4-8 shows the statistical summary of contaminants detected, and Table 4-9 highlights analyte concentrations that exceed Maryland groundwater standards for samples collected from the newly installed monitoring wells. The groundwater-sampling results summarized below are grouped by the two main investigation areas: (1) RECs #8, #9, and #10, and (2) REC #11. Figure 4-10 shows groundwater results for RECs #8, #9 and #10, and Figure 4-11 shows groundwater results for REC #11. Groundwater concentrations are reported in micrograms per liter (µg/L).

4.4.1 RECs #8, #9 and #10 Groundwater Results

Groundwater samples were collected in the REC 8 area from two existing temporary well points: GSP-SB/WP-50 and GSP-SB/WP-54. All analytes detected in the REC #8 area groundwater samples were below MDE groundwater criteria, except for three total (unfiltered) metals: arsenic, lead, and vanadium in GSP-SB/WP-50. The results for these three metals in the filtered

(dissolved) sample from this location are below MDE groundwater criteria, indicating the elevated concentrations in the unfiltered sample may be attributable to sample turbidity (i.e., suspended solids).

In the REC #9 area, groundwater samples were collected from one previously installed well point (GSP-SB/WP-61) and two new monitoring wells (GSP-MW-07 and GSP-MW-08). Five VOCs were detected in GSP-MW-07 and GSP-MW-08, along with TPH-GRO and several metals. TCE and TPH-GRO in GSP-MW-07 exceed their respective MDE criteria. TPH-DRO was also detected in GSP-MW-07 at a concentration exceeding the MDE standard; however, the DRO result was "B" qualified, indicating DRO was present in the laboratory blank.

None of the other organic analytes were detected in GSP-MW-07 or GSP-MW-08 at concentrations exceeding the MDE standards. None of the metal concentrations detected in these two REC #9 wells exceeded MDE criteria. One metal (vanadium) was detected in the unfiltered sample from GSP-SB/WP-61 at a concentration greater than its MDE standard; however, the vanadium concentration in the filtered sample from this location is below the criterion.

At REC #10, groundwater samples were collected from two temporary well points (GSP-SB/WP-66 and GSP-SB/WP-71) and from two newly installed monitoring wells (GSP-MW-05 and GSP-MW-06). The analytical results from GSP-SB/WP-66 and GSP-SB/WP-71 indicate concentrations of total and dissolved vanadium exceeding the MDE criterion. Other analytes detected in these temporary well points were at concentrations below MDE criteria. Metal concentrations in GSP-MW-05 and GSP-MW-06 are less than MDE criteria. However, the DRO concentrations detected in GSP-MW-05 and GSP-MW-06 (1,400 and 1,600 µg/L, respectively) exceed the MDE groundwater standard of 47 µg/L.

4.4.2 REC #11 Groundwater Results

In the REC #11 area, four monitoring wells (GSP-MW-01 through GSP-MW-04) and three temporary well points (GSP-SB/WP-83, GSP-SB/WP-84, and GSP-SB/WP-89) were sampled. TCE was detected at concentrations exceeding the MDE standard of 5 µg/L at the following three locations: GSP-MW-01 (12 µg/L), GSP-MW-04 (6 µg/L), and GSP-SB/WP89 (25 µg/L). The TPH-DRO concentrations detected in GSP-MW-01, GSP-MW-02, and GSP-MW-03 exceed

the MDE criterion. TPH-GRO concentrations in GSP-MW-01 and GSP-SB/WP-89 exceed the MDE standard, but are "B" qualified, indicating GRO was present in the laboratory blank.

Concentrations of other organic analytes in the REC #11 groundwater samples are below MDE screening criteria. Analytical results from GSP-SB/WP-84 indicate total and dissolved nickel and vanadium concentrations both exceed their MDE criteria. In GSP-MW-01, total nickel concentrations exceed the MDE criterion in the unfiltered sample, but dissolved nickel concentrations are below MDE criteria in the filtered sample. Conversely, in the filtered sample from GSP-MW-03, the dissolved nickel concentration exceeds the MDE criterion, but the total nickel result for the unfiltered sample is less than the criterion. Total (unfiltered) vanadium concentrations in GSP-SB/WP-89 and GSP-MW-03 are greater than the MDE criterion, whereas dissolved (filtered) vanadium results in both samples are less than the MDE standard. Similarly, total (unfiltered) arsenic concentrations in GSP-SB/WP-83 and GSP-MW-03 are greater than the MDE criterion, whereas dissolved (filtered) arsenic results in both samples are less than the MDE standard.

Table 4-1
Groundwater Depth and Elevation Data
July 2011— Monitoring Wells
Greater Strawberry Point
Martin State Airport, Middle River, Maryland

Well ID	TOC elevation (NAVD 88, feet)	Depth to groundwater from TOC 07/14/2011 (feet)	Groundwater elevation 07/14/2011 (NAVD 88, feet)
GSP-MW-01	11.13	5.99	5.14
GSP-MW-02	11.64	6.92	4.72
GSP-MW-03	7.01	4.27	2.74
GSP-MW-04	7.27	3.36	3.91
GSP-MW-05	9.58	6.52	3.06
GSP-MW-06	8.36	5.15	3.21
GSP-MW-07	8.74	4.68	4.06
GSP-MW-08	9.15	4.74	4.41

TOC - Top of polyvinyl chloride well casing.

NAVD - North American Vertical Datum (1988).

TABLE 4-2

STATISTICAL ANALYSIS OF TEST PIT SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 1 OF 3

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
VOLATILE SOILS (ug/kg)										
1,2,3-TRIMETHYLBENZENE	3/13	23%	0.13	0.19	1.4 J	620 J	GSP-TP-5E-10-12	53.7	232	171
1,2,4-TRIMETHYLBENZENE	3/13	23%	0.5	0.71	1.8 J	940 J	GSP-TP-5E-10-12	88.8	384	262
2-BUTANONE	2/13	15%	1.1	270	13 J	97 J	GSP-TP-5W-10-12	19.4	55.0	43.7
2-HEXANONE	1/13	8%	0.49	130	1.1 J	1.1 J	GSP-TP-6-4-6	6.01	1.10	17.9
4-ISOPROPYLTOLUENE	2/13	15%	0.16	4.4	0.25 J	190 J	GSP-TP-5E-10-12	14.9	95.1	52.6
4-METHYL-2-PENTANONE	1/13	8%	0.42	300	0.82 J	0.82 J	GSP-TP-10-10-12	13.5	0.820	41.5
CARBON DISULFIDE	2/13	15%	0.34	75	1.3 J	12 J	GSP-TP-5W-10-12	4.07	6.65	10.6
ETHYLBENZENE	3/13	23%	0.2	0.28	0.41 J	270 J	GSP-TP-5E-10-12	26.1	113	75.6
ISOPROPYLBENZENE	1/13	8%	0.12	41	58 J	58 J	GSP-TP-5W-10-12	6.10	58.0	16.6
M+P-XYLENES	2/13	15%	0.93	5.6	1.9 J	310 J	GSP-TP-5E-10-12	24.6	156	85.7
NAPHTHALENE	3/13	23%	0.17	1.8	21	42000	GSP-TP-5E-10-12	3894	16874	11693
N-BUTYLBENZENE	2/13	15%	0.18	0.25	110 J	270 J	GSP-TP-5E-10-12	29.3	190	78.4
N-PROPYLBENZENE	2/13	15%	0.31	0.44	85 J	200 J	GSP-TP-5E-10-12	22.1	143	58.4
O-XYLENE	2/13	15%	0.27	7.7	1.2 J	230 J	GSP-TP-5E-10-12	18.2	116	63.6
SEC-BUTYLBENZENE	2/13	15%	0.14	0.2	75 J	150 J	GSP-TP-5E-10-12	17.4	113	44.9
TOLUENE	6/13	46%	0.21	110	0.24 J	0.79 J	GSP-TP-6-4-6	5.03	0.380	15.1
TOTAL XYLENES	2/13	15%	0.52	7.4	3.1 J	540 J	GSP-TP-5E-10-12	42.3	272	150
SEMIVOLATILE SOIL (ug/kg)										
1,1-BIPHENYL	1/13	8%	30	160	1100 J	1100 J	GSP-TP-5E-10-12	113	1100	298
2-METHYLNAPHTHALENE	4/13	31%	3.6	4.1	44	13000	GSP-TP-5E-10-12	1110	3605	3590
ACENAPHTHENE	4/13	31%	3.6	4.1	45	2000	GSP-TP-5E-10-12	228	736	581
ACENAPHTHYLENE	4/13	31%	3.6	4.1	54	230	GSP-TP-5E-10-12	48.6	154	82.1

TABLE 4-2

STATISTICAL ANALYSIS OF TEST PIT SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 2 OF 3

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
ANTHRACENE	4/13	31%	3.6	4.1	140	3000	GSP-TP-5E-10-12	381	1233	888
BENZO(A)ANTHRACENE	4/13	31%	3.6	4.1	420	2500	GSP-TP-5E-10-12	457	1480	843
BENZO(A)PYRENE	4/13	31%	3.6	4.1	470	1800	GSP-TP-5W-10-12	422	1368	724
BENZO(B)FLUORANTHENE	5/13	38%	3.6	4.1	5.2 J	2000	GSP-TP-5W-10-12	453	1175	772
BENZO(G,H,I)PERYLENE	4/13	31%	3.6	4.1	350	1200	GSP-TP-4-3-5, GSP-TP-5W-10-12	281	908	479
BENZO(K)FLUORANTHENE	4/13	31%	3.6	4.1	220	760	GSP-TP-5E-10-12	180	580	305
BIS(2-ETHYLHEXYL)PHTHALATE	3/13	23%	22	280	25 J	140 J	GSP-TP-5W-10-12	39.4	64.3	46.9
CHRYSENE	4/13	31%	1.2	1.4	520	2400	GSP-TP-5E-10-12	479	1555	853
DIBENZO(A,H)ANTHRACENE	4/13	31%	3.6	4.1	88	390	GSP-TP-5W-10-12	72.7	232	127
DIBENZOFURAN	3/13	23%	3.6	19	22 J	610 J	GSP-TP-5E-10-12	72.7	304	179
DI-N-BUTYL PHTHALATE	2/13	15%	17	220	18 J	20 J	GSP-TP-9-8-10	25.5	19.0	28.7
FLUORANTHENE	5/13	38%	3.6	4.1	8.3	5100	GSP-TP-5E-10-12	888	2306	1661
FLUORENE	4/13	31%	3.6	4.1	62	3900	GSP-TP-5E-10-12	442	1432	1139
INDENO(1,2,3-CD)PYRENE	4/13	31%	3.6	4.1	270	990	GSP-TP-5W-10-12	223	720	382
NAPHTHALENE	4/13	31%	3.6	4.1	57	17000	GSP-TP-5E-10-12	1558	5058	4718
PHENANTHRENE	5/13	38%	3.6	4.1	18	13000	GSP-TP-5E-10-12	1566	4068	3832
PYRENE	6/13	46%	3.6	4.1	6.6 J	6600	GSP-TP-5E-10-12	1061	2296	2094
INORGANICS (mg/kg)										
ANTIMONY	3/13	23%	0.36	0.49	0.7 J	0.79 J	GSP-TP-5W-10-12	0.343	0.753	0.235
ARSENIC	11/13	85%	0.34	0.35	0.4 J	3.1	GSP-TP-4-3-5, GSP-TP-5W-10-12	1.44	1.67	1.10
BARIUM	13/13	100%	-	-	3.7 J	120	GSP-TP-5E-10-12	29.6	29.6	41.0
BERYLLIUM	3/13	23%	0.039	0.054	0.14 J	0.5	GSP-TP-4-3-5	0.093	0.323	0.151

TABLE 4-2

STATISTICAL ANALYSIS OF TEST PIT SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 3 OF 3

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
CADMIUM	1/13	8%	0.033	0.045	0.85	0.85	GSP-TP-4-3-5	0.084	0.850	0.230
CHROMIUM	13/13	100%	-	-	2.4 K	28 K	GSP-TP-5E-10-12	10.8	10.8	8.43
COBALT	10/13	77%	0.18	0.2	0.21 J	8.8	GSP-TP-5W-10-12	2.27	2.93	2.88
COPPER	10/13	77%	0.84	0.93	1.4 J	170	GSP-TP-2-10-12	19.2	24.9	46.0
LEAD	12/13	92%	1.1	1.1	1.3 K	41	GSP-TP-4-3-5	7.40	7.98	11.2
MERCURY	4/13	31%	0.012	0.017	0.048 J	0.093	GSP-TP-5W-10-12	0.027	0.070	0.031
NICKEL	10/13	77%	0.3	0.34	0.44 J	12	GSP-TP-5W-10-12	3.33	4.28	4.30
SILVER	1/13	8%	0.091	0.13	0.17 J	0.17 J	GSP-TP-4-3-5	0.065	0.170	0.032
THALLIUM	4/13	31%	0.51	0.69	0.69 J	1.3 J	GSP-TP-5E-10-12	0.524	1.00	0.357
VANADIUM	13/13	100%	-	-	2.5	36	GSP-TP-5W-10-12	14.2	14.2	11.5
ZINC	13/13	100%	-	-	1.7 J	57	GSP-TP-5W-10-12	15.3	15.3	21.4
PETROLEUM HYDROCARBONS (mg/kg)										
DIESEL RANGE ORGANICS	4/13	31%	10	12	190	1100 J	GSP-TP-4-3-5	194	618	351
PETROLEUM HYDROCARBONS (ug/kg)										
GASOLINE RANGE ORGANICS	2/13	15%	28	31	41000	88000	GSP-TP-5E-10-12	9936	64500	26048

Footnotes:

For non-detects, 1/2 sample quantitation limit was used as a proxy concentration.

1/2 the detection limit was used for B qualified data.

Associated Samples

GSP-TP-1-10-12	GSP-TP-4-3-5	GSP-TP-6-4-6	GSP-TP-9-8-10	GSP-TP-12-8-9
GSP-TP-2-10-12	GSP-TP-5E-10-12	GSP-TP-7-9-10	GSP-TP-10-10-12	
GSP-TP-3-5-7	GSP-TP-5W-10-12	GSP-TP-8-6-7	GSP-TP-11-7-8	

TABLE 4-3

SUMMARY OF POSITIVE DETECTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	MDE	MDE	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5
LABORATORY ID:	RESIDENTIAL	NON-RESIDENTIAL	240-888-1	240-888-2	240-944-2	240-944-1
SAMPLE DATE:	SOIL	SOIL	6/7/2011	6/7/2011	6/8/2011	6/8/2011
LOCATION:	CRITERIA	CRITERIA	GSP-TP-1	GSP-TP-2	GSP-TP-3	GSP-TP-4
VOLATILE SOILS (ug/kg)						
1,2,3-TRIMETHYLBENZENE	NA	NA	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	NA	--	--	--	--
2-BUTANONE	4700000	61000000	--	--	--	--
2-HEXANONE	NA	NA	--	--	--	--
4-ISOPROPYLTOLUENE	NA	NA	--	--	--	--
4-METHYL-2-PENTANONE	NA	NA	--	--	--	--
ACETONE	7000000	92000000	6.2 B	9.8 B	27 B	--
CARBON DISULFIDE	780000	10000000	--	--	--	--
ETHYLBENZENE	780000	10000000	--	--	--	--
ISOPROPYLBENZENE	780000	10000000	--	--	--	--
M+P-XYLENES	NA	NA	--	--	--	--
METHYLENE CHLORIDE	85000	380000	3.5 B	3 B	8.3 B	4.5 B
NAPHTHALENE	160000	2000000	--	--	--	0.22 B
N-BUTYLBENZENE	NA	NA	--	--	--	--
N-PROPYLBENZENE	NA	NA	--	--	--	--
O-XYLENE	NA	NA	--	--	--	--
SEC-BUTYLBENZENE	NA	NA	--	--	--	--
TOLUENE	630000	8200000	0.24 J	0.29 J	0.27 J	0.31 J
TOTAL XYLENES	1600000	20000000	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)						
1,1-BIPHENYL	NA	NA	--	--	--	--
2-METHYLNAPHTHALENE	31000	410000	--	--	--	44
ACENAPHTHENE	470000	6100000	--	--	--	48
ACENAPHTHYLENE	470000	6100000	--	--	--	190

TABLE 4-3

SUMMARY OF POSITIVE DETECTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID: / LABORATORY ID: / SAMPLE DATE: / LOCATION:	MDE RESIDENTIAL SOIL CRITERIA	MDE NON-RESIDENTIAL SOIL CRITERIA	GSP-TP-1-10-12 240-888-1 6/7/2011 GSP-TP-1	GSP-TP-2-10-12 240-888-2 6/7/2011 GSP-TP-2	GSP-TP-3-5-7 240-944-2 6/8/2011 GSP-TP-3	GSP-TP-4-3-5 240-944-1 6/8/2011 GSP-TP-4
ANTHRACENE	2300000	31000000	--	--	--	290
BENZO(A)ANTHRACENE	220	3900	--	--	--	1100
BENZO(A)PYRENE	22	390	--	--	--	1500
BENZO(B)FLUORANTHENE	220	3900	--	--	--	1800
BENZO(G,H,I)PERYLENE	230000	3100000	--	--	--	1200
BENZO(K)FLUORANTHENE	2200	39000	--	--	--	750
BIS(2-ETHYLHEXYL)PHTHALATE	46000	200000	--	--	28 J	--
CHRYSENE	22000	390000	--	--	--	1300
DIBENZO(A,H)ANTHRACENE	22	390	--	--	--	240
DIBENZOFURAN	7800	100000	--	22 J	--	--
DI-N-BUTYL PHTHALATE	780000	10000000	--	--	18 J	--
FLUORANTHENE	310000	4100000	--	--	--	2100
FLUORENE	310000	4100000	--	--	--	67
INDENO(1,2,3-CD)PYRENE	220	3900	--	--	--	930
NAPHTHALENE	160000	2000000	--	--	--	57
PHENANTHRENE	2300000	31000000	--	18	--	660
PYRENE	230000	3100000	--	11	--	1900
INORGANICS (mg/kg)						
ANTIMONY	3.1	41	--	--	--	0.77 J
ARSENIC	0.43	1.9	0.4 J	0.52 J	1.9	3.1
BARIUM	1600	20000	12 J	13 J	3.9 J	50
BERYLLIUM	16	200	--	0.33 J	--	0.5
CADMIUM	3.9	51	--	--	--	0.85
CHROMIUM	23	310	6.9	20	5.6 K	15
COBALT	NA	NA	3.1	2.6	0.21 J	3.4

TABLE 4-3

SUMMARY OF POSITIVE DETECTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 3 OF 9

SAMPLE ID: LABORATORY ID: SAMPLE DATE: LOCATION:	MDE RESIDENTIAL SOIL CRITERIA	MDE NON-RESIDENTIAL SOIL CRITERIA	GSP-TP-1-10-12 240-888-1 6/7/2011 GSP-TP-1	GSP-TP-2-10-12 240-888-2 6/7/2011 GSP-TP-2	GSP-TP-3-5-7 240-944-2 6/8/2011 GSP-TP-3	GSP-TP-4-3-5 240-944-1 6/8/2011 GSP-TP-4
COPPER	310	4100	4.7 L	170	1.5 J	12
LEAD	400	1000	2.5	4.3	2.1 K	41
MERCURY	2.3	31	--	--	--	0.064 J
MOLYBDENUM	NA	NA	--	0.66 B	0.5 B	--
NICKEL	160	2000	0.79 J	3.4 J	--	9.4
SILVER	39	510	--	--	--	0.17 J
THALLIUM	0.55	7.2	--	--	--	0.92 J
VANADIUM	7.8	100	7.1	15	12	27
ZINC	2300	31000	2.9 J	2.3 J	1.8 J	47
PETROLEUM HYDROCARBONS (mg/kg)						
DIESEL RANGE ORGANICS	230	620	--	--	--	1100
PETROLEUM HYDROCARBONS (ug/kg)						
GASOLINE RANGE ORGANICS	230000	620000	--	--	--	--

TABLE 4-3

SUMMARY OF POSITIVE DETECTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6	GSP-TP-7-9-10	GSP-TP-8-6-7	GSP-TP-9-8-10
LABORATORY ID:	240-944-4	240-944-3	240-990-1	240-990-6	240-944-5	240-990-3
SAMPLE DATE:	6/8/2011	6/8/2011	6/9/2011	6/9/2011	6/8/2011	6/9/2011
LOCATION:	GSP-TP-5E	GSP-TP-5W	GSP-TP-6	GSP-TP-7	GSP-TP-8	GSP-TP-9
VOLATILE SOILS (ug/kg)						
1,2,3-TRIMETHYLBENZENE	620 J	76 J	1.4 J	--	--	--
1,2,4-TRIMETHYLBENZENE	940 J	210 J	1.8 J	--	--	--
2-BUTANONE	--	97 J	13 J	--	--	--
2-HEXANONE	--	--	1.1 J	--	--	--
4-ISOPROPYLTOLUENE	190 J	--	0.25 J	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--
ACETONE	--	--	82 B	--	--	17 B
CARBON DISULFIDE	--	12 J	1.3 J	--	--	--
ETHYLBENZENE	270 J	68 J	0.41 J	--	--	--
ISOPROPYLBENZENE	--	58 J	--	--	--	--
M+P-XYLENES	310 J	--	1.9 J	--	--	--
METHYLENE CHLORIDE	510 B	--	5.1 B	5.6 B	--	3.9 B
NAPHTHALENE	42000	8600	21	--	1.8 B	0.3 B
N-BUTYLBENZENE	270 J	110 J	--	--	--	--
N-PROPYLBENZENE	200 J	85 J	--	--	--	--
O-XYLENE	230 J	--	1.2 J	--	--	--
SEC-BUTYLBENZENE	150 J	75 J	--	--	--	--
TOLUENE	--	--	0.79 J	--	--	--
TOTAL XYLENES	540 J	--	3.1 J	--	--	--
SEMIVOLATILE SOIL (ug/kg)						
1,1-BIPHENYL	1100 J	--	--	--	--	--
2-METHYLNAPHTHALENE	13000	1300	74	--	--	--
ACENAPHTHENE	2000	850	45	--	--	--
ACENAPHTHYLENE	230	140	54	--	--	--

TABLE 4-3

SUMMARY OF POSITIVE DETECTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6	GSP-TP-7-9-10	GSP-TP-8-6-7	GSP-TP-9-8-10
LABORATORY ID:	240-944-4	240-944-3	240-990-1	240-990-6	240-944-5	240-990-3
SAMPLE DATE:	6/8/2011	6/8/2011	6/9/2011	6/9/2011	6/8/2011	6/9/2011
LOCATION:	GSP-TP-5E	GSP-TP-5W	GSP-TP-6	GSP-TP-7	GSP-TP-8	GSP-TP-9
ANTHRACENE	3000	1500	140	--	--	--
BENZO(A)ANTHRACENE	2500	1900	420	--	--	--
BENZO(A)PYRENE	1700	1800	470	--	--	--
BENZO(B)FLUORANTHENE	1500	2000	570	--	5.2 J	--
BENZO(G,H,I)PERYLENE	880	1200	350	--	--	--
BENZO(K)FLUORANTHENE	760	590	220	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	140 J	--	--	25 J	--
CHRYSENE	2400	2000	520	--	--	--
DIBENZO(A,H)ANTHRACENE	210	390	88	--	--	--
DIBENZOFURAN	610 J	280 J	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--	--	20 J
FLUORANTHENE	5100	3500	820	--	8.3	--
FLUORENE	3900	1700	62	--	--	--
INDENO(1,2,3-CD)PYRENE	690	990	270	--	--	--
NAPHTHALENE	17000	3100	74	--	--	--
PHENANTHRENE	13000	6200	460	--	--	--
PYRENE	6600	4400	860	--	6.6 J	--
INORGANICS (mg/kg)						
ANTIMONY	0.7 J	0.79 J	--	--	--	--
ARSENIC	1.5	3.1	2.6	0.5 J	2.2	0.68 J
BARIUM	120	110	46	6.6 J	4.3 J	3.7 J
BERYLLIUM	--	--	0.14 J	--	--	--
CADMIUM	--	--	--	--	--	--
CHROMIUM	28 K	23 K	9 K	6.2 K	3.2 K	2.4 K
COBALT	7.3	8.8	2.8	--	0.27 J	--

TABLE 4-3

SUMMARY OF POSITIVE DETECTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6	GSP-TP-7-9-10	GSP-TP-8-6-7	GSP-TP-9-8-10
LABORATORY ID:	240-944-4	240-944-3	240-990-1	240-990-6	240-944-5	240-990-3
SAMPLE DATE:	6/8/2011	6/8/2011	6/9/2011	6/9/2011	6/8/2011	6/9/2011
LOCATION:	GSP-TP-5E	GSP-TP-5W	GSP-TP-6	GSP-TP-7	GSP-TP-8	GSP-TP-9
COPPER	26	20	7.4	--	2.6 J	--
LEAD	7.2	18	11	2.5 K	1.3 K	1.1 B
MERCURY	0.074 J	0.093	0.048 J	--	--	--
MOLYBDENUM	--	0.98 B	0.46 B	--	--	--
NICKEL	9.8	12	4.8	--	0.73 J	0.44 J
SILVER	--	--	--	--	--	--
THALLIUM	1.3 J	1.1 J	0.69 J	--	--	--
VANADIUM	34	36	18	3.3	5.1	3.8
ZINC	50	57	23	1.8 J	3.2 J	2.1 J
PETROLEUM HYDROCARBONS (mg/kg)						
DIESEL RANGE ORGANICS	700	480	190	--	--	--
PETROLEUM HYDROCARBONS (ug/kg)						
GASOLINE RANGE ORGANICS	88000	41000	--	--	--	--

TABLE 4-3

SUMMARY OF POSITIVE DETECTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9
LABORATORY ID:	240-990-2	240-990-4	240-990-5
SAMPLE DATE:	6/9/2011	6/9/2011	6/9/2011
LOCATION:	GSP-TP-10	GSP-TP-11	GSP-TP-12
VOLATILE SOILS (ug/kg)			
1,2,3-TRIMETHYLBENZENE	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--
2-BUTANONE	--	--	--
2-HEXANONE	--	--	--
4-ISOPROPYLTOLUENE	--	--	--
4-METHYL-2-PENTANONE	0.82 J	--	--
ACETONE	37 B	--	--
CARBON DISULFIDE	--	--	--
ETHYLBENZENE	--	--	--
ISOPROPYLBENZENE	--	--	--
M+P-XYLENES	--	--	--
METHYLENE CHLORIDE	8.9 B	3.1 B	7.3 B
NAPHTHALENE	0.6 B	0.19 B	0.2 B
N-BUTYLBENZENE	--	--	--
N-PROPYLBENZENE	--	--	--
O-XYLENE	--	--	--
SEC-BUTYLBENZENE	--	--	--
TOLUENE	0.38 J	--	--
TOTAL XYLENES	--	--	--
SEMIVOLATILE SOIL (ug/kg)			
1,1-BIPHENYL	--	--	--
2-METHYLNAPHTHALENE	--	--	--
ACENAPHTHENE	--	--	--
ACENAPHTHYLENE	--	--	--

TABLE 4-3

SUMMARY OF POSITIVE DETECTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9
LABORATORY ID:	240-990-2	240-990-4	240-990-5
SAMPLE DATE:	6/9/2011	6/9/2011	6/9/2011
LOCATION:	GSP-TP-10	GSP-TP-11	GSP-TP-12
ANTHRACENE	--	--	--
BENZO(A)ANTHRACENE	--	--	--
BENZO(A)PYRENE	--	--	--
BENZO(B)FLUORANTHENE	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--
BENZO(K)FLUORANTHENE	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--
CHRYSENE	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--
DIBENZOFURAN	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--
FLUORANTHENE	--	--	--
FLUORENE	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--
NAPHTHALENE	--	--	--
PHENANTHRENE	--	--	--
PYRENE	--	--	--
INORGANICS (mg/kg)			
ANTIMONY	--	--	--
ARSENIC	1.9	--	--
BARIUM	5.6 J	3.8 J	6 J
BERYLLIUM	--	--	--
CADMIUM	--	--	--
CHROMIUM	5.3 K	2.4 K	14 K
COBALT	0.34 J	--	0.44 J

TABLE 4-3

SUMMARY OF POSITIVE DETECTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9
LABORATORY ID:	240-990-2	240-990-4	240-990-5
SAMPLE DATE:	6/9/2011	6/9/2011	6/9/2011
LOCATION:	GSP-TP-10	GSP-TP-11	GSP-TP-12
COPPER	2.9	--	1.4 J
LEAD	1.8 K	1.4 K	2.6
MERCURY	--	--	--
MOLYBDENUM	--	--	--
NICKEL	0.85 J	--	0.56 J
SILVER	--	--	--
THALLIUM	--	--	--
VANADIUM	10	2.5	11
ZINC	3.8 J	1.7 J	2.7 J
PETROLEUM HYDROCARBONS (mg/kg)			
DIESEL RANGE ORGANICS	--	--	--
PETROLEUM HYDROCARBONS (ug/kg)			
GASOLINE RANGE ORGANICS	--	--	--

MDE - Maryland Department of Environment - June 2008

-- Not detected.

B - Blank contaminant.

J - Positive result is considered estimated as a result of technical noncompliance.

L - Positive result is considered to be biased low as a result of technical noncompliance.

K - Positive result is considered to be biased high as a result of technical noncompliance.

NA - Not Analyzed.

ug/kg - microgram per kilogram

mg/kg - milligram per kilogram

Gray shaded values exceed MDE residential screening criteria.

Black shaded values exceed MDE residential and non-residential screening criteria.

TABLE 4-4

STATISTICAL ANALYSIS OF SOIL SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 1 OF 4

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
VOLATILE SOILS (ug/kg)										
1,2,3-TRICHLOROBENZENE	1/99	1%	0.21	12	0.36 J	0.36 J	GSP-SB-119-20-22	0.421	0.360	1.07
1,2,3-TRIMETHYLBENZENE	4/99	4%	0.095	0.21	0.1 J	0.78 J	GSP-SB-119-20-22	0.092	0.388	0.080
1,2,4-TRICHLOROBENZENE	2/99	2%	0.15	8.4	4.2 J	11	GSP-SB-119-20-22	0.452	7.60	1.38
1,2,4-TRIMETHYLBENZENE	3/99	3%	0.36	5.6	1.2 J	9.4 J	GSP-SB-121-6-8	0.553	6.27	1.26
1,2-DICHLOROBENZENE	1/99	1%	0.2	9.9	0.35 J	0.35 J	GSP-SB-119-0-2	0.376	0.350	0.911
1,3-DICHLOROBENZENE	2/99	2%	0.2	5.5	6.6	10	GSP-SB-119-20-22	0.439	8.30	1.26
1,4-DICHLOROBENZENE	1/99	1%	0.37	9.2	0.61 J	0.61 J	GSP-SB-119-20-22	0.496	0.610	0.815
2-BUTANONE	12/99	12%	0.79	50	1.7 J	11 J	GSP-SB-119-20-22	2.29	5.40	4.87
4-ISOPROPYLTOLUENE	1/99	1%	0.12	5.5	1.3 J	1.3 J	GSP-SB-121-18-20	0.225	1.30	0.517
4-METHYL-2-PENTANONE	1/99	1%	0.3	55	0.58 J	0.58 J	GSP-SB-123-0-2	1.43	0.580	5.21
ACETONE	9/99	9%	3.9	200	9.2 J	220 J	GSP-SB-93-12-14, GSP-SB-121-6-8	15.7	93.5	37.1
BENZENE	4/99	4%	0.13	14	0.45 J	1.4 J	GSP-SB-91-22-24	0.424	0.743	1.29
CARBON DISULFIDE	11/99	11%	0.25	14	0.55 J	3 J	GSP-SB-101-0-2	0.595	1.15	1.30
CHLOROBENZENE	1/99	1%	0.18	7.4	0.36 J	0.36 J	GSP-SB-119-0-2	0.309	0.360	0.673
CIS-1,2-DICHLOROETHENE	4/99	4%	0.2	8	0.49 J	4.2	GSP-SB-118-20-22	0.415	2.22	0.857
ETHYLBENZENE	7/99	7%	0.15	6.2	0.21 J	4.4 J	GSP-SB-121-6-8	0.298	1.04	0.690
M+P-XYLENES	2/99	2%	0.67	7	14 J	15 J	GSP-SB-120-6-8	0.922	14.5	2.01
METHYLENE CHLORIDE	10/99	10%	0.51	820	1.5 J	3.6 J	GSP-SB-97-0-2	12.6	2.55	57.1
NAPHTHALENE	9/99	9%	0.11	25	0.76 J	1700 J	GSP-SB-121-6-8	30.8	336	208
N-PROPYLBENZENE	1/99	1%	0.23	16	0.24 J	0.24 J	GSP-SB-106-0-2	0.528	0.240	1.50
O-XYLENE	8/99	8%	0.2	9.8	0.29 J	6.4 J	GSP-SB-121-6-8	0.422	1.20	1.05
STYRENE	1/99	1%	0.084	6.5	0.17 J	0.17 J	GSP-SB-120-18-20	0.207	0.170	0.603
TOLUENE	23/99	23%	0.15	20	0.26 J	44	GSP-SB-113-6-8	1.05	2.33	4.73

TABLE 4-4

STATISTICAL ANALYSIS OF SOIL SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 2 OF 4

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
TOTAL XYLENES	3/99	3%	0.38	9.1	0.65 J	20 J	GSP-SB-121-6-8	0.780	11.9	2.53
TRICHLOROETHENE	14/99	14%	0.24	11	0.81 J	2900	GSP-SB-92-22-25	37.1	260	294
VINYL CHLORIDE	3/99	3%	0.22	21	0.45 J	1.5 J	GSP-SB-118-20-22	0.643	0.833	1.94
SEMIVOLATILE SOIL (ug/kg)										
2-METHYLNAPHTHALENE	27/93	29%	3.4	36	9.3	1200	GSP-SB-109-6-8	51.3	170	168
ACENAPHTHENE	28/93	30%	3.4	36	14	2000	GSP-SB-120-18-20	77.4	251	291
ACENAPHTHYLENE	26/93	28%	3.4	38	5.7 J	1900	GSP-SB-109-6-8	43.0	146	206
ANTHRACENE	44/93	47%	3.6	19	4.6 J	7400	GSP-SB-120-18-20	229	481	912
BENZO(A)ANTHRACENE	55/93	59%	3.6	9.3	8	13000	GSP-SB-109-6-8	522	880	1842
BENZO(A)PYRENE	56/93	60%	3.6	9.3	5.9 J	14000	GSP-SB-109-6-8	506	840	1786
BENZO(B)FLUORANTHENE	57/93	61%	3.6	9.3	8	12000	GSP-SB-109-6-8	502	817	1660
BENZO(G,H,I)PERYLENE	52/93	56%	3.6	19	4.4 J	10000	GSP-SB-109-6-8	323	576	1178
BENZO(K)FLUORANTHENE	50/93	54%	3.6	9.3	5.6 J	6400	GSP-SB-120-18-20	268	496	952
BIS(2-ETHYLHEXYL)PHTHALATE	13/92	14%	20	540	22 J	100 J	GSP-SB-122-6-8	31.0	40.1	44.4
CAPROLACTAM	1/92	1%	38	1000	50 J	50 J	GSP-SB-111-0-2	47.7	50.0	83.2
CARBAZOLE	11/92	12%	28	760	30 J	1600	GSP-SB-121-6-8	67.1	338	199
CHRYSENE	55/93	59%	1.2	3.1	7.8 J	14000	GSP-SB-109-6-8	544	920	1924
DIBENZO(A,H)ANTHRACENE	27/93	29%	3.6	36	6.3 J	2700	GSP-SB-109-6-8	91.4	308	340
DIBENZOFURAN	16/93	17%	3.4	72	5.2 J	1800	GSP-SB-120-18-20	44.3	242	215
DIETHYL PHTHALATE	1/92	1%	17	450	45 J	45 J	GSP-SB-104-0-2	21.0	45.0	36.4
DI-N-BUTYL PHTHALATE	12/93	13%	15	420	16 J	34 J	GSP-SB-114-6-8	21.0	23.1	33.9
FLUORANTHENE	61/93	66%	3.6	9.3	5.2 J	28000	GSP-SB-120-18-20	1013	1543	3763
FLUORENE	30/93	32%	3.4	36	7.6 L	3900	GSP-SB-120-18-20	118	360	485
INDENO(1,2,3-CD)PYRENE	50/93	54%	3.6	19	4.1 J	7500	GSP-SB-109-6-8	263	488	931
NAPHTHALENE	27/93	29%	3.4	36	10	1100	GSP-SB-109-6-8	60.8	203	186

TABLE 4-4

STATISTICAL ANALYSIS OF SOIL SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 3 OF 4

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
PHENANTHRENE	55/93	59%	3.6	9.3	7.6 J	26000	GSP-SB-120-18-20	764	1290	3161
PHENOL	1/90	1%	28	760	130 J	130 J	GSP-SB-120-6-8	31.2	130	53.0
PYRENE	62/93	67%	3.6	9.3	6.4 J	32000	GSP-SB-109-6-8	1055	1581	4026
INORGANICS (mg/kg)										
ANTIMONY	11/80	14%	0.32	1.2	0.39 J	1.2 J	GSP-SB-121-0-3	0.276	0.658	0.192
ARSENIC	78/80	98%	0.33	0.34	0.46 J	52	GSP-SB-111-6-8	3.23	3.31	5.70
BARIUM	80/80	100%	-	-	1.1 J	250	GSP-SB-110-6-8	26.5	26.5	37.8
BERYLLIUM	42/80	53%	0.036	0.053	0.045 J	1.1	GSP-SB-101-0-2	0.138	0.242	0.193
CADMIUM	7/80	9%	0.03	0.046	0.057 J	1	GSP-SB-130-0-2	0.038	0.234	0.113
CHROMIUM	80/80	100%	-	-	1.4 K	39	GSP-SB-91-8-10	11.3	11.3	7.29
COBALT	75/80	94%	0.15	0.19	0.17 J	8.2	GSP-SB-108-6-8	2.08	2.21	1.91
COPPER	78/80	98%	0.8	0.83	0.73 J	68	GSP-SB-118-6-8	9.31	9.54	9.62
LEAD	75/80	94%	0.73	1.1	0.47 J	41	GSP-SB-125-0-2	8.20	8.72	7.74
MERCURY	40/80	50%	0.011	0.018	0.011 J	0.3	GSP-SB-113-0-2	0.035	0.062	0.045
NICKEL	73/80	91%	0.26	0.33	0.33 J	22	GSP-SB-108-6-8	3.55	3.88	3.61
SELENIUM	20/80	25%	0.37	0.56	0.46 J	0.84 J	GSP-SB-111-6-8	0.326	0.591	0.164
SILVER	7/80	9%	0.083	0.13	0.11 J	0.44 J	GSP-SB-113-0-2	0.071	0.260	0.067
THALLIUM	9/80	11%	0.46	0.7	0.64 J	2.3 K	GSP-SB-101-0-2	0.388	1.15	0.340
VANADIUM	80/80	100%	-	-	1.3	300	GSP-SB-111-6-8	22.7	22.7	34.5
ZINC	68/80	85%	0.97	5.2	1.4 J	63	GSP-SB-121-6-8	17.5	20.3	15.4
PESTICIDES/PCBs (ug/kg)										
AROCLOR-1242	2/80	3%	13	280	21 J	130	GSP-SB-121-6-8	14.6	75.5	24.6
AROCLOR-1260	18/80	23%	18	22	19 J	3400	GSP-SB-122-0-2	168	712	587
PETROLEUM HYDROCARBONS (mg/kg)										
DIESEL RANGE ORGANICS	49/99	49%	10	72	11 J	890	GSP-SB-124-0-2	75.1	144	145

TABLE 4-4

STATISTICAL ANALYSIS OF SOIL SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 4 OF 4

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
PETROLEUM HYDROCARBONS (ug/kg)										
GASOLINE RANGE ORGANICS	4/99	4%	26	33	44 J	130	GSP-SB-121-6-8	16.9	72.0	13.3

Footnotes:

For non-detects, 1/2 sample quantitation limit was used as a proxy concentration.

1/2 the detection limit was used for B qualified data.

Associated Samples

GSP-SB-91-0-2	GSP-SB-97-0-2	GSP-SB-106-0-2	GSP-SB-114-0-2	GSP-SB-120-0-2	GSP-SB-127-0-2
GSP-SB-91-8-10	GSP-SB-97-6-8	GSP-SB-106-6-8	GSP-SB-114-6-8	GSP-SB-120-6-8	GSP-SB-127-6-8
GSP-SB-91-22-24	GSP-SB-98-0-2	GSP-SB-107-0-2	GSP-SB-114-22-24	GSP-SB-120-18-20	GSP-SB-128-0-2
GSP-SB-92-0-2	GSP-SB-98-6-8	GSP-SB-107-6-8	GSP-SB-115-0-2	GSP-SB-121-0-3	GSP-SB-128-6-8
GSP-SB-92-6-8	GSP-SB-99-0-2	GSP-SB-108-0-2	GSP-SB-115-10-12	GSP-SB-121-6-8	GSP-SB-129-0-2
GSP-SB-92-22-25	GSP-SB-99-6-8	GSP-SB-108-6-8	GSP-SB-115-18-20	GSP-SB-121-18-20	GSP-SB-129-6-8
GSP-SB-93-0-2	GSP-SB-100-2-4	GSP-SB-109-0-2	GSP-SB-116-0-2	GSP-SB-122-0-2	GSP-SB-129-20-22
GSP-SB-93-12-14	GSP-SB-100-6-8	GSP-SB-109-6-8	GSP-SB-116-6-8	GSP-SB-122-6-8	GSP-SB-130-0-2
GSP-SB-93-22-24	GSP-SB-101-0-2	GSP-SB-110-0-2	GSP-SB-117-0-2	GSP-SB-122-20-22	GSP-SB-130-6-8
GSP-SB-94-0-2	GSP-SB-101-6-8	GSP-SB-110-6-8	GSP-SB-117-6-8	GSP-SB-123-0-2	GSP-SB-130-20-22
GSP-SB-94-6-8	GSP-SB-102-0-2	GSP-SB-111-0-2	GSP-SB-117-20-22	GSP-SB-123-6-8	
GSP-SB-94-20-22	GSP-SB-102-6-8	GSP-SB-111-6-8	GSP-SB-118-0-2	GSP-SB-124-0-2	
GSP-SB-95-0-2	GSP-SB-103-0-2	GSP-SB-111-22-24	GSP-SB-118-6-8	GSP-SB-124-6-8	
GSP-SB-95-6-8	GSP-SB-103-6-8	GSP-SB-112-0-2	GSP-SB-118-20-22	GSP-SB-125-0-2	
GSP-SB-95-20-22	GSP-SB-104-0-2	GSP-SB-112-6-8	GSP-SB-119-0-2	GSP-SB-125-6-8	
GSP-SB-96-0-2	GSP-SB-104-6-8	GSP-SB-113-0-2	GSP-SB-119-6-8	GSP-SB-126-0-2	
GSP-SB-96-6-8	GSP-SB-105-0-2	GSP-SB-113-6-8	GSP-SB-119-20-22	GSP-SB-126-8-10	
GSP-SB-96-22-24	GSP-SB-105-6-8	GSP-SB-113-22-24	GSP-SB-119-20-22RA	GSP-SB-126-20-22	

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID: / LABORATORY ID: / SAMPLE DATE: / LOCATION:	MDE RESIDENTIAL SOIL CRITERIA	MDE NON-RESIDENTIAL SOIL CRITERIA	GSP-SB-91-0-2 240-681-10 6/1/2011 GSP-SB-91	GSP-SB-91-8-10 240-681-11 6/1/2011 GSP-SB-91	GSP-SB-91-22-24 240-681-12 6/1/2011 GSP-SB-91	GSP-SB-92-0-2 240-681-30 6/1/2011 GSP-SB-92	GSP-SB-92-6-8 240-681-31 6/1/2011 GSP-SB-92
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	NA	NA	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	NA	NA	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	78000	1000000	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	NA	--	--	--	--	--
1,2-DICHLOROBENZENE	700000	9200000	--	--	--	--	--
1,3-DICHLOROBENZENE	23000	310000	--	--	--	--	--
1,4-DICHLOROBENZENE	27000	120000	--	--	--	--	--
2-BUTANONE	4700000	61000000	--	--	--	--	--
4-ISOPROPYLTOLUENE	NA	NA	--	--	--	--	--
4-METHYL-2-PENTANONE	NA	NA	--	--	--	--	--
ACETONE	7000000	92000000	--	9.2 J	--	--	--
BENZENE	12000	52000	--	0.62 J	1.4 J	--	--
CARBON DISULFIDE	780000	10000000	--	--	--	--	--
CHLOROBENZENE	160000	2000000	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	78000	1000000	--	--	--	--	--
ETHYLBENZENE	780000	10000000	--	--	--	--	--
M+P-XYLENES	NA	NA	--	--	--	--	--
METHYLENE CHLORIDE	85000	380000	--	--	--	3.4 J	2.8 J
NAPHTHALENE	160000	2000000	--	--	--	--	--
N-PROPYLBENZENE	NA	NA	--	--	--	--	--
O-XYLENE	NA	NA	--	--	--	--	--
STYRENE	1600000	20000000	--	--	--	--	--
TOLUENE	630000	8200000	--	--	--	--	--
TOTAL XYLENES	1600000	20000000	--	--	--	--	--
TRICHLOROETHENE	1600	7200	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID: LABORATORY ID: SAMPLE DATE: LOCATION:	MDE RESIDENTIAL SOIL CRITERIA	MDE NON-RESIDENTIAL SOIL CRITERIA	GSP-SB-91-0-2 240-681-10 6/1/2011 GSP-SB-91	GSP-SB-91-8-10 240-681-11 6/1/2011 GSP-SB-91	GSP-SB-91-22-24 240-681-12 6/1/2011 GSP-SB-91	GSP-SB-92-0-2 240-681-30 6/1/2011 GSP-SB-92	GSP-SB-92-6-8 240-681-31 6/1/2011 GSP-SB-92
VINYL CHLORIDE	90	4000	--	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	31000	410000	--	--	NA	--	--
ACENAPHTHENE	470000	6100000	--	--	NA	--	--
ACENAPHTHYLENE	470000	6100000	--	--	NA	--	--
ANTHRACENE	2300000	31000000	4.6 J	--	NA	13	--
BENZO(A)ANTHRACENE	220	3900	21	--	NA	88	--
BENZO(A)PYRENE	22	390	23	--	NA	85	--
BENZO(B)FLUORANTHENE	220	3900	25	--	NA	110	--
BENZO(G,H,I)PERYLENE	230000	3100000	15	--	NA	56	--
BENZO(K)FLUORANTHENE	2200	39000	--	--	NA	42	--
BIS(2-ETHYLHEXYL)PHTHALATE	46000	200000	--	--	NA	--	--
CAPROLACTAM	NA	NA	--	--	NA	--	--
CARBAZOLE	32000	140000	--	--	NA	--	--
CHRYSENE	22000	390000	25	--	NA	96	--
DIBENZO(A,H)ANTHRACENE	22	390	--	--	NA	16	--
DIBENZOFURAN	7800	100000	--	--	NA	--	--
DIETHYL PHTHALATE	NA	NA	--	--	NA	--	--
DI-N-BUTYL PHTHALATE	780000	10000000	--	--	NA	--	--
FLUORANTHENE	310000	4100000	36	--	NA	190	--
FLUORENE	310000	4100000	--	--	NA	--	--
INDENO(1,2,3-CD)PYRENE	220	3900	12	--	NA	46	--
NAPHTHALENE	160000	2000000	--	--	NA	--	--
PHENANTHRENE	2300000	31000000	17	--	NA	56	--
PHENOL	2300000	31000000	--	--	NA	--	--
PYRENE	230000	3100000	41	--	NA	160	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID: / LABORATORY ID: / SAMPLE DATE: / LOCATION:	MDE RESIDENTIAL SOIL CRITERIA	MDE NON-RESIDENTIAL SOIL CRITERIA	GSP-SB-91-0-2 240-681-10 6/1/2011 GSP-SB-91	GSP-SB-91-8-10 240-681-11 6/1/2011 GSP-SB-91	GSP-SB-91-22-24 240-681-12 6/1/2011 GSP-SB-91	GSP-SB-92-0-2 240-681-30 6/1/2011 GSP-SB-92	GSP-SB-92-6-8 240-681-31 6/1/2011 GSP-SB-92
INORGANICS (mg/kg)							
ANTIMONY	3.1	41	--	--	NA	--	--
ARSENIC	0.43	1.9	2.3	6.8	NA	1.6	1 J
BARIUM	1600	20000	11 J	3.7 J	NA	8.3 J	5.6 J
BERYLLIUM	16	200	0.045 J	--	NA	--	--
CADMIUM	3.9	51	--	--	NA	--	--
CHROMIUM	23	310	7.1	39	NA	3.6	4.6
COBALT	NA	NA	1	0.47 J	NA	0.79 J	0.45 J
COPPER	310	4100	4.4 K	3.6 K	NA	6.6	1.9 J
LEAD	400	1000	6.4	4.5	NA	3.9	1.4 K
MERCURY	2.3	31	0.086 J	--	NA	--	--
MOLYBDENUM	NA	NA	--	0.53 B	NA	1 B	0.34 B
NICKEL	160	2000	2 J	0.33 J	NA	2.5 J	0.51 J
SELENIUM	39	510	--	--	NA	--	--
SILVER	39	510	--	--	NA	--	--
THALLIUM	0.55	7.2	--	--	NA	--	--
VANADIUM	7.8	100	13	93	NA	5.9	6.7
ZINC	2300	31000	11	2.4 B	NA	10	2.4 J
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	320	1400	--	--	NA	--	--
AROCLOR-1260	320	1400	--	--	NA	--	--
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	230	620	52	--	--	24	14 J
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	230000	620000	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-92-22-25	GSP-SB-93-0-2	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-6-8	GSP-SB-94-20-22
LABORATORY ID:	240-681-32	240-681-27	240-681-28	240-681-29	240-681-16	240-681-17	240-681-18
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-92	GSP-SB-93	GSP-SB-93	GSP-SB-93	GSP-SB-94	GSP-SB-94	GSP-SB-94
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
2-BUTANONE	--	--	--	--	--	--	4.1 J
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	--	--	220 J	170 J	--	--	19 J
BENZENE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--	--	--
METHYLENE CHLORIDE	--	2.4 J	820 B	570 B	--	--	--
NAPHTHALENE	--	--	25 B	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--	--	--
O-XYLENE	--	--	--	--	--	--	--
STYRENE	--	--	--	--	--	--	--
TOLUENE	--	--	--	--	--	--	--
TOTAL XYLENES	--	--	--	--	--	--	--
TRICHLOROETHENE	2900	--	360	300	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-92-22-25	GSP-SB-93-0-2	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-6-8	GSP-SB-94-20-22
LABORATORY ID:	240-681-32	240-681-27	240-681-28	240-681-29	240-681-16	240-681-17	240-681-18
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-92	GSP-SB-93	GSP-SB-93	GSP-SB-93	GSP-SB-94	GSP-SB-94	GSP-SB-94
VINYL CHLORIDE	--	--	--	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	NA	--	--	NA	--	--	NA
ACENAPHTHENE	NA	--	--	NA	--	--	NA
ACENAPHTHYLENE	NA	--	--	NA	--	--	NA
ANTHRACENE	NA	--	--	NA	5.5 J	--	NA
BENZO(A)ANTHRACENE	NA	15	--	NA	30	--	NA
BENZO(A)PYRENE	NA	17	--	NA	31	--	NA
BENZO(B)FLUORANTHENE	NA	19	--	NA	33	--	NA
BENZO(G,H,I)PERYLENE	NA	13	--	NA	20	--	NA
BENZO(K)FLUORANTHENE	NA	10	--	NA	31	--	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	--	--	NA	29 B	42 B	NA
CAPROLACTAM	NA	--	--	NA	--	--	NA
CARBAZOLE	NA	--	--	NA	--	--	NA
CHRYSENE	NA	18	--	NA	37	--	NA
DIBENZO(A,H)ANTHRACENE	NA	--	--	NA	--	--	NA
DIBENZOFURAN	NA	--	--	NA	--	--	NA
DIETHYL PHTHALATE	NA	--	--	NA	--	--	NA
DI-N-BUTYL PHTHALATE	NA	18 J	--	NA	--	--	NA
FLUORANTHENE	NA	27	--	NA	60	--	NA
FLUORENE	NA	--	--	NA	--	--	NA
INDENO(1,2,3-CD)PYRENE	NA	9.4	--	NA	15	--	NA
NAPHTHALENE	NA	--	--	NA	--	--	NA
PHENANTHRENE	NA	8.1	--	NA	16	--	NA
PHENOL	NA	--	--	NA	--	--	NA
PYRENE	NA	27	--	NA	58	--	NA

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
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SAMPLE ID:	GSP-SB-92-22-25	GSP-SB-93-0-2	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-6-8	GSP-SB-94-20-22
LABORATORY ID:	240-681-32	240-681-27	240-681-28	240-681-29	240-681-16	240-681-17	240-681-18
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-92	GSP-SB-93	GSP-SB-93	GSP-SB-93	GSP-SB-94	GSP-SB-94	GSP-SB-94
INORGANICS (mg/kg)							
ANTIMONY	NA	--	--	NA	--	--	NA
ARSENIC	NA	2.8	0.85 J	NA	2.1	--	NA
BARIUM	NA	11 J	1.1 J	NA	22	1.7 J	NA
BERYLLIUM	NA	0.077 J	--	NA	0.046 J	--	NA
CADMIUM	NA	--	--	NA	--	--	NA
CHROMIUM	NA	7.2	5.9	NA	7.2	1.4 K	NA
COBALT	NA	1.2	--	NA	2	0.23 J	NA
COPPER	NA	6	0.73 J	NA	38	--	NA
LEAD	NA	5.9	1.2 K	NA	12	0.47 J	NA
MERCURY	NA	0.06 J	--	NA	0.063 J	--	NA
MOLYBDENUM	NA	0.39 B	0.28 B	NA	0.54 B	--	NA
NICKEL	NA	1.9 J	--	NA	4 J	--	NA
SELENIUM	NA	--	--	NA	0.49 J	--	NA
SILVER	NA	--	--	NA	--	--	NA
THALLIUM	NA	--	--	NA	--	--	NA
VANADIUM	NA	14	6.6	NA	17	1.3	NA
ZINC	NA	13	--	NA	41	1.5 B	NA
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	NA	--	--	NA	--	--	NA
AROCLOR-1260	NA	--	--	NA	--	--	NA
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	14 J	--	16 J	11 J	21	--	--
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 7 OF 45

SAMPLE ID:	GSP-SB-95-0-2	GSP-SB-95-6-8	GSP-SB-95-20-22	GSP-SB-96-0-2	GSP-SB-96-6-8	GSP-SB-96-22-24	GSP-SB-97-0-2
LABORATORY ID:	240-681-7	240-681-8	240-681-9	240-681-19	240-681-20	240-681-21	240-681-25
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-95	GSP-SB-95	GSP-SB-95	GSP-SB-96	GSP-SB-96	GSP-SB-96	GSP-SB-97
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
2-BUTANONE	--	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	--	--	--	--	--	--	6.6 B
BENZENE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--	--	--
METHYLENE CHLORIDE	--	--	--	2.7 B	--	3.1 J	3.6 J
NAPHTHALENE	--	--	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--	--	--
O-XYLENE	--	--	--	--	--	--	--
STYRENE	--	--	--	--	--	--	--
TOLUENE	--	--	--	--	--	--	--
TOTAL XYLENES	--	--	--	--	--	--	--
TRICHLOROETHENE	--	--	5.3 J	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-95-0-2	GSP-SB-95-6-8	GSP-SB-95-20-22	GSP-SB-96-0-2	GSP-SB-96-6-8	GSP-SB-96-22-24	GSP-SB-97-0-2
LABORATORY ID:	240-681-7	240-681-8	240-681-9	240-681-19	240-681-20	240-681-21	240-681-25
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-95	GSP-SB-95	GSP-SB-95	GSP-SB-96	GSP-SB-96	GSP-SB-96	GSP-SB-97
VINYL CHLORIDE	--	--	--	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	--	--	NA	--	--	NA	--
ACENAPHTHENE	--	--	NA	--	--	NA	--
ACENAPHTHYLENE	--	--	NA	5.7 J	--	NA	--
ANTHRACENE	--	--	NA	12	--	NA	12
BENZO(A)ANTHRACENE	--	--	NA	40	--	NA	80
BENZO(A)PYRENE	--	--	NA	42	--	NA	81
BENZO(B)FLUORANTHENE	--	--	NA	66	--	NA	100
BENZO(G,H,I)PERYLENE	--	--	NA	29	--	NA	60
BENZO(K)FLUORANTHENE	--	--	NA	23	--	NA	32
BIS(2-ETHYLHEXYL)PHTHALATE	24 B	39 B	NA	88 B	33 B	NA	34 B
CAPROLACTAM	--	--	NA	--	--	NA	--
CARBAZOLE	--	--	NA	--	--	NA	--
CHRYSENE	--	--	NA	50	--	NA	85
DIBENZO(A,H)ANTHRACENE	--	--	NA	--	--	NA	15
DIBENZOFURAN	--	--	NA	--	--	NA	--
DIETHYL PHTHALATE	--	--	NA	--	--	NA	--
DI-N-BUTYL PHTHALATE	--	--	NA	--	--	NA	16 J
FLUORANTHENE	--	--	NA	95	--	NA	140
FLUORENE	--	--	NA	--	--	NA	--
INDENO(1,2,3-CD)PYRENE	--	--	NA	26	--	NA	46
NAPHTHALENE	--	--	NA	--	--	NA	--
PHENANTHRENE	--	--	NA	25	--	NA	40
PHENOL	--	--	NA	--	--	NA	--
PYRENE	--	--	NA	75	--	NA	140

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 9 OF 45

SAMPLE ID:	GSP-SB-95-0-2	GSP-SB-95-6-8	GSP-SB-95-20-22	GSP-SB-96-0-2	GSP-SB-96-6-8	GSP-SB-96-22-24	GSP-SB-97-0-2
LABORATORY ID:	240-681-7	240-681-8	240-681-9	240-681-19	240-681-20	240-681-21	240-681-25
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-95	GSP-SB-95	GSP-SB-95	GSP-SB-96	GSP-SB-96	GSP-SB-96	GSP-SB-97
INORGANICS (mg/kg)							
ANTIMONY	--	--	NA	--	--	NA	--
ARSENIC	1.2 J	6.4	NA	1.6	1 J	NA	1.8
BARIUM	6.9 J	4.5 J	NA	41	3.5 J	NA	5.1 J
BERYLLIUM	--	--	NA	0.52	--	NA	--
CADMIUM	--	--	NA	--	--	NA	--
CHROMIUM	3.3	18	NA	5.3	2 K	NA	3.1
COBALT	0.69 J	0.37 J	NA	1.4	0.19 J	NA	0.59 J
COPPER	2.3 K	4.3 K	NA	15	0.76 J	NA	2.2 J
LEAD	2.5	1.7 K	NA	16	1.1 K	NA	1.9 K
MERCURY	0.037 J	0.011 J	NA	--	--	NA	--
MOLYBDENUM	0.29 B	0.88 B	NA	0.42 B	--	NA	0.45 B
NICKEL	0.82 J	0.42 J	NA	2.6 J	--	NA	0.89 J
SELENIUM	--	--	NA	0.46 J	--	NA	--
SILVER	--	--	NA	--	--	NA	--
THALLIUM	--	--	NA	--	--	NA	--
VANADIUM	5.9	25	NA	8.6	4.3	NA	5.8
ZINC	5 B	2.8 B	NA	22	1.5 B	NA	4.6 B
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	--	--	NA	--	--	NA	--
AROCLOR-1260	--	--	NA	63 J	--	NA	--
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	120	17 J	--	46	--	--	17 J
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 10 OF 45

SAMPLE ID:	GSP-SB-97-6-8	GSP-SB-98-0-2	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4	GSP-SB-100-6-8
LABORATORY ID:	240-681-26	240-681-33	240-681-34	240-741-7	240-741-8	240-741-9	240-741-10
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-97	GSP-SB-98	GSP-SB-98	GSP-SB-99	GSP-SB-99	GSP-SB-100	GSP-SB-100
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
2-BUTANONE	--	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	--	--	5.6 B	9.5 B	7.6 B	19 B	21 B
BENZENE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	0.63 J	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--	--	--
METHYLENE CHLORIDE	2.4 J	2.3 J	1.5 J	3 B	3.1 B	2.5 B	3.5 B
NAPHTHALENE	--	--	--	--	--	--	0.36 B
N-PROPYLBENZENE	--	--	--	--	--	--	--
O-XYLENE	--	--	--	--	--	--	--
STYRENE	--	--	--	--	--	--	--
TOLUENE	--	--	--	--	--	0.28 J	0.26 J
TOTAL XYLENES	--	--	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-97-6-8	GSP-SB-98-0-2	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4	GSP-SB-100-6-8
LABORATORY ID:	240-681-26	240-681-33	240-681-34	240-741-7	240-741-8	240-741-9	240-741-10
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-97	GSP-SB-98	GSP-SB-98	GSP-SB-99	GSP-SB-99	GSP-SB-100	GSP-SB-100
VINYL CHLORIDE	--	--	--	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	--	--	--	--	--	--	--
ACENAPHTHENE	--	--	--	17	--	--	--
ACENAPHTHYLENE	--	--	--	--	--	--	--
ANTHRACENE	--	--	--	35	--	--	--
BENZO(A)ANTHRACENE	--	--	--	83	--	--	--
BENZO(A)PYRENE	--	--	--	85	--	--	--
BENZO(B)FLUORANTHENE	--	--	--	110	--	--	--
BENZO(G,H,I)PERYLENE	--	--	--	60	--	--	--
BENZO(K)FLUORANTHENE	--	--	--	46	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	38 B	--	--	34 J	27 J
CAPROLACTAM	--	--	--	--	--	--	--
CARBAZOLE	--	--	--	--	--	--	--
CHRYSENE	--	--	--	90	--	--	--
DIBENZO(A,H)ANTHRACENE	--	--	--	13	--	--	--
DIBENZOFURAN	--	--	--	9.1 J	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	26 J	--	--	--	--
FLUORANTHENE	--	5.2 J	--	210	--	--	--
FLUORENE	--	--	--	15	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--	50	--	--	--
NAPHTHALENE	--	--	--	10	--	--	--
PHENANTHRENE	--	--	--	120	--	--	--
PHENOL	--	--	--	--	--	--	--
PYRENE	--	7.7	--	150	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 12 OF 45

SAMPLE ID:	GSP-SB-97-6-8	GSP-SB-98-0-2	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4	GSP-SB-100-6-8
LABORATORY ID:	240-681-26	240-681-33	240-681-34	240-741-7	240-741-8	240-741-9	240-741-10
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-97	GSP-SB-98	GSP-SB-98	GSP-SB-99	GSP-SB-99	GSP-SB-100	GSP-SB-100
INORGANICS (mg/kg)							
ANTIMONY	--	--	--	--	--	--	--
ARSENIC	3	2	1.7	2.4	2.2	1.7	1.7
BARIUM	6.3 J	30	5.8 J	23	6.1 J	5.4 J	2.6 J
BERYLLIUM	--	0.047 J	--	0.073 J	--	--	--
CADMIUM	--	--	--	--	--	--	--
CHROMIUM	5.1	8.1	5	7.4 K	3.8 K	7.2 K	3.3 K
COBALT	0.43 J	1.7	0.29 J	2	0.69 J	0.17 J	--
COPPER	6.3	4 K	2.8 K	6.7	2.1 J	2.1 J	1.1 J
LEAD	1.7 K	4.7	1.3 K	13	1.7 K	2.2 K	0.79 B
MERCURY	--	0.013 J	--	0.033 J	--	--	--
MOLYBDENUM	0.34 B	0.22 B	--	--	--	--	--
NICKEL	1.2 J	3.8	0.47 J	3.7 J	0.91 J	0.33 J	--
SELENIUM	--	--	--	0.68 J	--	--	--
SILVER	--	--	--	0.38 J	--	--	--
THALLIUM	--	--	--	--	--	--	--
VANADIUM	8.9	14	9.5	14	9.7	10	4.8
ZINC	3.2 B	12	1.8 J	22	4.4 J	3 J	1.4 J
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	--	--	--	--	--	--	--
AROCLOR-1260	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	--	--	14 J	47 B	16 B	--	--
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-101-0-2	GSP-SB-101-6-8	GSP-SB-102-0-2	GSP-SB-102-6-8	GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-104-0-2
LABORATORY ID:	240-741-5	240-741-6	240-742-7	240-742-8	240-741-1	240-741-2	240-681-4
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/1/2011
LOCATION:	GSP-SB-101	GSP-SB-101	GSP-SB-102	GSP-SB-102	GSP-SB-103	GSP-SB-103	GSP-SB-104
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
2-BUTANONE	1.8 J	--	--	--	--	--	10 J
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	--	--	--	14 B	--	--	46
BENZENE	--	--	--	--	--	--	--
CARBON DISULFIDE	3 J	--	--	--	--	--	0.8 J
CHLOROBENZENE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--	--	--
METHYLENE CHLORIDE	--	--	3.7 B	3.2 B	--	--	--
NAPHTHALENE	--	--	4 J	0.26 B	--	--	--
N-PROPYLBENZENE	--	--	--	--	--	--	--
O-XYLENE	--	--	--	--	--	--	--
STYRENE	--	--	--	--	--	--	--
TOLUENE	--	--	0.59 J	0.29 J	--	--	--
TOTAL XYLENES	--	--	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-101-0-2	GSP-SB-101-6-8	GSP-SB-102-0-2	GSP-SB-102-6-8	GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-104-0-2
LABORATORY ID:	240-741-5	240-741-6	240-742-7	240-742-8	240-741-1	240-741-2	240-681-4
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/1/2011
LOCATION:	GSP-SB-101	GSP-SB-101	GSP-SB-102	GSP-SB-102	GSP-SB-103	GSP-SB-103	GSP-SB-104
VINYL CHLORIDE	--	--	--	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	--	--	71	770	--	--	--
ACENAPHTHENE	--	--	17	300	--	--	--
ACENAPHTHYLENE	--	--	45	370	--	--	--
ANTHRACENE	44	--	98	1200	--	--	9.1
BENZO(A)ANTHRACENE	120	--	140	1600	11	--	42
BENZO(A)PYRENE	160	--	200	2400	11	--	42
BENZO(B)FLUORANTHENE	190	--	140	1900	14	--	50
BENZO(G,H,I)PERYLENE	130	--	260	1500	7.9	--	25
BENZO(K)FLUORANTHENE	90	--	90	750	--	--	21
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--	--	--	58 B
CAPROLACTAM	--	--	--	--	--	--	--
CARBAZOLE	--	--	--	--	--	--	--
CHRYSENE	150	--	160	2000	13	--	46
DIBENZO(A,H)ANTHRACENE	--	--	32	470	--	--	--
DIBENZOFURAN	--	--	--	73 J	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--	--	45 J
DI-N-BUTYL PHTHALATE	--	--	--	--	--	--	20 J
FLUORANTHENE	230	--	200	2300	21	--	82
FLUORENE	--	--	35	640	--	--	--
INDENO(1,2,3-CD)PYRENE	96	--	160	1100	--	--	22
NAPHTHALENE	--	--	94	890	--	--	--
PHENANTHRENE	73	--	210	2700	8.1	--	32
PHENOL	--	--	--	--	--	--	--
PYRENE	220	--	250	3200	17	--	75

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-101-0-2	GSP-SB-101-6-8	GSP-SB-102-0-2	GSP-SB-102-6-8	GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-104-0-2
LABORATORY ID:	240-741-5	240-741-6	240-742-7	240-742-8	240-741-1	240-741-2	240-681-4
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/1/2011
LOCATION:	GSP-SB-101	GSP-SB-101	GSP-SB-102	GSP-SB-102	GSP-SB-103	GSP-SB-103	GSP-SB-104
INORGANICS (mg/kg)							
ANTIMONY	--	--	0.72 J	--	--	--	--
ARSENIC	1.8	1.2	2.1	5.2	4.1	1.7	3.3
BARIUM	190	5.2 J	140	21	24	21	25
BERYLLIUM	1.1	--	--	0.45 J	0.12 J	0.093 J	0.21 J
CADMIUM	0.078 J	--	--	--	--	--	--
CHROMIUM	11 K	4 K	17 K	16 K	11 K	9 K	11
COBALT	1.6	0.99	5.6	5.7	2.5	0.97 J	3.2
COPPER	9.4	1.7 J	12	23	4.2	12	7.3
LEAD	16	1.4 K	8.4	4.4	5.5	3.8	9.7
MERCURY	0.022 J	--	0.084 J	--	--	--	0.037 J
MOLYBDENUM	--	--	--	0.51 B	0.34 B	--	0.49 B
NICKEL	3.9	0.71 J	7.6	8.1	4.8	0.82 J	5.2
SELENIUM	0.55 J	--	--	--	0.75 J	--	0.62 J
SILVER	--	--	--	--	--	--	--
THALLIUM	2.3 K	--	2 J	--	--	--	--
VANADIUM	19	8.9	22	29	20	11	19
ZINC	28	3 J	38	19	16	3.7 J	22
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	--	--	--	--	--	--	--
AROCLOR-1260	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	72 B	13 B	190	340	--	13 B	30 B
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-104-6-8	GSP-SB-105-0-2	GSP-SB-105-6-8	GSP-SB-106-0-2	GSP-SB-106-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8
LABORATORY ID:	240-681-5	240-741-3	240-741-4	240-681-22	240-681-23	240-742-9	240-742-10
SAMPLE DATE:	6/1/2011	6/2/2011	6/2/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-104	GSP-SB-105	GSP-SB-105	GSP-SB-106	GSP-SB-106	GSP-SB-107	GSP-SB-107
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
2-BUTANONE	--	9.8 J	--	5.3 J	--	2.6 J	3.9 J
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	--	64	--	29 B	17 B	34 B	21 B
BENZENE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
ETHYLBENZENE	--	--	--	0.21 J	--	--	--
M+P-XYLENES	--	--	--	--	--	--	--
METHYLENE CHLORIDE	--	--	--	1.7 J	2.3 J	4 B	3.9 B
NAPHTHALENE	--	--	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	0.24 J	--	--	--
O-XYLENE	--	--	--	--	--	--	--
STYRENE	--	--	--	--	--	--	--
TOLUENE	--	--	--	--	--	0.29 J	--
TOTAL XYLENES	--	--	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-104-6-8	GSP-SB-105-0-2	GSP-SB-105-6-8	GSP-SB-106-0-2	GSP-SB-106-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8
LABORATORY ID:	240-681-5	240-741-3	240-741-4	240-681-22	240-681-23	240-742-9	240-742-10
SAMPLE DATE:	6/1/2011	6/2/2011	6/2/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-104	GSP-SB-105	GSP-SB-105	GSP-SB-106	GSP-SB-106	GSP-SB-107	GSP-SB-107
VINYL CHLORIDE	--	--	--	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	--	--	--	29	--	--	--
ACENAPHTHENE	--	--	--	26	--	--	--
ACENAPHTHYLENE	--	--	--	75	--	--	--
ANTHRACENE	--	--	--	150	--	--	--
BENZO(A)ANTHRACENE	--	86	--	520	--	12	--
BENZO(A)PYRENE	--	110	7.6	550	--	15	--
BENZO(B)FLUORANTHENE	--	120	--	580	--	19	--
BENZO(G,H,I)PERYLENE	--	--	13	390	--	13	--
BENZO(K)FLUORANTHENE	--	92	--	320	--	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	60 B	--	22 J	--	41 B	--	--
CAPROLACTAM	--	--	--	--	--	--	--
CARBAZOLE	--	--	--	--	--	--	--
CHRYSENE	--	150	--	550	--	15	--
DIBENZO(A,H)ANTHRACENE	--	--	--	--	--	--	--
DIBENZOFURAN	--	--	--	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	32 J	--	--	--	--	--	--
FLUORANTHENE	--	190	--	810	--	22	--
FLUORENE	--	--	--	36	--	--	--
INDENO(1,2,3-CD)PYRENE	--	--	--	270	--	11	--
NAPHTHALENE	--	--	--	44	--	--	--
PHENANTHRENE	--	73	--	350	--	8.3	--
PHENOL	--	--	--	--	--	--	--
PYRENE	--	180	8.4	1100	8.2	22	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-104-6-8	GSP-SB-105-0-2	GSP-SB-105-6-8	GSP-SB-106-0-2	GSP-SB-106-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8
LABORATORY ID:	240-681-5	240-741-3	240-741-4	240-681-22	240-681-23	240-742-9	240-742-10
SAMPLE DATE:	6/1/2011	6/2/2011	6/2/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-104	GSP-SB-105	GSP-SB-105	GSP-SB-106	GSP-SB-106	GSP-SB-107	GSP-SB-107
INORGANICS (mg/kg)							
ANTIMONY	--	--	--	--	--	--	--
ARSENIC	2.5	2	4.1	3.1	4.1	1.9	1.5 J
BARIUM	6.5 J	25	29	25	8.9 J	14 J	8.9 J
BERYLLIUM	--	0.072 J	--	0.15 J	0.084 J	0.049 J	--
CADMIUM	--	--	--	--	--	0.062 J	--
CHROMIUM	6.7	7.5 K	27 K	12	11	9.5 K	5.8 K
COBALT	0.81 J	1.5	0.78 J	2.9	2.7	1.6	1
COPPER	4 K	8	2.1 J	9.6	7.5	6.8	2.3 J
LEAD	1.9 K	17	4	7.8	2.6	10	2.1
MERCURY	--	0.039 J	--	0.06 J	--	--	--
MOLYBDENUM	--	--	0.48 B	0.61 B	0.56 B	--	0.89 B
NICKEL	1.3 J	3 J	0.83 J	4.7	1.5 J	3.5 J	1.1 J
SELENIUM	--	0.6 J	--	0.56 J	--	--	--
SILVER	--	--	--	--	--	--	--
THALLIUM	--	--	--	--	--	--	--
VANADIUM	17	13	49	19	26	13	9.8
ZINC	5.2 B	24	5.1 J	20	6.5 K	24	5 J
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	--	--	--	--	--	--	--
AROCLOR-1260	--	--	--	--	--	--	--
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	--	140	27 B	140	--	--	--
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-108-0-2	GSP-SB-108-6-8	GSP-SB-109-0-2	GSP-SB-109-6-8	GSP-SB-110-0-2	GSP-SB-110-6-8	GSP-SB-111-0-2
LABORATORY ID:	240-742-3	240-742-4	240-742-1	240-742-2	240-742-5	240-742-6	240-775-1
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/3/2011
LOCATION:	GSP-SB-108	GSP-SB-108	GSP-SB-109	GSP-SB-109	GSP-SB-110	GSP-SB-110	GSP-SB-111
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
2-BUTANONE	--	--	1.7 J	1.9 J	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	5.9 B	23 B	12 B	25 B	16 B	--	--
BENZENE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--	--	--
METHYLENE CHLORIDE	2.3 B	2.4 B	2.3 B	3 B	3 B	5 B	--
NAPHTHALENE	--	--	0.55 B	--	--	0.25 B	--
N-PROPYLBENZENE	--	--	--	--	--	--	--
O-XYLENE	--	--	--	--	0.52 J	--	--
STYRENE	--	--	--	--	--	--	--
TOLUENE	0.27 J	0.33 J	0.42 J	--	0.66 J	0.39 J	--
TOTAL XYLENES	--	--	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-108-0-2	GSP-SB-108-6-8	GSP-SB-109-0-2	GSP-SB-109-6-8	GSP-SB-110-0-2	GSP-SB-110-6-8	GSP-SB-111-0-2
LABORATORY ID:	240-742-3	240-742-4	240-742-1	240-742-2	240-742-5	240-742-6	240-775-1
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/3/2011
LOCATION:	GSP-SB-108	GSP-SB-108	GSP-SB-109	GSP-SB-109	GSP-SB-110	GSP-SB-110	GSP-SB-111
VINYL CHLORIDE	--	--	--	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	--	--	--	1200	21	--	12
ACENAPHTHENE	--	--	--	1100	--	--	18
ACENAPHTHYLENE	--	--	--	1900	16	--	18
ANTHRACENE	--	--	150	4000	27	130	100
BENZO(A)ANTHRACENE	--	14	290	13000	32	280	450
BENZO(A)PYRENE	--	20	460	14000	49	390	390
BENZO(B)FLUORANTHENE	--	26	380	12000	40	340	410
BENZO(G,H,I)PERYLENE	--	19	550	10000	81	430	260
BENZO(K)FLUORANTHENE	--	14	200	6300	16	210	220
BIS(2-ETHYLHEXYL)PHTHALATE	25 J	--	--	--	--	--	30 J
CAPROLACTAM	--	--	--	--	--	--	50 J
CARBAZOLE	--	--	--	--	--	--	--
CHRYSENE	--	20	410	14000	37	360	420
DIBENZO(A,H)ANTHRACENE	--	--	--	2700	--	--	94
DIBENZOFURAN	--	--	--	290 J	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--	--	--	--
FLUORANTHENE	8.7	28	480	21000	37	500	820
FLUORENE	--	--	--	2000	9.4	--	25
INDENO(1,2,3-CD)PYRENE	--	15	340	7500	44	270	200
NAPHTHALENE	--	--	--	1100	24	--	15
PHENANTHRENE	--	11	360	13000	46	310	340
PHENOL	--	--	--	--	--	--	--
PYRENE	7.1 J	26	600	32000	54	490	780

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 21 OF 45

SAMPLE ID:	GSP-SB-108-0-2	GSP-SB-108-6-8	GSP-SB-109-0-2	GSP-SB-109-6-8	GSP-SB-110-0-2	GSP-SB-110-6-8	GSP-SB-111-0-2
LABORATORY ID:	240-742-3	240-742-4	240-742-1	240-742-2	240-742-5	240-742-6	240-775-1
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/3/2011
LOCATION:	GSP-SB-108	GSP-SB-108	GSP-SB-109	GSP-SB-109	GSP-SB-110	GSP-SB-110	GSP-SB-111
INORGANICS (mg/kg)							
ANTIMONY	--	--	--	0.39 J	--	0.48 J	--
ARSENIC	5.5	5.4	3.6	4	5.6	2.6	2.8
BARIUM	25	17 J	69	74	32	250	13 J
BERYLLIUM	0.36 J	0.65	--	0.19 J	0.19 J	--	0.046 J
CADMIUM	--	--	--	--	--	--	--
CHROMIUM	24 K	32 K	17 K	15 K	23 K	14 K	13
COBALT	7.1	8.2	4.9	7.4	5.6	4	1.4
COPPER	14	26	9.9	17	14	11	13
LEAD	7.9	4.6	7.6	18	5.4	13	8.3
MERCURY	--	0.034 J	0.11	0.058 J	0.035 J	0.063 J	--
MOLYBDENUM	--	--	1.1 B	0.4 B	--	--	0.68 B
NICKEL	15	22	6.1	8.6	4.6	6.4	1.5 J
SELENIUM	--	0.54 J	--	--	0.78 J	--	0.48 J
SILVER	--	--	--	--	--	--	--
THALLIUM	--	--	0.7 J	0.67 J	--	1.5 J	0.7 B
VANADIUM	65	59	18	26	47	26	22
ZINC	29	31	42	35	14	43	4.6 J
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	--	--	--	--	--	--	--
AROCLOR-1260	--	--	--	64	--	--	--
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	24 B	23 B	290	410	320	210	--
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-111-6-8	GSP-SB-111-22-24	GSP-SB-112-0-2	GSP-SB-112-6-8	GSP-SB-113-0-2	GSP-SB-113-6-8	GSP-SB-113-22-24
LABORATORY ID:	240-775-2	240-775-3	240-775-4	240-775-5	240-681-13	240-681-14	240-681-15
SAMPLE DATE:	6/3/2011	6/3/2011	6/3/2011	6/3/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-111	GSP-SB-111	GSP-SB-112	GSP-SB-112	GSP-SB-113	GSP-SB-113	GSP-SB-113
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
2-BUTANONE	--	--	--	--	--	8.4 J	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	24 B	24 B	--	--	--	61	--
BENZENE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--	0.55 J	0.67 J
CHLOROBENZENE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--	1.2 J	--
M+P-XYLENES	--	--	--	--	--	--	--
METHYLENE CHLORIDE	3.9 B	3.6 B	--	3.1 B	--	--	--
NAPHTHALENE	--	--	--	--	--	3.4 J	--
N-PROPYLBENZENE	--	--	--	--	--	--	--
O-XYLENE	0.45 J	--	--	0.29 J	--	--	--
STYRENE	--	--	--	--	--	--	--
TOLUENE	0.77 J	0.42 J	--	0.34 J	--	44	--
TOTAL XYLENES	--	--	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--	--	4.7 J

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-111-6-8	GSP-SB-111-22-24	GSP-SB-112-0-2	GSP-SB-112-6-8	GSP-SB-113-0-2	GSP-SB-113-6-8	GSP-SB-113-22-24
LABORATORY ID:	240-775-2	240-775-3	240-775-4	240-775-5	240-681-13	240-681-14	240-681-15
SAMPLE DATE:	6/3/2011	6/3/2011	6/3/2011	6/3/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-111	GSP-SB-111	GSP-SB-112	GSP-SB-112	GSP-SB-113	GSP-SB-113	GSP-SB-113
VINYL CHLORIDE	--	--	--	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	--	--	51	--	19	--	--
ACENAPHTHENE	--	--	69	--	22	--	--
ACENAPHTHYLENE	--	--	100	--	32	--	--
ANTHRACENE	--	--	360	--	93	--	--
BENZO(A)ANTHRACENE	--	12	1300	--	340	--	--
BENZO(A)PYRENE	--	17	1200	--	320	--	--
BENZO(B)FLUORANTHENE	8	15	1200	--	310	--	--
BENZO(G,H,I)PERYLENE	--	15	720	--	200	--	--
BENZO(K)FLUORANTHENE	--	12	690	--	240	--	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--	31 B	33 B	49 B
CAPROLACTAM	--	--	--	--	--	--	--
CARBAZOLE	--	--	72 J	--	--	--	--
CHRYSENE	--	17	1400	--	390	--	--
DIBENZO(A,H)ANTHRACENE	--	--	260	--	--	--	--
DIBENZOFURAN	--	--	--	--	5.2 J	--	--
DIETHYL PHTHALATE	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--	--	--	26 J
FLUORANTHENE	--	19	2400	--	560	--	13
FLUORENE	--	--	100	--	36	--	--
INDENO(1,2,3-CD)PYRENE	--	13	590	--	150	--	--
NAPHTHALENE	--	--	60	--	27	--	--
PHENANTHRENE	--	12	1100	--	300	--	13
PHENOL	--	--	--	--	--	--	--
PYRENE	9.1	29	2500	--	710	--	15

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-111-6-8	GSP-SB-111-22-24	GSP-SB-112-0-2	GSP-SB-112-6-8	GSP-SB-113-0-2	GSP-SB-113-6-8	GSP-SB-113-22-24
LABORATORY ID:	240-775-2	240-775-3	240-775-4	240-775-5	240-681-13	240-681-14	240-681-15
SAMPLE DATE:	6/3/2011	6/3/2011	6/3/2011	6/3/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-111	GSP-SB-111	GSP-SB-112	GSP-SB-112	GSP-SB-113	GSP-SB-113	GSP-SB-113
INORGANICS (mg/kg)							
ANTIMONY	0.99 B	NA	--	--	0.41 B	--	NA
ARSENIC	52	NA	3.3	2.9	4	1.6	NA
BARIUM	12 J	NA	22	23	43	11 J	NA
BERYLLIUM	--	NA	0.37 J	0.072 J	0.44 J	--	NA
CADMIUM	--	NA	--	--	--	--	NA
CHROMIUM	27	NA	14	18	18	5.1	NA
COBALT	2.2	NA	2.7	0.35 J	5	0.61 J	NA
COPPER	12	NA	11	16	18	4.8 K	NA
LEAD	13	NA	8.3	5.9	21	4	NA
MERCURY	0.017 J	NA	0.035 J	0.022 J	0.3	--	NA
MOLYBDENUM	2.4 B	NA	--	--	0.3 B	--	NA
NICKEL	4.8	NA	5.5	1 J	9.6	1.2 J	NA
SELENIUM	0.84 J	NA	0.58 J	--	0.51 J	--	NA
SILVER	--	NA	--	--	0.44 J	--	NA
THALLIUM	--	NA	0.65 B	--	--	--	NA
VANADIUM	300	NA	25	37	29	8.3	NA
ZINC	9.9	NA	22	6.1	43	7.7 K	NA
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	--	NA	--	--	--	--	NA
AROCLOR-1260	--	NA	--	--	--	--	NA
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	--	--	66	--	110	--	--
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-114-0-2	GSP-SB-114-6-8	GSP-SB-114-22-24	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2
LABORATORY ID:	240-681-1	240-681-2	240-681-3	240-635-1	240-635-2	240-635-3	240-775-6
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	5/31/2011	5/31/2011	5/31/2011	6/3/2011
LOCATION:	GSP-SB-114	GSP-SB-114	GSP-SB-114	GSP-SB-115	GSP-SB-115	GSP-SB-115	GSP-SB-116
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
2-BUTANONE	--	4.3 J	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	--	32	--	--	--	13 B	--
BENZENE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	1.1 J	--	--	--	1.1 J	--
CHLOROBENZENE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	2 J	--
ETHYLBENZENE	--	--	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--	--	--
METHYLENE CHLORIDE	--	--	--	2.4 B	2 B	2.5 B	4.5 B
NAPHTHALENE	--	--	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--	--	--
O-XYLENE	--	--	--	--	--	--	--
STYRENE	--	--	--	--	--	--	--
TOLUENE	--	--	--	--	--	--	--
TOTAL XYLENES	--	--	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--	32	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-114-0-2	GSP-SB-114-6-8	GSP-SB-114-22-24	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2
LABORATORY ID:	240-681-1	240-681-2	240-681-3	240-635-1	240-635-2	240-635-3	240-775-6
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	5/31/2011	5/31/2011	5/31/2011	6/3/2011
LOCATION:	GSP-SB-114	GSP-SB-114	GSP-SB-114	GSP-SB-115	GSP-SB-115	GSP-SB-115	GSP-SB-116
VINYL CHLORIDE	--	--	--	--	--	0.45 J	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	16	86	--	400	82	--	20
ACENAPHTHENE	25	43	--	230	48	--	17
ACENAPHTHYLENE	46	9	--	73	14	--	11
ANTHRACENE	98	110	--	570 K	89	--	36
BENZO(A)ANTHRACENE	390	190	--	740 K	230	--	220
BENZO(A)PYRENE	390	160	6 J	680	180	--	310
BENZO(B)FLUORANTHENE	400	170	11	710	210	--	270
BENZO(G,H,I)PERYLENE	250	86	--	360	86	--	220
BENZO(K)FLUORANTHENE	240	95	--	300	89	--	160
BIS(2-ETHYLHEXYL)PHTHALATE	31 B	27 B	31 B	59 B	--	25 B	23 J
CAPROLACTAM	--	--	--	--	--	--	--
CARBAZOLE	30 J	--	--	--	--	--	--
CHRYSENE	450	190	--	790 K	210	--	320
DIBENZO(A,H)ANTHRACENE	--	--	--	140	36	--	--
DIBENZOFURAN	9.4 J	26 J	--	73 J	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	34 J	--	--	--	18 J	--
FLUORANTHENE	780	410	13	1300 K	400	--	380
FLUORENE	32	74	--	500 K	88	--	17
INDENO(1,2,3-CD)PYRENE	190	70	--	310	72	--	190
NAPHTHALENE	22	130	--	450	88	--	21
PHENANTHRENE	300	400	--	2100 K	340	--	140
PHENOL	--	--	--	--	--	--	--
PYRENE	550	340	--	1700 K	590	--	440

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-114-0-2	GSP-SB-114-6-8	GSP-SB-114-22-24	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2
LABORATORY ID:	240-681-1	240-681-2	240-681-3	240-635-1	240-635-2	240-635-3	240-775-6
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	5/31/2011	5/31/2011	5/31/2011	6/3/2011
LOCATION:	GSP-SB-114	GSP-SB-114	GSP-SB-114	GSP-SB-115	GSP-SB-115	GSP-SB-115	GSP-SB-116
INORGANICS (mg/kg)							
ANTIMONY	--	--	NA	--	--	NA	--
ARSENIC	3.3	1.4 J	NA	3.4	2.9	NA	2.8
BARIUM	32	21 J	NA	23	10 J	NA	23
BERYLLIUM	0.36 J	--	NA	0.11 J	--	NA	0.79
CADMIUM	--	--	NA	--	--	NA	--
CHROMIUM	15	5.3	NA	11	17	NA	14
COBALT	3.6	0.94 J	NA	2.4	0.69 J	NA	5.9
COPPER	11	6.4	NA	7.1	19	NA	14
LEAD	9.8	12	NA	6.4	3.7	NA	8.6
MERCURY	0.1 J	0.035 J	NA	0.04 J	--	NA	0.04 J
MOLYBDENUM	0.62 B	--	NA	0.66 B	0.64 B	NA	0.45 B
NICKEL	6.2	1.9 J	NA	4.3 J	0.85 J	NA	10
SELENIUM	--	0.61 J	NA	--	--	NA	0.53 J
SILVER	0.11 J	--	NA	--	--	NA	--
THALLIUM	--	--	NA	--	0.67 J	NA	--
VANADIUM	25	9.6	NA	20	19	NA	28
ZINC	23	14	NA	16	2.5 B	NA	33
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	--	--	NA	--	--	NA	--
AROCLOR-1260	70	--	NA	--	--	NA	--
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	91	180	--	700	16 J	19 J	13 J
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	--	--	57 J	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-116-6-8	GSP-SB-117-0-2	GSP-SB-117-6-8	GSP-SB-117-20-22	GSP-SB-118-0-2	GSP-SB-118-6-8	GSP-SB-118-20-22
LABORATORY ID:	240-775-7	240-635-4	240-635-5	240-635-6	240-635-10	240-635-11	240-635-12
SAMPLE DATE:	6/3/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-116	GSP-SB-117	GSP-SB-117	GSP-SB-117	GSP-SB-118	GSP-SB-118	GSP-SB-118
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
2-BUTANONE	2.3 B	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	27 B	--	--	--	--	--	10 B
BENZENE	--	--	--	--	--	--	0.5 J
CARBON DISULFIDE	--	--	0.56 J	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	4.2
ETHYLBENZENE	--	--	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--	--	--
METHYLENE CHLORIDE	4.4 B	2.1 B	1.8 B	2.2 B	2.2 B	1.7 B	2.2 B
NAPHTHALENE	--	--	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--	--	--
O-XYLENE	--	--	--	--	--	--	--
STYRENE	--	--	--	--	--	--	--
TOLUENE	0.39 J	--	--	--	--	--	--
TOTAL XYLENES	--	--	--	--	--	--	--
TRICHLOROETHENE	--	--	--	1.4 J	--	--	2.5 J

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-116-6-8	GSP-SB-117-0-2	GSP-SB-117-6-8	GSP-SB-117-20-22	GSP-SB-118-0-2	GSP-SB-118-6-8	GSP-SB-118-20-22
LABORATORY ID:	240-775-7	240-635-4	240-635-5	240-635-6	240-635-10	240-635-11	240-635-12
SAMPLE DATE:	6/3/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-116	GSP-SB-117	GSP-SB-117	GSP-SB-117	GSP-SB-118	GSP-SB-118	GSP-SB-118
VINYL CHLORIDE	--	--	--	0.55 J	--	--	1.5 J
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	--	26	--	--	56	--	--
ACENAPHTHENE	--	100	--	--	37	--	14
ACENAPHTHYLENE	--	22	--	--	69	--	--
ANTHRACENE	--	260	--	--	220	--	20
BENZO(A)ANTHRACENE	13	1200	--	--	760	8.8	23
BENZO(A)PYRENE	15	1000	--	--	750	--	21
BENZO(B)FLUORANTHENE	17	1300	--	--	730	9	24
BENZO(G,H,I)PERYLENE	19	690	--	--	450	--	14
BENZO(K)FLUORANTHENE	7 J	670	--	--	390	--	13
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	28 B	--	--	--	110 B
CAPROLACTAM	--	--	--	--	--	--	--
CARBAZOLE	--	120 J	--	--	--	--	--
CHRYSENE	14	1200	--	--	760	8.1	23
DIBENZO(A,H)ANTHRACENE	--	180	--	--	140	--	--
DIBENZOFURAN	--	44 J	--	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--	--	--	23 J
FLUORANTHENE	14	2200	8.8	--	1200	20	64
FLUORENE	--	85	--	--	80	--	13
INDENO(1,2,3-CD)PYRENE	10	590	--	--	380	--	12
NAPHTHALENE	--	30	--	--	69	--	--
PHENANTHRENE	--	890	--	--	640	17	75
PHENOL	--	--	--	--	--	--	--
PYRENE	21	2100	--	--	1400	15	48

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-116-6-8	GSP-SB-117-0-2	GSP-SB-117-6-8	GSP-SB-117-20-22	GSP-SB-118-0-2	GSP-SB-118-6-8	GSP-SB-118-20-22
LABORATORY ID:	240-775-7	240-635-4	240-635-5	240-635-6	240-635-10	240-635-11	240-635-12
SAMPLE DATE:	6/3/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-116	GSP-SB-117	GSP-SB-117	GSP-SB-117	GSP-SB-118	GSP-SB-118	GSP-SB-118
INORGANICS (mg/kg)							
ANTIMONY	--	0.41 J	--	NA	0.71 J	--	NA
ARSENIC	1.1 J	3.4	0.46 J	NA	2.8	1 J	NA
BARIUM	17 J	21	13 J	NA	33	39	NA
BERYLLIUM	--	0.12 J	--	NA	0.28 J	0.16 J	NA
CADMIUM	--	--	--	NA	--	--	NA
CHROMIUM	24	14	5.2	NA	13	21	NA
COBALT	0.77 J	3.8	0.54 J	NA	3.4	2.5	NA
COPPER	11	9.9	3.2	NA	12	68	NA
LEAD	7	6.5	3.4	NA	19	6.7	NA
MERCURY	--	0.053 J	--	NA	0.15	0.048 J	NA
MOLYBDENUM	--	0.31 B	--	NA	0.5 B	--	NA
NICKEL	2.3 J	6.2	0.36 J	NA	6.8	4.6 J	NA
SELENIUM	--	--	--	NA	--	--	NA
SILVER	--	--	--	NA	--	--	NA
THALLIUM	--	--	--	NA	--	--	NA
VANADIUM	20	27	9.5	NA	22	11	NA
ZINC	19	20	2.2 B	NA	39	28	NA
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	--	--	--	NA	--	--	NA
AROCLOR-1260	--	--	--	NA	1200	--	NA
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	--	210	23	11 J	110	12 J	--
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 31 OF 45

SAMPLE ID:	GSP-SB-119-0-2	GSP-SB-119-6-8	GSP-SB-119-20-22	GSP-SB-119-20-22RA	GSP-SB-120-0-2	GSP-SB-120-6-8	GSP-SB-120-18-20
LABORATORY ID:	240-635-7	240-635-8	240-635-9	240-635-9	240-635-19	240-635-20	240-635-21
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-119	GSP-SB-119	GSP-SB-119	GSP-SB-119	GSP-SB-120	GSP-SB-120	GSP-SB-120
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	0.36 J	NA	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	0.78 J	NA	--	--	0.26 J
1,2,4-TRICHLOROBENZENE	4.2 J	--	11	NA	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	1.2 J	NA	--	8.2 J	--
1,2-DICHLOROBENZENE	0.35 J	--	--	NA	--	--	--
1,3-DICHLOROBENZENE	6.6	--	10	NA	--	--	--
1,4-DICHLOROBENZENE	--	--	0.61 J	NA	--	--	--
2-BUTANONE	--	--	11 J	NA	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	NA	--	--	--
4-METHYL-2-PENTANONE	--	--	--	NA	--	--	--
ACETONE	22 B	--	52 B	NA	--	--	17 B
BENZENE	--	--	--	NA	--	--	--
CARBON DISULFIDE	--	--	1.8 J	NA	--	--	--
CHLOROBENZENE	0.36 J	--	--	NA	--	--	--
CIS-1,2-DICHLOROETHENE	--	2.2 J	0.49 J	NA	--	--	--
ETHYLBENZENE	--	--	0.24 J	NA	--	--	0.4 J
M+P-XYLENES	--	--	--	NA	--	15 J	--
METHYLENE CHLORIDE	2.2 B	2.1 B	2.7 B	NA	3.3 B	400 B	2.9 B
NAPHTHALENE	--	--	11	NA	0.76 J	1200	38
N-PROPYLBENZENE	--	--	--	NA	--	--	--
O-XYLENE	--	--	0.42 J	NA	--	--	0.65 J
STYRENE	--	--	--	NA	--	--	0.17 J
TOLUENE	--	--	0.57 J	NA	--	--	0.5 J
TOTAL XYLENES	--	--	--	NA	--	15 J	0.65 J
TRICHLOROETHENE	--	3.8 J	0.89 J	NA	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-119-0-2	GSP-SB-119-6-8	GSP-SB-119-20-22	GSP-SB-119-20-22RA	GSP-SB-120-0-2	GSP-SB-120-6-8	GSP-SB-120-18-20
LABORATORY ID:	240-635-7	240-635-8	240-635-9	240-635-9	240-635-19	240-635-20	240-635-21
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-119	GSP-SB-119	GSP-SB-119	GSP-SB-119	GSP-SB-120	GSP-SB-120	GSP-SB-120
VINYL CHLORIDE	--	--	--	NA	--	--	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	28 L	--	59	NA	36	150	460
ACENAPHTHENE	20 L	--	150	NA	80	500	2000
ACENAPHTHYLENE	38 L	--	17	NA	48	--	430
ANTHRACENE	100 L	11 L	260	NA	320	580	7400
BENZO(A)ANTHRACENE	590 L	29 L	740	NA	1600	960	11000
BENZO(A)PYRENE	540	31 L	570	NA	1300	880	8700
BENZO(B)FLUORANTHENE	720 L	32 L	610	NA	1600	1000	9200
BENZO(G,H,I)PERYLENE	380 L	19 L	310	NA	760	540	4500
BENZO(K)FLUORANTHENE	240 L	18 L	490	NA	860	520	6400
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	NA	--	--	--
CAPROLACTAM	--	--	--	NA	--	--	--
CARBAZOLE	--	--	130	NA	130 J	450	920 J
CHRYSENE	610 L	39 L	600	NA	1500	1000	11000
DIBENZO(A,H)ANTHRACENE	130 L	--	74	NA	230	160	1500
DIBENZOFURAN	9 L	--	74 J	NA	31 J	300	1800
DIETHYL PHTHALATE	--	--	--	NA	--	--	--
DI-N-BUTYL PHTHALATE	23 B	--	--	NA	--	--	--
FLUORANTHENE	1100 L	61 L	1400	NA	2800	2600	28000
FLUORENE	28 L	7.6 L	150	NA	90	460	3900
INDENO(1,2,3-CD)PYRENE	320 L	17 L	300	NA	730	460	4300
NAPHTHALENE	34 L	--	54	NA	41	260	730
PHENANTHRENE	340 L	39 L	990	NA	1100	2400	26000
PHENOL	--	--	--	NA	--	130 J	--
PYRENE	990 L	53 L	1200	NA	2800	2000	20000

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-119-0-2	GSP-SB-119-6-8	GSP-SB-119-20-22	GSP-SB-119-20-22RA	GSP-SB-120-0-2	GSP-SB-120-6-8	GSP-SB-120-18-20
LABORATORY ID:	240-635-7	240-635-8	240-635-9	240-635-9	240-635-19	240-635-20	240-635-21
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-119	GSP-SB-119	GSP-SB-119	GSP-SB-119	GSP-SB-120	GSP-SB-120	GSP-SB-120
INORGANICS (mg/kg)							
ANTIMONY	0.41 J	0.71 J	NA	NA	0.69 J	--	NA
ARSENIC	4.2	2.1	NA	NA	3.6	1.7	NA
BARIUM	31	37	NA	NA	44	27	NA
BERYLLIUM	0.37 J	0.19 J	NA	NA	0.33 J	0.09 J	NA
CADMIUM	--	--	NA	NA	0.23 J	--	NA
CHROMIUM	19	13	NA	NA	19	8.2	NA
COBALT	4.4	2.6	NA	NA	4.1	1.4	NA
COPPER	14	11	NA	NA	17	5.4	NA
LEAD	15	11	NA	NA	23	8.8	NA
MERCURY	0.13	0.035 J	NA	NA	0.095 J	0.028 J	NA
MOLYBDENUM	0.3 B	0.49 B	NA	NA	0.33 B	0.33 B	NA
NICKEL	7.8	4.6	NA	NA	7.9	2.8 J	NA
SELENIUM	0.51 J	--	NA	NA	--	--	NA
SILVER	0.25 J	--	NA	NA	0.2 J	--	NA
THALLIUM	--	0.64 J	NA	NA	0.92 J	--	NA
VANADIUM	33	18	NA	NA	22	14	NA
ZINC	31	28	NA	NA	45	24	NA
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	--	--	NA	NA	--	21 J	NA
AROCLOR-1260	92	2700	NA	NA	1700	37	NA
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	61	40	NA	320 J	280	46	97
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	--	--	NA	--	57	44 J

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 34 OF 45

SAMPLE ID:	GSP-SB-121-0-3	GSP-SB-121-6-8	GSP-SB-121-18-20	GSP-SB-122-0-2	GSP-SB-122-6-8	GSP-SB-122-20-22	GSP-SB-123-0-2
LABORATORY ID:	240-635-16	240-635-17	240-635-18	240-635-22	240-635-23	240-635-24	240-820-4
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011
LOCATION:	GSP-SB-121	GSP-SB-121	GSP-SB-121	GSP-SB-122	GSP-SB-122	GSP-SB-122	GSP-SB-123
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	0.41 J	--	0.1 J	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	9.4 J	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
2-BUTANONE	--	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	1.3 J	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	0.58 J
ACETONE	37 B	220 J	14 B	--	63 B	25 B	17 B
BENZENE	--	--	0.45 J	--	--	--	--
CARBON DISULFIDE	1.9 J	--	--	--	--	0.55 J	--
CHLOROBENZENE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
ETHYLBENZENE	0.31 J	4.4 J	0.53 J	--	--	--	--
M+P-XYLENES	--	14 J	--	--	--	--	--
METHYLENE CHLORIDE	3.4 B	420 B	1.5 B	3.2 B	3.8 B	3.8 B	3.7 B
NAPHTHALENE	32	1700 J	31	0.53 B	--	2.5 B	--
N-PROPYLBENZENE	--	--	--	--	--	--	--
O-XYLENE	0.5 J	6.4 J	0.36 J	--	--	--	--
STYRENE	--	--	--	--	--	--	--
TOLUENE	0.29 J	--	1 J	--	--	--	--
TOTAL XYLENES	--	20 J	--	--	--	--	--
TRICHLOROETHENE	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-121-0-3	GSP-SB-121-6-8	GSP-SB-121-18-20	GSP-SB-122-0-2	GSP-SB-122-6-8	GSP-SB-122-20-22	GSP-SB-123-0-2
LABORATORY ID:	240-635-16	240-635-17	240-635-18	240-635-22	240-635-23	240-635-24	240-820-4
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011
LOCATION:	GSP-SB-121	GSP-SB-121	GSP-SB-121	GSP-SB-122	GSP-SB-122	GSP-SB-122	GSP-SB-123
VINYL CHLORIDE	--	--	--	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	88 J	480	--	24	--	--	9.3
ACENAPHTHENE	240	1600	--	25	--	--	28
ACENAPHTHYLENE	59	--	--	44	--	--	13
ANTHRACENE	500	2500	--	110	--	--	68
BENZO(A)ANTHRACENE	1200	4400	19	390	--	--	230
BENZO(A)PYRENE	1200	3700	15	440	--	--	220
BENZO(B)FLUORANTHENE	1400	4000	19	460	--	--	270
BENZO(G,H,I)PERYLENE	710	2100	11	300	--	--	120
BENZO(K)FLUORANTHENE	660	2000	8.6	230	--	--	150
BIS(2-ETHYLHEXYL)PHTHALATE	74 B	--	27 B	22 B	100 J	46 J	24 J
CAPROLACTAM	--	--	--	--	--	--	--
CARBAZOLE	190	1600	--	--	--	--	30 J
CHRYSENE	1100	4200	18	380	--	--	230
DIBENZO(A,H)ANTHRACENE	240	860	--	130	--	--	42
DIBENZOFURAN	120	1000	--	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	17 J	--	20 J	--
FLUORANTHENE	2400	10000	43	600	--	7.2 J	470
FLUORENE	210	1600	--	29	--	--	23
INDENO(1,2,3-CD)PYRENE	650	1900	9.7	250	--	--	110
NAPHTHALENE	120 J	690	--	36	--	--	--
PHENANTHRENE	1500	9500	32	240	--	--	230
PHENOL	--	--	--	--	--	--	--
PYRENE	2200	7700	33	650	--	6.4 J	410

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-121-0-3	GSP-SB-121-6-8	GSP-SB-121-18-20	GSP-SB-122-0-2	GSP-SB-122-6-8	GSP-SB-122-20-22	GSP-SB-123-0-2
LABORATORY ID:	240-635-16	240-635-17	240-635-18	240-635-22	240-635-23	240-635-24	240-820-4
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011
LOCATION:	GSP-SB-121	GSP-SB-121	GSP-SB-121	GSP-SB-122	GSP-SB-122	GSP-SB-122	GSP-SB-123
INORGANICS (mg/kg)							
ANTIMONY	1.2 J	--	NA	--	--	NA	0.42 J
ARSENIC	4.1	2.8	NA	3.2	2.6	NA	3.2
BARIUM	42	57	NA	26	13 J	NA	30
BERYLLIUM	0.32 J	--	NA	0.19 J	--	NA	0.24 J
CADMIUM	0.057 J	0.14 J	NA	--	--	NA	--
CHROMIUM	18	13	NA	12	7.3	NA	14
COBALT	3.7	2.7	NA	3.2	3.1	NA	2.4
COPPER	26	11	NA	19	5.7	NA	8.8
LEAD	27	19	NA	14	3.1	NA	15
MERCURY	0.052 J	0.044 J	NA	0.045 J	--	NA	0.053 J
MOLYBDENUM	--	0.38 B	NA	--	--	NA	0.31 B
NICKEL	7.8	5.6	NA	5.1	2.7 J	NA	4.4
SELENIUM	--	--	NA	0.46 J	--	NA	--
SILVER	--	--	NA	--	--	NA	--
THALLIUM	--	0.94 J	NA	--	--	NA	--
VANADIUM	31	15	NA	20	15	NA	21
ZINC	51	63	NA	29	9.6 K	NA	29
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	--	130	NA	--	--	NA	--
AROCLOR-1260	2400	47	NA	3400	19 J	NA	640
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	280	340	14 J	150	14 J	--	42
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	130	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-123-6-8	GSP-SB-124-0-2	GSP-SB-124-6-8	GSP-SB-125-0-2	GSP-SB-125-6-8	GSP-SB-126-0-2	GSP-SB-126-8-10
LABORATORY ID:	240-820-5	240-820-7	240-820-8	240-775-8	240-775-9	240-820-10	240-820-11
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	6/3/2011	6/3/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-123	GSP-SB-124	GSP-SB-124	GSP-SB-125	GSP-SB-125	GSP-SB-126	GSP-SB-126
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
2-BUTANONE	--	1.6 B	--	4.7 B	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	9.8 B	--	--	28 B	18 B	--	22 B
BENZENE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--	--	--
METHYLENE CHLORIDE	--	--	--	4.1 B	4.4 B	--	--
NAPHTHALENE	--	--	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--	--	--
O-XYLENE	--	--	--	--	--	--	--
STYRENE	--	--	--	--	--	--	--
TOLUENE	0.36 J	--	--	--	0.33 J	--	--
TOTAL XYLENES	--	--	--	--	--	--	--
TRICHLOROETHENE	--	--	19 J	--	--	--	0.81 J

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-123-6-8	GSP-SB-124-0-2	GSP-SB-124-6-8	GSP-SB-125-0-2	GSP-SB-125-6-8	GSP-SB-126-0-2	GSP-SB-126-8-10
LABORATORY ID:	240-820-5	240-820-7	240-820-8	240-775-8	240-775-9	240-820-10	240-820-11
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	6/3/2011	6/3/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-123	GSP-SB-124	GSP-SB-124	GSP-SB-125	GSP-SB-125	GSP-SB-126	GSP-SB-126
VINYL CHLORIDE	--	--	--	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	--	360	--	16	--	--	--
ACENAPHTHENE	--	240	--	31	--	--	--
ACENAPHTHYLENE	--	300	--	17	--	--	--
ANTHRACENE	--	1200	--	110	--	10	--
BENZO(A)ANTHRACENE	--	3700	--	510	--	42	--
BENZO(A)PYRENE	--	4000	--	600	--	41	--
BENZO(B)FLUORANTHENE	--	4000	--	530	--	50	--
BENZO(G,H,I)PERYLENE	--	2500	--	320	--	31	--
BENZO(K)FLUORANTHENE	--	1100	--	330	--	30	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	--	--	--	--
CAPROLACTAM	--	--	--	--	--	--	--
CARBAZOLE	--	--	--	--	--	--	--
CHRYSENE	--	4200	--	520	--	45	--
DIBENZO(A,H)ANTHRACENE	--	780	--	--	--	7.5	--
DIBENZOFURAN	--	--	--	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--	--	--	--
FLUORANTHENE	--	5000	--	1000	--	88	--
FLUORENE	--	450	--	37	--	--	--
INDENO(1,2,3-CD)PYRENE	--	1900	--	300	--	26	--
NAPHTHALENE	--	400	--	16	--	--	--
PHENANTHRENE	--	3500	--	400	--	43	--
PHENOL	--	--	--	--	--	--	--
PYRENE	--	7800	--	900	--	73	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
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SAMPLE ID:	GSP-SB-123-6-8	GSP-SB-124-0-2	GSP-SB-124-6-8	GSP-SB-125-0-2	GSP-SB-125-6-8	GSP-SB-126-0-2	GSP-SB-126-8-10
LABORATORY ID:	240-820-5	240-820-7	240-820-8	240-775-8	240-775-9	240-820-10	240-820-11
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	6/3/2011	6/3/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-123	GSP-SB-124	GSP-SB-124	GSP-SB-125	GSP-SB-125	GSP-SB-126	GSP-SB-126
INORGANICS (mg/kg)							
ANTIMONY	--	1.1 J	--	1.2 B	--	--	--
ARSENIC	1.1 J	4.1	1.7	3.9	1.8	4.5	0.65 J
BARIUM	4.1 J	72	8.1 J	33	8.6 J	20 J	3.1 J
BERYLLIUM	--	0.37 J	--	0.28 J	--	0.081 J	--
CADMIUM	--	--	--	--	--	--	--
CHROMIUM	3.6	13	10	16	8.4	11	5.8
COBALT	--	3.8	0.34 J	3.9	1.9	1.1	0.42 J
COPPER	1.4 J	12	4.5 K	20	3.3	7.2	1.2 J
LEAD	1.1 B	34	3.1	41	14	5.7	1.5 K
MERCURY	--	--	--	0.085 J	0.027 J	--	--
MOLYBDENUM	0.63 B	0.31 B	--	0.5 B	--	--	0.48 B
NICKEL	--	5.2	0.62 J	6.6	3.1 J	2.4 J	0.36 J
SELENIUM	--	0.61 J	--	0.66 J	--	--	--
SILVER	--	--	--	--	--	--	--
THALLIUM	--	--	--	--	--	--	--
VANADIUM	15	23	27	24	9.5	16	10
ZINC	3.2 J	41	2.9 J	50	11	15	1.9 J
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	--	--	--	--	--	--	--
AROCLOR-1260	--	24 J	--	--	--	--	--
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	--	890	--	410	11 J	--	--
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-126-20-22	GSP-SB-127-0-2	GSP-SB-127-6-8	GSP-SB-128-0-2	GSP-SB-128-6-8	GSP-SB-129-0-2	GSP-SB-129-6-8
LABORATORY ID:	240-820-12	240-820-13	240-820-14	240-820-1	240-820-2	240-635-25	240-635-26
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	6/6/2011	6/6/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-126	GSP-SB-127	GSP-SB-127	GSP-SB-128	GSP-SB-128	GSP-SB-129	GSP-SB-129
VOLATILE SOILS (ug/kg)							
1,2,3-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--	--	--	--
2-BUTANONE	--	--	--	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--	--	--	--
ACETONE	--	--	--	--	46 B	--	6.5 B
BENZENE	--	--	--	--	--	--	--
CARBON DISULFIDE	--	--	--	--	--	--	--
CHLOROBENZENE	--	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--	--	--	--
ETHYLBENZENE	--	--	--	--	--	--	--
M+P-XYLENES	--	--	--	--	--	--	--
METHYLENE CHLORIDE	--	--	--	3.4 B	4.8 B	4.4 B	3.2 B
NAPHTHALENE	--	--	--	--	--	--	--
N-PROPYLBENZENE	--	--	--	--	--	--	--
O-XYLENE	--	--	--	--	--	--	--
STYRENE	--	--	--	--	--	--	--
TOLUENE	--	--	--	0.37 J	0.4 J	--	--
TOTAL XYLENES	--	--	--	--	--	--	--
TRICHLOROETHENE	10 J	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-126-20-22	GSP-SB-127-0-2	GSP-SB-127-6-8	GSP-SB-128-0-2	GSP-SB-128-6-8	GSP-SB-129-0-2	GSP-SB-129-6-8
LABORATORY ID:	240-820-12	240-820-13	240-820-14	240-820-1	240-820-2	240-635-25	240-635-26
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	6/6/2011	6/6/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-126	GSP-SB-127	GSP-SB-127	GSP-SB-128	GSP-SB-128	GSP-SB-129	GSP-SB-129
VINYL CHLORIDE	--	--	--	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)							
2-METHYLNAPHTHALENE	--	--	--	15	--	--	--
ACENAPHTHENE	--	--	--	24	--	--	--
ACENAPHTHYLENE	--	--	--	23	--	--	--
ANTHRACENE	--	20	--	86	--	10	--
BENZO(A)ANTHRACENE	--	62	--	360	--	50	8
BENZO(A)PYRENE	--	55	--	310	--	44	5.9 J
BENZO(B)FLUORANTHENE	--	72	--	330	--	60	8.3
BENZO(G,H,I)PERYLENE	--	38	--	180	--	26	--
BENZO(K)FLUORANTHENE	--	31	--	250	--	26	--
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	--	97	--	25 J	43 J
CAPROLACTAM	--	--	--	--	--	--	--
CARBAZOLE	--	--	--	45 J	--	--	--
CHRYSENE	--	57	--	360	--	55	7.8 J
DIBENZO(A,H)ANTHRACENE	--	10	--	40	--	6.3 J	--
DIBENZOFURAN	--	--	--	15 J	--	--	--
DIETHYL PHTHALATE	--	--	--	--	--	--	--
DI-N-BUTYL PHTHALATE	--	--	--	--	--	--	--
FLUORANTHENE	--	130	--	730	--	110	15
FLUORENE	--	--	--	26	--	--	--
INDENO(1,2,3-CD)PYRENE	--	32	--	170	--	22	--
NAPHTHALENE	--	--	--	14	--	--	--
PHENANTHRENE	--	68	--	260	--	38	7.6 J
PHENOL	--	--	--	--	--	--	--
PYRENE	--	99	--	590	--	97	15

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
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SAMPLE ID:	GSP-SB-126-20-22	GSP-SB-127-0-2	GSP-SB-127-6-8	GSP-SB-128-0-2	GSP-SB-128-6-8	GSP-SB-129-0-2	GSP-SB-129-6-8
LABORATORY ID:	240-820-12	240-820-13	240-820-14	240-820-1	240-820-2	240-635-25	240-635-26
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	6/6/2011	6/6/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-126	GSP-SB-127	GSP-SB-127	GSP-SB-128	GSP-SB-128	GSP-SB-129	GSP-SB-129
INORGANICS (mg/kg)							
ANTIMONY	NA	--	--	--	--	--	--
ARSENIC	NA	1.9	0.98 J	3.7	1.3 J	2.6	1.2 J
BARIUM	NA	20	3.9 J	8.3 J	3.3 J	18 J	7.1 J
BERYLLIUM	NA	0.088 J	--	--	--	0.11 J	--
CADMIUM	NA	--	--	--	--	--	--
CHROMIUM	NA	6.7	3.5	11	2.5	10	3.5
COBALT	NA	0.88 J	--	0.53 J	0.2 J	2.1	0.82 J
COPPER	NA	4 K	1.6 J	3.4 K	1.6 J	6.6	2.7
LEAD	NA	7.9	1.1 B	2.3 K	0.73 B	9.5	1.6 K
MERCURY	NA	--	--	--	--	0.099 J	--
MOLYBDENUM	NA	0.47 B	--	--	--	0.44 B	--
NICKEL	NA	2 J	0.36 J	0.95 J	--	3.6 J	0.96 J
SELENIUM	NA	--	--	--	--	--	--
SILVER	NA	--	--	--	--	--	--
THALLIUM	NA	--	--	--	--	--	--
VANADIUM	NA	13	8.3	22	5.3	15	6.8
ZINC	NA	29	2.4 J	5.5 J	3.5 J	20	4.4 B
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1242	NA	--	--	--	--	--	--
AROCLOR-1260	NA	62	--	30 J	--	220	--
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	--	--	--	--	--	22 B	--
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	--	--	--	--	--	--	--

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-129-20-22	GSP-SB-130-0-2	GSP-SB-130-6-8	GSP-SB-130-20-22
LABORATORY ID:	240-635-27	240-820-16	240-820-17	240-820-18
SAMPLE DATE:	5/31/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-129	GSP-SB-130	GSP-SB-130	GSP-SB-130
VOLATILE SOILS (ug/kg)				
1,2,3-TRICHLOROBENZENE	--	--	--	--
1,2,3-TRIMETHYLBENZENE	--	--	--	--
1,2,4-TRICHLOROBENZENE	--	--	--	--
1,2,4-TRIMETHYLBENZENE	--	--	--	--
1,2-DICHLOROBENZENE	--	--	--	--
1,3-DICHLOROBENZENE	--	--	--	--
1,4-DICHLOROBENZENE	--	--	--	--
2-BUTANONE	--	--	--	--
4-ISOPROPYLTOLUENE	--	--	--	--
4-METHYL-2-PENTANONE	--	--	--	--
ACETONE	7.2 B	--	14 B	9.6 B
BENZENE	--	--	--	--
CARBON DISULFIDE	--	--	--	--
CHLOROBENZENE	--	--	--	--
CIS-1,2-DICHLOROETHENE	--	--	--	--
ETHYLBENZENE	--	--	--	--
M+P-XYLENES	--	--	--	--
METHYLENE CHLORIDE	3.1 B	--	--	--
NAPHTHALENE	--	--	--	1.3 B
N-PROPYLBENZENE	--	--	--	--
O-XYLENE	--	--	--	--
STYRENE	--	--	--	--
TOLUENE	--	--	--	--
TOTAL XYLENES	--	--	--	--
TRICHLOROETHENE	--	--	--	5.5 J

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-129-20-22	GSP-SB-130-0-2	GSP-SB-130-6-8	GSP-SB-130-20-22
LABORATORY ID:	240-635-27	240-820-16	240-820-17	240-820-18
SAMPLE DATE:	5/31/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-129	GSP-SB-130	GSP-SB-130	GSP-SB-130
VINYL CHLORIDE	--	--	--	--
SEMIVOLATILE SOIL (ug/kg)				
2-METHYLNAPHTHALENE	--	--	--	--
ACENAPHTHENE	--	--	--	--
ACENAPHTHYLENE	--	--	--	--
ANTHRACENE	--	34	--	7.4 J
BENZO(A)ANTHRACENE	21	120	--	12
BENZO(A)PYRENE	10	120	--	13
BENZO(B)FLUORANTHENE	16	140	--	13
BENZO(G,H,I)PERYLENE	4.4 J	77	--	--
BENZO(K)FLUORANTHENE	5.6 J	39	--	9.6
BIS(2-ETHYLHEXYL)PHTHALATE	25 J	--	--	--
CAPROLACTAM	--	--	--	--
CARBAZOLE	--	--	--	--
CHRYSENE	17	130	--	14
DIBENZO(A,H)ANTHRACENE	--	20 J	--	--
DIBENZOFURAN	--	--	--	--
DIETHYL PHTHALATE	--	--	--	--
DI-N-BUTYL PHTHALATE	27 J	--	--	--
FLUORANTHENE	49	210	--	33
FLUORENE	--	--	--	--
INDENO(1,2,3-CD)PYRENE	4.1 J	66	--	--
NAPHTHALENE	--	--	--	--
PHENANTHRENE	20	96	--	25
PHENOL	--	--	--	--
PYRENE	39	180	--	24

TABLE 4-5

SUMMARY OF POSITIVE DETECTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 45 OF 45

SAMPLE ID:	GSP-SB-129-20-22	GSP-SB-130-0-2	GSP-SB-130-6-8	GSP-SB-130-20-22
LABORATORY ID:	240-635-27	240-820-16	240-820-17	240-820-18
SAMPLE DATE:	5/31/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-129	GSP-SB-130	GSP-SB-130	GSP-SB-130
INORGANICS (mg/kg)				
ANTIMONY	NA	--	--	NA
ARSENIC	NA	2.4	--	NA
BARIUM	NA	26	3.4 J	NA
BERYLLIUM	NA	0.24 J	--	NA
CADMIUM	NA	1	0.07 J	NA
CHROMIUM	NA	9.6	3.2	NA
COBALT	NA	1.7	--	NA
COPPER	NA	7.8	--	NA
LEAD	NA	19	0.84 B	NA
MERCURY	NA	0.1 J	--	NA
MOLYBDENUM	NA	0.32 B	--	NA
NICKEL	NA	5.1	--	NA
SELENIUM	NA	--	--	NA
SILVER	NA	0.26 J	0.18 J	NA
THALLIUM	NA	--	--	NA
VANADIUM	NA	18	4.2	NA
ZINC	NA	44	2.6 J	NA
PESTICIDES/PCBs (ug/kg)				
AROCLOR-1242	NA	--	--	NA
AROCLOR-1260	NA	56	--	NA
PETROLEUM HYDROCARBONS (mg/kg)				
DIESEL RANGE ORGANICS	--	100	--	--
PETROLEUM HYDROCARBONS (ug/kg)				
GASOLINE RANGE ORGANICS	--	--	--	--

MDE - Maryland Department of Environment - June 2008

-- Not detected.

B - Blank contaminant.

J - Positive result is considered estimated as a result of technical noncompliance.

L - Positive result is considered to be biased low as a result of technical noncompliance.

K - Positive result is considered to be biased high as a result of technical noncompliance.

NA - Not Analyzed.

ug/kg - microgram per kilogram

mg/kg - milligram per kilogram

Gray shaded values exceed MDE residential screening criteria.

Black shaded values exceed MDE residential and non-redisential screening criteria.

TABLE 4-6

STATISTICAL ANALYSIS OF WELL POINT SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 1 OF 3

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
VOLATILES (ug/L)										
1,1-DICHLOROETHENE	1/8	13%	0.19	0.19	0.99 J	0.99 J	GSP-SB-WP-89-062311	0.207	0.990	0.316
2-BUTANONE	1/8	13%	0.57	0.57	3.2 J	3.2 J	GSP-SB-WP-66-062311	0.649	3.20	1.03
ACETONE	2/8	25%	1.1	7.9	1.9 J	2.8 J	GSP-SB-WP-54-062111	1.53	2.35	1.26
CARBON DISULFIDE	1/8	13%	0.13	0.13	0.27 J	0.27 J	GSP-SB-WP-66-062311	0.091	0.270	0.072
CIS-1,2-DICHLOROETHENE	2/8	25%	0.17	0.17	0.33 J	4.1	GSP-SB-WP-89-062311	0.618	2.22	1.41
TERTIARY-BUTYL ALCOHOL	1/1	100%	-	-	6.9 J	6.9 J	GSP-SB-WP-66-062311	NA	NA	NA
TOLUENE	1/8	13%	0.13	0.13	22	22	GSP-SB-WP-66-062311	2.81	22.0	7.76
TRANS-1,2-DICHLOROETHENE	1/8	13%	0.19	0.19	0.19 J	0.19 J	GSP-SB-WP-89-062311	0.107	0.190	0.034
TRICHLOROETHENE	3/8	38%	0.17	0.17	1.3	25	GSP-SB-WP-89-062311	3.97	10.4	8.67
SEMIVOLATILES (ug/L)										
DI-N-BUTYL PHTHALATE	1/8	13%	0.64	1	0.73 J	0.73 J	GSP-SB-WP-54-062111	0.397	0.730	0.148
INORGANICS (ug/L)										
ANTIMONY	1/8	13%	0.073	0.4	0.53 J	0.53 J	GSP-SB-WP-66-062311	0.169	0.530	0.158
ARSENIC	7/8	88%	0.092	0.092	0.79 J	19 J	GSP-SB-WP-50-062211	7.35	8.40	6.08
BARIUM	8/8	100%	-	-	23	150	GSP-SB-WP-50-062211	62.5	62.5	39.5
BERYLLIUM	4/8	50%	0.092	0.092	0.12 J	0.97 J	GSP-SB-WP-50-062211	0.314	0.583	0.367
CADMIUM	5/8	63%	0.046	0.046	0.076 J	1	GSP-SB-WP-84-062311	0.217	0.333	0.334
CHROMIUM	7/8	88%	0.52	0.52	1.8 J	42	GSP-SB-WP-50-062211	8.52	9.70	13.8
COBALT	7/8	88%	0.53	0.53	0.68 J	210	GSP-SB-WP-84-062311	35.5	40.5	71.5
COPPER	8/8	100%	-	-	0.69 J	39	GSP-SB-WP-61-062211	14.3	14.3	15.7
LEAD	5/8	63%	0.3	0.75	0.98 J	16	GSP-SB-WP-50-062211	3.89	6.06	5.62

TABLE 4-6

STATISTICAL ANALYSIS OF WELL POINT SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 2 OF 3

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
MERCURY	2/8	25%	0.066	0.066	0.073 J	0.14 J	GSP-SB-WP-50-062211	0.051	0.107	0.038
MOLYBDENUM	1/8	13%	0.42	2.3	1.2 J	1.2 J	GSP-SB-WP-66-062311	0.603	1.20	0.419
NICKEL	7/8	88%	0.63	0.63	1 J	380	GSP-SB-WP-84-062311	57.1	65.2	131
SELENIUM	5/8	63%	0.32	0.32	0.36 J	1.2 J	GSP-SB-WP-89-062311	0.484	0.678	0.362
SILVER	1/8	13%	0.014	0.014	0.018 J	0.018 J	GSP-SB-WP-50-062211	0.008	0.018	0.004
THALLIUM	1/8	13%	0.21	0.51	1.1 J	1.1 J	GSP-SB-WP-84-062311	0.268	1.10	0.340
VANADIUM	8/8	100%	-	-	0.98 J	110	GSP-SB-WP-50-062211	21.3	21.3	36.5
ZINC	8/8	100%	-	-	6 J	1500 J	GSP-SB-WP-84-062311	214	214	520
INORGANICS FILTERED (ug/L)										
ANTIMONY	1/8	13%	0.073	0.31	0.49 J	0.49 J	GSP-SB-WP-66-062311	0.137	0.490	0.149
ARSENIC	6/8	75%	0.092	0.41	1.2 J	9.4 J	GSP-SB-WP-83-062211	4.72	6.25	3.86
BARIUM	8/8	100%	-	-	24	76	GSP-SB-WP-84-062311	49.0	49.0	18.0
BERYLLIUM	2/8	25%	0.092	0.092	0.61 J	0.64 J	GSP-SB-WP-84-062311	0.191	0.625	0.268
CADMIUM	3/8	38%	0.046	0.046	0.055 J	1.1	GSP-SB-WP-84-062311	0.168	0.410	0.377
CHROMIUM	7/8	88%	0.31	0.31	0.47 J	3.4	GSP-SB-WP-66-062311	1.64	1.85	1.20
COBALT	7/8	88%	0.33	0.33	0.42 J	220	GSP-SB-WP-84-062311	36.3	41.5	75.3
COPPER	8/8	100%	-	-	0.47 J	14	GSP-SB-WP-61-062211	4.49	4.49	5.36
LEAD	2/8	25%	0.16	0.3	2.6	2.7	GSP-SB-WP-66-062311	0.748	2.65	1.17
MOLYBDENUM	1/8	13%	0.42	1.8	1 J	1 J	GSP-SB-WP-66-062311	0.529	1.00	0.325
NICKEL	6/8	75%	0.63	0.63	1.3 J	410	GSP-SB-WP-84-062311	59.0	78.5	143
SELENIUM	3/8	38%	0.32	0.32	0.62 J	0.96 J	GSP-SB-WP-89-062311	0.386	0.763	0.326
THALLIUM	1/8	13%	0.2	0.34	1.1 J	1.1 J	GSP-SB-WP-84-062311	0.246	1.10	0.346

TABLE 4-6

STATISTICAL ANALYSIS OF WELL POINT SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 3 OF 3

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
VANADIUM	8/8	100%	-	-	0.39 J	13 J	GSP-SB-WP-66-062311, GSP-SB-WP-84-062311	4.67	4.67	5.36
ZINC	6/8	75%	1.2	6.1	7.1 J	1600 J	GSP-SB-WP-84-062311	219	291	559
TENTATIVELY IDENTIFIED VOLATILE (ug/l)										
SILANOL, TRIMETHYL-	2/2	100%	-	-	1.4 NJ	2.9 NJ	GSP-SB-WP-50-062211	2.15	2.15	NA
UNKNOWN	1/1	100%	-	-	1.8 NJ	1.8 NJ	GSP-SB-WP-66-062311	NA	NA	NA

Footnotes:

For non-detects, 1/2 sample quantitation limit was used as a proxy concentration.

1/2 the detection limit was used for B qualified data.

NA - Not applicable, there are an insufficient number of samples to calculate statistics.

Associated Samples

GSP-SB-WP-50-062211
GSP-SB-WP-54-062111
GSP-SB-WP-61-062211
GSP-SB-WP-61-062311
GSP-SB-WP-66-062311
GSP-SB-WP-66-062311RA
GSP-SB-WP-66-062411
GSP-SB-WP-71-062111
GSP-SB-WP-83-062211
GSP-SB-WP-84-062311
GSP-SB-WP-89-062311

TABLE 4-7

SUMMARY OF POSITIVE DETECTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID: / LABORATORY ID: / SAMPLE DATE: / LOCATION:	MDE Groundwater Criteria	GSP-SB-WP-50-062211 / 240-1365-2 / 6/22/2011 / GSP-SB-WP-50	GSP-SB-WP-54-062111 / 240-1342-2 / 6/21/2011 / GSP-SB-WP-54	GSP-SB-WP-61-062211 / 240-1365-1 / 6/22/2011 / GSP-SB-WP-61	GSP-SB-WP-61-062311 / 240-1443-3 / 6/23/2011 / GSP-SB-WP-61	GSP-SB-WP-66-062311 / 240-1443-4 / 6/23/2011 / GSP-SB-WP-66
VOLATILES (ug/L)						
1,1-DICHLOROETHENE	7	--	--	--	NA	--
2-BUTANONE	700	--	--	--	NA	3.2 J
ACETONE	550	1.9 B	2.8 J	1.4 B	NA	NA
CARBON DISULFIDE	100	--	--	--	NA	0.27 J
CIS-1,2-DICHLOROETHENE	70	--	--	--	NA	--
TERTIARY-BUTYL ALCOHOL	NA	--	--	--	NA	6.9 J
TOLUENE	1000	--	--	--	NA	22
TRANS-1,2-DICHLOROETHENE	100	--	--	--	NA	--
TRICHLOROETHENE	5	--	--	--	NA	--
SEMIVOLATILES (ug/L)						
BIS(2-ETHYLHEXYL)PHTHALATE	6	1.1 B	0.89 B	NA	--	NA
DI-N-BUTYL PHTHALATE	370	--	0.73 J	NA	--	NA
INORGANICS (ug/L)						
ANTIMONY	6	0.4 B	0.19 B	0.23 B	NA	0.53 J
ARSENIC	10	19 J	--	0.79 J	NA	7.1
BARIUM	2000	150	23	30	NA	60
BERYLLIUM	4	0.97 J	--	--	NA	0.12 J
CADMIUM	5	0.34 J	--	--	NA	0.15 J
CHROMIUM	100	42	0.52 B	1.8 J	NA	8.2
COBALT	NA	8.3	0.53 B	0.68 J	NA	11
COPPER	1300	35	0.69 J	39	NA	23
LEAD	15	16	0.3 B	1.7	NA	8.5
MERCURY	2	0.14 J	--	--	NA	--

TABLE 4-7

SUMMARY OF POSITIVE DETECTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID: LABORATORY ID: SAMPLE DATE: LOCATION:	MDE Groundwater Criteria	GSP-SB-WP-50-062211 240-1365-2 6/22/2011 GSP-SB-WP-50	GSP-SB-WP-54-062111 240-1342-2 6/21/2011 GSP-SB-WP-54	GSP-SB-WP-61-062211 240-1365-1 6/22/2011 GSP-SB-WP-61	GSP-SB-WP-61-062311 240-1443-3 6/23/2011 GSP-SB-WP-61	GSP-SB-WP-66-062311 240-1443-4 6/23/2011 GSP-SB-WP-66
MOLYBDENUM	NA	2.3 B	0.46 B	1.5 B	NA	1.2 J
NICKEL	73	13	--	1 J	NA	9.7
SELENIUM	50	0.5 J	--	--	NA	0.6 J
SILVER	100	0.018 J	--	--	NA	--
THALLIUM	2	0.51 B	0.25 B	0.26 B	NA	0.26 B
VANADIUM	3.7	110	0.98 J	3.9 J	NA	23
ZINC	5000	33	7.5 J	30	NA	26 J
INORGANICS FILTERED (ug/L)						
ANTIMONY	6	0.11 B	0.18 B	0.19 B	NA	0.49 J
ARSENIC	10	1.2 J	--	0.41 B	NA	6.6
BARIUM	2000	58	24	28	NA	46
BERYLLIUM	4	--	--	--	NA	--
CADMIUM	5	--	--	--	NA	--
CHROMIUM	100	0.47 J	0.31 B	0.47 J	NA	3.4
COBALT	NA	2.1	0.33 B	0.42 J	NA	13
COPPER	1300	3.2	0.99 J	14	NA	12
LEAD	15	0.16 B	0.2 B	0.3 B	NA	2.7
MOLYBDENUM	NA	1.8 B	0.47 B	0.93 B	NA	1 J
NICKEL	73	1.3 J	--	--	NA	8.1
SELENIUM	50	--	--	--	NA	0.62 J
THALLIUM	2	0.25 B	0.24 B	0.2 B	NA	0.21 B
VANADIUM	3.7	3.3 J	0.39 J	0.99 J	NA	13 J
ZINC	5000	1.2 B	7.1 J	9.9 J	NA	20 J

TABLE 4-7

SUMMARY OF POSITIVE DETECTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	MDE	GSP-SB-WP-50-062211	GSP-SB-WP-54-062111	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-SB-WP-66-062311
LABORATORY ID:	Groundwater	240-1365-2	240-1342-2	240-1365-1	240-1443-3	240-1443-4
SAMPLE DATE:	Criteria	6/22/2011	6/21/2011	6/22/2011	6/23/2011	6/23/2011
LOCATION:		GSP-SB-WP-50	GSP-SB-WP-54	GSP-SB-WP-61	GSP-SB-WP-61	GSP-SB-WP-66
PETROLEUM HYDROCARBONS (ug/L)						
DIESEL RANGE ORGANICS	47	380 B	230 B	320 B	NA	NA
GASOLINE RANGE ORGANICS	47	34 B	36 B	33 B	NA	42 B
TENTATIVELY IDENTIFIED VOLATILE (ug/l)						
SILANOL, TRIMETHYL-	NA	--	NA	NA	NA	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	2.8 R

TABLE 4-7

SUMMARY OF POSITIVE DETECTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-66-062311RA	GSP-SB-WP-66-062411	GSP-SB-WP-71-062111	GSP-SB-WP-83-062211	GSP-SB-WP-84-062311	GSP-SB-WP-89-062311
LABORATORY ID:	240-1443-4	240-1470-1	240-1342-3	240-1365-6	240-1443-1	240-1443-2
SAMPLE DATE:	6/23/2011	6/24/2011	6/21/2011	6/22/2011	6/23/2011	6/23/2011
LOCATION:	GSP-SB-WP-66	GSP-SB-WP-66	GSP-SB-WP-71	GSP-SB-WP-83	GSP-SB-WP-84	GSP-SB-WP-89
VOLATILES (ug/L)						
1,1-DICHLOROETHENE	NA	NA	--	--	--	0.99 J
2-BUTANONE	NA	NA	--	--	--	--
ACETONE	7.9 B	NA	1.9 J	1.6 B	--	--
CARBON DISULFIDE	NA	NA	--	--	--	--
CIS-1,2-DICHLOROETHENE	NA	NA	--	--	0.33 J	4.1
TERTIARY-BUTYL ALCOHOL	NA	NA	--	--	--	--
TOLUENE	NA	NA	--	--	--	--
TRANS-1,2-DICHLOROETHENE	NA	NA	--	--	--	0.19 J
TRICHLOROETHENE	NA	NA	--	1.3	5	25
SEMIVOLATILES (ug/L)						
BIS(2-ETHYLHEXYL)PHTHALATE	NA	--	0.85 B	--	--	--
DI-N-BUTYL PHTHALATE	NA	--	--	--	--	--
INORGANICS (ug/L)						
ANTIMONY	NA	NA	0.36 B	0.31 B	--	--
ARSENIC	NA	NA	9.7 J	11 J	6.4	4.8 J
BARIUM	NA	NA	68	46	74	49
BERYLLIUM	NA	NA	--	--	0.64 J	0.6 J
CADMIUM	NA	NA	0.076 J	--	1	0.1 J
CHROMIUM	NA	NA	5.9	4.2	2.2	3.6
COBALT	NA	NA	11 J	4.5	210	38
COPPER	NA	NA	7	5.2	3	1.8 J
LEAD	NA	NA	0.98 J	0.56 B	3.1	0.75 B
MERCURY	NA	NA	--	--	0.073 J	--

TABLE 4-7

SUMMARY OF POSITIVE DETECTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-66-062311RA	GSP-SB-WP-66-062411	GSP-SB-WP-71-062111	GSP-SB-WP-83-062211	GSP-SB-WP-84-062311	GSP-SB-WP-89-062311
LABORATORY ID:	240-1443-4	240-1470-1	240-1342-3	240-1365-6	240-1443-1	240-1443-2
SAMPLE DATE:	6/23/2011	6/24/2011	6/21/2011	6/22/2011	6/23/2011	6/23/2011
LOCATION:	GSP-SB-WP-66	GSP-SB-WP-66	GSP-SB-WP-71	GSP-SB-WP-83	GSP-SB-WP-84	GSP-SB-WP-89
MOLYBDENUM	NA	NA	1.5 B	0.64 B	--	--
NICKEL	NA	NA	2	3.4	380	47
SELENIUM	NA	NA	--	0.73 J	0.36 J	1.2 J
SILVER	NA	NA	--	--	--	--
THALLIUM	NA	NA	0.23 B	0.21 B	1.1 J	0.36 B
VANADIUM	NA	NA	11 J	3.6 J	14 J	4.2 J
ZINC	NA	NA	12 J	6 J	1500 J	100 J
INORGANICS FILTERED (ug/L)						
ANTIMONY	NA	NA	0.28 B	0.31 B	--	--
ARSENIC	NA	NA	9.1 J	9.4 J	6.9	4.3 J
BARIUM	NA	NA	68	44	76	48
BERYLLIUM	NA	NA	--	--	0.64 J	0.61 J
CADMIUM	NA	NA	0.055 J	--	1.1	0.074 J
CHROMIUM	NA	NA	2.7	2.5	1.4 J	2
COBALT	NA	NA	13 J	4	220	38
COPPER	NA	NA	0.47 J	2	2.4	0.83 J
LEAD	NA	NA	0.25 B	0.19 B	2.6	0.27 B
MOLYBDENUM	NA	NA	1.6 B	0.83 B	--	--
NICKEL	NA	NA	2.1	1.7 J	410	48
SELENIUM	NA	NA	--	0.71 J	--	0.96 J
THALLIUM	NA	NA	0.23 B	0.26 B	1.1 J	0.34 B
VANADIUM	NA	NA	4.9 J	1.3 J	13 J	0.51 J
ZINC	NA	NA	7.6 J	6.1 B	1600 J	100 J

TABLE 4-7

SUMMARY OF POSITIVE DETECTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-66-062311RA	GSP-SB-WP-66-062411	GSP-SB-WP-71-062111	GSP-SB-WP-83-062211	GSP-SB-WP-84-062311	GSP-SB-WP-89-062311
LABORATORY ID:	240-1443-4	240-1470-1	240-1342-3	240-1365-6	240-1443-1	240-1443-2
SAMPLE DATE:	6/23/2011	6/24/2011	6/21/2011	6/22/2011	6/23/2011	6/23/2011
LOCATION:	GSP-SB-WP-66	GSP-SB-WP-66	GSP-SB-WP-71	GSP-SB-WP-83	GSP-SB-WP-84	GSP-SB-WP-89
PETROLEUM HYDROCARBONS (ug/L)						
DIESEL RANGE ORGANICS	NA	--	--	260 B	450 B	740 B
GASOLINE RANGE ORGANICS	NA	NA	31 B	37 B	38 B	53 B
TENTATIVELY IDENTIFIED VOLATILE (ug/l)						
SILANOL, TRIMETHYL-	NA	NA	--	NA	1.3 R	NA
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA

MDE - Maryland Department of the Environment, June 2008.

-- - Not detected at listed detection limit.

B - Laboratory blank contamination.

J - Positive result is considered estimated as a result of technical noncompliance.

ug/l - micrograms per liter.

Shaded values exceed MDE groundwater criteria.

TABLE 4-8

STATISTICAL ANALYSIS OF GROUNDWATER SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 1 OF 3

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
VOLATILES (ug/L)										
1,1-DICHLOROETHENE	1/8	13%	0.19	3.2	0.45 J	0.45 J	GSP-MW1-061711	0.328	0.450	0.529
1,2,4-TRIMETHYLBENZENE	1/8	13%	0.12	2	0.26 J	0.26 J	GSP-MW1-061711	0.203	0.260	0.330
2-BUTANONE	1/8	13%	0.57	9.5	0.62 J	0.62 J	GSP-MW3-061711	0.885	0.620	1.57
ACETONE	3/8	38%	1.6	22	1.5 J	2.6 J	GSP-MW6-062011	3.03	2.03	3.33
BENZENE	2/8	25%	0.13	0.35	0.13 J	3.1 J	GSP-MW7-062211	0.472	1.62	1.06
CARBON TETRACHLORIDE	1/8	13%	0.13	2.2	2.6	2.6	GSP-MW5-062011	0.511	2.60	0.918
CHLOROFORM	1/8	13%	0.16	2.7	0.92 J	0.92 J	GSP-MW5-062011	0.344	0.920	0.502
CHLOROMETHANE	1/8	13%	0.3	5	0.42 J	0.42 J	GSP-MW8-062311	0.478	0.420	0.823
CIS-1,2-DICHLOROETHENE	2/8	25%	0.17	2.8	1.6	2.1	GSP-MW1-061711	0.691	1.85	0.858
M+P-XYLENES	1/8	13%	0.24	4	0.71 J	0.71 J	GSP-MW1-061711	0.429	0.710	0.668
O-XYLENE	1/8	13%	0.14	2.3	0.33 J	0.33 J	GSP-MW1-061711	0.238	0.330	0.380
TOLUENE	2/8	25%	0.13	2.2	0.13 J	0.28 J	GSP-MW8-062311	0.296	0.205	0.365
TOTAL XYLENES	1/8	13%	0.28	4.7	1 J	1 J	GSP-MW1-061711	0.524	1.00	0.797
TRICHLOROETHENE	4/8	50%	0.17	0.17	0.27 J	450	GSP-MW7-062211	58.6	117	158
VINYL CHLORIDE	1/8	13%	0.22	3.7	0.66 J	0.66 J	GSP-MW4-062011	0.396	0.660	0.618
SEMIVOLATILES (ug/L)										
BIS(2-ETHYLHEXYL)PHTHALATE	1/8	13%	0.76	0.83	0.99 J	0.99 J	GSP-MW3-061711	0.466	0.990	0.212
CAPROLACTAM	1/8	13%	0.76	0.8	0.77 J	0.77 J	GSP-MW1-061711	0.434	0.770	0.136
INORGANICS (ug/L)										
ANTIMONY	1/8	13%	0.1	0.28	0.43 J	0.43 J	GSP-MW8-062311	0.132	0.430	0.123
ARSENIC	7/8	88%	0.48	0.48	0.42 J	11	GSP-MW3-061711	2.46	2.78	3.77
BARIUM	8/8	100%	-	-	16	120	GSP-MW1-061711	54.0	54.0	39.4

TABLE 4-8

STATISTICAL ANALYSIS OF GROUNDWATER SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 2 OF 3

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
BERYLLIUM	4/8	50%	0.092	0.092	0.17 J	3.5	GSP-MW5-062011	0.717	1.39	1.26
CADMIUM	5/8	63%	0.046	0.046	0.07 J	1.4	GSP-MW5-062011	0.284	0.440	0.467
CHROMIUM	5/8	63%	0.36	0.73	0.79 J	6.7	GSP-MW5-062011	2.42	3.70	2.56
COBALT	8/8	100%	-	-	1.5	76	GSP-MW5-062011	23.3	23.3	26.4
COPPER	8/8	100%	-	-	0.93 J	35	GSP-MW1-061711	10.9	10.9	12.1
LEAD	4/8	50%	0.28	0.84	1	1.9 J	GSP-MW3-061711, GSP-MW7-062211	0.847	1.48	0.750
MERCURY	1/8	13%	0.066	0.066	0.19 J	0.19 J	GSP-MW7-062211	0.053	0.190	0.056
MOLYBDENUM	3/8	38%	0.42	2.6	0.47 J	5.9	GSP-MW5-062011	1.17	2.36	1.95
NICKEL	7/8	88%	0.63	0.63	0.69 J	77	GSP-MW1-061711	23.7	27.1	27.3
SELENIUM	4/8	50%	0.32	0.32	0.72 J	5.2	GSP-MW8-062311	1.32	2.48	1.83
VANADIUM	7/8	88%	0.3	0.3	0.37 J	48	GSP-MW3-061711	6.99	7.96	16.6
ZINC	7/8	88%	3.5	3.5	6 J	210 J	GSP-MW1-061711	53.2	60.6	67.9
INORGANICS FILTERED (ug/L)										
ANTIMONY	1/8	13%	0.086	0.19	0.23 J	0.23 J	GSP-MW8-062311	0.093	0.230	0.058
ARSENIC	4/8	50%	0.092	0.66	0.27 J	4.1 J	GSP-MW4-062011	0.798	1.39	1.36
BARIUM	8/8	100%	-	-	10	120	GSP-MW3-061711	51.9	51.9	40.5
BERYLLIUM	3/8	38%	0.092	0.092	0.16 J	2.8	GSP-MW5-062011	0.624	1.59	1.07
CADMIUM	5/8	63%	0.046	0.046	0.053 J	1.3	GSP-MW5-062011	0.274	0.425	0.436
CHROMIUM	4/8	50%	0.11	0.62	0.11 J	4.7	GSP-MW3-061711	1.21	2.27	1.87
COBALT	8/8	100%	-	-	1.1	70	GSP-MW5-062011	22.8	22.8	25.2
COPPER	8/8	100%	-	-	0.39 J	36	GSP-MW3-061711	8.92	8.92	11.9
LEAD	1/8	13%	0.21	0.5	1.2 J	1.2 J	GSP-MW3-061711	0.306	1.20	0.366
MERCURY	1/8	13%	0.066	0.066	0.09 J	0.09 J	GSP-MW7-062211	0.040	0.090	0.020

TABLE 4-8

STATISTICAL ANALYSIS OF GROUNDWATER SAMPLES
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 3 OF 3

Chemical	Frequency of Detection		Mininum Non Detected	Maximum Non Detected	Mininum Detected	Maximum Detected	Sample of Maximum Detected	Mean of All Samples	Mean of Positive Detects	Standard Deviation
	Number	Percent								
MOLYBDENUM	2/8	25%	0.42	2.9	1 J	1.7 J	GSP-MW5-062011	0.650	1.35	0.636
NICKEL	7/8	88%	0.63	0.63	0.73 J	79	GSP-MW3-061711	23.4	26.7	27.6
SELENIUM	4/8	50%	0.32	0.32	0.35 J	5.2	GSP-MW8-062311	0.941	1.72	1.74
VANADIUM	2/8	25%	0.3	0.3	0.63 J	0.67 J	GSP-MW1-061711	0.275	0.650	0.232
ZINC	7/8	88%	0.5	0.5	4.9 J	220 J	GSP-MW3-061711	52.5	60.0	71.3
PETROLEUM HYDROCARBONS (ug/L)										
DIESEL RANGE ORGANICS	5/8	63%	230	380	300 J	1600	GSP-MW6-062011	549	794	596
GASOLINE RANGE ORGANICS	1/8	13%	32	51	300	300	GSP-MW7-062211	54.8	300	99.1
TENTATIVELY IDENTIFIED VOLATILE (ug/l)										
1-PROPENE, 2-METHYL-	1/1	100%	-	-	1.4 NJ	1.4 NJ	GSP-MW5-062011	NA	NA	NA
SILANOL, DIMETHYL(1,1,2-TRIMETHYL	1/1	100%	-	-	1.6 NJ	1.6 NJ	GSP-MW4-062011	NA	NA	NA
SILANOL, TRIMETHYL-	3/3	100%	-	-	1.1 NJ	1.6 NJ	GSP-MW1-061711	1.40	1.40	NA
TERT-BUTYLDIMETHYLSILANOL	1/1	100%	-	-	3 NJ	3 NJ	GSP-MW6-062011	NA	NA	NA

Footnotes:

For non-detects, 1/2 sample quantitation limit was used as a proxy concentration.

1/2 the detection limit was used for B qualified data.

NA - Not applicable, there are an insufficient number of samples to calculate statistics.

Associated Samples

GSP-MW1-061711	GSP-MW4-062011	GSP-MW7-062211
GSP-MW2-061711	GSP-MW5-062011	GSP-MW8-062311
GSP-MW3-061711	GSP-MW6-062011	

TABLE 4-9

SUMMARY OF POSITIVE DETECTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 1 OF 6

SAMPLE ID:	MDE	GSP-MW1-061711	GSP-MW2-061711	GSP-MW3-061711	GSP-MW4-062011	GSP-MW5-062011	GSP-MW6-062011
LABORATORY ID:	Groundwater	240-1267-2	240-1267-3	240-1267-4	240-1287-2	240-1287-3	240-1287-4
SAMPLE DATE:	Criteria	6/17/2011	6/17/2011	6/17/2011	6/20/2011	6/20/2011	6/20/2011
LOCATION:		GSP-MW1	GSP-MW2	GSP-MW3	GSP-MW4	GSP-MW5	GSP-MW6
VOLATILES (ug/L)							
1,1-DICHLOROETHENE	7	0.45 J	--	--	--	--	--
1,2,4-TRIMETHYLBENZENE	NA	0.26 J	--	--	--	--	--
2-BUTANONE	700	--	--	0.62 J	--	--	--
ACETONE	550	6.9 B	1.6 B	3.6 B	1.5 J	2 J	2.6 J
BENZENE	5	0.35 B	0.19 B	0.16 B	0.13 J	--	--
CARBON TETRACHLORIDE	5	--	--	--	--	2.6	--
CHLOROFORM	80	--	--	--	--	0.92 J	--
CHLOROMETHANE	19	--	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	70	2.1	--	--	1.6	--	--
M+P-XYLENES	NA	0.71 J	--	--	--	--	--
O-XYLENE	NA	0.33 J	--	--	--	--	--
TOLUENE	1000	1.1 B	0.19 B	0.17 B	0.13 J	--	--
TOTAL XYLENES	10000	1 J	--	--	--	--	--
TRICHLOROETHENE	5	12	--	--	6	--	--
VINYL CHLORIDE	2	--	--	--	0.66 J	--	--
SEMIVOLATILES (ug/L)							
BIS(2-ETHYLHEXYL)PHTHALATE	6	--	--	0.99 J	--	--	--
CAPROLACTAM	NA	0.77 J	--	--	--	--	--
INORGANICS (ug/L)							
ANTIMONY	6	0.17 B	0.14 B	0.28 B	0.16 B	0.21 B	0.19 B
ARSENIC	10	0.55 J	0.95 J	11	4.9 J	0.71 J	0.42 J
BARIUM	2000	120	24	16	36	37	34

TABLE 4-9

SUMMARY OF POSITIVE DETECTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 2 OF 6

SAMPLE ID: LABORATORY ID: SAMPLE DATE: LOCATION:	MDE Groundwater Criteria	GSP-MW1-061711 240-1267-2 6/17/2011 GSP-MW1	GSP-MW2-061711 240-1267-3 6/17/2011 GSP-MW2	GSP-MW3-061711 240-1267-4 6/17/2011 GSP-MW3	GSP-MW4-062011 240-1287-2 6/20/2011 GSP-MW4	GSP-MW5-062011 240-1287-3 6/20/2011 GSP-MW5	GSP-MW6-062011 240-1287-4 6/20/2011 GSP-MW6
BERYLLIUM	4	1.7	--	--	--	3.5	--
CADMIUM	5	0.3 J	0.11 J	--	--	1.4	--
CHROMIUM	100	5.1	0.36 B	4.3	0.73 B	6.7	0.67 B
COBALT	NA	52	16	11	11	76	1.5
COPPER	1300	35	3	17	0.93 J	20	1.9 J
LEAD	15	1.1 J	0.33 B	1.9 J	0.3 B	0.84 B	0.28 B
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	0.56 B	--	0.48 B	--	5.9	0.72 J
NICKEL	73	77	17	11	0.69 J	53	--
SELENIUM	50	1.1 J	--	--	--	2.9 J	--
THALLIUM	2	0.47 B	0.28 B	0.29 B	0.32 B	0.29 B	0.28 B
TUNGSTEN	NA	0.25 B	--	--	--	--	--
VANADIUM	3.7	--	0.41 J	48	0.37 J	3.7 J	1.4 J
ZINC	5000	210 J	29 J	45 J	3.5 B	79	6 J
INORGANICS FILTERED (ug/L)							
ANTIMONY	6	0.18 B	0.15 B	0.15 B	0.15 B	0.19 B	0.086 B
ARSENIC	10	0.3 J	0.87 J	0.27 J	4.1 J	--	0.56 B
BARIUM	2000	10	23	120	36	39	32
BERYLLIUM	4	--	--	1.8	--	2.8	--
CADMIUM	5	--	0.1 J	0.36 J	--	1.3	0.053 J
CHROMIUM	100	0.3 B	0.62 B	4.7	0.2 B	3.7	--

TABLE 4-9

SUMMARY OF POSITIVE DETECTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 3 OF 6

SAMPLE ID: LABORATORY ID: SAMPLE DATE: LOCATION:	MDE Groundwater Criteria	GSP-MW1-061711 240-1267-2 6/17/2011 GSP-MW1	GSP-MW2-061711 240-1267-3 6/17/2011 GSP-MW2	GSP-MW3-061711 240-1267-4 6/17/2011 GSP-MW3	GSP-MW4-062011 240-1287-2 6/20/2011 GSP-MW4	GSP-MW5-062011 240-1287-3 6/20/2011 GSP-MW5	GSP-MW6-062011 240-1287-4 6/20/2011 GSP-MW6
COBALT	NA	11	16	54	11	70	1.1
COPPER	1300	7.2	3.9	36	0.39 J	15	1.5 J
LEAD	15	0.21 B	0.34 B	1.2 J	0.27 B	0.5 B	0.22 B
MERCURY	2	--	--	--	--	--	--
MOLYBDENUM	NA	--	--	--	--	1.7 J	1 J
NICKEL	73	11	16	79	0.73 J	50	--
SELENIUM	50	--	--	0.35 J	--	--	0.53 J
THALLIUM	2	0.25 B	0.25 B	0.39 B	0.31 B	0.29 B	0.25 B
TUNGSTEN	NA	--	--	--	--	--	0.46 B
VANADIUM	3.7	0.67 J	--	--	--	--	0.63 J
ZINC	5000	42 J	31 J	220 J	4.9 J	69	--
PETROLEUM HYDROCARBONS (ug/L)							
DIESEL RANGE ORGANICS	47	310 J	300 J	360 J	--	1400	1600
GASOLINE RANGE ORGANICS	47	51 B	40 B	41 B	36 B	37 B	32 B
TENTATIVELY IDENTIFIED VOLATILE (ug/l)							
TERT-BUTYLDIMETHYLSILANOL	NA	NA	NA	NA	NA	NA	--

TABLE 4-9

SUMMARY OF POSITIVE DETECTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 4 OF 6

SAMPLE ID:	GSP-MW7-062211	GSP-MW8-062311
LABORATORY ID:	240-1365-3	240-1443-5
SAMPLE DATE:	6/22/2011	6/23/2011
LOCATION:	GSP-MW7	GSP-MW8
VOLATILES (ug/L)		
1,1-DICHLOROETHENE	--	--
1,2,4-TRIMETHYLBENZENE	--	--
2-BUTANONE	--	--
ACETONE	22 B	2.1 B
BENZENE	3.1 J	--
CARBON TETRACHLORIDE	--	--
CHLOROFORM	--	--
CHLOROMETHANE	--	0.42 J
CIS-1,2-DICHLOROETHENE	--	--
M+P-XYLENES	--	--
O-XYLENE	--	--
TOLUENE	--	0.28 J
TOTAL XYLENES	--	--
TRICHLOROETHENE	450	0.27 J
VINYL CHLORIDE	--	--
SEMIVOLATILES (ug/L)		
BIS(2-ETHYLHEXYL)PHTHALATE	0.83 B	--
CAPROLACTAM	--	--
INORGANICS (ug/L)		
ANTIMONY	0.1 B	0.43 J
ARSENIC	0.93 J	0.48 B
BARIUM	55	110

TABLE 4-9

SUMMARY OF POSITIVE DETECTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 5 OF 6

SAMPLE ID:	GSP-MW7-062211	GSP-MW8-062311
LABORATORY ID:	240-1365-3	240-1443-5
SAMPLE DATE:	6/22/2011	6/23/2011
LOCATION:	GSP-MW7	GSP-MW8
BERYLLIUM	0.17 J	0.18 J
CADMIUM	0.07 J	0.32 J
CHROMIUM	1.6 J	0.79 J
COBALT	3.5	15
COPPER	2.6	6.5
LEAD	1.9	1
MERCURY	0.19 J	--
MOLYBDENUM	2.6 B	0.47 J
NICKEL	7.9	23
SELENIUM	0.72 J	5.2
THALLIUM	0.24 B	0.22 B
TUNGSTEN	--	--
VANADIUM	1.3 J	0.55 J
ZINC	18 J	37 J
INORGANICS FILTERED (ug/L)		
ANTIMONY	0.12 B	0.23 J
ARSENIC	0.66 B	0.37 B
BARIUM	45	110
BERYLLIUM	--	0.16 J
CADMIUM	--	0.31 J
CHROMIUM	0.58 J	0.11 J

TABLE 4-9

SUMMARY OF POSITIVE DETECTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND
PAGE 6 OF 6

SAMPLE ID:	GSP-MW7-062211	GSP-MW8-062311
LABORATORY ID:	240-1365-3	240-1443-5
SAMPLE DATE:	6/22/2011	6/23/2011
LOCATION:	GSP-MW7	GSP-MW8
COBALT	3	16
COPPER	1.3 J	6.1
LEAD	0.47 B	0.48 B
MERCURY	0.09 J	--
MOLYBDENUM	2.9 B	--
NICKEL	6.4	24
SELENIUM	0.81 J	5.2
THALLIUM	0.23 B	0.22 B
TUNGSTEN	--	--
VANADIUM	--	--
ZINC	14 J	39 J
PETROLEUM HYDROCARBONS (ug/L)		
DIESEL RANGE ORGANICS	380 B	--
GASOLINE RANGE ORGANICS	300	39 B
TENTATIVELY IDENTIFIED VOLATILE (ug/l)		
TERT-BUTYLDIMETHYLSILANOL	NA	4.5 R

MDE - Maryland Department of the Environment, June 2008.

-- - Not detected at listed detection limit.

B - Laboratory blank contamination.

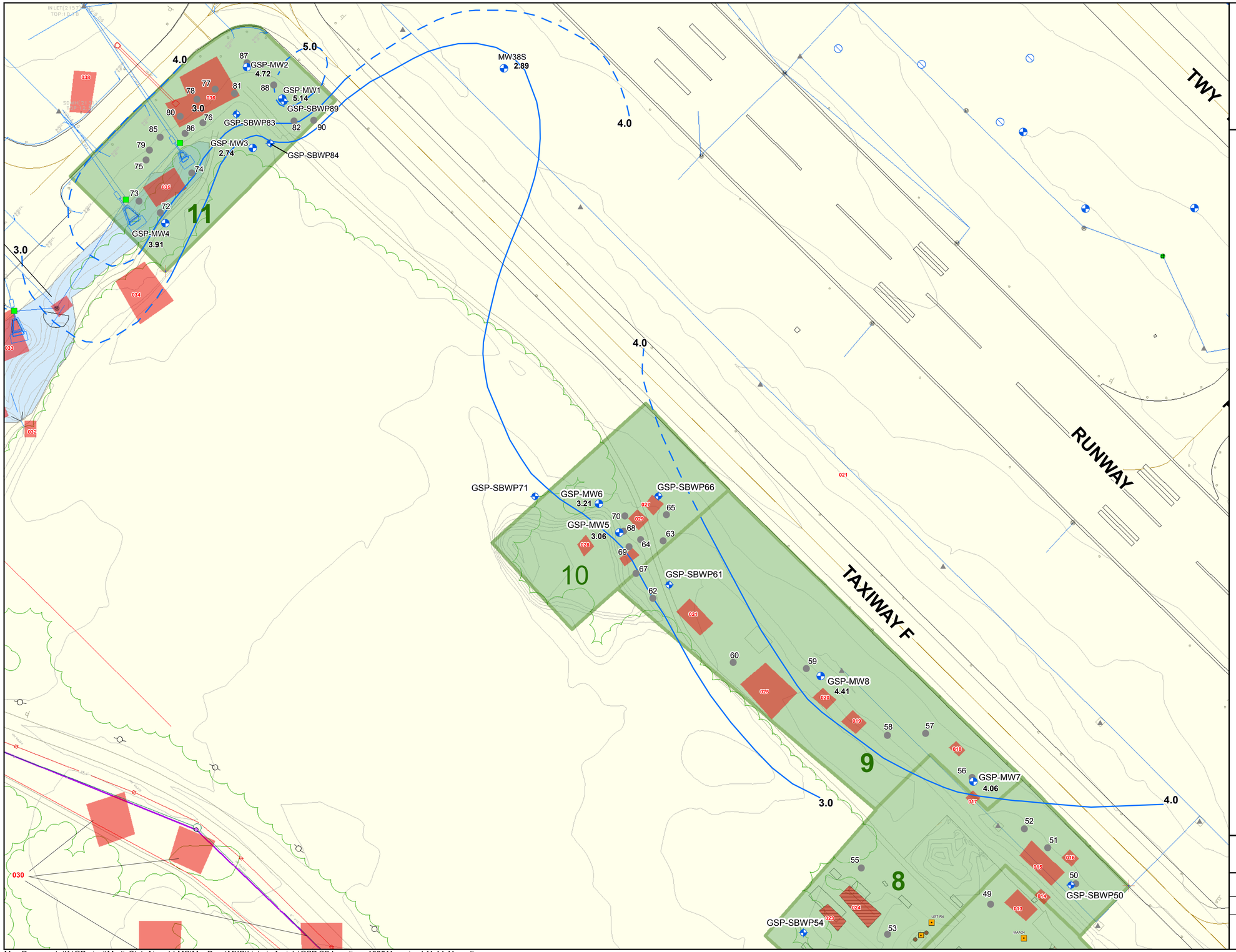
J - Positive result is considered estimated as a result of technical noncompliance.

ug/l - micrograms per liter.

Shaded values exceed MDE groundwater criteria.

Figure 4-1

Groundwater Elevation Contour Map, July 2011 Greater Strawberry Point



LEGEND

- Groundwater Well (2011)
- 2010 Temporary Well Point
- 2010 SoiL Boring (SB)
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- 4.0- Contoured Groundwater Elevation
- Inferred Contour Elevation
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- 9 REC Number

REC # REC Name
REC 8 Former Induction Test,
Former Engine Test,
Former Jet Test Shed,
Former Storage Building
Former Propulsion Test
and Former Compressor Shed Buildings
REC 9 Former Propellant Storage,
Former Acetylene Storage Shed,
Former Furnace Building,
Former Hyper-Therm Test Facilities,
and Former Vanguard Tower
REC 10 Former Coupon Test Shed
and Former Block House
REC 11 Former Critical Test Building (KC),
Former Radioisotope Lab (KJ)
and Former Transformer Pad

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 50 100 200 Feet

N

DATE MODIFIED: 10/05/11

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Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\historic Aerials\GSP SB Locations 100511_revised 11 14 11.mxd)
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Figure 4-2

Exceedances in Test Pit Soil Samples RECs 8 and 9 Greater Strawberry Point



LEGEND

- Test Pit Soil Sample Location
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- 9 REC Number

[10-12] Depth Range (ft)

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
ATC - Anticipated Typical Concentration

Note:
Metals concentrations were screened against the Eastern Maryland Region Anticipated Typical Concentrations (ATC) to identify exceedances

BAP Equivalent:
1E-05 Cancer Risk Level for Residential Soils = 140 ug/kg

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 25 50 100 Feet

N

DATE MODIFIED: 11/22/11

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP Exceedances in Test pits Rec8_9_11 22 11.mxd)
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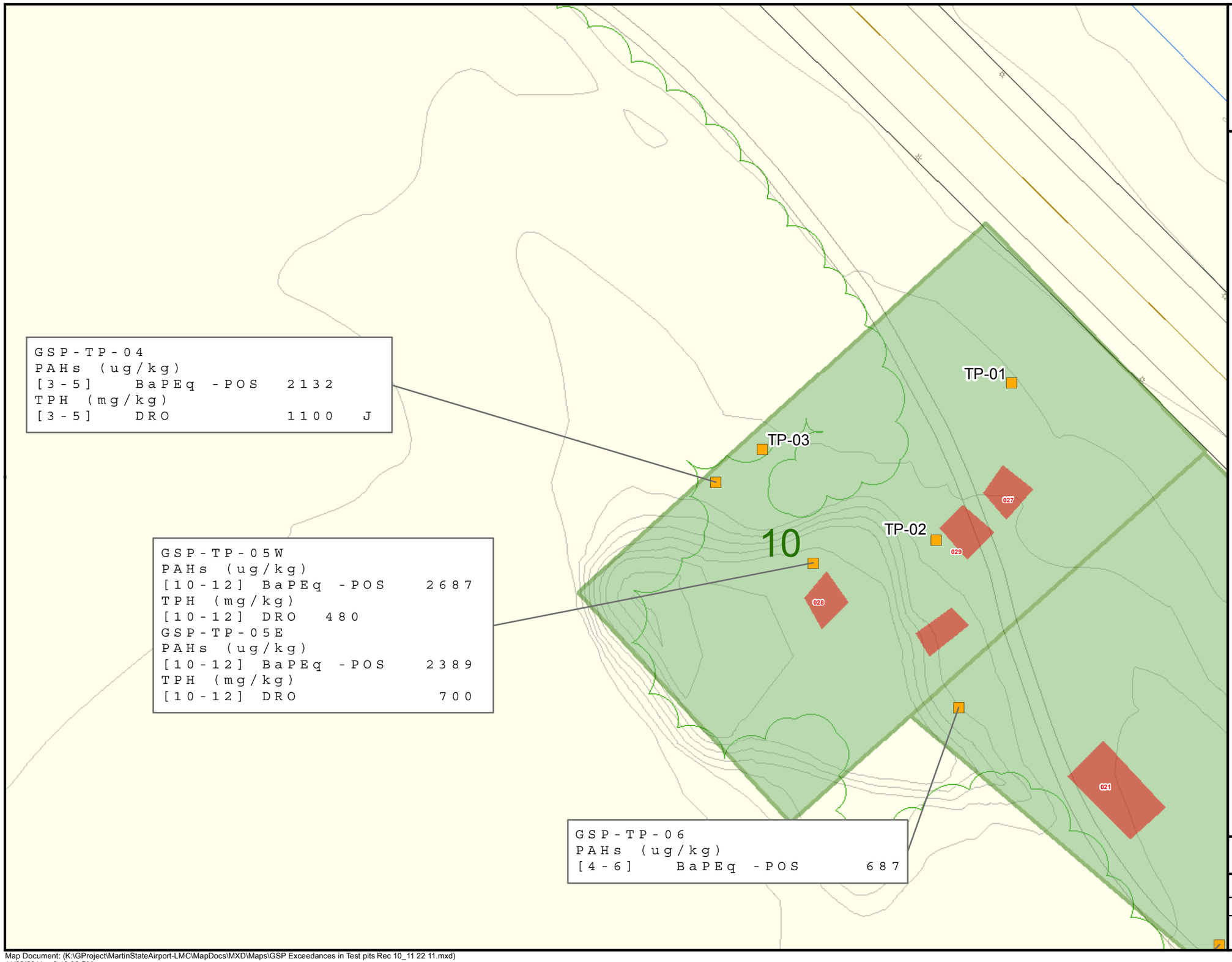

Figure 4-3

Exceedances in Test Pit Soil Samples REC 10
Greater Strawberry Point

LEGEND

- Test Pit Soil Sample Location
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- **9** REC Number

[10-12] Depth Range (ft)

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
ATC - Anticipated Typical Concentration

Note:
Metals concentrations were screened against the Eastern Maryland Region Anticipated Typical Concentrations (ATC) to identify exceedances

Diesel Range Organics:
MDE Residential Screening Level = 230 mg/kg.
MDE Commercial/Industrial Screening Level = 620 mg/kg
BAP Equivalent:
1E-05 Cancer Risk Level for Residential Soils = 140 ug/kg

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 15 30 60 Feet

N

DATE MODIFIED: 11/22/11

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP Exceedances in Test pits Rec 10_11 22 11.mxd)
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Figure 4-4

Exceedances in Surface Soil (0 to 2') RECs 8, 9 and 10 Greater Strawberry Point

GSP-SB-106 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 690.75

GSP-SB-108 [0-2]
Inorganics (mg/kg)
[0-2] ARSENIC 5.5
[0-2] VANADIUM 65

GSP-SB-103 [0-2]
Inorganics (mg/kg)
[0-2] ARSENIC 4.1

GSP-SB-105 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-HALFND 142.12

GSP-SB-109 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 563.41
Petroleum Hydrocarbons (mg/kg)
[0-2] DIESEL RANGE ORGANICS 290

GSP-SB-101 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 201.65

GSP-SB-102 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 277.06

GSP-SB-110 [0-2]
Inorganics (mg/kg)
[0-2] ARSENIC 5.6
[0-2] VANADIUM 47
Petroleum Hydrocarbons (mg/kg)
[0-2] DIESEL RANGE ORGANICS 320

RUNWAY

TAXIWAY F

10

9

8

SB-107 SB-104 SB-105 SB-101 SB-99 SB-97 SB-98 SB-96 SB-95 SB-93 SB-94 SB-91

71 66 65 70 68 64 63 69 67 61 62 60 59 58 57 55 54 53 52 51

027 029 028 021 025 020 019 018 017 016 015 014 013 024 023

UST R4

MAA24

LEGEND

- Surface Soil Exceedance Location
- Surface Soil Location
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- 9 REC Number

[0-2] Depth Range (ft)

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
ATC - Anticipated Typical Concentration

Note:
Metals concentrations were screened against the Eastern Maryland Region Anticipated Typical Concentrations (ATC) to identify exceedances

Diesel Range Organics:
MDE Residential Screening Level = 230 mg/kg.
MDE Commercial/Industrial Screening Level = 620 mg/kg
BAP Equivalent:
1E-05 Cancer Risk Level for Residential Soils = 140 ug/kg
Metals ATCs (Eastern Maryland):
Arsenic = 3.6 mg/kg
Chromium = 28 mg/kg
Lead = 45 mg/kg
Thallium = 3.9 mg/kg
Vanadium = 30 mg/kg

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 37.5 75 150 Feet

N

DATE MODIFIED: 11/30/11

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP Exceedances Rec9_10_0to2ft_11 30 11.mxd)
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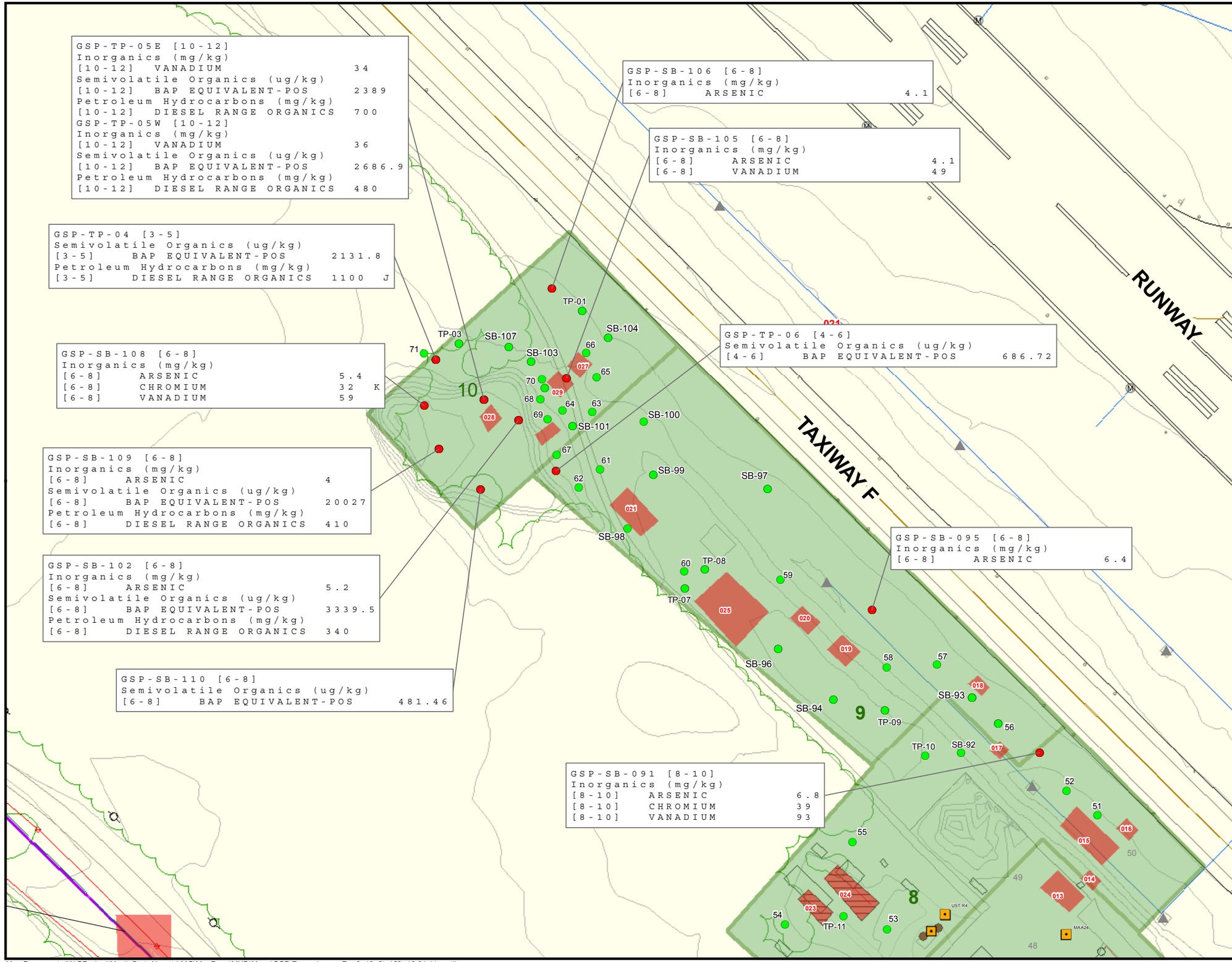

Figure 4-5

Exceedances in Subsurface Soil (2 to 15') RECs 8, 9 and 10 Greater Strawberry Point

LEGEND

- Subsurface Soil Exceedance Location
- Subsurface Soil Location
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- 9 REC Number

[10-12] Depth Range (ft)

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
ATC - Anticipated Typical Concentration

Note:
Metals concentrations were screened against the Eastern Maryland Region Anticipated Typical Concentrations (ATC) to identify exceedances

Diesel Range Organics:
MDE Residential Screening Level = 230 mg/kg.
MDE Commercial/Industrial Screening Level = 620 mg/kg
BAP Equivalent:
1E-05 Cancer Risk Level for Residential Soils = 140 ug/kg
Metals ATCs (Eastern Maryland):
Arsenic = 3.6 mg/kg
Chromium = 28 mg/kg
Lead = 45 mg/kg
Thallium = 3.9 mg/kg
Vanadium = 30 mg/kg

J estimated result
K result is considered biased high

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 37.5 75 150 Feet

N

DATE MODIFIED: 10/26/11

CREATED BY: MP

TETRA TECH

Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP Exceedances Rec9_10_2to15ft_12 01 11.mxd)
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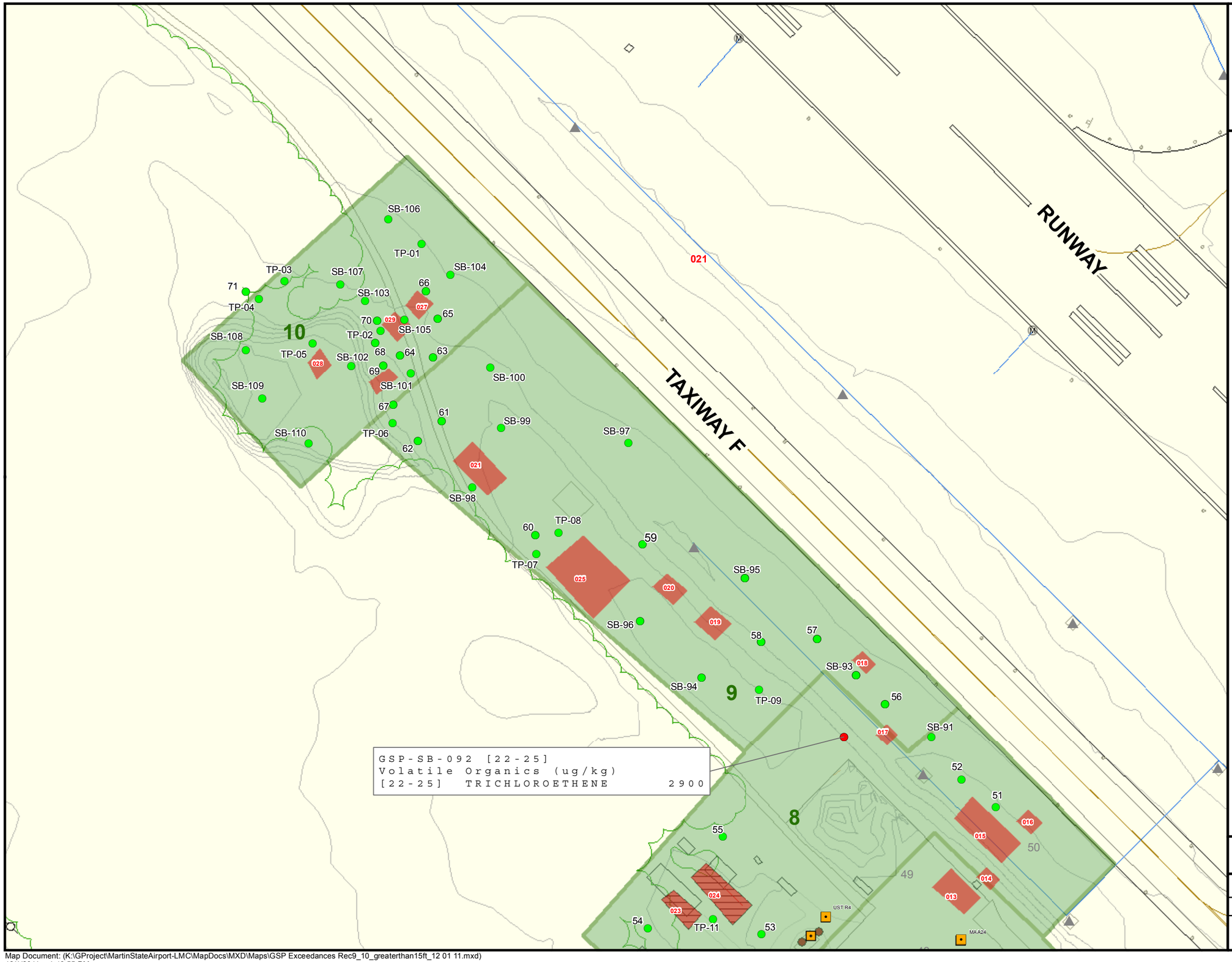
Figure 4-6

Exceedances in Subsurface Soil Greater Than 15' RECs 8, 9 and 10 Greater Strawberry Point



LEGEND

- Subsurface Soil Exceedance Location
- Subsurface Soil Location
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities

9 REC Number

[20-22] Depth Range (ft)

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
ATC - Anticipated Typical Concentration

Note:
Metals concentrations were screened against the Eastern Maryland Region Anticipated Typical Concentrations (ATC) to identify exceedances

Diesel Range Organics:
MDE Residential Screening Level = 230 mg/kg.
MDE Commercial/Industrial Screening Level = 620 mg/kg
BAP Equivalent:
1E-05 Cancer Risk Level for Residential Soils = 140 ug/kg
Metals ATCs (Eastern Maryland):
Arsenic = 3.6 mg/kg
Chromium = 28 mg/kg
Lead = 45 mg/kg
Thallium = 3.9 mg/kg
Vanadium = 30 mg/kg
Trichloretnene:
MDE Residential Screening level = 1600 ug/kg
MDE Commercial/Industrial Screening level = 7200 ug/kg

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 37.5 75 150 Feet

N

DATE MODIFIED: 12/01/11

CREATED BY: MP

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Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP Exceedances Rec9_10_greaterthan15ft_12 01 11.mxd)
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Figure 4-7

Exceedances in Surface Soil (0 to 2') REC 11 Greater Strawberry Point

GSP-SB-118 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 1081.66
PCBs (ug/kg)
[0-2] TOTAL AROCLOR 1200

GSP-SB-119 [0-2]
Inorganics (mg/kg)
[0-2] ARSENIC 4.2
[0-2] VANADIUM 33
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 836.01

GSP-SB-120 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 1933.1
PCBs (ug/kg)
[0-2] TOTAL AROCLOR 1700
Petroleum Hydrocarbons (mg/kg)
[0-2] DIESEL RANGE ORGANICS 280

GSP-SB-121 [0-3]
Inorganics (mg/kg)
[0-3] ARSENIC 4.1
[0-3] VANADIUM 31
Semivolatile Organics (ug/kg)
[0-3] BAP EQUIVALENT-POS 1772.7
PCBs (ug/kg)
[0-3] TOTAL AROCLOR 2400
Petroleum Hydrocarbons (mg/kg)
[0-3] DIESEL RANGE ORGANICS 280

GSP-SB-122 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 682.68
PCBs (ug/kg)
[0-2] TOTAL AROCLOR 3400

GSP-SB-123 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 324.73
PCBs (ug/kg)
[0-2] TOTAL AROCLOR 640

GSP-SB-128 [0-2]
Inorganics (mg/kg)
[0-2] ARSENIC 3.7
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 438.86

GSP-SB-130 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 173.12

GSP-SB-117 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 1496.9

GSP-SB-115 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 999.79
Petroleum Hydrocarbons (mg/kg)
[0-2] DIESEL RANGE ORGANICS 700 L

GSP-SB-114 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 490.85

GSP-SB-116 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 379.92

GSP-SB-113 [0-2]
Inorganics (mg/kg)
[0-2] ARSENIC 4
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 402.79

GSP-SB-112 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 1777.3

GSP-SB-111 [0-2]
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 592.62

GSP-SB-125 [0-2]
Inorganics (mg/kg)
[0-2] ARSENIC 3.9
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 737.82
Petroleum Hydrocarbons (mg/kg)
[0-2] DIESEL RANGE ORGANICS 410

GSP-SB-124 [0-2]
Inorganics (mg/kg)
[0-2] ARSENIC 4.1
Semivolatile Organics (ug/kg)
[0-2] BAP EQUIVALENT-POS 5755.2
Petroleum Hydrocarbons (mg/kg)
[0-2] DIESEL RANGE ORGANICS 890

GSP-SB-126 [0-2]
Inorganics (mg/kg)
[0-2] ARSENIC 4.5

TWY J
TAXIWAY J
TAXIWAY F
SB-115 SB-117 SB-118 SB-120 SB-119 SB-121 SB-114 SB-116 SB-113 SB-112 SB-111 SB-122 SB-123 SB-124 SB-125 SB-126 SB-127 SB-128 SB-129 SB-130
87 036 77 78 80 76 86 83 82 90 84 75 74 035 72 034 038 046
11

LEGEND

- Surface Soil Exceedance Location
- Surface Soil Location
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities

9 REC Number

[0-2] Depth Range (ft)

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
TWY - Taxiway
ATC - Anticipated Typical Concentration

Note:
Metals concentrations were screened against the Eastern Maryland Region Anticipated Typical Concentrations (ATC) to identify exceedances

Diesel Range Organics:
MDE Residential Screening Level = 230 mg/kg.
MDE Commercial/Industrial Screening Level = 620 mg/kg
BAP Equivalent:
1E-05 Cancer Risk Level for Residential Soils = 140 ug/kg
Metals ATCs (Eastern Maryland):
Arsenic = 3.6 mg/kg
Chromium = 28 mg/kg
Lead = 45 mg/kg
Thallium = 3.9 mg/kg
Vanadium = 30 mg/kg
Total Aroclor:
MDE Residential Screening level = 320 ug/kg
MDE Commercial/Industrial Screening level = 1400 ug/kg

L result is considered biasd low

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 30 60 120 Feet

N

DATE MODIFIED: 12/01/11

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Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP Exceedances Rec11_0to2ft_12 01 11.mxd)
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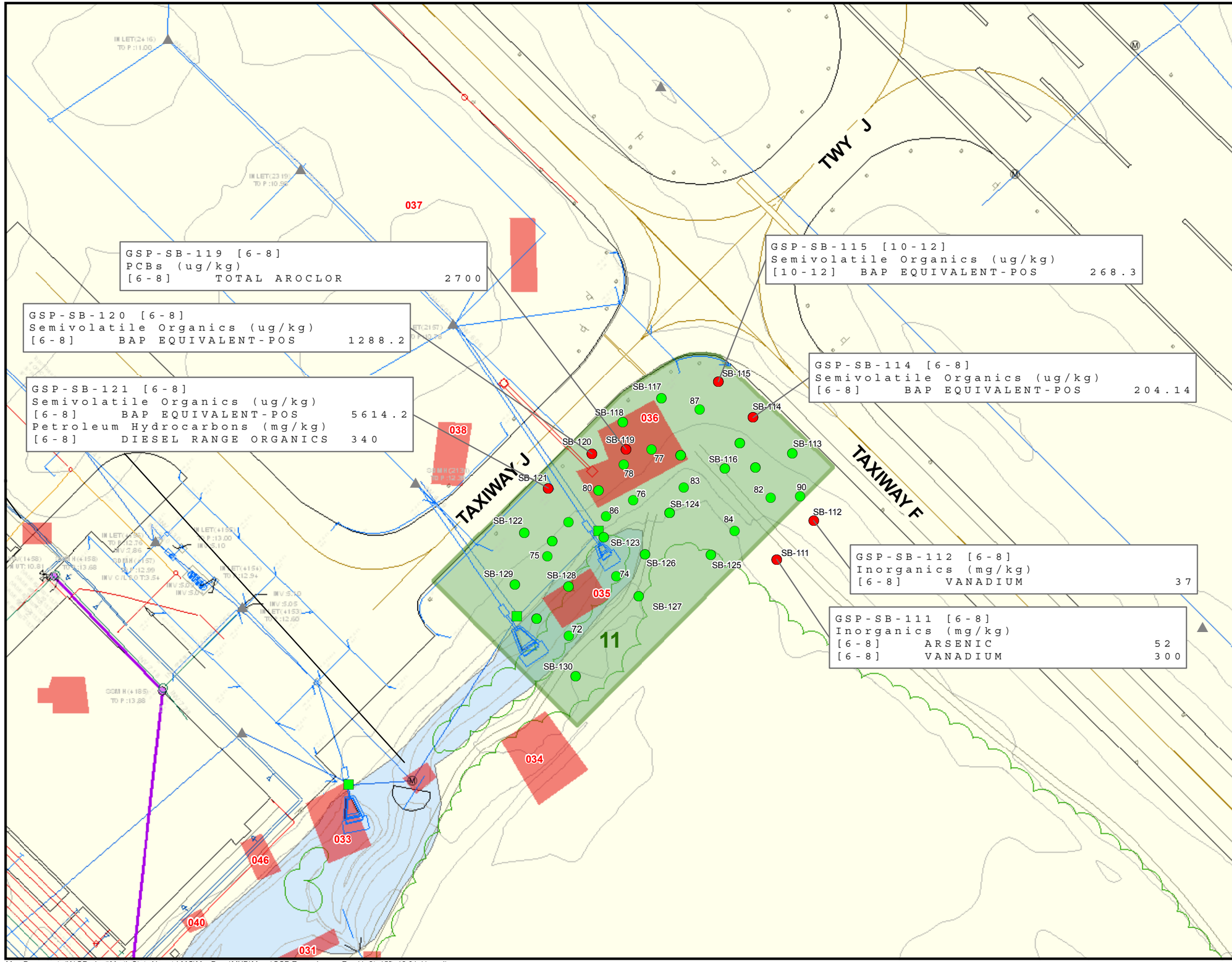

Figure 4-8

Exceedances in Subsurface Soil (2 to 15') REC 11 Greater Strawberry Point

LEGEND

- Subsurface Soil Exceedance Location
- Subsurface Soil Sample Location
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- 9 REC Number

[6-8] Depth Range (ft)

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
TWY - Taxiway
ATC - Anticipated Typical Concentration

Note:
Metals concentrations were screened against the Eastern Maryland Region Anticipated Typical Concentrations (ATC) to identify exceedances

Diesel Range Organics:
MDE Residential Screening Level = 230 mg/kg.
MDE Commercial/Industrial Screening Level = 620 mg/kg
BAP Equivalent:
1E-05 Cancer Risk Level for Residential Soils = 140 ug/kg
Metals ATCs (Eastern Maryland):
Arsenic = 3.6 mg/kg
Chromium = 28 mg/kg
Lead = 45 mg/kg
Thallium = 3.9 mg/kg
Vanadium = 30 mg/kg
Total Aroclor:
MDE Residential Screening level = 320 ug/kg
MDE Commercial/Industrial Screening level = 1400 ug/kg

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 30 60 120 Feet

N

DATE MODIFIED: 12/01/11

CREATED BY: MP

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Map Document: (K:\GProject\MartinStateAirport-LMC\MapDocs\MXD\Maps\GSP Exceedances Rec11_2to15ft_12 01 11.mxd)
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Figure 4-9

Exceedances in Subsurface Soil Greater than 15' REC 11 Greater Strawberry Point

GSP-SB-119 [20-22]
[20-22] BAP EQUIVALENT-POS 814.5
Petroleum Hydrocarbons (mg/kg)
[20-22] DIESEL RANGE ORGANICS 320 J

GSP-SB-120 [18-20]
Semivolatile Organics (ug/kg)
[18-20] BAP EQUIVALENT-POS 12725

TWY J

TAXIWAY J

TAXIWAY F

SB-115, SB-117, SB-118, SB-120, SB-119, SB-114, SB-113, SB-116, SB-121, SB-122, SB-123, SB-124, SB-112, SB-111, SB-126, SB-125, SB-129, SB-128, SB-127, SB-130

87, 88, 89, 77, 78, 80, 76, 83, 82, 90, 85, 86, 84, 79, 75, 74, 73, 72

036, 035, 037, 038, 034, 033, 046, 040

11

LEGEND

- Subsurface Soil Exceedance Location
- Subsurface Soil Location
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities

9 REC Number

[22-25] Depth Range (ft)

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole
TWY - Taxiway
ATC - Anticipated Typical Concentration

Note:
Metals concentrations were screened against the Eastern Maryland Region Anticipated Typical Concentrations (ATC) to identify exceedances

Diesel Range Organics:
MDE Residential Screening Level = 230 mg/kg.
MDE Commercial/Industrial Screening Level = 620 mg/kg
BAP Equivalent:
1E-05 Cancer Risk Level for Residential Soils = 140 ug/kg

J estimated result

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 25 50 100 Feet

N

DATE MODIFIED: 12/01/11

CREATED BY: MP

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Figure 4-10

Exceedances in Groundwater Monitoring Wells RECs 8, 9 and 10 Greater Strawberry Point

GSP-SB/WP-71
Inorganics (ug/l)
VANADIUM 11 J
Filtered Inorganics (ug/l)
VANADIUM 4.9 J

GSP-MW-06
Petroleum Hydrocarbons (ug/l)
DIESEL RANGE ORGANICS 1600

GSP-SB/WP-66
Inorganics (ug/l)
VANADIUM 23
Filtered Inorganics (ug/l)
VANADIUM 13 J

GSP-SB/WP-61
Inorganics (ug/l)
VANADIUM 3.9 J

GSP-MW-05
Petroleum Hydrocarbons (ug/l)
DIESEL RANGE ORGANICS 1400

GSP-SB/WP-50
Inorganics (ug/l)
ARSENIC 19 J
VANADIUM 110
LEAD 16

GSP-MW-07
Volatile Organics (ug/l)
TRICHLOROETHENE 450
Petroleum Hydrocarbons (ug/l)
GASOLINE RANGE ORGANICS 300

RUNWAY

TAXIWAY F

10

9

8

SB-106 TP-01 SB-104 SB-107 TP-03 SB-103 TP-04 TP-05 SB-105 TP-02 SB-108 SB-100 SB-102 SB-109 SB-101 SB-110 TP-06 SB-99 SB-97 SB-98 TP-08 TP-07 GSP-MW8 SB-95 SB-96 SB-94 TP-09 SB-93 SB-91 TP-10 SB-92 TP-11 GSP-SBWP54

027 029 028 021 025 020 019 018 017 016 015 014 013 024 023

UST R4 MAA24

LEGEND

- Groundwater Exceedance Location
- Groundwater Monitoring Well Location
- Soil Sample Location
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- 9 REC Number

[0-2] Depth Range (ft)

MSA – Martin State Airport
NPDES – National Pollutant and Discharge Elimination System
MTN – Main Terminal
REC – Recognized Environmental Condition
MH - Manhole

Note:
Total metals concentrations are shown.

Trichloroethene:
Safe Drinking Water Act maximum contaminant level = 5 ug/L
MDE Groundwater criteria:
Diesel/Gasoline Range Organics = 47 ug/L
Arsenic = 10 ug/L
Lead = 15 ug/L
Nickel = 73 ug/L
Vanadium = 3.7 ug/L

J estimated result

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 30 60 120 Feet

N

DATE MODIFIED: 12/01/11

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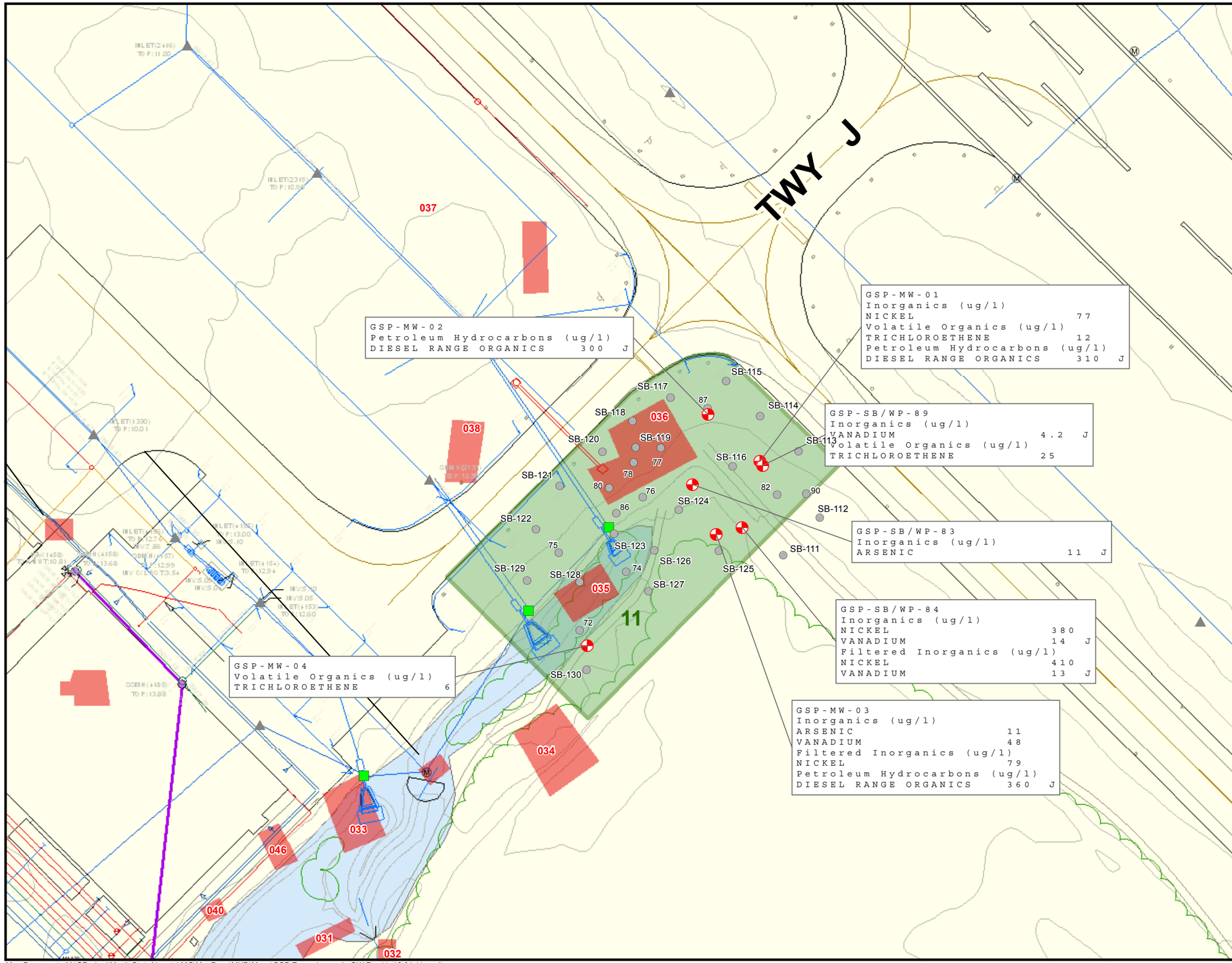

Figure 4-11

Exceedances in Groundwater Monitoring Wells REC 11 Greater Strawberry Point

LEGEND

- Groundwater Exceedance Location
- Groundwater Monitoring Well Location
- Soil Sample Location
- Oil Filled Operational Equipment
- Drum Storage
- MSA Inlets
- MSA Manholes
- NPDES OUTFALLS
- Sediment Basin
- MTN Tanks
- Trench Drain
- Sanitary MH
- MTN WellsPipes
- Historic Structures
- REC
- Current Structures
- Sanitary Pipes
- Storm Pipes
- Gas
- Sanitary Line
- Storm
- Water
- Electricity
- Telephone Line
- Electric Utilities
- 9 REC Number

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REC – Recognized Environmental Condition
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Note:
Total metals concentrations are shown.

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MDE Groundwater criteria:
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Lead = 15 ug/L
Nickel = 73 ug/L
Vanadium = 3.7 ug/L

J estimated result

Lockheed Martin, Martin State Airport
Middle River, Maryland

0 30 60 120 Feet

N

DATE MODIFIED: 12/01/11

CREATED BY: MP

TETRA TECH

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Section 5
Human Health Risk Assessment

The baseline human health risk assessment (HHRA) evaluates whether detected concentrations of chemicals in the Greater Strawberry Point (GSP) study area pose a significant health risk to potential human receptors under current and/or future land uses. Potential risks to human receptors are estimated on the assumption that no actions are taken to control contaminant releases. Primary guidance sources used to prepare this HHRA include the Maryland Department of the Environment (MDE) *Cleanup Standards for Soil and Groundwater* (State of Maryland, 2008) and *Voluntary Cleanup Program Guidance* (State of Maryland, 2006). The following current guidance and reports published by the U.S. Environmental Protection Agency (USEPA) and USEPA Region 3 were also considered in preparing the HHRA:

- *Soil Screening Guidance: Technical Background Document* (USEPA, 1996a)
- *Supplemental Guidance for Developing Soil-Screening Levels for Superfund Sites* (USEPA, 2002a)
- *Exposure Factors Handbook*. Office of Research and Development, National Center for Environmental Assessment, Washington, D.C. EPA/600/P-95/002Fa (USEPA, 1997a)
- *Exposure Factors Handbook: 2011 Edition*. National Center for Environmental Assessment, Washington, DC; EPA/600/R-09/052F (USEPA, 2011a)
- *Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure-Factors*. Office of Solid Waste Emergency Response (OSWER) Directive 9285.6 03, OSWER, Washington, D.C. (USEPA, 1991)
- Distribution of *Preliminary Review Draft: Superfund's Standard Default Exposure-Factors for Central-Tendency and Reasonable Maximum Exposure*. OSWER, Washington, D.C. (USEPA, 1993a)
- *Calculating Upper Confidence-Limits for Exposure-Point Concentrations at Hazardous Waste Sites*. Office of Emergency and Remedial Response, Washington, D.C. OSWER 9285.6-10 (USEPA, 2002b)

- *Risk Assessment Guidance for Superfund (RAGS), Volume I: Human Health Evaluation Manual (Part A)* (USEPA, 1989)

- *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment), Final*. Office of Superfund Remediation and Technology Innovation, Washington, D.C. 20460 EPA/540/R/99/005, OSWER 9285.7-02EP; PB99-963312 (USEPA, 2004a)

- *Guidelines for Carcinogen Risk Assessment*. EPA/630/P-03/001B. March 2005 (USEPA, 2005a)

- *Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens*. EPA/630/R-03/003F (USEPA, 2005b)

- *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation-Risk Assessment), Final*. Office of Superfund Remediation and Technology Innovation, Washington, D.C. 20460 EPA-540-R-070-002, OSWER 9285.7-82 (USEPA, 2009)

- *Updated Dermal-Exposure Guidance* (USEPA Region 3, 2003a)

The risk assessment protocols in the following technical documents, which were prepared for Lockheed Martin Corporation (Lockheed Martin) sites at Martin State Airport (MSA) site as well as for the Middle River Complex (MRC), were also considered:

- *Revised Human Health Risk Assessment, MSA, Middle River, Maryland*. Prepared for Lockheed Martin Corporation (Tetra Tech, Inc. [Tetra Tech], 2006a)

- *Site Characterization Report, Lockheed Martin MRC, 2323 Eastern Boulevard, Middle River, Maryland* (Tetra Tech, 2006b)

- *Remedial Investigation Report, MSA, Middle River, Maryland*. Prepared for Lockheed Martin Corporation (Tetra Tech, 2010)

- *Human Health Risk Assessment for Blocks D, E, F, G, and H Soils, Lockheed Martin MRC, 2323 Eastern Boulevard, Middle River, Maryland*. Prepared for Lockheed Martin Corporation (Tetra Tech, 2011)

The HHRA for GSP Recognized Environmental Conditions (RECs) #9, #10, and #11 is structured and reported according to the guidelines in the *RAGS (Human Health Evaluation Manual, Part D: Standardized Planning, Reporting, and Review of Superfund Risk Assessments* [*RAGS Part D]* [USEPA, 2001]). The HHRA consists of the following six components (see Sections 5.1 through 5.6 for a more complete discussion):

- data evaluation
- toxicity assessment
- uncertainty analysis
- exposure assessment
- risk characterization
- development of remedial goal options

5.1 DATA EVALUATION

The first step of the baseline HHRA, data evaluation, is a medium-specific task that begins with compilation of relevant analytical data and concludes with the selection of chemicals of potential concern (COPC) to be evaluated in subsequent steps of the assessment. First, the data available for the relevant study area(s) are reviewed in terms of data quality; only validated data are used in the assessment. Environmental samples selected for HHRA are summarized in the tables in Appendix J. Second, a medium-specific list of COPC (used to quantitatively and/or qualitatively determine potential human health risks) was selected based on a toxicity screen (i.e., a comparison of site contaminant concentrations to conservative toxicity-screening values).

5.1.1 Data Usability

Validated data collected during the following environmental investigations were used to assess risks to potential human receptors:

- Round 1 of Phase II investigation (April–May 2010)
- Round 2 of Phase II investigation (May–June 2011)

Samples used were those collected from RECs #9, #10, and #11 during these investigation rounds. As indicated earlier, only one soil sample from REC #8 (surface soil sample SB-91) was included in the risk assessment because its location was considered relevant to and at the boundary of REC #9. (COPC were detected infrequently in REC #8, and at concentrations below the relevant cleanup criteria in borings and test pits; therefore, the REC #8 area was not considered in the risk assessment.) Environmental samples specifically evaluated in the HHRA are listed in Tables 5-1 through 5-4 (and Appendix J):

- *Table 5-1*: Soil samples collected primarily in the 0–2 feet below grade interval for each of the three RECs. Samples collected from depths of 1–3 feet and 0–3 feet were included as well. These samples are considered surface soil samples for the purposes of the HHRA.

- *Table 5-2*: Soil samples collected at depths greater than two feet below grade but less than or equal to 15 feet below grade are considered shallow-subsurface soil samples for the purposes of the HHRA. The depth to groundwater in the study area ranges from three to 15 feet below grade. Therefore, data for these samples are representative of conditions in the unsaturated (vadose) zone and upper saturated-zone soils. It is assumed that direct contact with the deeper saturated-zone soils (i.e., soil samples greater than 15 feet below grade; see Table 5-3) is very unlikely; therefore, this HHRA does not quantitatively evaluate direct-contact exposure to deeper saturated-zone soils.

- *Table 5-3*: Soil samples collected at depths greater than 15 feet below grade are considered deep subsurface-soil samples for the purposes of the HHRA. It is assumed that direct contact with the deeper saturated-zone soils (i.e., soil samples greater than 15 feet below grade) is very unlikely; therefore, this HHRA does not quantitatively evaluate direct-contact exposure to deeper saturated-zone soils. The uncertainty analysis (see Section 5.5) presents a qualitative evaluation of contaminants detected in saturated-zone soils.

- *Table 5-4*: Samples collected in 2010 and 2011 from temporary groundwater monitoring wells and in 2011 from permanent groundwater monitoring wells. The screened intervals of all monitoring wells evaluated in the HHRA are listed in Table 5-4.

Fixed-base analytical results (i.e., results from a fixed-base laboratory and not from field screening/testing) from field investigations for target analytes were used in the quantitative risk evaluation. Field measurements and data regarded as rejected (i.e., that were qualified as "R" during data validation) were not used in the quantitative risk assessment.

5.1.2 Selection of Chemicals of Potential Concern

Selecting COPC is a qualitative screening process to limit the number of chemicals quantitatively evaluated in the baseline HHRA to those site-related constituents that dominate overall potential risks. Screening by risk-based concentrations focuses the risk assessment on meaningful chemicals and exposure routes. In general, a chemical was selected as a COPC in the HHRA and retained for further quantitative risk evaluation if its maximum detected concentration in a soil or groundwater data-set exceeded the lowest risk-based screening concentration. Chemicals eliminated from further evaluation are assumed to present minimal risks to potential human receptors. Tables summarizing the selection of COPC are included in the risk assessment and referenced in the following sections.

5.1.2.1 Derivation of Screening Criteria

The primary COPC screening criteria for the study area soils were derived from MDE's *Cleanup Levels for Soil and Groundwater* (State of Maryland, 2008) and USEPA Regional Screening Levels (RSLs) developed by the U.S. Department of Energy's Oak Ridge National Laboratory (ORNL) on behalf of USEPA (USEPA, 2011b). The more conservative of these values were used to select COPC. These risk-based concentrations are based on exposure pathways for which generally accepted methods, models, and assumptions have been developed (i.e., ingestion, dermal contact, inhalation) for specific land uses (residential, industrial). They do not consider effects on groundwater or ecological receptors. The COPC screening levels used in the HHRA to evaluate soil and groundwater data are listed in Tables 5-5 and 5-6, respectively, and defined in the following narrative.

Screening levels for soil—Screening levels to select COPC for direct human-contact and -inhalation exposures to surface and subsurface soil are based on the following criteria:

- *Interim Final Guidance from the State of Maryland, Department of the Environment, Cleanup Standards for Soil and Groundwater* (State of Maryland, 2008)
- *Regional Screening-Levels for Residential Soil* (USEPA, 2011b)

COPC screening levels (based on MDE cleanup standards derived from risk-based concentrations) correspond to a systemic-hazard quotient (HQ) of 0.1 for noncarcinogens, or an incremental lifetime-cancer-risk (ILCR) of 1×10^{-6} (i.e., a one-in-a-million probability) for carcinogens. In contrast, USEPA RSLs are based on an HQ of 1 for noncarcinogens and an ILCR of 1×10^{-6} for carcinogens. As presented in Table 5-5, USEPA RSLs for noncarcinogens are based on an HQ of 1, so COPC screening-levels based on USEPA RSLs were adjusted to correspond to a systemic HQ of 0.1 (for noncarcinogens), to account for the potential cumulative effects of several chemicals affecting the same target organ or producing the same adverse (noncarcinogenic) effect. Soil-screening levels derived from both of these sources were used for direct-contact COPC selection. As noted above, the more conservative of the available values were used for COPC selection.

Maximum chemical concentrations in soil were also compared to MDE cleanup levels for groundwater protection (as published in State of Maryland, 2008), as well as to federal SSLs for

groundwater protection, which are designed to protect groundwater at most sites (as published in the USEPA RSL table). These groundwater-protection SSLs allow an initial qualitative evaluation of the potential for chemical migration from soil to groundwater. MDE cleanup levels for groundwater protection are based on a dilution attenuation-factor (DAF) of 20, whereas federal SSLs for groundwater protection are based on a DAF of 1. Chemicals with concentrations exceeding MDE groundwater-protection criteria or the SSLs' criteria may potentially migrate from soil to groundwater in sufficient quantities to pose groundwater quality problems. Chemicals detected at concentrations exceeding MDE groundwater protection criteria or the federal SSL for groundwater protection, but at concentrations less than COPC screening levels for direct-contact risk, will not be evaluated quantitatively in the HHRA. However, these chemicals will be further evaluated qualitatively using the approach presented in Section 5.4.3.

Screening levels for groundwater—To be conservative, groundwater at the site was evaluated assuming potential residential groundwater use. COPC screening levels for groundwater are based on MDE cleanup standards for groundwater (State of Maryland, 2008), USEPA RSLs for tap water (USEPA, 2011b), groundwater screening-levels for vapor intrusion *(GSL_{vapor})* calculated using methodology from USEPA *Generic Screening Levels for Groundwater for Evaluating Vapor Intrusion to Indoor Air* (USEPA, 2002c), and the primary federal Safe Drinking Water Act (SDWA) maximum contaminant levels (MCLs) (USEPA, 2011c).

The MDE cleanup standards for groundwater (derived from risk-based concentrations) correspond to a systemic HQ of 0.1 for noncarcinogens, or an ILCR of 1×10^{-6} for carcinogens. The adjusted COPC screening levels (based on USEPA RSLs for tap water) correspond to a systemic HQ of 0.1 for noncarcinogens, or an ILCR of 1×10^{-6} for carcinogens. Table 5-6 presents the RSLs based on an HQ of 1; however, the COPC screening values have been adjusted and are based on an HQ of 0.1.

The GSL_{vapor} guidelines were originally published in Table 2C of USEPA's *Evaluating Vapor-Intrusion into Indoor Air* (EPA530-F-02-052 [USEPA, 2002c]), and in updates to that table. The $GSLs_{vapor}$ were derived in 2002, and the toxicity criteria for a number of chemicals have changed since then. Consequently, new criteria were derived using the methodology in Appendix C of the guidance and the residential air USEPA RSLs in the November 2011 RSL table. As presented in Table 5-6, these values correspond to a target cancer-risk level of 1×10^{-6},

or an HQ of 1 for carcinogens and noncarcinogens, respectively. The $GSLs_{vapor}$ values were derived to identify chemical concentrations in groundwater that may adversely affect the indoor air quality of a building overlying subsurface volatile organic compound (VOC) contamination. The $GSLs_{vapor}$ value assumes a subsurface attenuation factor of 0.001 from groundwater concentrations to indoor air concentrations. The COPC screening levels for noncarcinogens are adjusted to be based on an HQ of 0.1.

Federal SDWA MCLs for public drinking-water supplies are enforceable standards designed to protect human health, promulgated under the federal SDWA. Primary MCLs are based on laboratory or epidemiological studies and apply to public water systems. A public water system is defined as a system providing water to the public for human consumption that either has at least 15 service connections, or regularly serves an average of 25 individuals daily, for at least 60 days per year.

Primary MCLs are designed to prevent adverse human health effects, but also reflect the technical feasibility of removing a contaminant from water. Primary (i.e., health based) and secondary (i.e., aesthetic based) MCLs are promulgated under the SDWA. Secondary MCLs are non-enforceable standards and therefore are not used in COPC selection or included in the COPC selection tables.

Screening levels for lead—Guidance from the USEPA Office of Prevention, Pesticides, and Toxic Substances (OPPTS) and Office of Solid Waste and Emergency Response (OSWER) recommends 400 milligrams per kilogram (mg/kg) as the screening level for lead impacted soil in a residential setting where children are frequently present (USEPA, 1994). To be conservative, 400 mg/kg was used as the screening level to select COPC for soil. However, guidance from the USEPA Technical Review Workgroup for Lead indicates that "a reasonable screening level for soil lead at commercial/industrial (i.e., non-residential) sites is 800 mg/kg" for a typical non-contact-intensive worker (2010a); 800 mg/kg is also the current USEPA RSL for soils (November 2011), assuming an industrial land use scenario. The SDWA action level of 15 micrograms per liter (µg/L) was used as the screening level for lead in groundwater.

5.1.2.2 Decision Rules for Establishing Chemicals of Potential Concern

The following decision rules were used to select COPC for the GSP soils and groundwater evaluated:

- A chemical detected in soil or groundwater was selected as a COPC for the HHRA if the maximum detected chemical concentration exceeded its relevant screening level for soils or groundwater. Surrogate COPC screening levels were used for some chemicals. For example, risk-based COPC screening levels are not currently available from USEPA for some chemicals that have been detected in study area soils (e.g., 1,3-dichlorobenzene, acenaphthylene, benzo[g,h,i]perylene, phenanthrene) due to the lack of toxicity criteria. For purposes of COPC selection, 1,4-dichlorobenzene was used as a surrogate for 1,3-dichlorobenzene; acenaphthene was used as a surrogate for acenaphthylene; pyrene was used as a surrogate for both benzo(g,h,i)perylene and phenanthrene. For groundwater, trans-1,2-dichloroethene was used as a surrogate for cis-1,2-dichloroethene for vapor-intrusion COPC-selection.

- Some chemicals (e.g., naphthalene) are reported in both the VOC and semivolatile organic compound (SVOC) fractions, and naphthalene results in both fractions were evaluated in COPC selection. See Section 5.5.1 for a discussion of uncertainty related to naphthalene results used in this HHRA.

- Per current USEPA guidance (USEPA, 1993b), cancer-risk estimates for benzo(a)pyrene and six other polycyclic aromatic-hydrocarbons (PAHs) (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenzo[a,h]anthracene, and indeno[1,2,3-cd]pyrene) were calculated in terms of benzo(a)pyrene equivalent concentrations (BaPEq) that are calculated using USEPA-recommended toxicity-equivalency factors (TEFs). TEFs are based on the potency of each of these PAH compounds relative to that of benzo(a)pyrene. TEFs are used to convert each individual PAH concentration into an equivalent concentration of benzo(a)pyrene. The sum of these equivalent concentrations for the six other PAHs (mentioned above) and benzo(a)pyrene is the BaPEq concentration. Exposure-point concentrations (EPC) for these PAHs were derived using benzo(a)pyrene-equivalent concentrations calculated for each sample.

  BaPEq were calculated two ways: (1) the BaPEq-½-non-detect value was calculated using one-half of the detection limit to represent non-detect results in the calculation, and (2) the BaPEq-positive-results value was calculated using a value of zero to represent non-detect PAH results. In either BaPEq calculation, if none of the PAHs were detected in a sample, then the sample quantitation-limit for benzo(a)pyrene was used as the equivalent concentration for that sample. Values for both BaPEq calculations are presented in the COPC-selection tables.

  For the data sets evaluated in this HHRA, both values calculated for BaPEq are similar; therefore, the BaPEq-½-non-detect values were used in the risk assessment, since these values are slightly more conservative due to the incorporation of non-detects. Using one-half of the detection limit for non-detects recognizes that the concentration of a PAH in

a specific sample may be greater than zero even though the result is considered non-detected (i.e., the PAH may be present at a concentration between zero and the sample quantitation limit). The fact that the BaPEq results for both the ½-non-detect and positive-results-only calculations are similar indicates that elevated detection-limits are not resulting in biased-high BaPEq results for the ½-non-detect calculation.

- For polychlorinated biphenyls (PCBs), individual Aroclors were compared to screening criteria for individual Aroclor-compounds. Total Aroclor-concentrations were determined on a sample-specific basis by summing the individual Aroclor-concentrations detected. If all Aroclor-results in a given sample were non-detected, the total Aroclor-result was reported as "0 U" in the database. Total Aroclor-results are presented in the COPC selection tables where applicable.

- Only total chromium data were available for the samples evaluated in this HHRA; no hexavalent chromium data are included in the data sets evaluated. To be conservative, screening levels for hexavalent chromium, the more toxic form of chromium, were used to evaluate total chromium instead of trivalent-chromium screening levels. Evaluation of chromium is further discussed in Sections 5.3 and 5.4.

5.1.3 COPC Selected for the HHRA

COPC for GSP were selected for surface and subsurface soil and groundwater using the COPC screening levels described in the preceding narrative. COPC selection was based on samples from all RECs (i.e., RECs #9, #10, and #11) combined to produce a list of "global" COPC. Global COPC were further evaluated on an exposure-unit (EU)-specific basis as part of the quantitative risk assessment, based on whether the COPC were detected in a specific EU. (An EU is defined in the exposure assessment; see Section 5.3). Thus, if a global COPC was not detected in a particular EU, it was not evaluated in that EU. This method was used instead of assigning surrogate concentration values (e.g., sample quantitation-limits [SQLs]) to global COPC that were never detected in that EU.

A discussion of the chemicals identified as global COPC and the rationale for their selection as global COPC is provided in the following subsections. Global COPC-selection tables for surface and subsurface soil are presented in Tables 5-7 through 5-10. Global COPC selection for the deep subsurface soils (not evaluated quantitatively in the HHRA) is presented in Table 5-11. Global COPC selection for groundwater-associated direct contact and vapor intrusion are presented in Tables 5-12 and 5-13, respectively. Chemicals retained as global COPC for GSP are presented in Table 5-14. The *RAGS Part D* tables for COPC selection are in Appendix J.

5.1.3.1 Surface Soil (0–2 Feet below Grade)

Twenty-one VOCs, 25 SVOCs (including PAHs), one polychlorinated biphenyl (PCB), 19 metals, and petroleum-hydrocarbon compounds were detected in the surface soil samples listed in Table 5-1. A comparison of the maximum-detected surface soil concentrations to screening levels (based on MDE cleanup levels and USEPA RSLs) is in Table 5-7. The following chemicals were detected in surface soils at maximum concentrations exceeding the direct-contact risk-based COPC screening-levels and were retained as global COPC for surface soil:

- *SVOCs:* benzo(a)pyrene equivalents, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and n-nitroso-di-n-propylamine
- *PCBs:* Aroclor-1260 and total Aroclor
- *Metals:* arsenic, chromium, cobalt, iron, manganese, thallium, and vanadium
- *Petroleum hydrocarbons:* diesel-range organics (DRO)

No COPC screening levels based on MDE cleanup standards or USEPA RSLs are available for tertiary-butyl alcohol. Chemicals lacking screening criteria are qualitatively evaluated in the uncertainty analysis (see Section 5.5). Total chromium was selected as a COPC based on hexavalent chromium screening-criteria; chromium would not be a COPC if trivalent screening criteria had been used for COPC selection. Uncertainty associated with the assessment of chromium toxicity is discussed further in Section 5.5.

A comparison of the maximum-detected surface soil concentrations to USEPA SSLs for chemical migration from soil to groundwater is in Table 5-8. The following chemicals were detected in surface soil at maximum concentrations exceeding the COPC screening-levels for migration from soil to groundwater and were retained as global COPC for surface soil:

- *VOCs:* 1,2,4-trichlorobenzene, 1,3-dichlorobenzene, benzene, methylene chloride, naphthalene, and trichloroethene
- *SVOCs:* 2-methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, carbazole, chrysene, dibenzo(a,h)anthracene, dibenzofuran, indeno(1,2,3-cd)pyrene, naphthalene, and n-nitroso-di-n-propylamine, phenanthrene, and pyrene

- *PCBs:* Aroclor-1260 and total Aroclor
- *Metals:* antimony, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, selenium, and thallium

Total chromium was selected as a COPC for migration from soil to groundwater based on hexavalent chromium screening-criteria. Chromium would not be a COPC for migration from soil to groundwater if trivalent chromium screening criteria had been used. The potential for chemical migration from soils to groundwater is more fully evaluated in Section 5.4.

5.1.3.2 Shallow Subsurface-Soil (Greater than 2–15 Feet below Grade)

Twenty-two VOCs, 24 SVOCs (including PAHs), two PCBs, 19 metals, and petroleum hydrocarbons were detected in the shallow subsurface soil samples listed in Table 5-2. Table 5-9 compares the maximum-detected subsurface soil concentrations to screening levels (based on MDE cleanup levels and USEPA RSLs). The following chemicals were detected in shallow subsurface soils at maximum concentrations exceeding the direct-contact risk-based COPC screening-levels and were retained as global COPC for shallow subsurface soil:

- *VOCs:* naphthalene
- *PAHs:* benzo(a)pyrene equivalents, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and naphthalene
- *PCBs:* Aroclor-1260 and total Aroclor
- *Metals:* arsenic, chromium, cobalt, iron, manganese, thallium, and vanadium
- *Petroleum hydrocarbons:* DRO

No COPC screening levels based on MDE cleanup standards or USEPA RSLs are available for 4-isopropyltoluene and sec-butylbenzene. Chemicals lacking screening criteria are qualitatively evaluated in the uncertainty analysis (see Section 5.5). Total chromium was selected as a COPC based on hexavalent chromium screening criteria; chromium would not be a COPC if trivalent screening criteria had been used for COPC selection. Uncertainty associated with the assessment of chromium toxicity is further discussed in Section 5.5.

Table 5-10 compares the maximum-detected shallow subsurface soil concentrations to MDE cleanup goals for groundwater protection and to USEPA SSLs for chemical migration from soil to

groundwater. The following chemicals were detected in subsurface soil at maximum concentrations exceeding COPC screening-levels for migration from soil to groundwater and were retained as global COPC for subsurface soil:

- *VOCs:* 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, benzene, ethylbenzene, m+p-xylenes, methylene chloride, naphthalene, o-xylene, total xylenes, trichloroethene, and vinyl chloride
- *SVOCs:* 1,1-biphenyl, 2-methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, carbazole, chrysene, dibenzo(a,h)anthracene, dibenzofuran, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene
- *PCBs:* Aroclor-1242, Aroclor-1260, and total Aroclor
- *Metals:* antimony, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, thallium, and vanadium

Total chromium was selected as a COPC for migration from soil to groundwater based on hexavalent chromium screening-criteria. Chromium would not be a COPC for migration from soil to groundwater if trivalent chromium screening criteria had been used. Section 5.4 presents a more refined evaluation of the potential for chemicals to migrate from soils to groundwater.

5.1.3.3 Deep Subsurface-Soil (Greater than 15 Feet below Grade)

This HHRA for GSP assumes that direct human contact with deep subsurface soils is very unlikely. Therefore, risk estimates are not presented for direct contact with this environmental medium. However, to be complete, Table 5-11 compares the maximum-detected concentrations to the direct contact and inhalation COPC-selection criteria for soils. Maximum detected concentrations are not compared to USEPA SSLs for groundwater protection because the deep subsurface soils are in the saturated-soil zone. Any remediation of COPC in this zone would be based on contamination actually observed in groundwater, and not on contamination detected in deep, saturated soils.

Twenty-three VOCs, 22 SVOCs (including PAHs), 19 metals, and petroleum hydrocarbons were detected in the deep subsurface soils. The following chemicals were detected at concentrations exceeding direct-contact COPC screening-levels:

- *VOCs:* trichloroethene

- *PAHs:* benzo(a)pyrene equivalents, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene
- *Metals:* arsenic, chromium, cobalt, copper, thallium, and vanadium
- *Petroleum hydrocarbons:* DRO

The uncertainty analysis (Section 5.5) contains a more detailed qualitative evaluation of the global COPC selected for deep subsurface soil. Total chromium was selected as a COPC based on hexavalent chromium screening criteria; chromium would not be a COPC if trivalent screening criteria had been used for COPC selection. Uncertainty associated with the assessment of chromium toxicity is further discussed in Section 5.5.

5.1.3.4 Groundwater

Eighteen VOCs, five SVOCs, 18 metals, and petroleum hydrocarbons were detected in the groundwater samples listed in Table 5-4. Table 5-12 compares the maximum-detected groundwater concentrations to screening levels based on MDE cleanup standards, USEPA RSLs for tap water, and USEPA MCLs. The following chemicals were detected at concentrations exceeding direct-contact COPC screening-levels:

- *VOCs:* benzene, carbon tetrachloride, chloroform, cis-1,2-dichloroethene, trichloroethene, and vinyl chloride
- *SVOCs:* 4-methylphenol and bis(2-ethylhexyl)phthalate
- *Dissolved metals:* arsenic, beryllium, cadmium, chromium, cobalt, iron, manganese, nickel, thallium, vanadium, and zinc
- *Total metals:* arsenic, beryllium, cadmium, chromium, cobalt, iron, manganese, nickel, thallium, vanadium, and zinc
- *Petroleum hydrocarbons:* DRO and gasoline-range organics (GRO)

No COPC screening levels based on MDE cleanup standards or USEPA RSLs are available for tertiary-butyl alcohol. Chemicals lacking screening criteria are qualitatively evaluated in the uncertainty analysis (see Section 5.5). Total chromium was selected as a COPC based on hexavalent chromium screening criteria; chromium would not be a COPC if trivalent screening criteria had been used for COPC selection. Uncertainty associated with the assessment of chromium toxicity is further discussed in Section 5.5.

Table 5-13 compares the maximum detected groundwater concentrations to vapor-intrusion screening levels calculated using methodology from the *Draft Guidance for Evaluating the Vapor-Intrusion to Indoor-Air Pathway from Groundwater and Soils* (USEPA, 2002c). The following chemicals were detected at concentrations exceeding vapor-intrusion COPC screening-levels:

- *VOCs:* benzene, carbon tetrachloride, chloroform, trichloroethene, and vinyl chloride

These chemicals were also selected as direct-contact COPC for groundwater. Chemicals exceeding the vapor-intrusion COPC screening-levels are further evaluated in Section 5.4.

5.1.3.5 Summary of COPC Selection for the HHRA

Table 5-14 summarizes the chemicals retained as global COPC for surface and subsurface soils and groundwater at GSP. *RAGS Part D* tables for COPC selection are in Appendix J.

5.2 EXPOSURE ASSESSMENT METHODOLOGY

The exposure assessment component of an HHRA defines and evaluates, either quantitatively or qualitatively, the type and magnitude of human exposure to the chemicals at or migrating from a site. It depicts the site's physical setting, identifies potentially exposed populations and applicable exposure pathways, calculates concentrations of COPC to which receptors might be exposed, and estimates chemical intakes under the identified exposure scenarios. Actual or potential exposures at a site depend on the most likely pathways of contaminant release and transport, as well as on patterns of human activity. A complete exposure pathway has four components: a *source* of chemicals that can be released to the environment, a *contaminant-transport route* through an environmental medium, an *exposure* or *contact point* for a human receptor, and an *exposure route*.

5.2.1 Conceptual Site Model

The HHRA includes a conceptual site-model (CSM) that identifies the exposure pathways by which human receptors may come in contact with study area soils. The CSM depicts the relationships among the following elements of a *complete* exposure pathway (i.e., a pathway that potentially results in human exposure and is evaluated [qualitatively or quantitatively] in an HHRA):

- site sources of contamination
- contaminant-release mechanisms and transport/migration pathways
- exposure routes
- potential receptors

These CSM elements establish the manner and degree to which a potential receptor may be exposed to chemicals present at a site. The degree of risk incurred by a potential receptor varies according to the means and duration of exposure, and the specific chemical to which the receptor is exposed. An exposure, however long in duration, does not necessarily result in a regulatorily "unacceptable" health or environmental risk, although risks generally increase with increased frequency and/or duration of exposure.

Section 4.0 discusses the nature and extent of contamination at GSP. The results from this section identified sources of possible contamination, which are discussed in Section 5.2.1.1. Sections 5.2.1.2 and 5.2.1.3 discuss contaminant-release mechanisms and transport and migration pathways. Section 5.2.1.4 and Table 5-15 provide a site-specific summary of potential receptors and exposure pathways to be evaluated for GSP. Table 5-16 summarizes the exposure routes (addressed quantitatively for each human receptor). Figure 5-1 illustrates the CSM for the GSP HHRA.

5.2.1.1 Site Sources of Contamination

The GSP area is in the southwestern portion of MSA and is bounded by the runway to the east and Stansbury Creek to the west. Stansbury Creek is a wide, brackish, tidal tributary of the Chesapeake Bay. Studies at MSA's nearby Dump Road Area indicate that the soil consists of artificial fill composed of heterogeneous layers of sands, silts, and clays. Artificial fill comprises the uppermost 10–20 feet of soil at the site. Scrap metal, wood, brick, etc., in fill have been noted during past environmental investigations (see Section 2). The uppermost native soils beneath the artificial fill are composed of sands, silts, and clays.

The depth to groundwater at the nearby Dump Road Area ranges from approximately three to 18 feet below grade. The surficial aquifer is a combination of the artificial fill and native soil underlying the fill. The native soil is part of the Patapsco Formation. Underlying the Patapsco Formation is the Arundel Formation, which is a thick clay unit that is essentially impermeable. It provides a confining layer between the Patapsco Formation and the Patuxent Formation, which underlies the Arundel Formation. Groundwater in the GSP area is expected to occur at depths of

three to 18 feet, similar to those encountered at the Dump Road Area. Groundwater in the surficial aquifer at the GSP area is also expected to follow the surface topography and flow from the watershed divide near the airport runway area to the southwest and west toward Stansbury Creek, and to the southeast toward Frog Mortar Creek. Surface drainage from GSP discharges via multiple outfalls into Stansbury and Frog Mortar Creeks.

Soil and groundwater data collected from GSP indicate that past activities have released contaminants to the surrounding environment. Contamination at the GSP area may be the result of historical industrial operations centered on naval weapons research, and aircraft maintenance and repair at the site. The results of the previous investigations at GSP, summarized in Sections 2 and 4, have identified three RECs for evaluation in this HHRA:

- *REC #9*—former Propellant Storage, former Acetylene Storage Shed, former Furnace Building, former Hyper-Therm Test facilities, and former Vanguard Tower
- *REC #10*—former Coupon Test Shed and former Block House
- *REC #11*—former Critical Test Building, former Radioisotope Lab, and former Transformer Pad

RECs #9 and #10 are adjacent, and REC #11 is approximately 600 feet northwest of RECs #9 and #10 (see Figure 1-2). As discussed in Section 5.1, detected concentrations of PAHs, one SVOC (n-nitroso-di-n-propylamine), one PCB (Aroclor-1260), metals, and DRO in surface soil exceed their respective direct-contact screening criteria. In subsurface soil, PAHs, Aroclor-1260, metals, and DRO were detected at levels exceeding direct-contact screening criteria. VOCs, SVOCs, metals, DRO and GRO exceed direct-contact screening criteria in groundwater.

5.2.1.2 Potential Contaminant Release Mechanisms and Transport Pathways

Chemicals may migrate within an environmental medium (e.g., soil) or migrate to another environmental medium (e.g., air) once released. This section discusses potential contaminant-release mechanisms and transport pathways. Potential contaminant-release mechanisms and transport pathways are similar for RECs #9, #10, and #11. For example, soil data collected in each EU (RECs #9, #10, and REC #11) indicate that past activities have released contaminants to the surrounding environment.

Contaminants in surface soil could migrate to air through wind erosion or through volatile emissions. Subsurface soil is not currently exposed at the site; however, if future construction were to bring subsurface soil to the surface, contaminants in subsurface soil could be transported into the air through wind erosion or through volatile emissions. Surface soil contaminants could also be transported to surface water bodies (e.g., Stansbury Creek) through overland runoff and erosion.

As noted previously, multiple drainage outfalls in the GSP area drain the GSP study area and surrounding areas. These drainage outfalls discharge to Frog Mortar Creek or Stansbury Creek. Therefore, contaminant transport from soil to surface water could potentially occur. Although subsurface soil is currently not exposed, if future construction were to bring subsurface soil to the surface, contaminants in subsurface soil could then be transported through overland runoff and erosion to surface water bodies. Overland runoff at the study area may not be a significant contaminant transport mechanism due to the generally low-relief site topography. Much of the study area is vegetated, which facilitates infiltration and evapo-transpiration. Infiltration is therefore expected to dominate surface runoff.

Contaminants can migrate from both surface and subsurface soil to groundwater through leaching of chemicals in the soil. At the nearby Dump Road Area, groundwater flows northeast from the airport runway and taxiway toward Frog Mortar Creek. Groundwater in the intermediate surficial-aquifer also flows northeast from the runway and taxiway toward Frog Mortar Creek. Groundwater flows south in the southern portion of the Dump Road Area. Groundwater potentiometric levels in the lower surficial-aquifer are similar to those of the intermediate surficial-aquifer.

Both the intermediate and lower surficial-aquifers have northern components of flow in the northern portion of the site and southern groundwater flow in the southern portion of the site. Groundwater flows from the northwest to the southeast in the deep confined-aquifer. Groundwater in the surficial aquifer at the GSP area is also expected to follow the surface topography and flow from the watershed divide near the airport runway area to the southwest and west toward Stansbury Creek, and to the southeast toward Frog Mortar Creek.

5.2.1.3 Fate and Transport of Primary Site COPC

Brief overviews of the fate and transport of metals, PAHs, PCBs, and VOCs follow:

***Metals*—**The fate and transport of inorganics (metals) are controlled mainly by the mobility of soil particles and their dissolution into water present in the immediate environment. Metals do not undergo the sort of degradation reactions that most organic chemicals do; they are therefore considered persistent. The major fate mechanisms for metals are adsorption to the soil matrix and bioaccumulation.

The mobility of metals is influenced primarily by their physical and chemical properties, in combination with the physical and chemical characteristics of the soil matrix. Factors that help predict the mobility of inorganic species are the soil/pore-water pH (a measure of hydrogen-ion concentration used to express the acidity or alkalinity of a solution), soil/pore-water Eh (redox potential [referring to electron activity in soils], and cation-exchange capacity. pH and Eh allow us to understand the oxidation state of a metal in the environment. The oxidation state of a metal allows us to predict, to a certain extent, the mobility of the metal. The cation-exchange capacity (CEC) is one predictor of the tendency of metals to "bind" to the soil matrix thus limiting the potential for migration.

The mobility of metals generally increases with decreasing soil pH and cation-exchange capacity.

PAHs are fairly immobile chemicals in the environment. PAHs are large molecules with low solubilities, vapor pressures, and Henry's Law constants that have high partitioning coefficients. Both vapor pressure and water solubility are useful for determining volatilization rates from surface water bodies and groundwater. The measured ratio of these two parameters (the Henry's Law Constant) under equilibrium conditions is used to calculate the equilibrium chemical concentrations in the vapor (air) phase compared to the liquid (water) phase for the dilute solutions commonly encountered in environmental settings. In general, chemicals having a Henry's Law Constant less than 1×10^{-5} atm m^3/mole, such as PAHs, should volatilize very little and should be present only in minute amounts in the atmosphere or soil vapor. PAHs in soil are much more likely to bind to soil and be transported via mass-transport mechanisms than through dissolution. These compounds, when found in surface soil, generally do not migrate vertically to a great extent. Instead, they are more likely to adhere to soil particles and be removed from the site via surface water runoff and erosional processes, especially in the absence of pavement or if erosion controls are absent or not functioning properly. Naphthalene

is the only one of the PAH COPC considered volatile according to the USEPA RSL table (November 2011). Naphthalene is also the most soluble of the PAH COPC, and therefore is the most likely of the PAHs to be transported by groundwater.

PCBs are considered very persistent organic chemicals with a great affinity for particulates and organic matter (i.e., soil). However, PCBs may be mobilized via particulate transport due to erosion of contaminated surface soil. The primary PCB COPC in soil, Aroclor-1260, is not considered volatile according to the USEPA RSL table (November 2011) and thus is not considered volatile for purposes of calculating contaminant exposure and intake.

VOCs that may have been released/spilled onto surface soil would likely have volatilized over time. The lack of significant residual contamination in surface soils is evidence of this transport mechanism. VOCs not lost to the atmosphere may have migrated to subsurface strata and underlying groundwater via transport mechanisms. The VOCs, having low molecular weight with low adsorption potential, are considered very mobile in the environment. Trichloroethene is a primary VOC COPC, selected as a direct-contact COPC for groundwater and for migration to groundwater.

5.2.1.4 Potential Current and Future Receptors of Concern and Exposure Pathways

Current land use in the GSP area is commercial/industrial (MSA is an operating airport) and expected to remain so for the foreseeable future. The area surrounding MSA consists of suburban developments, industrial/commercial developments, and woodlands. The area surrounding GSP includes the MSA Main Terminal to the north, the runway to the east, Stansbury Creek to the west, and the Strawberry Point wooded area to the south. Groundwater is not currently used as a source of potable or industrial water at the site, and such use in the future is not anticipated. This HHRA considers receptor exposure under non-residential (e.g., industrial, recreational) land use scenarios. Although the site is unlikely to be used for residential purposes, residential land uses are also evaluated.

Current and/or potential/hypothetical future land uses suggest the following potential receptors could be exposed to impacted environmental media at GSP:

- *Construction workers*—Construction workers are plausible on-site adult receptors under current and future land uses. Construction workers could be exposed to chemicals in surface and subsurface soils (0–2 feet below grade and 2–15 feet below grade, respectively) through incidental ingestion and dermal contact, and through inhalation of airborne contaminants emanating from soil. Groundwater in the study area is within approximately 15 feet of the ground surface. Direct contact with the deeper (saturated-zone) soils is assumed limited and, thus, direct contact with soils deeper than approximately 15 feet below ground surface (bgs) will not be evaluated quantitatively. Such soils (i.e., the saturated-zone soils) will be evaluated qualitatively in the uncertainty analysis. Construction workers could also be exposed to chemicals in groundwater through incidental ingestion and dermal contact, and through inhalation of airborne contaminants emanating from groundwater.

- *Industrial workers*—Industrial workers are plausible on-site adult receptors under current and future land uses. These receptors could be directly exposed to chemicals in surface soils (0–2 feet below grade) through incidental ingestion, dermal contact, and inhalation of airborne particulates and vapors emitted from the soil. Industrial-worker exposure to subsurface soil (2–15 feet below grade) is unlikely. However, exposure to subsurface soil via incidental ingestion, dermal contact, and inhalation will be evaluated for this receptor to aid in risk management decisions because future construction could potentially bring subsurface soils to the surface. This receptor is expected to be exposed to soils equally as often (but less intensively) than would be the case for the construction worker.

  Industrial workers are not expected to be exposed to chemicals in groundwater because groundwater is not used as a source of either drinking water or process water, and because industrial workers are not expected to directly contact groundwater in their day-to-day work. If this receptor were to work in an on-site structure, they could be exposed to VOCs migrating from contaminated subsurface soils or groundwater into the indoor air of a building via vapor intrusion. However, industrial workers' exposure to chemicals through vapor intrusion would likely be less intensive than residential exposure to chemicals through vapor intrusion.

- *Child and adolescent trespassers/visitors*—Trespassers/visitors are plausible receptors under current and future land uses. A trespasser may be exposed to possibly contaminated surface soils through incidental ingestion, dermal contact, and inhalation of chemicals emitted from soil to the air. Trespasser exposure to subsurface soil is not likely unless future construction/excavation brings subsurface soil to the surface. To account for the possibility that subsurface soils could be disturbed through construction, trespassers were evaluated for exposure to subsurface soil (2–15 feet below grade), in addition to surface soil, to aid in risk management decisions. Direct contact with groundwater is unlikely for this receptor; thus, trespassers were not evaluated for groundwater exposure in this HHRA.

- *Child, adolescent, and adult recreational users*—Recreational users are plausible receptors under the future land use scenario. A recreational user may be exposed to possibly impacted surface soils (0–2 feet below grade) through incidental ingestion, dermal contact, and inhalation of chemicals emitted from soil to the air. To aid in future

risk management decisions, recreational users were evaluated for risks to subsurface soil (2–15 feet below grade) because future construction could redistribute subsurface soil to the surface. Recreational user direct contact with groundwater is unlikely, and therefore was not evaluated in this HHRA.

- *Future child, adolescent, and adult residents*—The hypothetical future residential scenario is typically evaluated in a risk assessment to facilitate risk management decisions. It is assumed that a hypothetical resident may be exposed to chemicals in surface soils (0–2 feet below grade) through ingestion, dermal contact, and inhalation of chemicals emitted from soil to air. To aid in risk management decisions, hypothetical residents will also be evaluated for risks posed by exposure to subsurface soil (2–15 feet below grade), since future construction could potentially redistribute subsurface soil to the surface. These hypothetical residents could also be exposed via inhalation to VOCs migrating (via vapor intrusion) from contaminated subsurface soils or groundwater into the indoor air of a home. Although unlikely, hypothetical residents were evaluated as though they will use site groundwater as their drinking-water source. For residents, potential exposures to chemicals in groundwater were evaluated for ingestion, dermal contact (during showering or bathing) and, for an adult resident only, exposure via inhalation of chemicals volatilized into the air during showering or bathing.

5.2.2 Central-Tendency Exposure versus Reasonable Maximum Exposure

Traditionally, exposures evaluated in an HHRA were based on the concept of a reasonable maximum exposure (RME), defined as "the maximum exposure that is reasonably expected to occur at a site" (USEPA, 1989). Subsequent risk assessment guidance (USEPA, 1992) stipulates the need to address an average case or central-tendency exposure (CTE). However, in this HHRA, only the RME scenario was evaluated because the RME scenario is designed to estimate the reasonable maximum exposure likely to occur, is more conservative than the CTE scenario, and is typically the basis of risk management decision-making.

5.2.3 Exposure-Point Concentrations

Exposure-point concentrations (EPC) calculated for COPC (both site-related and naturally occurring) are estimates of chemical concentrations in an EU; EPCs are used to estimate exposure intakes. An EU is the area over which receptor activity is expected. The following paragraphs discuss the EUs that will be evaluated in the HHRA, and the guidelines for calculating EPCs.

As described in Section 5.2.1, RECs #9 and #10 are adjacent to each other, but REC #11 is approximately 600 feet northwest of REC #10. Therefore, because REC #11 is geographically distinct from RECs #9 and #10, two EUs were evaluated: RECs #9 and #10 (evaluated as one

EU) and REC #11. Hypothetical future residential- and industrial-worker-exposures to contaminated soils were also evaluated on a location-by-location basis to determine if an EU has any significant contaminant "hot spots."

The additional evaluation for the industrial worker was conducted because the future land use of the study area will most likely be commercial/industrial. The additional evaluation for the hypothetical resident was conducted because this is the most sensitive and restrictive receptor (e.g., at some sites, exposure units as small as 0.25 acre have been selected for this receptor). The results of the location-by-location risk assessment are discussed in Section 5.4. The following guidelines were used to calculate EPCs for COPC concentrations in each EU:

- For soil data-sets containing at least 10 samples, the 95% upper confidence-limit (UCL) on the arithmetic mean, which is based on the distribution of the data set, was selected as the EPC unless the UCL value exceeded the maximum detected concentration. In that case, the maximum detected concentration was used as the EPC. The maximum concentration was also used as the EPC if an insufficient number of detections (i.e., less than three positive detections in a data set) to calculate a 95% UCL were available, in accordance with USEPA guidance (USEPA, 2010b). EPCs were calculated according to USEPA's *Calculating Upper Confidence-Limits for Exposure-Point Concentrations at Hazardous Waste Sites* (USEPA, 2002b) and using USEPA's *ProUCL* software (USEPA, 2010b).

- The maximum concentration of each groundwater COPC in each EU was used as the EPC for groundwater. This approach was used because fewer than 10 samples were available in each of the groundwater data sets. Fewer than 10 samples are included in each data set because, although two rounds of data were collected from the temporary monitoring wells, the maximum concentration for each chemical detected in the two rounds of sampling was used to represent the concentration for the associated well. This approach was taken so that the temporary wells were not over-represented in the groundwater data sets, as only one round of data exists for the permanent monitoring wells.

- The SQL was used as an input for non-detects in USEPA's *ProUCL* software to calculate the 95% UCL, in accordance with *ProUCL* guidance (USEPA, 2010b). Duplicates were averaged to calculate the EPC for COPC in environmental media in the study area.

- Naphthalene was selected as a global COPC for subsurface soil and groundwater in both the VOC and SVOC fractions. EPCs were calculated for naphthalene based on the results included in both fractions, and the greater EPC for naphthalene (in either the VOC or SVOC fraction) was then evaluated in the quantitative risk assessment for each EU. Uncertainty associated with this method is discussed in the uncertainty analysis.

- Section 5.1 notes that total chromium was selected as a COPC in surface soil, subsurface soil, and groundwater using hexavalent chromium screening criteria for COPC selection because no hexavalent chromium data were available for GSP. The *Remedial*

Investigation Report for Martin State Airport (Tetra Tech, 2010) evaluated the Dump Road Area and used available hexavalent chromium data to estimate the approximate percentage of hexavalent chromium in MSA soils. The results of that investigation show that approximately 1% of total chromium in MSA soils is in the hexavalent state. The remedial investigation conservatively assumed that 100% of the chromium detected in the Dump Road Area groundwater was in the hexavalent state (Tetra Tech, 2010). These Dump Road Area assumptions are also used in this GSP HHRA because no hexavalent chromium data are available for GSP, as follows: 1% of the total chromium EPC will be evaluated as hexavalent chromium for soil, and 100% of the total chromium EPC will be evaluated as hexavalent chromium for groundwater. Uncertainty associated with the assessment of chromium toxicity is discussed in Section 5.5.

Table 5-17 summarizes EPCs used in this HHRA. Tables 5-1 and 5-2 list the surface and subsurface soil samples, respectively, used to calculate EPCs in each EU. Table 5-4 lists the groundwater samples used to calculate EPCs for each EU. The *RAGS Part D* tables for the EPCs are in Appendix J.

5.2.4 Chemical Intake Estimation

This section presents methodologies and techniques for estimating exposure intakes. Intakes for the potential receptor groups identified were calculated using current MDE and USEPA risk assessment guidance and are in the risk assessment spreadsheets (see Appendix J). Exposure assumptions are in Table 5-18 and the *RAGS Part D* Table 4s.

Noncarcinogenic intakes are typically estimated using the concept of an average annual exposure. Carcinogenic intakes are calculated as an incremental lifetime-exposure, which assumes a life expectancy of 70 years. The exposure assumptions reflect current MDE guidance (State of Maryland, 2008). The primary guidance used to develop most of the exposure assumptions used to estimate chemical intakes are based on default assumptions described in the MDE guidance document (State of Maryland, 2008). Several USEPA guidance documents (e.g., USEPA, 1989, 1991, 1993a, 1997a, 2004a) were also consulted, as necessary. The following paragraphs discuss the non-default, receptor-specific exposure assumptions used in this risk assessment.

5.2.4.1 Incidental Ingestion of Soil

Direct physical contact with soil in the study area may result in incidental ingestion of chemicals. Daily chemical intakes, expressed in units of milligrams per kilogram per day (mg/kg/day), for the incidental ingestion of soil are estimated as follows (USEPA, 1989):

$$\text{Intake} = \frac{(C_s)(IR)(FI)(EF)(ED)(CF)}{(BW)(AT)}$$

where:

Intake	=	chemical intake from soil (mg/kg/day)
C_s	=	chemical concentration in soil (mg/kg)
IR	=	ingestion rate (mg/day)
FI	=	fraction ingested from contaminated source (dimensionless)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (year)
CF	=	conversion factor (1×10^{-6} kg/mg)
BW	=	body weight (kg)
AT	=	averaging time (days) for noncarcinogens, AT = ED×365 days/year for carcinogens, AT = 70 years×365 days/year

Most of the exposure assumptions used to estimate chemical intakes from incidental ingestion of soil are based on default assumptions described in MDE or USEPA guidance. They are summarized in Table 5-18. The following paragraph briefly discusses the receptor-specific exposure assumptions for incidental ingestion of soil used in the HHRA.

The exposure-frequency assumptions selected consider anticipated receptor activities at the study area. It was assumed that construction workers assigned to future excavation projects in the study area would be exposed to soil for 250 days per year (days/year) for one year. It was also assumed that the site recreational user would be exposed for 70 days per year and that child/adolescent trespassers would be exposed 52 days per year (i.e., an average of one day per week), based on professional judgment.

5.2.4.2 Dermal Contact with Soil

Direct physical contact with soil may result in dermal absorption of chemicals. Exposure associated with dermal contact with soil is estimated as follows (USEPA, 2004a):

$$\text{Intake} = \frac{(C_s)(SA)(AF)(ABS)(CF)(EV)(EF)(ED)}{(BW)(AT)}$$

where:

Intake = amount of chemical absorbed during contact with soil (mg/kg/day)

C_s = chemical concentration in soil (mg/kg)

SA = skin surface area available for contact (centimeters^2 [cm^2])

AF = skin adherence factor (mg/cm^2-event)

ABS = absorption factor (dimensionless)

CF = conversion factor (1×10^{-6} kg/mg)

EV = exposure event frequency (event/year)

EF = exposure frequency (days/year)

ED = exposure duration (year)

BW = body weight (kg)

AT = averaging time (days)
for noncarcinogens, AT = ED×365 days/year
for carcinogens, AT = 70 years×365 days/year

Most of the exposure assumptions used to estimate chemical intakes from dermal contact with soil are based on the default assumptions described in the standard MDE or USEPA guidance. They are summarized in Table 5-18. The following paragraph briefly discusses the receptor-specific exposure assumptions for dermal contact with soil used in the HHRA. The same exposure frequencies and durations recommended for evaluating incidental ingestion of soil are used to estimate chemical intakes for dermal contact with soil.

The exposed skin surfaces of the body available for dermal contact with soils are determined on a receptor-specific basis, since they correspond with assumed human activities and clothing worn

during exposure events. All of the skin surface areas presented in Table 5-18 are based on MDE or USEPA default values. For adolescent receptors, the skin surface area available for soil contact is set at 4,320 square centimeters (cm^2) (based on Maryland guidance; see State of Maryland, 2008). The skin surface area available for soil contact for construction workers is assumed to be 3,280 cm^2, based on Maryland guidance (State of Maryland, 2008).

For chemicals identified as COPC in soil, the chemical-specific dermal absorption factors in *RAGS Part E* (USEPA, 2004a) were used to evaluate the COPC for soil. USEPA Region 3 dermal guidance (USEPA, 2003a) was consulted if chemical-specific absorption factors are not available in *RAGS Part* E. Dermal-absorption factors used in this risk assessment are in Table 5-21.

5.2.4.3 Inhalation of Air Containing Fugitive Dust/Volatiles Emitted from Soil

Intakes of both particulates and vapors/gases are calculated using the same equation, as follows (USEPA, 2009):

$$EC = \frac{(C_{air})(ET)(EF)(ED)}{AT \times 24\ hrs/day}$$

where:

EC = exposure concentration (mg/m^3)

C_{air} = concentration of chemical in air (mg/m^3)

ET = exposure time (hours/day)

EF = exposure frequency (days/year)

ED = exposure duration (year)

AT = averaging time (days)
for noncarcinogens, AT = ED×365 days/year
for carcinogens, AT = 70 years×365 days/year

Most of the exposure assumptions used to estimate chemical intakes from inhalation of fugitive dusts/volatile emissions from surface and subsurface soils are based on default assumptions described in the Maryland guidance or the standard USEPA guidance. They are summarized in Table 5-18. The same exposure frequencies and durations used to estimate incidental ingestion of

soil intakes are used to estimate exposure via inhalation of fugitive dust/volatile emissions for surface and subsurface soils.

The concentrations of chemicals in air resulting from emissions from soil are developed following procedures presented in USEPA *Soil Screening Guidance* (USEPA, 2002a). The chemical concentration in air is calculated from:

$$C_{air} = C_{soil} \times \left[\frac{1}{PEF} + \frac{1}{VF} \right]$$

where:

C_{air} = chemical concentration in air, mg/m^3

C_s = chemical concentration in soil, mg/kg

PEF = particulate-emission factor, m^3/kg

VF = volatilization factor, m^3/kg

The particulate-emissions factor (PEF) relates the concentration of the chemical in soil to the concentration of dust particles in air. A PEF value of $3.23 \times 10^{+9}$ cubic meters per kilogram (m^3/kg) was obtained from USEPA's soil-screening Web site (http://rais.ornl.gov/epa/ssl1.shtml). This is the default value for Philadelphia, Pennsylvania, which is the closest city to the MSA listed on the Web site. A separate PEF is used for the construction scenario because air emissions from fugitive dust emissions at non-construction settings differ from dust emissions generated by construction. The PEF for construction workers ($1.43 \times 10^{+6}$ m^3/kg) was calculated using the equations presented in the supplemental SSL guidance document (USEPA, 2002a). A sample calculation showing how the PEF was calculated is in Appendix J.

Ambient air concentrations resulting from the volatilization of COPC from soil are chemical dependent and calculated using the following equation from USEPA's soil-screening guidance:

$$VF = \frac{Q/C \times (3.14 \times D_a \times T)^{0.5} \times 10^{-4} \ (m^2/cm^2)}{(2 \times \rho_b \times D_a)}$$

and

$$D_a = \frac{[(\theta_a^{10/3} \times D_i \times H' + \theta_w^{10/3} \times D_w)/n^2]}{\rho_b \times K_d + \theta_w + \theta_a \times H'}$$

where:

VF = volatilization factor (m^3-air/kg-soil)

Q/C = inverse of the mean concentration at the center of source (grams [g]/m^2-sec per kg/m^3)

D_a = apparent diffusivity, chemical specific, (cm^2/sec)

T = exposure interval, exposure-specific, (seconds [sec])

ρ_b = dry bulk-soil-particle density (g/cm^3)

θ_a = air-filled-soil porosity (L_{air}/L_{soil})

D_i = diffusivity in air, chemical specific, (cm^2/sec)

n = total soil porosity (L_{pore}/L_{soil})

θ_w = water-filled-soil porosity (L_{air}/L_{soil})

D_w = diffusivity in water, chemical specific, (cm^2/sec)

K_d = soil-water-partition coefficient, chemical specific

H' = dimensionless Henry's Law constant, chemical specific

Chemical properties were obtained from the current USEPA RSL table and are presented in Table 5-19. Input assumptions for calculating the volatilization factor (VF) are in Table 5-20.

5.2.4.4 Direct/Incidental Ingestion of Groundwater

Direct ingestion of groundwater at GSP is likely limited to exposure that would occur under a future residential scenario. Incidental ingestion of groundwater by construction workers may occur during construction or excavating. Intakes associated with groundwater ingestion will be evaluated using the following equation (USEPA, 1989):

$$\text{Intake} = \frac{(C_w)(IR_w)(EF)(ED)}{(BW)(AT)}$$

where:

Intake	=	chemical intake from groundwater (mg/kg/day)
C_w	=	chemical concentration in groundwater (mg/L)
IR_w	=	groundwater-ingestion rate (L/day)
ET	=	exposure time (hrs/day)
EF	=	exposure frequency (days/yr)
ED	=	exposure duration (yr)
BW	=	body weight (kg)
AT	=	averaging time (days) for noncarcinogens, AT = ED×365 days/year for carcinogens, AT = 70 years×365 days/year

MDE or USEPA standard default exposure-assumptions were used to evaluate residential exposures to groundwater. For construction workers, an ingestion rate of 0.2 liters per day (L/day) (or 50 milliliters per hour [mL/hr] for four hours) was assumed for 90 days per year, for an exposure duration of one year. An exposure frequency of 90 days per year assumes that construction workers contact groundwater approximately three months per year. A summary of the receptor-specific input values used to estimate chemical intakes from direct and incidental ingestion of groundwater is in Table 5-18.

5.2.4.5 Dermal Contact with Groundwater

Dermal contact with groundwater at the GSP is limited to exposure that would occur under residential and construction scenarios. Hypothetical future site residential receptors are assumed to use groundwater for domestic purposes (i.e., bathing, showering, and dish washing) that could result in dermal exposure. Short-term dermal exposure is assumed to occur for the construction worker during excavating.

The following equation is used to assess exposures from dermal contact with groundwater (USEPA, 2004a):

$$DAD = \frac{(DA_{event})(EV)(ED)(EF)(SA)}{(BW)(AT)}$$

where:

DAD = dermally absorbed chemical-dose from water (mg/kg/day)

DA_{event} = dermally absorbed dose per event (mg/cm^2-event)

EV = event frequency (events/day)

ED = exposure duration (year)

EF = exposure frequency (days/year)

SA = skin-surface area available for contact (cm^2)

BW = body weight (kg)

AT = averaging time (days)
for noncarcinogens, AT = ED×365 days/year
for carcinogens, AT = 70 years×365 days/year

Most of the exposure assumptions used to estimate chemical intakes from dermal contact with groundwater are based on default assumptions described in the standard MDE or USEPA guidance, and summarized in Table 5-18.

Dermal intakes for residents assume daily total-body exposure. Child and adult surface area values are based on USEPA guidance. For adolescents, a total body-surface area of 13,100 cm^2 was used; this value is based on Maryland guidance (State of Maryland, 2008). For construction workers, the exposed surface area of the body available for contact is based on assumed activities, and is similar to the assumptions outlined for dermal contact with soil.

USEPA has not established default exposure-frequency assumptions for a construction worker exposed to groundwater. Consequently, we assume that the construction worker would be exposed to groundwater for four hours per day for 90 days per year. A shorter exposure frequency is recommended for a construction worker exposed to groundwater than that recommended for exposure to soil, because a construction worker would be unlikely to have direct daily contact with groundwater during a construction project.

The absorbed dose per event (DA_{event}) was estimated using a non-steady-state approach for organic compounds and a traditional steady-state approach for inorganics. For organics, the following equations apply:

$$\text{If } t_{event} < t^*, \text{ then: } DA_{event} = (2)(K_p)(FA)(C_w)(CF)\left(\sqrt{\frac{6\,\tau\,t_{event}}{\pi}}\right)$$

$$\text{If } t_{event} > t^*, \text{ then: } DA_{event} = (K_p)(FA)(C_w)(CF)\left(\frac{t_{event}}{1+B} + 2\,\tau\left(\frac{1+3B+3B^2}{(1+B)^2}\right)\right)$$

where:

t_{event}	=	event duration (hour/event)
t*	=	time to reach steady-state conditions (hour)
K_p	=	permeability coefficient of water through skin (cm/hour)
FA	=	chemical-specific fraction absorbed (dimensionless)
C_w	=	chemical concentration in water (mg/L)
τ	=	lag time (hour)
π	=	Pi (dimensionless; equal to 3.1416)
CF	=	conversion factor (0.001 L/cm^3)
B	=	dimensionless ratio of the permeability of the *stratum corneum* relative to permeability across the viable epidermis

Values for the chemical-specific parameters (t*, K_p, FA, τ, and B) were obtained from the current dermal guidance (USEPA, 2004a, Exhibit B-3) and are presented in Table 5-21. If published values are not available for a particular compound, they were calculated using equations provided in the USEPA dermal guidance.

The following steady-state equation was used to estimate DA_{event} for inorganics:

$$DA_{event} = (K_p)(C_{wi})(t_{event})$$

The dermal permeability (K_p) values recommended in the USEPA dermal guidance (USEPA, 2004a) were used to calculate DA_{event} for inorganic COPC.

5.2.4.6 Inhalation of Volatiles in Groundwater

If VOCs are present, groundwater exposure may also result in chemical intake through inhalation if the water resource is used as a domestic water supply or is exposed during construction

activities. This exposure route is plausible for residential receptors that may be exposed while showering, bathing, washing dishes, etc., or for construction workers contacting shallow groundwater during excavation activities. For residential receptors, chemical intakes from inhalation exposure while showering (due to volatilization of COPC in groundwater) were estimated using a mass-transfer model, developed specifically for this exposure route, in combination with an air-intake-estimation model. The mass-transfer model accounts for inhalation during and after a shower while the receptor remains in a closed bathroom. The method used is as follows (USEPA, 1989, and Foster and Chrostowski, 1987, USEPA, 2009):

$$EC = (S)(ET)(K)(EF)(ED) /(AT)(R_a)(CFs)$$

$$K = D_S + \frac{\exp(-R_a \times D_t)}{R_a} - \frac{\exp\left[R_a \times (D_S - D_t)\right]}{R_a}$$

where:

EC = exposure concentration (mg/m^3)

S = volatile-chemical generation rate ($\mu g/m^3$-min—shower)

ET = exposure time (hours/day)

EF = exposure frequency (showers/year)

ED = exposure duration (year)

AT = averaging time or period of exposure (hours)
for noncarcinogens, AT = ED×365 days/year×24 hours/day;
for carcinogens, AT = 70 yr×365 days/year x24 hours/day

R_a = air-exchange rate (min^{-1})

K = mass-transfer coefficient (min)

D_s = shower duration (min)

D_t = total time in bathroom (min)

CFs = conversion factors ($1\times10^{+3}$ µg/mg and 1,440 min/day)

The estimated volatile-chemical-generation rate is based on two-phase-film theory. The model uses contaminant-specific mass-transfer coefficients, Henry's Law constants, droplet diameter,

drop time, viscosity, temperature, etc. A sample calculation is in Appendix J. The same exposure frequencies and durations used to estimate intake for dermal contact with groundwater are used to evaluate chemical intakes for inhalation of VOCs from domestic groundwater use.

Inhalation exposures for the construction worker were estimated using an air-intake estimation model, as follows (USEPA, 2009):

$$EC = \frac{(C_{air})(ET)(EF)(ED)}{(AT)(24\ hrs/day)}$$

where:

EC	=	exposure concentration (mg/m^3)
C_{air}	=	chemical concentration in air (mg/m^3)
ET	=	exposure time (hours/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (year)
AT	=	averaging time (days) for noncarcinogens, AT = ED×365 days/year for carcinogens, AT = 70 year×365 days/year

Construction workers may be exposed to COPC that have volatilized from groundwater when an excavation exposes the shallow water table. The same exposure frequencies and times used to estimate intake from dermal contact with groundwater are used to evaluate intake from inhalation of VOCs from groundwater during construction.

No well-established models are available for estimating migration of volatiles from groundwater into a construction or utility trench. To estimate the EPC for air in a construction trench, the HHRA used an approach suggested by the Virginia Department of Environmental Quality (VDEQ) (2004), which is based on a combination of a vadose-zone model (to estimate volatilization of gases from contaminated groundwater into a trench) and a box model (to estimate contaminant dispersion from the air inside the trench to the above-ground atmosphere). The VDEQ methodology is described in the following paragraphs. The airborne concentration of a contaminant in a trench can be estimated using the following equation:

$$C_{air} = C_{gw} \times VF$$

where:

C_{air} = contaminant concentration in trench air µg/m^3

C_{gw} = concentration of contaminant in groundwater µg/L

VF = volatilization factor L/m^3

We assumed that a construction project at the site could excavate 15 feet below grade or less. If the depth to groundwater at a site is less than 15 feet, the VDEQ model assumes that a worker would encounter groundwater when digging an excavation or trench and thus be directly exposed to the groundwater. The worker would also be exposed to airborne contaminants inside the trench due to volatilization from groundwater pooling in the trench bottom. The following equation is used to calculate the VF for a trench less than 15 feet deep:

$$VF = (Ki \times A \times F \times 10^{-3} \times 10^{4} \times 3{,}600)/(ACH \times V)$$

where:

VF = volatilization factor (L/m^3)

K_i = contaminant's overall mass-transfer coefficient (cm/s)

i = contaminant of interest

A = trench area (m^2)

F = fraction of floor through which contaminant can enter (unitless)

ACH = air changes per hour (h^{-1}) = 360 h^{-1}

V = trench volume (m^3)

10^{-3} = conversion factor (L/cm^3)

10^4 = conversion factor (cm^2/m^2)

3,600 = conversion factor (seconds/hour)

Studies of urban canyons suggest that if the ratio of trench width, relative to wind direction and trench depth, is less than or equal to 1, a circulation cell(s) will be created in the trench, limiting the degree of gas exchanged with the atmosphere. Thus, measured building-ventilation rates lead

to an assumption of two air changes per hour (ACH). If the width to depth ratio of the trench is greater than 1, the air exchange between the trench and above-ground atmosphere is unrestricted, based on the ratio of trench depth to average wind speed, so the ACH is assumed to be 360. The exposure assessment in this HHRA assumes that the width-to-trench depth ratio is greater than 1; thus, the ACH is set at 360.

K_i is calculated using the following equation:

$$K_i = 1/\{(1/k_iL) + [(RT)/(H_i\ k_iG)]\}$$

where:

K_i	=	contaminant's overall mass-transfer coefficient (cm/s)
i	=	contaminant of interest
k_iL	=	liquid-phase mass-transfer coefficient of i (cm/s)
R	=	ideal gas-constant (atm-m^3/mole-°K) = 8.2×10^{-5}
T	=	average system absolute-temperature (°K) (Default = 298°K)
H_i	=	Henry's Law constant of i (atm-m^3/mole)
k_iG	=	gas-phase mass-transfer coefficient of i (cm/s)

Formulae for calculating k_iL and k_iG are as follows:

$$k_iL = (MWO_2/MW_i)^{0.5}\times(T/298)\times kL,O_2$$

where:

k_iL	=	liquid-phase mass-transfer coefficient of component i (cm/s)
MWO_2	=	molecular weight of oxygen (g/mole)
MW_i	=	molecular weight of component i (g/mole)
kL,O_2	=	liquid-phase mass-transfer coefficient of oxygen at 25°C (cm/s) = 0.002 cm/s

$$k_iG = (MWH_2O/MW_i)^{0.335} \times (T/298)^{1.005 \times} kG,H_2O$$

where:

k_iG	=	gas-phase mass-transfer coefficient of component i (cm/s)
MWH_2O	=	molecular weight of water (g/mole)
kG,H_2O	=	gas-phase mass-transfer coefficient of water vapor at 25°C (cm/s)
	=	0.833 cm/s (*Superfund Exposure Assessment Manual*, USEPA, 1988)

Chemical properties were obtained from the *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites* (USEPA, 2002a) and are presented in Table 5-19.

5.2.4.7 Assessing Cancer Risks from Early-Life Exposures

USEPA's *Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens* (USEPA, 2005b) recommends adjusting the toxicity of carcinogenic chemicals that act mutagenically (i.e., produce genetic changes) when evaluating early-life exposures to such contaminants. The guidance recommends using age-dependent adjustment factors (ADAFs) in concert with age-specific exposure estimates when assessing cancer risks. If chemical-specific data are absent, the supplemental guidance recommends the following default adjustments, which reflect that cancer risks are generally higher from early-life exposures than from similar exposures later in life:

- for exposures before two years of age (i.e., spanning a two-year interval from the first day of birth until a child's second birthday), a 10-fold adjustment
- for exposures between age two and less than 16 years of age (i.e., spanning a 14-year interval from a child's second birthday until their sixteenth birthday), a three-fold adjustment
- for exposures after reaching 16 years of age, no adjustment

These adjustments were applied using the same method as that used by USEPA to develop the RSLs. Children were evaluated in two age groups: ages 0–2 and 2–6 years old. Adolescents will be evaluated as two age groups: 6–16 and 16–18 years old. Adults (except for the adult commercial/industrial worker and construction worker) were evaluated as one age group (18–30 years old). (For the adult commercial/industrial workers, the MDE default exposure-duration of

25 years was used. A one-year exposure duration was used for the construction worker. No ADAFs are applied to these receptors.)

Using this approach, the intakes for child and adolescent trespassers; child, adolescent, and adult recreational users; and hypothetical child, adolescent, and adult residents are calculated as follows:

$$Intake_{Child} = Intake_{(ages\ 0—2\ years)} \times 10 + Intake_{(ages\ 2—6\ years)} \times 3$$

$$Intake_{Adolescent} = Intake_{(age\ 6—16\ years)} \times 3 + Intake_{(age\ 16—18\ years)} \times 1$$

$$Intake_{Adult} = Intake_{(ages\ 18—30\ years)} \times 1$$

This approach is used only for chemicals identified as mutagenic in the USEPA RSL screening table (e.g., BaPEq constituents, hexavalent chromium). Risks to receptors involving different age groups are sums of the cancer risks calculated for individual children, adolescents, and adult receptors. Therefore, lifelong cancer-risks from chemicals that act via the mutagenic pathway are assessed through the lifelong-recreational-user and lifelong-resident receptor scenarios.

5.2.4.8 Vapor Intrusion into Buildings

Current/future industrial workers and hypothetical residents could be exposed to COPC that have volatilized from groundwater and migrated into indoor air through future building foundations. Indoor air concentrations resulting from vapor intrusion from groundwater were not estimated using the Johnson and Ettinger volatilization model (USEPA, 2004b) due to the uncertainty associated with that model. Instead, vapor intrusion COPC are qualitatively evaluated in Section 5.4.

5.2.4.9 Exposure to Lead

The equations and methodology presented in the previous section cannot be used to evaluate exposure to lead because of the absence of published dose-response parameters. However, lead was not selected as a direct-contact COPC for any medium in this HHRA. Thus, quantitative methods for evaluating lead are not discussed in this HHRA.

5.2.4.10 Summary of Exposure Parameters

Table 5-18 summarizes exposure input-parameters for all exposure pathways for identified potential receptor groups in the study area. In general, standard default-parameters from MDE guidance (State of Maryland, 2008) or USEPA guidance (e.g., USEPA, 1989, 1991, 1997a, 2004a), which combine mid-range and upper-end exposure factors, were used to assess RME conditions. CTE is not assessed in this HHRA.

5.3 TOXICITY ASSESSMENT

The toxicity assessment seeks to identify potential adverse health effects in exposed populations. Quantitative estimates of the relationship between the magnitude and type of exposures, and the severity or probability of human health effects, are defined for the identified constituents of concern (see Tables 5-22 through 5-25). Quantitative toxicity-values determined during this component of the risk assessment are integrated with exposure-assessment outputs to characterize the potential occurrence of adverse health effects for each receptor group.

The reference dose (RfD) is the toxicity value used to evaluate noncarcinogenic health effects for ingestion and dermal exposures. The reference concentration (RfC) is used to evaluate noncarcinogenic health effects for inhalation exposures. The RfD and RfC estimate a daily exposure level for a human population that is unlikely to pose an appreciable risk during a portion or for all of a human lifetime. They are based on a review of animal and/or human toxicity data with adjustments for various data uncertainties. Carcinogenic effects are quantified using the cancer slope-factor (CSF) for ingestion and dermal exposures, and using inhalation-unit risks (IURs) for inhalation exposure that are plausible upper-bound estimates of the probability of developing cancer per unit-intake of the chemical over a lifetime. These are typically based on dose-response data from human and/or animal studies.

5.3.1 Toxicity Criteria for Oral and Inhalation Exposures

Oral RfDs and CSFs and inhalation RfCs and IURs used in the risk assessment of the study area were obtained from the following primary USEPA sources (USEPA, 2003b):

- ***IRIS***—USEPA's Integrated Risk Information System online database

- ***USEPA's Provisional Peer Reviewed Toxicity Values (PPRTVs)—***USEPA's Office of Research and Development/National Center for Environmental Assessment (NCEA) Superfund Health Risk Technical Support Center develops chemical specific PPRTVs when requested by USEPA's Superfund program

- ***Other toxicity values—***These sources include, but are not limited to, California Environmental Protection Agency (Cal/EPA) toxicity values, federal Agency for Toxic Substances and Disease Registry (ATSDR) values, and USEPA's *Health Effects Assessment Summary Tables* (HEAST) (USEPA, 1997b)

Although toxicity criteria can be found in several toxicological sources, USEPA's *IRIS* online database is the preferred source of toxicity values. This database is continuously updated and its values are verified by USEPA.

5.3.2 Toxicity Criteria for Dermal Exposure

RfDs and CSFs in the scientific literature are typically expressed as "administered" (i.e., not absorbed) doses. Therefore, these values are considered inappropriate for estimating risks associated with dermal exposures without adjustment to account for incomplete absorption. Oral dose-response parameters based on administered doses must be adjusted to absorbed doses before they can be compared to estimated dermal-exposure intakes.

When oral absorption is essentially complete (i.e., 100%), an absorbed dose is equivalent to the administered dose, so no toxicity adjustment is necessary. Conversely, when the gastrointestinal absorption of a chemical is poor (e.g., 1%), the absorbed dose is smaller than the administered dose; thus, toxicity factors based on absorbed dose should be adjusted to account for the difference in the absorbed dose relative to the administered dose. USEPA (2004a) recommends a 50% absorption cut-off to reflect the intrinsic variability in analyzing absorption studies. Therefore, the adjustment from administered to absorbed dose was only performed when the chemical-specific gastrointestinal-absorption efficiency was less than 50%. The adjustment from administered to absorbed dose was made using chemical-specific gastrointestinal-absorption efficiencies published in numerous sources of guidance (e.g., USEPA 2004a [the primary reference], *IRIS*, and Agency for Toxic Substances and Disease Registry (ATSDR) toxicological profiles, etc.), using the following equations:

$$RfD_{dermal} = (RfD_{oral})(ABS_{GI})$$

$$CSF_{dermal} = (CSF_{oral}) \; / \; (ABS_{GI})$$

where:

ABS_{GI} = absorption efficiency in the gastrointestinal tract

RfD_{dermal} = reference dose for dermal exposures

RfD_{oral} = reference dose for oral exposures

CSF_{dermal} = cancer slope-factor for dermal exposures

CSF_{oral} = cancer slope-factor of oral exposures

As noted, the preceding adjustment of the oral-toxicity criteria (i.e., RfDs, CSFs) is necessary so that the dermal route of exposure may be quantitatively evaluated in the baseline risk assessment. Further explanation of this procedure and its necessity are presented in Appendix A of USEPA *RAGS Part A*.

5.3.3 Inhalation Toxicity-Values for Construction Workers

Under Superfund guidelines, exposures to construction workers of one year or less are classified as subchronic exposures. Risks for noncarcinogenic effects associated with subchronic exposures should incorporate toxicity values for subchronic and not chronic effects. Tables 5-22 and 5-23 display the available subchronic RfDs and RfCs, respectively, that were used for the construction worker. Uncertainty associated with the lack of subchronic RfDs and RfCs for many chemicals is discussed in Section 5.5.3.

5.3.4 Chromium Toxicity

Toxicity criteria are available for different forms of chromium, which is considered more toxic in the hexavalent state. In the USEPA's most recent RSL table, hexavalent chromium is listed as a carcinogen that has been determined to act "mutagenically;" the corresponding RSL for residential soil is less than 1 mg/kg. USEPA's *Guidelines for Carcinogen Risk Assessment* (USEPA, 2005a) and *Supplemental Guidance on Assessing Susceptibility from Early-Life Exposure to Carcinogens* (USEPA, 2005b) specify the use of ADAFs for carcinogens, such as chromium, that act mutagenically. In contrast, the RSL for residential soil for trivalent chromium (not listed as a carcinogen/mutagen) is 120,000 mg/kg.

No hexavalent chromium data were available for GSP. As discussed in Section 5.1, hexavalent chromium criteria were used conservatively to evaluate total chromium in COPC selection, and

chromium was selected as a COPC for surface soil, subsurface soil, and groundwater on this basis. The *Remedial Investigation for Martin State Airport* (Tetra Tech, 2010), which evaluated the Dump Road Area, assumed that 1% of the reported total-chromium result in soil was attributed to hexavalent chromium; this percentage was based on comparing the analytical results of total and hexavalent concentrations in soil. Therefore, the same assumption was used in this HHRA for GSP.

The use of 1% of the total chromium concentration as the hexavalent chromium concentration is conservative, as available hexavalent chromium results indicate that hexavalent chromium, when detected, was most often much less than 1% of the total chromium result in soil. As discussed in the uncertainty section, this overestimates the risks of exposure to chromium, but does not affect overall HHRA conclusions. For groundwater, total-chromium data were conservatively evaluated using hexavalent-chromium toxicity criteria. Uncertainty associated with chromium data in groundwater is discussed in the uncertainty section.

As discussed in the uncertainty section, assuming 1% of total chromium as hexavalent chromium in soil, and using hexavalent-chromium toxicity criteria for groundwater, overestimates the risks of exposure to chromium but does not affect overall HHRA conclusions. No chemical-specific ADAFs have been derived for hexavalent chromium; therefore, the following default ADAFs were used: 10 for ages 0–2, 3 for ages 2–16, and 1 (no adjustment) for ages 16–70. These ADAFs were used to evaluate exposures to hexavalent chromium for trespassers, recreational users, and hypothetical residents using the approach presented in Section 5.2.4.7.

5.3.5 Toxicity of PCBs

The HHRA for PCBs was conducted per the guidance in USEPA's *PCBs: Cancer Dose-Response Assessment and Application to Environmental Mixtures* (USEPA, 1996b). This guidance presents a tiered approach to assessing the risks of PCBs. A range of CSFs for PCBs is presented for use in HHRA according to criteria that consider the environmental media under investigation, the type of exposure, and the anticipated persistence, bioaccumulation potential, and toxicity of PCB homologues/congeners detected in the samples.

5.3.6 Toxicity Criteria for the Carcinogenic Effects of PAHs

Limited toxicity values are available to evaluate the potential carcinogenic effects from exposure to PAHs. Benzo(a)pyrene is the most extensively studied PAH and the USEPA has published a cancer slope-factor for this PAH in *IRIS* (USEPA, 1993b). However, CSFs have not been published in *IRIS* for other PAH compounds. Alternatively, for a sub-set of related PAH chemicals (benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenzo[a]anthracene, indeno[1,2,3-cd]pyrene), USEPA recommends that risk evaluations be conducted using the TEFs developed for and used by the agency to relate the potency of each of these PAHs to that of benzo(a)pyrene (USEPA, 1993b).

Specifically, TEFs are used to convert the individual PAH concentrations into an equivalent concentration of benzo(a)pyrene, referred to as the BaPEq. For example, the TEF currently used by USEPA to develop the screening levels for chrysene presented in the USEPA RSL table is 0.001 (USEPA, 2011b, USEPA, 1993b). Consequently, if the detected chrysene concentration in a soil sample is 10,000 µg/kg, the benzo(a)pyrene equivalent concentration is 10 µg/kg. If benzo(a)pyrene and chrysene are the only PAHs detected in a sample and each was detected at 10,000 micrograms per kilogram (µg/kg), the associated benzo(a)pyrene equivalent concentration (based on positive detections only) would be 10,010 µg/kg (10,000 µg/kg for benzo[a]pyrene and 10 µg/kg for chrysene). This equivalent concentration, calculated for each sample, is then further evaluated in the risk assessment.

As discussed above, USEPA's *Guidelines for Carcinogen Risk Assessment* (USEPA, 2005a) and *Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens* (USEPA, 2005b) specify the use of ADAFs for carcinogens that act mutagenically. BaPEq constituents are included in the group of chemicals determined to act mutagenically. No chemical specific ADAFs have been derived for BaPEq; therefore, the following default ADAFs were used: 10 for ages 0–2, 3 for ages 2–16, and 1 (no adjustment) for ages 16–70. These ADAFs are used to evaluate exposures to BaPEq for trespassers, recreational users, and hypothetical residents using the approach presented in Section 5.2.4.7.

5.3.7 Carcinogenic Toxicity Criteria for Trichloroethene

Toxicity factors for trichloroethene (TCE) were finalized by USEPA in September 2011. Toxicity factors for TCE address both carcinogenic and noncarcinogenic effects. Toxicological studies indicate that exposure to TCE increases the risk of kidney and liver cancer and non-Hodgkin's lymphoma. A sufficient weight of evidence suggests that TCE-induced kidney tumors are a result of a mutagenic mode of action. USEPA *Guidelines for Carcinogen Risk Assessment* (USEPA, 2005a) and *Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens* (USEPA, 2005b) specify the use of ADAFs for carcinogens that act via a mutagenic mode of action. However, these ADAFs will only be applied to a portion of the CSF and IUR that is attributable to kidney-induced tumors.

The oral CSF for TCE is 4.6×10^{-2} $(mg/kg\text{-}day)^{-1}$ and the IUR is 4.1×10^{-6} $(\mu g/m^3)^{-1}$. For the kidney mutagenic endpoint, the oral CSF is 9.3×10^{-3} $(mg/kg\text{-}day)^{-1}$ and the IUR is 1×10^{-6} $(\mu g/m^3)^{-1}$. No chemical-specific ADAFs are available for the kidney mutagenic endpoint; therefore, USEPA's default ADAFs are applied to the carcinogenic toxicity-factors for the kidney-related component of TCE's carcinogenic toxicity-factors. The following default ADAFs should be applied: 10 for ages 0–2, 3 for ages 2–16, and 1 (no adjustment) for ages 16–70. For the liver cancer and non-Hodgkin's lymphoma endpoints, the oral CSF is 3.7×10^{-2} $(mg/kg\text{-}day)^{-1}$ and the IUR is 3×10^{-6} $(\mu g/m^3)^{-1}$. No ADAFs are applied to these values. Noncarcinogenic effects are evaluated (like all noncarcinogens) in accordance with USEPA's risk assessment guidance (USEPA, 1989).

5.3.8 Carcinogenic Toxicity Criteria for Vinyl Chloride

Toxicity factors for vinyl chloride address both carcinogenic and noncarcinogenic effects. Vinyl chloride-induced carcinogenesis is a result of a mutagenic mode of action, and this is addressed in a chemical-specific manner in the risk assessment. Toxicological studies in animals have shown an increased sensitivity to vinyl chloride-induced carcinogenesis in early life and from prenatal exposure. Early-life data on humans is lacking because most exposures have been limited to occupational groups. However, many of the factors likely responsible for early-life sensitivity in animals are present in humans (USEPA, 2000).

The effects of early-life exposure are qualitatively and quantitatively different from those of later exposures. Therefore, prorating early-life exposures as if they had been received at a proportionately lesser rate over a full lifetime would not be appropriate. Estimating risks from birth (e.g., child from ages 0–6) thus requires summing a non-prorated "early-life risk" and a prorated "later-life risk" over a life span of 70 years. No early-life component exists in cases where the receptor is not being exposed from birth. The later-life component is pro-rated as the defined exposure-duration over an assumed life span of 70 years. Noncarcinogenic effects are evaluated like all noncarcinogens, in accordance with USEPA's risk assessment guidance (USEPA, 1989).

5.4 RISK CHARACTERIZATION

This section characterizes the potential human health risks associated with exposures to COPC at GSP. Potential risks (noncarcinogenic and carcinogenic) for human receptors from exposures, as outlined in the exposure assessment, were quantitatively determined during the risk characterization component of this HHRA. Sections 5.4.1 and 5.4.2 outline the methods used to quantitatively estimate the type and magnitude of potential risks to human receptors. Summaries of the risk characterization for GSP are provided in Section 5.4.3.

5.4.1 Quantitative Analysis of Constituents Other Than Lead

Quantitative estimates of risk for chemicals other than lead are calculated according to risk assessment methods outlined in USEPA guidance (USEPA, 1989). Lifetime cancer-risks are expressed in the form of dimensionless probabilities referred to as ILCRs, based on CSFs and IURs. Noncarcinogenic-risk estimates are presented in the form of HQs, which are determined by comparing intakes against published RfDs and RfCs. ILCR estimates for ingestion and dermal exposures were generated for each COPC using estimated exposure-intakes and published CSFs, as follows:

$$ILCR = (\text{Estimated Exposure Intake})(CSF)$$

If the equation above produces an ILCR greater than 0.01, the following equation was used:

$$ILCR = 1-[\exp(-\text{Estimated Exposure Intake})(CSF)]$$

ILCR estimates of inhalation exposures are generated for each COPC using estimated exposure concentrations and published IURs, as follows:

$$ILCR = (IUR)(ExposureConcentraton)(1000\,\mu g/mg)$$

An ILCR of 1×10^{-6} indicates that the exposed receptor has a one in a million chance of developing cancer under the defined exposure scenario. Alternatively, such a risk may be interpreted as representing one additional case of cancer in an exposed population of one million persons.

Noncarcinogenic risks will be assessed using the concept of HQs and hazard indices (HIs). The HQ for a COPC is the ratio of the estimated intake to the RfD, and is calculated for ingestion and dermal exposures as follows:

$$HQ = (\text{Estimated Exposure Intake}) \,/\, (RfD)$$

For inhalation exposures, the HQ is calculated as follows:

$$HQ = (ExposureConcentraton)/(RfC)$$

An HI was generated by summing the individual HQs for all COPC. The HI is not a mathematical prediction of the severity of toxic effects and therefore is not a true probabilistic "risk;" it is simply a numerical indicator of the possibility of the occurrence of noncarcinogenic (threshold) effects.

5.4.2 Interpretation of Risk Assessment Results

To interpret the quantitative risk estimates and aid risk managers in determining the need for remediation, quantitative risk estimates are compared to typical MDE and USEPA risk benchmarks. Calculated ILCRs are interpreted using the MDE risk benchmark (1×10^{-5}) for cumulative risk and USEPA's target cancer-risk range (1×10^{-4} to 1×10^{-6}); HIs are evaluated using a value of 1.0.

USEPA defines the range of 1×10^{-4} to 1×10^{-6} as the ILCR target range for hazardous waste facilities addressed under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA). Individual or cumulative ILCRs greater than 1×10^{-4} are generally considered "unacceptable" by USEPA.

Risk management decisions are necessary when the ILCR is within 1×10^{-4} to 1×10^{-6}. USEPA typically does not require remediation when the cumulative ILCR is less than 1×10^{-6}. Similarly, cumulative ILCRs greater than 1×10^{-5} are generally considered "unacceptable" by MDE; remediation may or may not be necessary when the cumulative ILCR exceeds 1×10^{-5}.

An HI exceeding unity (1) indicates that noncarcinogenic health risks may be associated with exposure. If an HI exceeds unity, target-organ effects associated with exposure to COPC are considered. Only those HQs for chemicals affecting the same target organ(s) or exhibiting similar critical effect(s) are regarded as truly additive. Consequently, the cumulative HI could exceed 1, but no adverse health effects would be anticipated unless the COPC affect the same target organ or exhibit the same critical effect (i.e., unless target-organ-/critical-effect-specific HIs exceed 1).

As a general guideline, a "no further action" recommendation is forwarded to MDE whenever the cancer-risk estimates and total HIs (estimated on a target-organ/target-effect basis) for receptors of concern are less than 1×10^{-5} and 1, respectively. Otherwise, in most cases, the need for remedial action (including institutional controls) will be evaluated in a feasibility study (FS). However, the 1×10^{-5} risk benchmark should not be viewed as a discrete limit. Risks slightly greater than 1×10^{-5} may be considered regulatorily "acceptable" (i.e., a risk level deemed protective of human health) if justified by site-specific conditions, including any uncertainties about the nature and extent of contamination and associated risks. Consequently, a "no further action" recommendation may be forwarded to MDE risk managers for review and discussion when the 1×10^{-5} risk benchmark is exceeded. Those reviews and discussions may affect the analyses in the FS. The following factors were considered in making this determination:

- the magnitude of the environmental-medium-specific risk estimates
- significant uncertainties in the baseline HHRA that would overestimate baseline risk assessment results
- significant uncertainties in EPC estimates that would overestimate baseline risk assessment results

5.4.3 Risk Characterization Results

This section presents risk characterization results for COPC detected in soils and groundwater in each of the two EUs evaluated (i.e., RECs #9 and #10, and REC # 11). Potential risks from

direct-contact exposures to soil and groundwater, as well as a refined evaluation of the potential for chemical migration from soils to groundwater, are provided. Uncertainties associated with these risk estimates are discussed in Section 5.5. The methodology to calculate the risks presented in this section was discussed in Sections 5.2 and 5.3. Potential risks from direct-contact exposures to soil and groundwater are discussed in Sections 5.4.3.1 through 5.4.3.4. DRO and GRO are discussed in Section 5.4.3.5. Potential risks associated with vapor intrusion into buildings are discussed in Section 5.4.3.6. A refined evaluation of the potential for chemical migration from soils to groundwater is presented in Section 5.4.3.7.

Potential cancer risks and HIs were calculated for current and future construction workers; commercial/industrial workers; child and adolescent trespassers; child, adolescent, and adult recreational users; and hypothetical child, adolescent, and adult residents exposed to COPC across the GSP study area under the RME scenario; these results are summarized in Tables 5-30 and 5-35. Note that the worker receptors are the most relevant receptors evaluated in this HHRA. Risk estimates for the trespasser, recreational user, and hypothetical future resident are included primarily for completeness, and to support risk management decisions. In addition to the EU-specific risk estimates in Tables 5-30 and 5-35, cancer-risk estimates and hazard indices are presented on a location-by-location basis in Appendix J to help identify contaminant "hot spots" in the GSP study area.

Sample calculations are in Appendix J. The results of the risk assessment in the RAGS *Part D* format are in Appendix J. COPC-specific risk estimates and HIs developed to calculate the cumulative location-specific risks are in Appendix J.

5.4.3.1 Noncarcinogenic Hazards: RME—RECs #9 & #10

Tables 5-26 through 5-29 summarize the chemical concentrations detected in the REC #9 and #10 EU soil and groundwater samples. Cumulative HIs for the receptors hypothetically exposed to COPC in surface and subsurface soil in RECs #9 and #10 are summarized below. Chemicals contributing to target-organ-specific HIs greater than one are considered chemicals of concern (COC) and are listed by environmental medium in Table 5-30. These COC will be further evaluated in the FS for GSP. The "risk drivers" listed in the following table are the predominant COPC contributing to the medium-specific cumulative risk estimates:

Receptor	Environmental medium	Hazard index	Primary risk drivers[1]
Construction worker	Surface soil (SS)	8	SS: Mn
	Subsurface soil (SB)	0.3	SB: No COC[2]
	Groundwater (GW)	0.7	GW: No COC[2]
	Receptor total (SS + GW)	9	—
	Receptor total (SB + GW)	1	—
Industrial/commercial worker	Surface soil	0.3	SS: No COC[2]
	Subsurface soil	0.07	SB: No COC[2]
Child trespasser/visitor	Surface soil	0.6	SS: No COC[2]
	Subsurface soil	0.2	SB: No COC[2]
Adolescent trespasser/visitor	Surface soil	0.1	SS: No COC[2]
	Subsurface soil	0.04	SB: No COC[2]
Child recreational user	Surface soil	0.7	SS: No COC[2]
	Subsurface soil	0.3	SB: No COC[2]
Adolescent recreational user	Surface soil	0.1	SS: No COC[2]
	Subsurface soil	0.06	SB: No COC[2]
Adult recreational user	Surface soil	0.09	SS: No COC[2]
	Subsurface soil	0.04	SB: No COC[2]
Child resident	Surface soil	4	SS: Mn
	Subsurface soil	2	SB: No COC[2]
	Groundwater	90	GW: Co, Mn, TCE, As
	Receptor total (SS + GW)	93	—
	Receptor total (SB + GW)	91	—
Adolescent resident	Surface soil	0.7	SS: No COC[2]
	Subsurface soil	0.3	SB: No COC[2]
	Groundwater	66	GW: Co, Mn, TCE, As
	Receptor total (SS + GW)	66	—
	Receptor total (SB + GW)	66	—
Adult resident	Surface soil	0.4	SS: No COC[2]
	Subsurface soil	0.2	SB: No COC[2]
	Groundwater	53	GW: Co, TCE, As
	Receptor total (SS + GW)	53	—
	Receptor total (SB + GW)	53	—

[1]The following abbreviations are used: As: arsenic, Co: cobalt, Mn: manganese, TCE: trichloroethene.

[2]HIs calculated on a target-organ-specific basis do not exceed 1. Therefore, no COC were identified for this medium.

HIs calculated on a target-organ-specific basis do not exceed 1 for industrial workers, trespassers/visitors, or recreational users. Consequently, adverse noncarcinogenic health effects are not anticipated for these receptors under the conditions established in the exposure assessment.

HIs calculated on a target-organ-specific basis exceed 1 for construction workers and child residents exposed to COPC in surface soil; these exceedances are due primarily to manganese. For the construction worker, manganese contributes to the HI exceedance noted, primarily via the inhalation exposure-route. No HIs exceed 1 on a target-organ-specific basis for subsurface

soil. HIs for residents exposed to groundwater exceed 1; primary contributors to the exceedances are cobalt, trichloroethene, and arsenic for child, adolescent, and adult residents, and manganese for child and adolescent residents. Trichloroethene is the predominant contributor to the total HI for residential exposures to groundwater, as the HQ for trichloroethene in groundwater was 67, 48, and 43 for child, adolescent, and adult residents, respectively.

Risk estimates calculated on a location-specific basis are in Appendix J. None of the location-specific HIs calculated for the typical industrial worker exposed to COPC in surface soil or subsurface soils exceed 1. HIs calculated for the construction worker exceed 1 in four surface soil locations (maximum HI=8.5), but HIs do not exceed 1 in subsurface soil. HIs calculated for the hypothetical future resident for samples from seven surface soil locations (maximum HI=3.2) and six subsurface soil locations (maximum HI=2.4) exceed 1; metals are major risk contributors (e.g., manganese and thallium). For groundwater, HIs for residents exceed 1 in six of the seven wells evaluated, with a maximum HI of 68 at GSP-MW-07. Trichloroethene is the major contributor to the maximum HI.

5.4.3.2 Noncarcinogenic Hazards: RME—REC #11

Tables 5-31 through 5-34 summarize the chemical concentrations detected in REC #11 EU soil and groundwater samples. Cumulative HIs for the receptors hypothetically exposed to COPC in surface and subsurface soil in REC #11 are summarized below. Chemicals contributing to target-organ-specific HIs greater than one are considered COC and are listed by environmental medium in Table 5-35. These COC will be further evaluated in the FS for GSP. The "risk drivers" listed in the following table are the predominant COPC contributing to the medium-specific cumulative risk estimates:

Receptor	Environmental medium	Hazard index	Primary risk drivers[1]
Construction worker	Surface soil (SS)	2	SS: No COC[2]
	Subsurface soil (SB)	3	SB: Mn
	Groundwater (GW)	0.08	GW: No COC[2]
	Receptor total (SS + GW)	2	—
	Receptor total (SB + GW)	3	—
Industrial/commercial worker	Surface soil	0.1	SS: No COC[2]
	Subsurface soil	0.2	SB: No COC[2]
Child trespasser/visitor	Surface soil	0.3	SS: No COC[2]
	Subsurface soil	0.4	SB: No COC[2]
Adolescent trespasser/visitor	Surface soil	0.06	SS: No COC[2]
	Subsurface soil	0.08	SB: No COC[2]

Receptor	Environmental medium	Hazard index	Primary risk drivers[1]
Child recreational user	Surface soil	0.4	SS: No COC[2]
	Subsurface soil	0.5	SB: No COC[2]
Adolescent recreational user	Surface soil	0.08	SS: No COC[2]
	Subsurface soil	0.08	SB: No COC[2]
Adult recreational user	Surface soil	0.05	SS: No COC[2]
	Subsurface soil	0.06	SB: No COC[2]

[1]The following abbreviations are used: As: arsenic, Co: cobalt, Fe: iron, Mn: manganese, TCE: trichloroethene, Tl: thallium.

[2]HIs calculated on a target-organ-specific basis do not exceed 1. Therefore, no COC were identified for this medium.

Child resident	Surface soil	2	SS: No COC[2]
	Subsurface soil	3	SB: No COC[2]
	Groundwater	64	GW: Co, TCE, As, Fe, Tl
	Receptor total (SS + GW)	66	—
	Receptor total (SB + GW)	66	—
Adolescent resident	Surface soil	0.4	SS: No COC[1]
	Subsurface soil	0.5	SB: No COC[1]
	Groundwater	47	GW: Co, TCE, As, Tl
	Receptor total (SS + GW)	48	—
	Receptor total (SB + GW)	48	—
Adult resident	Surface soil	0.2	SS: No COC[2]
	Subsurface soil	0.3	SB: No COC[2]
	Groundwater	28	GW: Co, TCE, As, Tl
	Receptor total (SS + GW)	28	—
	Receptor total (SB + GW)	28	—

[1]The following abbreviations are used: As: arsenic, Co: cobalt, Fe: iron, Mn: manganese, TCE: trichloroethene, Tl: thallium.

[2]HIs calculated on a target-organ-specific basis do not exceed 1. Therefore, no COC were identified for this medium.

HIs calculated on a target-organ-specific basis do not exceed 1 for industrial workers, trespassers/visitors, or recreational users. Consequently, adverse noncarcinogenic health effects are not anticipated for these receptors under the conditions established in the exposure assessment.

HIs calculated on a target-organ-specific basis exceed 1 for construction workers exposed to COPC in surface soil; these exceedances are due primarily to manganese via the inhalation pathway. No other HIs exceed 1 on a target-organ-specific basis for surface or subsurface soil. HIs for child, adolescent, and adult residents exposed to groundwater exceed 1; primary contributors to the exceedances are cobalt, trichloroethene, arsenic, and thallium. Iron is a significant contributor only for the child resident.

Risk estimates calculated on a location-specific basis are in Appendix J. None of the location-specific HIs calculated for the typical industrial worker exposed to COPC in surface soil exceed 1, and only one subsurface soil sample slightly exceeds 1 (HI=1.5). HIs calculated for the construction worker exceed 1 in two surface soil samples (maximum HI=3.8) and two subsurface soil samples (maximum HI = 2.8). HIs calculated for the hypothetical future resident for samples from three surface soil locations (maximum HI=1.6) and five subsurface soil locations (maximum HI=3.7) exceed 1; metals (e.g., manganese, thallium) are the major contributors to risk. All of the seven wells evaluated have HIs that exceed 1 for residents exposed to COPC in groundwater. The maximum HI is 56 at GSP-SB-084. The temporary well at location GSP-SB-084 was noted as having some elevated metals concentrations (see Section 5.5).

5.4.3.3 Carcinogenic Risks: RME—RECs #9 & #10

Cancer-risk estimates for receptors hypothetically exposed to EPC for COPC in soil and groundwater samples in RECs #9 and #10 are summarized in the following table. Chemicals contributing an ILCR greater than 1×10^{-6} are listed in Table 5-30 by environmental medium. Chemicals are considered COC if the cumulative-risk estimate for the environmental medium exceeds 1×10^{-5}. RECs #9 and #10 COC will be further evaluated in the FS. The "risk drivers" in the following table are the predominant COPC contributing to the cancer-risk estimates presented here by medium:

Receptor	Environmental medium	Cancer-risk estimates	Primary risk drivers[1]
Construction worker	Surface soil (SS)	5×10^{-6}	SS: No COC[2]
	Subsurface soil (SB)	2×10^{-6}	SB: No COC[2]
	Groundwater	5×10^{-7}	GW: No COC[2]
	Receptor total (SS + GW)	6×10^{-6}	—
	Receptor total (SB + GW)	3×10^{-6}	—
Industrial/commercial worker	Surface soil	*3×10^{-5}*[3]	SS: BaPEq
	Subsurface soil	1×10^{-5}	SB: No COC[2]
Child trespasser/visitor	Surface soil	*7×10^{-5}*[3]	SS: BaPEq
	Subsurface soil	*2×10^{-5}*[3]	SB: BaPEq
Adolescent trespasser/visitor	Surface soil	1×10^{-5}	SS: No COC[2]
	Subsurface soil	4×10^{-6}	SB: No COC[2]
Lifelong recreational user	Surface soil	*1×10^{-4}*[3]	SS: BaPEq, As
	Subsurface soil	*3×10^{-5}*[3]	SB: BaPEq, As
Lifelong resident	Surface soil	**6×10^{-4}**[4]	SS: BaPEq, As
	Subsurface soil	**2×10^{-4}**[4]	SB: BaPEq, As, Aroclor-1260
	Groundwater	**1×10^{-3}**[4]	GW: TCE, As, Cr VI, benzene, c. tetrachloride

Receptor	Environmental medium	Cancer-risk estimates	Primary risk drivers[1]
	Receptor total (SS + GW)	**2×10^{-3}**[4]	—
	Receptor total (SB + GW)	**1×10^{-3}**[4]	—

[1] The following abbreviations are used: As: arsenic, BaPEq: benzo(a)pyrene equivalents, Cr VI: hexavalent chromium, c. tetrachloride: carbon tetrachloride, TCE: trichloroethene.

[2] ILCRs do not exceed 1×10^{-5}. Therefore, no COC were identified for this medium.

[3] The medium-specific ILCR exceeds 1×10^{-5} (ILCRs are italicized).

[4] The medium-specific ILCR exceeds 1×10^{-4} (ILCRs are bolded).

Cancer-risk estimates for the construction worker and adolescent trespassers do not exceed either USEPA or MDE cumulative cancer-risk benchmarks. Cumulative cancer-risk estimates for the lifelong resident exposed to EPC for COPC in surface soil (6×10^{-4}) and subsurface soil (2×10^{-4}) exceed the USEPA's target cancer-risk range as well as MDE's cumulative cancer-risk benchmark of 1×10^{-5}. Cumulative cancer-risk estimates for industrial workers exposed to COPC in surface soil, and child trespassers and lifelong recreational users exposed to COPC in surface and subsurface soil also exceed MDE's cumulative risk benchmark of 1×10^{-5}. The primary risk drivers for all these receptors are the BaPEq and, to a lesser extent, arsenic for recreational users and residents. Aroclor-1260 is a risk driver for lifelong residents exposed to COPC in subsurface soil.

The ILCR for the construction worker exposed to COPC in groundwater does not exceed USEPA's target cancer-risk range or MDE's cumulative risk benchmark. However, the ILCR for the lifelong resident exposed to COPC in groundwater exceeds USEPA's target cancer-risk range and MDE's cumulative-risk benchmark. The primary risk drivers are trichloroethene, arsenic, hexavalent chromium, and, to a lesser extent, benzene and carbon tetrachloride. As noted earlier, assuming all total chromium in groundwater is present in the hexavalent state is conservative. Consequently, ILCRs for chromium for groundwater may be overestimated.

Cancer-risk estimates calculated on a location-specific basis are in Appendix J. ILCRs for construction workers slightly exceed 1×10^{-5} at one location in surface soil and one location in subsurface soil (these ILCRs were 1.2×10^{-5} and 1.3×10^{-5}, respectively). Although location-specific risk estimates for the typical industrial worker exposed to COPC concentrations in surface and subsurface soils exceed 1×10^{-5} at a limited number of RECs #9 and #10 locations, none of the risk estimates exceed 1×10^{-4}. In contrast, risk estimates for the hypothetical future resident for several surface and subsurface soil locations exceed 1×10^{-4}. As noted above, BaPEq is the primary risk driver. For groundwater, hypothetical resident ILCRs exceed 1×10^{-4} in several

locations. Predominant risk drivers include arsenic, chromium (evaluated as hexavalent chromium), and trichloroethene.

5.4.3.4 Carcinogenic Risks: RME—REC #11

Cancer-risk estimates for receptors hypothetically exposed to EPC of COPC in soil and groundwater samples in REC #11 are summarized in the following table. Chemicals contributing an ILCR greater than 1×10^{-6} are listed in Table 5-35 by environmental medium. Chemicals are considered COC if the cumulative-risk estimate for the environmental medium exceeds 1×10^{-5}. COC will be further evaluated in the FS. The "risk drivers" in the following table are the predominant COPC contributing to the cancer-risk estimates presented here by medium:

Receptor	Environmental medium	Cancer-risk estimates	Primary risk drivers[1]
Construction worker	Surface soil (SS)	2×10^{-6}	SS: No COC[2]
	Subsurface soil (SB)	3×10^{-6}	SB: No COC[2]
	Groundwater (GW)	2×10^{-7}	GW: No COC[2]
	Receptor total (SS + GW)	2×10^{-6}	—
	Receptor total (SB + GW)	3×10^{-6}	—
Industrial/commercial worker	Surface soil	9×10^{-6}[2]	SS: No COC[2]
	Subsurface soil	1×10^{-5}[2]	SB: No COC[2]
Child trespasser/visitor	Surface soil	*2×10^{-5}*[3]	SS: BaPEq
	Subsurface soil	*3×10^{-5}*[3]	SB: BaPEq, As
Adolescent trespasser/visitor	Surface soil	4×10^{-6}	SS: No COC[2]
	Subsurface soil	6×10^{-6}	SB: No COC[2]
Lifelong recreational user	Surface soil	*3×10^{-5}*[3]	SS: BaPEq, Aroclor-1260, As
	Subsurface soil	*4×10^{-5}*[3]	SB: BaPEq, As
Lifelong resident	Surface soil	*1×10^{-4}*[3]	SS: BaPEq, n-nitroso-di-n-propylamine, Aroclor-1260, As
	Subsurface soil	**2×10^{-4}**[4]	SB: BaPEq, As, Aroclor-1260
	Groundwater	**7×10^{-4}**[4]	GW: Cr VI, TCE, VC, As
	Receptor total (SS + GW)	**8×10^{-4}**[4]	—
	Receptor total (SB + GW)	**9×10^{-4}**[4]	—

[1] The following abbreviations are used: As: arsenic, BaPEq: benzo(a)pyrene equivalents, Cr VI: hexavalent chromium, TCE: trichloroethene, VC: vinyl chloride.

[2] ILCRs do not exceed 1×10^{-5}. Therefore, no COC were identified for this medium.

[3] The medium-specific ILCR exceeds 1×10^{-5} (ILCRs are italicized).

[4] The medium-specific ILCR exceeds 1×10^{-4} (ILCRs are bolded).

Cancer-risk estimates for the construction worker, industrial worker, and adolescent trespasser do not exceed either USEPA or MDE cumulative cancer-risk benchmarks for soil or groundwater.

Cumulative cancer-risk estimates for the lifelong resident exposed to EPC for COPC in subsurface soil and groundwater exceed the USEPA's target cancer-risk range and MDE's cumulative risk benchmark of 1×10^{-5}. Lifelong residents exposed to COPC in surface soil and child trespassers and lifelong recreational users exposed to COPC in surface and subsurface soil also exceed MDE's cumulative-risk benchmark of 1×10^{-5}.

The primary risk drivers for cancer-risk exceedances are the BaPEq in surface and subsurface soil, and, in some cases, but to a lesser extent, arsenic and Aroclor-1260. The SVOC n-nitroso-di-n-propylamine is also a lesser risk driver for the lifelong resident exposed to surface soil; however, this compound was detected in only one of 32 REC #11 surface soil samples. The primary risk drivers for residential exposure to COPC in groundwater are trichloroethene, vinyl chloride, hexavalent chromium, and arsenic. However, as noted earlier, assuming all total chromium in groundwater is present in the hexavalent state is conservative. Consequently, ILCRs for chromium in groundwater may be overestimated.

Cancer-risk estimates calculated on a location-specific basis are in Appendix J. No surface or subsurface soil locations have ILCRs that exceed 1×10^{-5} for the construction worker. Although location-specific risk estimates for the typical industrial worker exposed to COPC concentrations in surface and subsurface soil exceed 1×10^{-5} at a limited number of REC #11 locations, none of the risk estimates exceed 1×10^{-4}. In contrast, risk estimates for the hypothetical future resident for several locations in REC #11 exceed 1×10^{-4}. As noted above, BaPEq is the primary risk driver. In groundwater, ILCRs for residents exceed 1×10^{-4} in six of the seven wells evaluated. Primary risk drivers include arsenic, chromium (evaluated as hexavalent chromium), trichloroethene, and vinyl chloride.

5.4.3.5 GRO/DRO

Risk estimates and HIs could not be developed for DRO and GRO due to a lack of toxicity criteria. DRO was selected as a COPC for surface soil, subsurface soil, and groundwater. Maximum detected DRO concentrations in surface and subsurface soil exceed the MDE residential-soil cleanup criterion of 230 mg/kg and the non-residential-soil cleanup criterion of 620 mg/kg in both RECs #9 and #10 and REC #11. DRO concentrations in groundwater also exceed the MDE groundwater cleanup criterion of 47 µg/L. GRO was selected as a COPC in groundwater only. GRO concentrations exceed the MDE cleanup criterion of 47 µg/L in

RECs #9 and #10, but do not exceed it in REC #11. GRO and DRO are evaluated in more detail in Section 5.5.

5.4.3.6 Vapor Intrusion

As discussed in Section 5.1, several VOCs were detected in groundwater samples at concentrations exceeding USEPA screening levels for VOC migration from groundwater to soil gas (and subsequently through building foundations into the interior air). USEPA's Johnson and Ettinger volatilization model (2004b) was not used to evaluate risks to hypothetical future residents and industrial workers potentially exposed to these COPC because of the significant uncertainty related to using that model to estimate indoor air concentrations from groundwater. Instead, a qualitative evaluation of the vapor intrusion COPC for each site is presented in this section. Note that the analysis presented is only for hypothetical future structures. No structures exist in or downgradient of the REC #9 and #10 or REC #11 study areas. The following chemicals were detected in all groundwater samples at concentrations exceeding residential screening-criteria for vapor intrusion: benzene, carbon tetrachloride, chloroform, trichloroethene, and vinyl chloride.

RECs #9 and #10—The following table compares the maximum concentrations (which were also used as the EPC) of the "global" COPC to the vapor-intrusion screening levels:

Global chemical of potential concern	Maximum concentration (µg/l)	Residential groundwater volatilization criterion (µg/l)
Benzene	3.1	1.4 C
Carbon tetrachloride	2.6	0.36 C
Chloroform	0.92	0.73 C
Trichloroethene	450	0.52 N
Vinyl chloride	Not detected	0.14 C

C: carcinogen

N: noncarcinogen

The screening criteria for carcinogens are based on an ILCR of 1×10^{-6}. Vinyl chloride has not been detected in RECs #9 and #10. Concentrations of benzene, carbon tetrachloride, and chloroform exceed the screening criteria by less than one order of magnitude, indicating that cancer risks for these COPC would be less 1×10^{-5} and therefore would not (individually) exceed MDE's target cancer-risk level. The screening level for trichloroethene is based on an HQ of 0.1.

The maximum concentration of trichloroethene also exceeds the screening level based on an HQ of 1. However, trichloroethene has only been detected in two of 10 groundwater samples collected from RECs #9 and #10. The maximum concentration (used as the EPC) was 450 µg/L (detected in MW-07 screened at 12–22 feet bgs), but the second greatest detection is only 0.27 µg/L, which is considerably less. If 0.27 µg/L had been used as the EPC, trichloroethene would not exceed the screening level. However, the maximum concentration of trichloroethene detected in groundwater could potentially pose risks to receptors via the indoor air pathway, specifically at location MW-07. Note that the table above presents residential criteria. Industrial exposures to vapor-intrusion COPC are expected to be less intense and less frequent than residential exposures.

REC# 11—The following table compares the maximum concentrations (which were also used as the EPC) of the "global" COPC to the vapor-intrusion screening levels:

Global chemical of potential concern	Maximum concentration (µg/l)	Residential groundwater volatilization criterion (µg/l)
Benzene	0.31	1.4 C
Carbon tetrachloride	Not detected	0.36 C
Chloroform	Not detected	0.73 C
Trichloroethene	25	0.52 N
Vinyl chloride	0.66	0.14 C

C: carcinogen
N: noncarcinogen

Screening criteria for carcinogens are based on an ILCR of 1×10^{-6}. Carbon tetrachloride and chloroform have not been detected in REC #11. The maximum concentration of benzene in REC #11 does not exceed the screening level. The maximum concentration of vinyl chloride exceeds screening criteria by less than one order of magnitude, indicating that cancer risks for this COPC would be less 1×10^{-5} and therefore would not exceed MDE's target cancer-risk level. The screening level for trichloroethene is based on an HQ of 0.1. The maximum concentration of trichloroethene also exceeds the screening level based on an HQ of 1.

Trichloroethene concentrations detected in three of the seven wells (i.e., MW-01, MW-04, and GSP-SB-089) in REC #11 have a maximum concentration exceeding the screening level based on an HQ of 1. Therefore, trichloroethene in groundwater could potentially pose risks to

receptors via the indoor air pathway at these REC #11 locations. Note that the table above presents residential criteria. Industrial exposures to vapor-intrusion COPC are expected to be less intense and less frequent than residential exposures.

5.4.3.7 Refined Evaluation of Chemical Migration from Soils to Groundwater

COPC for migration from soils to groundwater were selected as described in Section 5.1. However, a more refined evaluation of the potential for such migration is included in this section based on the following considerations:

- Does the maximum-detected soil concentration exceed the groundwater-protection screening-criterion at a DAF of 20?
- Does the mean of positive detections in soil exceed the groundwater-protection screening-criterion at a DAF of 20?
- What is the frequency of detections exceeding the groundwater-protection screening-criterion at a DAF of 20?
- Was the chemical selected as a COPC in groundwater?
- Does the maximum concentration in groundwater exceed the federal SDWA MCL?
- What is the frequency of detections in groundwater exceeding the MDE screening level for groundwater or the USEPA RSL for tap water (based on an ILCR of 1×10^{-6} or an HI of 1)?
- What is the frequency of detections in groundwater exceeding 10 times the USEPA RSL for tap water (based on an ILCR of 1×10^{-6} or an HI of 1)?

These factors are considered when selecting COC for groundwater protection. Chemicals selected as COPC for migration from soil to groundwater in the initial screening were not retained as COC if any of the following was true:

- The maximum soil concentration is less than the groundwater-protection criterion based on a DAF of 20.

  ***Rationale*:** As mentioned previously, a DAF of 1 is conservative; a DAF of 20 is assumed more accurate at most sites. Note that the MDE groundwater-protection criteria are based on a DAF of 20 and the USEPA SSLs for groundwater protection are based on a DAF of 1. The USEPA SSLs were adjusted (i.e., multiplied by 20) for this evaluation.

- The frequency of detections greater than the groundwater-protection screening-criterion at a DAF of 20 is less than 5% (when at least 20 samples are included in the data set and

no potential contamination "hot spot" is present). A potential "hot spot" is defined as a concentration that exceeds twice the screening criterion at a DAF of 20.

***Rationale*:** Chemicals are unlikely to pose risks to water quality through leaching from soil to groundwater if they are detected infrequently (i.e., less than 5%) in soil.

- The chemical was not selected as a COPC in groundwater.

  ***Rationale*:** If a chemical was not selected as a COPC in site groundwater, the data do not indicate that water quality has been adversely affected. This is an important consideration, because the contamination events in the study area are presumed to have occurred more than 20 years ago. Thus, given the passage of time, groundwater concentrations likely reflect the potential for chemical migration from soils to groundwater.

- The maximum concentration in groundwater is less than the SDWA MCL.

  ***Rationale*:** SDWA MCLs are federally enforceable drinking-water standards. Concentrations of chemicals in groundwater less than their corresponding SDWA MCLs indicate that groundwater has not been adversely affected.

- The frequency of detections greater than the MDE groundwater screening-level or the USEPA tap water RSL is less than 5% (when at least 20 samples are included in the data set and no potential contamination "hot spot" is present). A potential "hot spot" is defined as a concentration twice the MDE groundwater screening-level or USEPA tap water RSL.

  ***Rationale*:** Chemicals are unlikely to pose risks to water quality through leaching from soil to groundwater if they are detected infrequently (i.e., less than 5%) in groundwater.

Less than 20 groundwater samples were available for each EU. Therefore, no chemicals were eliminated as COC for groundwater protection based on the frequency of detections greater than the direct-contact screening level for groundwater.

EU-specific comparisons of soil data to MDE groundwater-protection criteria and adjusted USEPA SSLs for groundwater protection are included in the Occurrence and Distribution of Chemicals tables for surface soil and subsurface soil (Tables 5-26, 5-27, 5-31, 5-32). EU-specific comparisons of groundwater data to MDE groundwater cleanup standards and USEPA RSLs for tap water are included in the Occurrence and Distribution of Chemicals tables for groundwater (Tables 5-29 and 5-34).

Filtered-groundwater metals results were evaluated instead of total metals results because total (unfiltered) metals results can be artificially elevated as a consequence of high sample-turbidity often observed in unfiltered samples. However, in most cases, metals results appear similar

between the filtered and total metals fractions. Thus, the evaluation of filtered groundwater results (versus unfiltered metals results) does not greatly affect overall conclusions.

The global COPC selected in Section 5.1 for the migration to groundwater pathway are:

Surface soil:

- *VOCs:* 1,2,4-trichlorobenzene, 1,3-dichlorobenzene, benzene, methylene chloride, naphthalene, and trichloroethene

- *SVOCs:* 2-methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, carbazole, chrysene, dibenzo(a,h)anthracene, dibenzofuran, indeno(1,2,3-cd)pyrene, naphthalene, n-nitroso-di-n-propylamine, phenanthrene, and pyrene

- *PCBs:* Aroclor-1260 and total Aroclor

- *Metals:* antimony, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, selenium, and thallium

Subsurface soil:

- *VOCs:* 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, benzene, ethylbenzene, m+p-xylenes, methylene chloride, naphthalene, o-xylene, total xylenes, trichloroethene, and vinyl chloride

- *SVOCs:* 1,1-biphenyl, 2-methylnaphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, carbazole, chrysene, dibenzo(a,h)anthracene, dibenzofuran, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene

- *PCBs:* Aroclor-1242, Aroclor-1260, and total Aroclor

- *Metals:* antimony, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, thallium, and vanadium

Note that none of the PAHs or other SVOCs selected as migration to groundwater COPC were detected in the groundwater samples except for bis(2-ethylhexyl)phthalate and butyl benzyl phthalate. Therefore, PAHs and SVOCs other than bis(2-ethylhexyl)phthalate and butyl benzyl phthalate are not retained as COC for the migration from soil to groundwater pathway and are not discussed further in this section. PCBs were not target analytes for the groundwater samples. Therefore, PCBs were evaluated using only the available soil data.

RECs #9 and #10 surface soil—The "global" groundwater protection COPC methylene chloride, naphthalene, bis(2-ethylhexyl)phthalate, Aroclor-1260, and all the metals COPC were detected in RECs #9 and #10 surface soil. Methylene chloride, naphthalene, bis(2-ethylhexyl)phthalate, Aroclor-1260, antimony, barium, cadmium, copper, lead, mercury, and selenium were not detected in surface soil at concentrations exceeding their respective MDE groundwater-protection criteria or the USEPA SSL at a DAF of 20. They are therefore eliminated as COC.

Reported concentrations of arsenic, chromium (screened against criteria for hexavalent chromium), cobalt, iron, manganese, and thallium do exceed their respective groundwater protection criteria developed using a DAF of 20. Thallium has not been detected in RECs #9 and #10 groundwater and therefore is not retained as a COC. Conversely, arsenic, chromium, cobalt, iron, and manganese have also been detected in filtered groundwater in RECs #9 and #10 at concentrations exceeding MDE or USEPA direct-contact screening levels. However, arsenic concentrations in groundwater are less than the MCL; therefore, arsenic is not retained as a COC for migration to groundwater. Chromium concentrations in groundwater are also less than the MCL for total chromium. For the purposes of risk characterization, 100% of total chromium in groundwater was assumed to be in the hexavalent state; however, this is very unlikely. Iron and manganese concentrations in groundwater exceed the MDE cleanup standard but do not exceed the tap water RSL.

Summary/conclusions for RECs #9 and #10 surface soil—The analysis presented above suggests that chromium, cobalt, iron, and manganese should be retained as migration to groundwater COC. Total chromium concentrations in groundwater are less than the MCL. Iron and manganese concentrations in groundwater are also less than the tap water RSL. Note that most of the chromium, cobalt, iron, and manganese concentrations detected in surface soil may reflect background conditions. (See Section 5.5.1 for further discussion of background soil concentrations.) Consequently, these parameters are not recommended for further evaluation.

RECs #9 and #10 subsurface soil—All VOC COPC except for vinyl chloride have been detected in RECs #9 and #10 subsurface soil. Aroclor-1260 and all metals COPC have also been detected in RECs #9 and #10 subsurface soil. Of the volatiles, detections of benzene, m+p-xylenes, methylene chloride, o-xylene, and total xylenes in soil do not exceed MDE criteria or USEPA criteria based on a DAF of 20, so they are eliminated from COC selection.

Concentrations of 1,2,3-trimethylbenzene and 1,2,4-trimethylbenzene exceed the SSL based on a DAF 20 in one of 31 samples. However, the maximum concentrations of these compounds are greater than twice the SSLs at a DAF of 20. 1,2,3-Trimethylbenzene, 1,2,4-trimethylbenzene, ethylbenzene, and naphthalene have not been detected in groundwater in RECs #9 and #10, so these chemicals are not retained as COC.

Trichloroethene was detected in two of 31 subsurface soil samples at a maximum concentration that exceeds the SSL at a DAF of 20. Trichloroethene has been detected in groundwater in RECs #9 and #10 at a maximum concentration that exceeds direct-contact criteria and the MCL. Trichloroethene is therefore retained as a COC.

Reported detections of bis(2-ethylhexyl)phthalate, Aroclor-1260, antimony, barium, cadmium, copper, iron, lead, manganese, mercury, nickel, selenium, and vanadium in subsurface soil do not exceed groundwater protection criteria based on a DAF of 20, so these chemicals are not retained as COC. The metals arsenic, chromium (evaluated using hexavalent criteria), cobalt, and thallium exceed groundwater protection criteria based on a DAF of 20 in more than 5% of samples. Thallium has not been detected in groundwater in RECs #9 and #10 and therefore is not retained as a COC. Arsenic, chromium, and cobalt have been detected in filtered groundwater at concentrations exceeding direct-contact screening criteria. However, concentrations of arsenic in groundwater are less than the MCL. Concentrations of chromium are less than the total chromium MCL. Although 100% of chromium in groundwater was assumed to be in the hexavalent state, this assumption is very conservative. No MCL is available for cobalt.

Summary/conclusions for RECs #9 and #10 subsurface soil—The analysis above suggests retaining trichloroethene, chromium, and cobalt as migration to groundwater COC. However, chromium concentrations in groundwater are less than the MCL for total chromium. Note that most of the chromium and cobalt concentrations detected in subsurface soil likely reflect background conditions. (See Section 5.5.1 for further discussion of background soil concentrations.) Consequently, chromium and cobalt are not recommended for further evaluation. Trichloroethene is recommended for further evaluation.

REC #11 surface soil—All of the "global" migration to groundwater COPC for surface soil except for methylene chloride have been detected in REC #11 surface soil. However, reported

detections for 1,2,4-trichlorobenzene, 1,3-dichlorobenzene, benzene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, antimony, barium, cadmium, copper, lead, mercury, and selenium do not exceed groundwater protection criteria based on a DAF of 20. These chemicals are therefore not retained as COC. The VOCs naphthalene and trichloroethene exceed groundwater protection criteria based on a DAF of 20 in one of 33 samples and two of 33 samples, respectively. Napthalene exceeds the USEPA SSL at a DAF of 20, but not the MDE groundwater-protection cleanup level. Trichloroethene also exceeds the MDE groundwater-protection cleanup-level.

The maximum concentration of each of these VOCs is greater than two times the respective criterion. However, naphthalene has not been detected in REC #11 groundwater, so naphthalene is not retained as a COC. TCE was detected in eight of 10 groundwater samples at a maximum concentration exceeding direct-contact screening criteria, and has also been found at concentrations exceeding the MCL. TCE is therefore retained as a COC.

Aroclor-1260 subsurface soil concentrations exceed the USEPA SSL at a DAF of 20 in nine of 33 samples. Total Aroclor-also exceeds the USEPA SSL in nine of 33 samples. No groundwater data are available for PCBs; therefore, PCBs were evaluated solely on the basis of soil data.

Thallium concentrations exceed the USEPA SSL at a DAF of 20 in only one of 33 samples. The maximum concentration of thallium is less than two times the SSLs at a DAF of 20, so thallium is not retained as a COC. Concentrations of arsenic, chromium, cobalt, iron, and manganese in filtered groundwater exceed direct-contact screening criteria. However, the maximum concentration of arsenic is less than the MCL. Thus, arsenic is not retained as a COC.

Concentrations of chromium in groundwater exceed the hexavalent chromium direct-contact criterion. However, it is unlikely that all chromium in groundwater is present in the hexavalent state. Chromium concentrations in groundwater are less than direct-contact criterion for trivalent chromium and are less than the MCL for total chromium. No MCLs are available for cobalt, iron, and manganese. Concentrations of iron and manganese in groundwater exceed the MDE groundwater-cleanup standards but do not exceed the USEPA tap water RSL, based on an HI of 1.

Summary/conclusions for REC #11 surface soil—The preceding analysis suggests retaining the following chemicals as COC: trichloroethene, Aroclor-1260 and total Aroclor, chromium, cobalt, iron, and manganese. However, PCBs (i.e., the Aroclors) have already been identified as COC in

REC #11 surface soils because of direct-contact risk. In most cases, PCB parameters do not readily migrate from soils to groundwater, and direct-contact-risk remedial goals established for these chemicals are typically more conservative (i.e., lower than, more protective than) site-specific migration-to-groundwater remedial goals that may be calculated for these parameters.

Note that most of the chromium, cobalt, iron, and manganese concentrations detected likely reflect background conditions. (See Section 5.5.1 for further discussion of background soil concentrations.) Concentrations of iron and manganese in groundwater are also less than USEPA tap water RSLs. Chromium concentrations in groundwater are less than the direct-contact criterion for trivalent chromium and less than the MCL for total chromium. Consequently, the Aroclors, chromium, cobalt, iron, and manganese are not recommended for further evaluation. In contrast, trichloroethene is recommended for further evaluation.

REC #11 subsurface soil—All of the migration-to-groundwater "global" COPC have been detected in REC #11 subsurface soil except for benzene and methylene chloride. However, 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, ethylbenzene, m+p-xylenes, o-xylene, total xylenes, bis(2-ethylhexyl)phthalate, antimony, barium, cadmium, copper, lead, mercury, nickel, selenium, and vanadium have not been detected in subsurface soil at concentrations exceeding groundwater protection criteria at a DAF of 20. These parameters are therefore not retained as COC.

Naphthalene exceeds the MDE groundwater-protection cleanup criterion and the USEPA SSL at a DAF of 20 in three of 27 samples and 11 of 27 samples, respectively. However, naphthalene has not been detected in REC #11 groundwater. Thus, naphthalene is not retained as a COC. Trichloroethene exceeds the groundwater protection criteria based on a DAF of 20 in more than 5% of samples. Trichloroethene was selected as a COPC in groundwater, and trichloroethene concentrations in REC #11 groundwater exceed the MCL. Therefore, trichloroethene is retained as a COC.

Only one concentration of vinyl chloride in subsurface soil exceeds both the MDE groundwater-protection cleanup standard and the USEPA SSL based on a DAF of 20; however, the maximum vinyl chloride concentration is greater than two times these criteria. Vinyl chloride concentrations in groundwater are less than the MCL. Vinyl chloride is thus not retained as a COC.

The PCBs Aroclor-1242 and Aroclor-1260 exceed the USEPA SSL based on a DAF of 20 in only one of 27 samples each. Similarly, total Aroclor-concentrations exceed the MDE groundwater protection cleanup standard in one of 27 samples. The maximum concentration of Aroclor-1242 is less than two times the relevant criterion; however, the maximum concentration of Aroclor-1260 is greater than two times the criterion. No groundwater data are available for PCBs; therefore, PCBs are evaluated on the basis of available soil data.

The metals arsenic, chromium, cobalt, iron, and manganese have subsurface soil concentrations exceeding the relevant groundwater protection criteria based on a DAF of 20. Concentrations of these metals in groundwater also exceed the applicable direct-contact criteria in most samples. However, the maximum concentration of arsenic in filtered groundwater is less than the MCL. Therefore, arsenic is not retained as a COC. It is very unlikely that 100% of total chromium is present in the hexavalent state in groundwater, and the maximum concentration of chromium in groundwater is less than the MCL for total chromium.

Iron concentrations in groundwater exceed the MDE groundwater cleanup standard in all three samples but only exceed the USEPA tap water RSL (based on an HQ of 1) in one of three samples. Manganese concentrations in groundwater exceed the MDE groundwater cleanup standard in two of three samples but do not exceed the USEPA tap water RSL (based on an HQ of 1). Thallium concentrations exceed the USEPA SSL at a DAF of 20 in three of 27 samples. However, the maximum concentration of thallium in REC #11 groundwater is less than the MCL. Therefore, thallium is not retained as a COC.

Summary/conclusions for REC #11 subsurface soil—The preceding analysis supports retaining the following chemicals as migration-to-groundwater COC: trichloroethene, Aroclor-1260, total Aroclor, chromium, cobalt, iron, and manganese. The narrative above regarding PCB detections in REC #11 surface soils also applies to REC #11 subsurface soils. Therefore, PCBs are not recommended for further evaluation based on groundwater protection. Note that most of the chromium, cobalt, iron, and manganese concentrations detected likely reflect background conditions. (See Section 5.1 for further discussion of background soil concentrations.) Consequently, chromium, cobalt, iron, and manganese are not recommended for further evaluation. Trichloroethene is recommended for further evaluation.

5.5 UNCERTAINTY ANALYSIS

The uncertainty analysis component of this HHRA summarizes uncertainties inherent in the risk assessment and includes a discussion of how they may affect the quantitative risk estimates and risk analysis conclusions. The baseline HHRA for the study area was done in accordance with current USEPA guidance. However, varying degrees of uncertainty are associated with any baseline HHRA. A brief discussion of uncertainty issues that must generally be considered in an HHRA is provided in the following narrative.

Uncertainty in selecting COPC is related to the status of the available databases, the grouping of samples, the numbers, types, and distributions of samples, data quality, and the procedures used to include or exclude constituents as COPC. Uncertainty associated with the exposure assessment can stem from the values used as input variables for a given intake route or scenario, the assumptions made to determine EPCs, and the predictions made regarding future land uses and population characteristics. Uncertainty in the toxicity assessment stems from the quality of the existing toxicity data needed to support dose-response relationships and the weight of evidence used to determine the carcinogenicity of COPC. Uncertainty in risk characterization is associated with receptor exposure to multiple chemicals and the cumulative uncertainty arising from combining conservative assumptions made in earlier steps of the risk assessment.

Whereas various sources of random uncertainty and bias exist, the magnitude of bias and uncertainty and the direction of bias are influenced by the assumptions made throughout the risk assessment, including selection of COPC, and of values for dose-response relationships. Throughout the risk assessment, assumptions that consider safety factors must be made to overestimate the final calculated risks. Risk assessments generally carry two types of uncertainty: *measurement* and *informational* uncertainty.

Measurement uncertainty refers to the usual variance that accompanies scientific measurements. For example, this type of uncertainty is associated with the analytical data collected for each site. The risk assessment reflects the accumulated variances of the individual values used.

Informational uncertainty stems from inadequate availability of information needed to complete the toxicity and exposure assessments. This gap is often significant, such as the absence of information on the effects of human exposure to low doses of a chemical, the biological

mechanism of chemical action, or the behavior of a chemical in soil. After the risk assessment is complete, the results must be reviewed and evaluated to identify the type and magnitude of uncertainty involved. Relying on risk assessment results without considering the uncertainties, limitations, and assumptions inherent in the process can be misleading. For example, to account for uncertainties in developing exposure assumptions, conservative estimates must be made to ensure that the particular assumptions protect sensitive subpopulations or maximally exposed individuals.

If a number of conservative assumptions are combined in an exposure model, the resulting calculations can propagate the uncertainties associated with those assumptions, thereby producing much larger uncertainty in the results. This uncertainty is biased toward overestimating both carcinogenic and noncarcinogenic risks. Thus, both the results of the risk assessment and the uncertainties associated with them must be considered when making risk management decisions.

This interpretation of uncertainty is especially relevant when the risks exceed the point of departure for defining "acceptable" risk. For example, when risks calculated using a high degree of uncertainty are less than a regulatorily "acceptable" risk level (i.e., 10^{-6}), the interpretation of "no significant risk" is typically straightforward. However, when risks calculated with a high degree of uncertainty exceed a regulatorily acceptable risk level (i.e., 10^{-4}), reaching a conclusion can be difficult unless uncertainty is considered. This HHRA was prepared using the November 2011 RSLs. However, the RSLs are "evergreen" screening values, subject to change as new toxicity information becomes available and is evaluated by USEPA. Consequently, the COPC could change in the future if the RSLs change.

5.5.1 Uncertainty in COPC Selection

The most significant issues related to uncertainty in COPC selection at the subject GSP RECs are the usability of existing databases (only validated data were used in the risk assessment), the COPC screening levels used, and the absence of screening levels for a few chemicals detected in site environmental media. A brief discussion of each of these issues is provided in the remainder of this section.

Usability and completeness of existing databases—As discussed in Section 5.1, data from samples collected in field investigations in 2010 and 2011 were used to assess risks to potential human receptors from exposure to contaminated environmental media. These data were validated according to USEPA data-validation guidelines. Only fixed-base analytical results (i.e., results from a fixed-base laboratory, as opposed to field analytical results) from the field investigations for the lists of target analytes were used in the quantitative risk evaluation. Data regarded as rejected (i.e., qualified as "R" during data validation) were not used in the quantitative risk assessment. Eliminating data qualified as "R" may increase uncertainty in the risk assessment.

As noted in Section 5.4, several metals in groundwater at REC #11 are risk drivers for residential receptors. Therefore, note that analytical results for several metals detected in groundwater samples collected from temporary well GSP-SB-084 (at REC #11) are somewhat anomalous. The total (unfiltered) concentrations of cobalt, nickel, and zinc detected in groundwater samples from both rounds of sampling exceed detected concentrations in most other wells by approximately one order of magnitude or more. This well is also the only well in which thallium has been detected. A comparison of filtered metals results to total metals results (for other metals) does not indicate that sample turbidity is an issue for this well. However, note the elevated metals concentrations in this well, because cobalt and thallium are primary risk drivers for REC #11 groundwater.

Naphthalene results were analyzed and reported in both the VOC and SVOC fractions. Both the VOC and SVOC naphthalene results were included in selecting COPC. For subsurface soil, naphthalene was selected as a direct-contact COPC in both the VOC and SVOC fractions. For EPCs in the quantitative risk assessment, the maximum EPC of naphthalene from either the VOC or the SVOC fractions was used for each EU. In subsurface soil, the maximum EPC for naphthalene is from the VOC fraction for RECs #9 and #10 and from the SVOC fraction for REC #11. Using the higher concentration ensures that risks due to naphthalene are not underestimated.

Soil samples collected from 0–15 feet bgs were included in the quantitative risk evaluation. Data for soil samples collected at depths greater than 15 feet bgs (i.e., deep subsurface soil) were excluded from the quantitative risk assessment because these samples are likely saturated; however, COPC were selected for informational purposes. Table 5-11 displays the results of the

COPC selection for deep subsurface soil. The list of COPC is similar to those for surface soil and shallower subsurface soil. COPC in deep subsurface soils are trichloroethene, BaPEq and its constituents, arsenic, chromium (if evaluated using hexavalent chromium screening criteria), cobalt, copper, thallium, vanadium, and DRO.

Maximum concentrations of all of these chemicals (except for trichloroethene and cobalt) are greater in the shallower depths than in the deep subsurface soil; concentrations of trichloroethene and cobalt in deep subsurface soil are not significantly greater than (i.e., they are within one order of magnitude of) those found in shallower soil depths. Thus, excluding deep subsurface soil from the quantitative risk evaluation is not a significant source of uncertainty.

Tentatively identified compounds—Several tentatively identified compounds (TICs) have been found in the VOC fractions of study area media (see detected concentrations tables in Appendix H and data-validation reports in Appendix I). (Validation reports will be included in the full report). Eight TICs were detected in surface soil, 22 TICs were detected in subsurface soil, and five TICs were detected in groundwater. These TICs were not evaluated. The presence of TICs does add some uncertainty to the risk assessment; however, we do not expect that chemicals excluded from the target analyte list would be major risk contributors at the study area.

COPC screening levels—By using risk-based screening values based on conservative land use scenarios (i.e., residential land use for soil), corresponding to ILCRs of 10^{-6} and HIs of 0.1, the risk analyst ensures that all significant contributors to risk at a site are evaluated. Eliminating chemicals present at concentrations that correspond to ILCRs less than 10^{-6} and HIs less than 0.1 should not affect the risk assessment's final conclusions, because those chemicals are not expected to pose potential health concerns at the concentrations detected.

Background soil database—Comprehensive site-specific background-soil databases are not available for the subject RECs. The lack of site-specific background levels for various chemicals may overestimate site-related risks for the RECs evaluated, since no chemical was eliminated as a COPC based on a background screen (i.e., a comparison of site concentrations to site-specific background concentrations). The lack of such data may also affect the selection of remedial goals for inorganics typically detected at background concentrations above common risk benchmarks (e.g., arsenic). Arsenic was noted as a risk driver in soil for several receptors and in several data

sets. Arsenic was noted in Section 5.4 as a risk driver for direct-contact risk posed to several receptors in both EUs evaluated, and manganese was noted as a risk driver for two receptors in RECs #9 and #10 for surface soil. Cancer-risk estimates based on arsenic concentrations in surface and subsurface soil are less than 1×10^{-5} for most receptors/data sets, except in the REC #11 subsurface soil data set for child and lifelong residents. Arsenic and manganese are metals occurring naturally in soil.

Anticipated typical concentrations (ATCs) are available from the State of Maryland for arsenic and manganese in soil (State of Maryland, 2008) for eastern, central, and western Maryland. MSA is in the eastern Maryland geological province as defined by the Maryland guidance (State of Maryland, June 2008). ATCs for arsenic are 3.6 mg/kg, 4.9 mg/kg, and 11 mg/kg for eastern, central, and western Maryland, respectively. EPCs (i.e., the 95% UCLs, 2.9 mg/kg for RECs #9 and #10, and 3.3 mg/kg for REC #11) calculated for arsenic in surface soil do not exceed the eastern Maryland ATC for either EU evaluated. The 95% UCL for arsenic in RECs #9 and #10 subsurface soil (3.8 mg/kg) slightly exceeds the eastern Maryland ATC. The 95% UCL for arsenic in REC #11 subsurface soil (11.9 mg/kg) exceeds the eastern Maryland ATC and slightly exceeds the western Maryland ATC. The maximum concentration of arsenic in REC #11 subsurface soil is 52 mg/kg, which is approximately one order of magnitude greater than the next greatest concentration in this data set (5.8 mg/kg).

ATCs for manganese are 480 mg/kg, 1,400 mg/kg, and 1,500 mg/kg for eastern, central, and western Maryland, respectively. The EPC for manganese in RECs #9 and #10 surface soil (i.e., 2,200 mg/kg) exceeds all manganese ATCs. The maximum concentration of manganese in RECs #9 and #10 surface soil is 2,390 mg/kg, and the second greatest detected concentration is 1,590 mg/kg.

Given that arsenic concentrations are, with the exception of the maximum concentration in REC #11 subsurface soil, similar to the ATC background values, most arsenic concentrations probably represent background conditions. Manganese concentrations in RECs #9 and #10 surface soil may slightly exceed background. However, manganese concentrations across GSP are within the range of other background values reported in the scientific literature. For example, Schacklette and Boerngen (1984) reported that manganese concentrations in soil in the eastern United States range from 2–7,000 mg/kg.

The metals chromium, cobalt, iron, and manganese were retained as COC for migration to groundwater, based on the analysis in Section 5.4. As noted earlier, no hexavalent chromium data were available for either EU evaluated. Chromium was conservatively included as a migration-to-groundwater COC based on the criterion for hexavalent chromium. The Maryland ATC for total chromium is 28 mg/kg for eastern Maryland. The maximum concentration of chromium in RECs #9 and #10 surface soil (24 mg/kg) and the maximum concentrations in REC #11 surface (24.1 mg/kg) and subsurface soil (27 mg/kg) are less than this ATC. The 95% UCL calculated for RECs #9 and #10 subsurface soil (14.9 mg/kg) is also less than this ATC. Therefore, most of the total chromium concentrations in soils likely reflect background concentrations.

The eastern Maryland ATC for cobalt in soil is 11 mg/kg. The maximum concentrations of cobalt in surface and subsurface soil are less than the eastern Maryland ATC for both the RECs #9 and #10 and REC #11 EUs. Therefore, cobalt concentrations in soil likely reflect background levels.

The eastern Maryland ATC for iron in soil is 15,000 mg/kg. The maximum concentrations of iron in RECs #9 and #10 surface and subsurface soil are less than this ATC, the maximum concentration of iron in REC #11 surface soil is equal to the ATC, and the maximum concentration of iron in REC #11 subsurface soil (15,600 mg/kg) is similar to this ATC. Therefore, most iron concentrations in soils likely reflect background concentrations.

Manganese was retained as a COC for migration to groundwater for RECs #9 and #10 surface and subsurface soil as well as REC #11 surface and subsurface soil. As noted above, some manganese concentrations in RECs #9 and #10 surface soil may exceed background concentrations. However, the maximum concentration of manganese in RECs #9 and #10 subsurface soil is less than the eastern Maryland ATC. The maximum concentrations of manganese in REC #11 surface soil and subsurface soil are 1,050 mg/kg and 713 mg/kg, respectively. These maximum concentrations exceed the eastern Maryland ATC but are less than the central and western ATC values and are within the literature background range.

Contaminants without established direct-contact screening levels—Risk-based screening levels are currently not available for some constituents detected at GSP. Appropriate surrogates for some

of these chemicals, based on similar chemical structures, were selected if available. In the COPC screening for soil, 1,4-dichlorobenzene was used as a surrogate for 1,3-dichlorobenzene, acenaphthene was used as a surrogate for acenaphthylene, and pyrene was selected as a surrogate for benzo(g,h,i)perylene and phenanthrene. For groundwater-vapor intrusion, trans-1,2-dichloroethene was used as a surrogate for cis-1,2-dichloroethene. Applying the toxicity values of one compound to another increases uncertainty in the risk assessment, with regard to both COPC selection and the calculated risks. The direction of the uncertainty is unknown.

Appropriate screening levels or surrogates were not available for several organic chemicals detected in soils and groundwater. Tertiary-butyl alcohol lacked COPC selection criteria in surface soil, and 4-isopropyltoluene and sec-butylbenzene lacked COPC selection criteria in subsurface soil. In groundwater, tertiary-butyl alcohol lacked COPC selection criteria. 4-Isopropyltoluene and sec-butylbenzene had frequencies of detection less than 5% in all subsurface soil. Only one sample was available for tertiary-butyl alcohol in surface soil and groundwater. Given that risk-based screening levels are available for most of the primary contaminants (in terms of concentration and frequency of detection), the lack of risk-based screening levels for some contaminants should not affect risk management decisions for GSP.

Use of USEPA generic SSLs for transfers from soil to groundwater for COPC selection— Several chemicals were selected as COPC because their maximum concentrations exceed USEPA generic SSLs for soil to groundwater contaminant migration (DAF = 1.0). However, USEPA's *Soil Screening Guidance* (USEPA, 1996a) states that "the USEPA has selected a default DAF of 20 to account for contaminant dilution and attenuation during transport through the saturated zone to a compliance point (i.e., a receptor well). At most sites, this adjustment will more accurately reflect a contaminant's threat to groundwater resources than assuming a DAF of 1 (i.e., no dilution or attenuation)." The guidance further states that "a DAF of 20 is protective for sources up to 0.5 acres in size" and "can be protective of larger sources as well." Consequently, the use of SSLs based on a DAF of 1 is very conservative. A more refined evaluation of the potential for chemical migration from soils is provided in Section 5.4 for surface and subsurface soils. COC were selected based on that analysis.

5.5.2 Exposure Assessment Uncertainty

Uncertainty in the exposure assessment arose because of the methods used to calculate EPCs, the determination of land use conditions, the selection of receptors and scenarios, and the selection of exposure parameters. Each of these is discussed below:

***Land use*—**Current land use patterns for the GSP area are well established, thereby limiting uncertainty associated with land use assumptions. Land use is currently limited to industrial/commercial uses, and the area will most likely remain commercial/industrial in the future, as MSA is an operating airport. To be conservative, receptors were considered for all possible future land uses, and risks to potential and future construction workers, industrial workers, visitors/trespassers, recreational users, and on-site residents were evaluated.

***Exposure-point concentrations*—**Uncertainty is associated with the use of the 95% UCL on the mean-concentration as the EPC. As a result of using the 95% UCL, estimations of potential risk for the RME scenario are most likely overstated because it represents the upper limit that potential receptors would be exposed to over the entire exposure period. In some cases (because data sets contained less than 10 samples, because less than three positive detections occurred, or because the UCL was greater than the maximum concentration), the maximum concentration was used as the EPC. For example, the maximum concentration was used as the EPC for groundwater for both EUs because fewer than 10 samples were available in each data set. Using the maximum concentration tends to overestimate potential risks because receptors are assumed to be continuously exposed to the maximum concentration for the entire exposure period. One-half of the detection limit was used for non-detected results for the location-by-location risk estimates in Appendix J. Using one-half the detection limit for non-detects can result in elevated risk estimates if detection limits are elevated.

EPCs for construction workers hypothetically exposed to VOCs migrating from shallow groundwater to air were estimated using a VDEQ model for exposure of construction workers to vapors accumulating in an excavation trench. Site-specific parameters such as groundwater concentrations were used in the model. However, the model's default values had to be used for most of the other input parameters. Using the model's default values tends to increase uncertainty in the calculated risks. The direction of the uncertainty is not known, although the model default values are generally conservative and tend to overestimate air concentrations.

***Exposure routes and receptor identification*—**Determination of various receptor groups and exposure routes of potential concern is based on observed current and anticipated future land use at the site. Therefore, uncertainty associated with selecting exposure routes and potential receptors is minimal because they are considered well defined.

***Exposure parameters*—**Each exposure factor selected for use in the risk assessment had some associated uncertainty. Exposure factors are generally based on surveys of physiological and lifestyle profiles across the United States. The attributes and activities studied in these surveys are generally broadly distributed. In most cases, to avoid underestimating exposure, USEPA guidelines on the RME receptor were used. These generally specify using the 95th-percentile value for most parameters. Therefore, the values selected for the RME receptor represent an upper bound of the observed or expected habits of most of the population. MDE exposure assumptions were used when available and applicable.

Uncertainty can generally be assessed quantitatively for many of the assumptions made in determining factors with which to calculate exposures and intakes. Many of these parameters were determined from statistical analyses of human population characteristics. Often, the database used to derive a particular exposure parameter (e.g., body weight) is relatively large. Consequently, the values chosen for such variables in the RME scenario have low uncertainty.

Many of the exposure parameters used to calculate exposures and risks in this report were selected from a distribution of possible values, including MDE guidance (State of Maryland, 2008) and USEPA guidance (USEPA, 1989, 1991, 1993, 1997a, 2004, 2011a). For the RME scenario, the value representing the 95th percentile was generally selected for each parameter to ensure that the assessment bounds most actual risks posed by a postulated exposure. This risk number is used in risk management decisions, but it does not indicate what an average and more-representative exposure might be, or what risk range might be expected for individuals in the exposed population.

5.5.3 Uncertainty in the Toxicological Evaluation

Uncertainties associated with the toxicity assessment (determination of RfDs and CSFs and use of available criteria) are discussed below.

Derivation of toxicity criteria—Uncertainty associated with the toxicity assessment is related to the hazard assessment and dose-response evaluations for the COPC. The hazard assessment characterizes the nature and strength of causal evidence or the likelihood that a chemical that induces adverse effects in animals will do likewise in humans. A hazard assessment of carcinogenicity was evaluated as a weight-of-evidence determination using USEPA methods. Positive animal-cancer test data suggest that humans contain tissue(s) that may manifest a carcinogenic response; however, animal data cannot necessarily be used to predict the target tissue in humans. In the hazard assessment of noncarcinogenic effects, however, positive animal data often suggest the nature of the effects (i.e., the target tissues and type of effects) to be anticipated in humans.

Uncertainty in hazard assessment arises from the nature and quality of the animal and human data. Uncertainty is reduced when:

- similar effects are observed across species, strain, sex, and exposure route
- the magnitude of the response is clearly dose related
- pharmacokinetic data indicate a similar fate in humans and animals
- postulated mechanisms of toxicity are similar for humans and animals
- the COC are structurally similar to other chemicals for which toxicity is more completely characterized

Uncertainty in the dose-response evaluation includes determining a CSF for the carcinogenic assessment and deriving an RfD for the noncarcinogenic assessment. Uncertainty is introduced from interspecies (animal to human) extrapolation, which, in the absence of quantitative pharmacokinetic or mechanistic data, is usually based on consideration of interspecies differences in basal metabolic rate. Uncertainty also results from intraspecies variation. Most toxicity experiments are performed on animals similar in age and genotype to minimize intragroup biological variation.

In contrast, the human population of concern may reflect a great deal of heterogeneity, including unusual sensitivity or tolerance to the COPC. Even toxicity data from human occupational exposures reflect a bias, because only those individuals sufficiently healthy to regularly attend work (the "healthy worker effect") and those not unusually sensitive to the chemical are likely to

be occupationally exposed. Finally, uncertainty arises from the quality of the key study from which the quantitative estimate is derived and which produced the database used. For cancer effects, the uncertainty associated with dose-response factors was mitigated by assuming the 95% upper bound for the slope factor.

Another source of uncertainty in carcinogenic assessment is the method by which data from high doses in animal studies are extrapolated to the dose range expected for environmentally exposed humans. The linearized multi-stage model, which is used in nearly all quantitative estimations of human risk based on animal data, is based on a nonthreshold assumption of carcinogenesis. Evidence suggests, however, that epigenetic carcinogens, as well as many genotoxic carcinogens, have a threshold below which they are noncarcinogenic. Therefore, using the linearized multi-stage model is conservative for chemicals that exhibit a threshold for carcinogenicity.

For noncarcinogenic effects, additional uncertainty factors may have been applied to derive the RfD to mitigate the poor quality of the key study or gaps in the resultant database. Additional uncertainty for noncarcinogenic effects arises from using an effect level in estimating an RfD, because this estimate is predicated on the assumption of a threshold less than that at which adverse effects are not expected. Therefore, an uncertainty factor is usually applied to estimate a no effect level.

Additional uncertainty arises in estimating an RfD for chronic exposure from subchronic data. Unless empirical data indicated that effects do not worsen with increasing exposure duration, an additional uncertainty factor was applied to the no effect level in the subchronic study. Uncertainty in deriving RfDs was mitigated by using uncertainty and modifying factors that normally range from 3–10. The resulting combination of uncertainty and modifying factors may have reached 1,000 or more. Deriving dermal RfDs and CSFs from oral-exposure values may also have introduced uncertainty. This is particularly the case when no gastrointestinal absorption rates are available in the literature, or when only qualitative statements regarding absorption are available.

Use of chronic toxicity values for construction workers—Under Superfund program guidelines, exposures posed to construction workers for one year or less are classified as subchronic exposures. Risks for noncarcinogenic effects associated with subchronic exposures should incorporate toxicity values for subchronic and not chronic effects. Subchronic toxicity values

used in this HHRA were obtained from USEPA's PPRTV Internet URL (http://hhpprtv.ornl.gov/quickview/pprtv.php). ATSDR Minimal Risk Levels (MRLs) were used as subchronic toxicity-values when PPRTV values were not available. Unfortunately, subchronic toxicity values are not as widely available as chronic values. Therefore, chronic toxicity values were used when subchronic toxicity values were not available. As discussed below, the lack of subchronic toxicity values is a significant source of uncertainty for receptors anticipated to have limited exposure durations (e.g., the construction worker).

Construction worker HIs for surface soil in RECs #9 and #10 and for both surface and subsurface soil in REC #11 exceed 1 primarily due to manganese via the inhalation exposure route. The toxicity criteria used to calculate the manganese HI for the construction worker include an RfC of 5×10^{-5} mg/m^3 (from USEPA's *IRIS*). This RfC is for *chronic* exposures (i.e., long-term exposures extending over a period of seven or more years); for the construction worker scenario, subchronic toxicity values are more appropriate because the exposure duration assumed for the construction worker is one year (i.e., the assumed length of a typical construction project). However, a subchronic RfC is not currently available from *IRIS* or other USEPA literature sources cited in the hierarchy specified in USEPA guidance (2003b). The fact that the EPCs calculated for manganese in REC #11 surface soil (370 mg/kg) and REC #11 subsurface soil (713 mg/kg) are less than the current residential soil RSL (1,800 mg/kg) yet still result in an HQ exceeding 1 for manganese is evidence that the construction worker HQ for manganese is likely overestimated. Although the EPC for manganese in RECs #9 and #10 surface soil (2,200 mg/kg) exceeds the residential soil RSL, it is within one order of magnitude of the residential soil RSL and less than the industrial soil RSL (23,000 mg/kg).

The chronic RfC for manganese used in this baseline risk assessment was developed in 1993 by USEPA. However, Bailey, et al., (2009) used more recent toxicological studies than those used by the USEPA in 1993 to develop two alternative chronic RfCs for manganese: 2×10^{-3} mg/m^3 and 7×10^{-3} mg/m^3. If the more conservative of Bailey, et al.'s alternative RfCs (i.e., 2×10^{-3} mg/m^3) is used to calculate potential risk, soil HIs for the construction worker would not exceed 1 on a target-organ-specific basis. Therefore, the toxicity criteria used for manganese are a significant source of uncertainty.

Uncertainty in the toxicity criteria for Aroclor-1260—Aroclor-1260 was selected as a global direct-contact COPC in both surface and subsurface soil. No noncarcinogenic toxicity criteria are available for Aroclor-1260, and this lack adds uncertainty. However, a noncarcinogenic RfD is available for Aroclor-1254, a related compound that was not detected in study area media. The noncarcinogenic residential soil RSL for Aroclor-1254 is 1,100 µg/kg. The EPCs calculated for Aroclor-1260 detected in RECs #9 and #10 surface and subsurface soil (i.e., 63 µg/kg and 64 µg/kg, respectively) are less than the noncarcinogenic RSL for Aroclor-1254. The EPCs calculated for Aroclor-1260 in REC #11 surface and subsurface soil (i.e., 1,600 µg/kg and 1,200 µg/kg, respectively) slightly exceed the noncarcinogenic RSL for Aroclor-1254. However, Aroclor-1260 has already been identified as a risk driver in REC #11 surface and subsurface soil for residential receptors. Using the Aroclor-1254 RfD for Aroclor-1260 would not lead to HIs exceeding 1 on a target organ basis for construction workers, industrial workers, trespassers, or recreational users. Therefore, the lack of noncarcinogenic toxicity criteria for Aroclor-1260 does not change overall risk assessment conclusions.

Uncertainty in the toxicity criteria for chromium—Toxicity criteria are available for different forms of chromium, which is considered more toxic in the hexavalent state. The following table compares the maximum total-chromium concentrations reported for the GSP EUs to available USEPA RSLs:

Environmental medium (maximum concentration)	USEPA RSL residential scenario (assuming hexavalent chromium)	USEPA RSL residential scenario (assuming trivalent chromium)
Surface soil: RECs #9 & #10 = 24 mg/kg REC #11 = 24.1 mg/kg	0.29 mg/kg	120,000 mg/kg
Subsurface soil: RECs #9 &10 = 39 mg/kg REC #11 = 27 mg/kg		
Groundwater: RECs #9 & #10 = 8.2 µg/L REC #11 = 7.5 µg/L	0.031 µg/L	16,000 µg/L

No hexavalent chromium data are available for GSP for either soil or groundwater. As indicated in Section 5.3, an assumption that 1% of total chromium in soil is present in the hexavalent state

was made for the Dump Road Area, and that same assumption was made for GSP. As in the HHRA for the Dump Road Area, chromium in groundwater was conservatively assumed present in the hexavalent state. Risks calculated for chromium in soil, assuming 1% of total chromium is in the hexavalent form, and risks for groundwater calculated assuming all chromium was present in the hexavalent form, are likely overestimated.

Hexavalent chromium is not a primary risk driver in soil for any receptor. Therefore, the conclusions of the HHRA are not affected by assuming 1% of total chromium in soil is present in the hexavalent form. Hexavalent chromium in groundwater was found to be a primary carcinogenic risk driver for residents. As stated earlier, all total chromium data are assumed to be in the hexavalent form in groundwater. This was done for the Dump Road Area because available hexavalent chromium data in groundwater at the Dump Road Area were unsuitable for developing a quantitative ratio of total chromium to hexavalent chromium (Tetra Tech, 2010).

Regardless of the assumptions made to predict the percentages of hexavalent chromium in groundwater, the medium-specific ILCRs for lifelong residents in both EUs would still exceed USEPA's target cancer-risk range and MDE's target cancer-risk level even if chromium were not selected as a COPC. Therefore, risk assessment conclusions are not affected by the assumptions made regarding chromium in groundwater. Even so, risks for hexavalent chromium in groundwater are likely overestimated by this assumption.

Refined risk evaluation of GRO/DRO concentrations—The risk evaluation in Section 5.4 includes a qualitative discussion of GRO and DRO concentrations to MDE's *Generic Numeric Cleanup Standards for Soil*. DRO and GRO were not evaluated quantitatively in Section 5.4 because USEPA has not published toxicity criteria (e.g., RfDs or CSFs) for these parameters. However, as noted in the 2008 MDE *Guidance for Cleanup Standards for Soil and Groundwater*, some state regulators have established protocols for the quantitative risk assessment of these parameters.

An example of such protocols is found in Massachusetts' final policy #WSC-02-411 (*Characterizing Risks Posed by Petroleum Contaminated Sites: Implementation of the MADEP VPH/EPH Approach*) (State of Massachusetts, 2002). This methodology is cited in the referenced MDE guidelines as the basis of the published generic standards for soil. Although

quantitative risk estimates based on this methodology (and the associated toxicity criteria) are more uncertain than those based on USEPA recommended toxicity criteria, for purposes of completeness, the following tables provide noncancer-risk estimates (HIs) for GRO/DRO, based on a simple comparison of EPCs to risk-based concentrations developed using the methodology endorsed by MDE to develop the generic standards (see Appendix J).

The evaluation indicates that although some isolated detected concentrations of GRO/DRO clearly exceed the MDE generic standards (see Section 5.4), risk estimates based on the EPCs for all receptors (except the resident exposed to groundwater in RECs #9 and #10) do not indicate that these parameters are major contributors to noncancer risk for hypothetical exposure to GSP soil or groundwater. The HI for a child resident exposed to DRO at RECs #9 and #10 exceeds 1. The maximum concentration of DRO used as the EPC for groundwater in RECs #9 and #10 is from MW-06; the second greatest concentration of DRO (1,400 µg/L) was detected in MW-05. No other groundwater samples from RECs #9 and #10 have DRO concentrations exceeding the MDE residential cleanup standard of 470 µg/L.

Furthermore, this evaluation is limited in that it does not consider the potential carcinogenic effects of the GRO/DRO constituents (e.g., benzo(a)pyrene and related chemicals). However, the chemical-specific risk assessment in Section 5.4 does account for a number of these constituents.

RECs #9 and #10—Refined Evaluation of GRO/DRO (Hazard Indices)

RECs #9 and #10	Surface soil DRO	Subsurface soil DRO	Groundwater DRO	Groundwater GRO
EPC (mg/kg or µg/L)	350	220	1,600	300
Ratio of EPC to residential RBC (2,300 mg/kg or 470 µg/L)	*0.2*	<0.1	**3**	*0.6*
Ratio of EPC to trespasser RBC (16,000 mg/kg)	<0.1	<0.1	NA	NA
Ratio of EPC to industrial RBC (61,000 mg/kg)	<0.1	<0.1	NA	NA
Ratio of EPC to recreational RBC (12,000 mg/kg)	<0.1	<0.1	NA	NA

REC #11—Refined Evaluation of GRO/DRO (Hazard Indices)

REC #11	Surface soil DRO	Subsurface soil DRO	Groundwater DRO	Groundwater GRO
EPC (mg/kg or µg/L)	660	1,400	360	Not detected
Ratio of EPC to residential RBC (2,300 mg/kg or 470 µg/L)	*0.3*	*0.6*	*0.8*	NA
Ratio of EPC to trespasser RBC (16,000 mg/kg)	<0.1	<0.1	NA	NA
Ratio of EPC to industrial RBC (61,000 mg/kg)	<0.1	<0.1	NA	NA
Ratio of EPC to recreational RBC (12,000 mg/kg)	<0.1	0.1	NA	NA

5.5.4 Uncertainty in the Risk Characterization

Uncertainty in risk characterization resulted from assumptions made regarding additivity of effects from exposure to multiple COPC via various exposure routes. High uncertainty exists when summing noncarcinogenic risks for several substances across different exposure pathways. This assumes that each substance has a similar effect and/or mode of action. Even when compounds affect the same target organs, they may have different mechanisms of action or differ in their fate in the body, so additivity may not be an appropriate assumption in all cases. However, the assumption of additivity was considered because in most cases it represents a conservative estimate of risk. Risks to any individual may also have been overestimated by summing multiple assumed exposure-pathway risks for any single receptor. Although every effort was made to develop reasonable scenarios, not all individual receptors may be exposed via all pathways considered.

Finally, the risk characterization does not consider antagonistic or synergistic effects. Little or no information is available to determine the potential for antagonism or synergism among the COPC. The likelihood of over- or under-predicting risks could not be defined because chemical-specific interactions could not be predicted; however, the methodology used is based on current USEPA guidance.

5.6 REMEDIAL GOAL OPTIONS

Cleanup goals were developed for those environmental media with ILCRs greater than 1×10^{-5} and a total HI greater than 1. Cleanup goals were derived for those COC that contribute significantly to the cancer risk and/or HI for each exposure pathway in a given land-use scenario for a receptor group. Chemicals were not considered significant contributors to risk, and were therefore not included as COC, if their individual carcinogenic risk contribution was less than or equal to 1×10^{-6} and their noncarcinogenic HQ was less than or equal to 0.1. Cleanup goals were calculated using the following equation:

$$\text{Cleanup Goal [chemical i]} = \text{EPC[chemical i]} \times \text{Target Risk/Calculated Risk[chemical i]}$$

where:

Cleanup goal [chemical i]	=	chemical-specific cleanup goal
EPC [chemical i]	=	exposure-point concentration used in risk assessment calculations
Target risk	=	target risk for carcinogens or the target hazard quotients for noncarcinogens
Calculated risk [chemical i]	=	total risk calculated for a specific chemical in the risk assessment

Cleanup goals calculated for soil and groundwater for each EU are in Tables 5-36 through 5-39. These tables include potential USEPA RSL criteria and MCLs, when available.

5.7 SUMMARY

The baseline HHRA for GSP was performed to characterize potential risks to likely human receptors that could potentially be exposed to soils and groundwater under current and future land use. The potential receptors evaluated were construction workers, industrial workers, trespassers, recreational users, and hypothetical future residents. Although future land use is unlikely to change from industrial/commercial land uses, potential future receptors were evaluated in the baseline HHRA, primarily for decision-making purposes.

Chemicals of potential concern were selected for direct-contact routes of exposure to environmental media, for the vapor-intrusion pathway, and for the potential migration of chemicals from soils to

groundwater pathway. The "global" COPC evaluated for surface soil for direct-contact exposure were benzo(a)pyrene equivalents constituents, n-nitroso-di-n-propylamine, PCBs, several metals, and DRO. The "global" COPC for subsurface soil for direct-contact exposure were naphthalene (as both a VOC and SVOC), benzo(a)pyrene-equivalent constituents, PCBs, several metals, and DRO. The "global" groundwater COPC for direct-contact exposure were VOCs (particularly trichloroethene), SVOCs, several metals, DRO, and GRO. The COPC for the vapor-intrusion pathway were trichloroethene, and, to a lesser extent, benzene, carbon tetrachloride, chloroform, and vinyl chloride. Many of these same organic and inorganic chemicals were also selected as COPC to evaluate chemical migration from soils to groundwater.

Quantitative estimates of noncarcinogenic and carcinogenic risks (HIs and ILCRs, respectively) were developed for potential human receptors directly contacting site environmental media. Media with risk estimates exceeding Maryland's one in 100,000 cumulative cancer-risk benchmark (i.e., 1×10^{-5}), or an HI of 1, are identified in the following tables for each EU:

Summary of Direct-Contact Risk Estimates—RECs #9 and #10
(Ingestion, Dermal Contact, and Inhalation of COPC)

Environmental medium	Receptors	Chemicals of concern[1]
Surface soil	Construction worker(2)(4) Typical industrial worker(3) Child trespasser(3) Lifelong recreational user(3) Child resident(2) Lifelong resident(3)	BaPEq, As(5), Mn
Subsurface soil	Child trespasser(3) Lifelong recreational user(3) Lifelong resident(3)	BaPEq, As(5), Aroclor-1260
Groundwater	Child resident(2) Adolescent resident(2) Adult resident(2) Lifelong resident(3)	Benzene(6), Carbon tetrachloride(6), TCE, As(6), Co, Cr VI(7), Mn

[1]The following abbreviations are used: As: arsenic, BaPEq: benzo(a)pyrene equivalents, Cr VI: hexavalent chromium, Co: cobalt, Mn: manganese, TCE: trichloroethene.

[2]Receptor risks exceed non-cancer-risk benchmark of target organ-specific HI greater than 1.

[3]Receptor risks exceed 1E-05 cancer-risk benchmark. Risk estimates presented for the lifelong recreational user and lifelong resident (estimates not presented for the various age groups that define this receptor).

[4]Manganese is the only COC for this receptor; however, considerable uncertainty is associated with the HI estimated for manganese (see Section 5.5, Uncertainty Analysis).

[5]Arsenic concentrations likely represent background.

[6]The maximum concentration of this chemical in RECs #9 and #10 groundwater is less than the MCL.

[7] Cr VI was evaluated by assuming 100% of total chromium is present in the hexavalent state; considerable uncertainty is associated with this assumption (see Section 5.5, Uncertainty Analysis). The maximum concentration of total chromium in RECs #9 and #10 groundwater is less than the total chromium MCL.

Summary of Direct-Contact Risk Estimates—REC #11 (Ingestion, Dermal Contact, and Inhalation of COPC)

Environmental medium	Receptors	Chemicals of concern[1]
Surface soil	Construction worker(2,4) Child trespasser(3) Lifelong recreational user(3) Lifelong resident(3)	BaPEq, n-nitroso-di-n-propylamine(9), Aroclor-1260, As(3), Mn(6)
Subsurface soil	Construction worker(2,4) Child trespasser(3) Lifelong recreational user(3) Lifelong resident(3)	BaPEq, As, Aroclor-1260, Mn(6)
Groundwater	Child resident(2) Adolescent resident(2) Adult resident(2) Lifelong resident(3)	TCE, VC(7), As, Co(10), Cr VI(8), Fe, Tl(7,10)

[1]The following abbreviations are used: As: arsenic, BaPEq: benzo(a)pyrene equivalents, Co: cobalt, Cr VI: hexavalent chromium, Fe: iron, Mn: manganese, TCE: trichloroethene, Tl: thallium, VC: vinyl chloride.

[2]Receptor risks exceed noncancer-risk benchmark of target organ-specific HI greater than 1.

[3]Receptor risks exceed 1E-05 cancer-risk benchmark. Risk estimates presented for the lifelong recreational user and lifelong resident (estimates not presented for the various age-groups that define this receptor).

[4]Manganese is the only COC for this receptor; however, considerable uncertainty is associated with the HI estimated for manganese (see Section 5.5, Uncertainty Analysis).

[5]Arsenic concentrations likely represent background.

[6]Manganese is a COC for the construction worker only; see footnote #4.

[7]The maximum concentration of this chemical in REC #11 groundwater is less than the maximum contaminant level (MCL).

[8]Cr VI was evaluated by assuming 100% of total chromium is present in the hexavalent state; considerable uncertainty is associated with this assumption (see Section 5.5, Uncertainty Analysis). The maximum concentration of total chromium in REC #11 groundwater is less than the total chromium MCL.

[9]This compound was detected in only one of 32 REC #11 surface soil samples.

[10]These metals had notably higher concentrations in temporary well GSP-SB-084 than in other wells for cobalt and thallium. This is an important consideration because the maximum concentration was used as the exposure point concentration (EPC) for groundwater.

No quantitative evaluation of vapor intrusion was conducted. However, a qualitative evaluation was conducted for the vapor-intrusion COPC for a hypothetical future resident or worker, assuming exposure to VOCs in the indoor air of a building. Results for each EU are summarized below:

Summary of Vapor-Intrusion Pathway COC[(1)]

(Volatile Organic Chemical Migration from Shallow Groundwater to the Indoor Air of a Building)

Exposure unit	Chemicals of concern
RECs #9 and #10	Trichloroethene
REC # 11	Trichloroethene

[1]The maximum detected concentration in groundwater from all wells in each exposure unit was used as the exposure-point concentration for the qualitative analysis.

Trichloroethene was selected as a vapor-intrusion COC for both RECs #9 and #10 and REC #11, based on a qualitative analysis of the available data (e.g., frequencies of detection, magnitude of exceedances). Trichloroethene was also selected as a COC for direct contact with groundwater in both EUs evaluated.

The following chemicals were selected as COC based on their potential to migrate from soils to groundwater:

Chemicals of Concern for Migration from Soils to Groundwater

Analytical fraction	Chemicals selected as COC
Volatile organic chemicals	Trichloroethene
PCBs[(1)]	Aroclor-1260, total Aroclor
Metals[(1)]	Cr VI, Co, Fe, Mn

Cr VI : hexavalent chromium, Co: cobalt, Fe: iron, Mn: manganese.

[1]Although the analysis suggests these chemicals are COC, these chemicals are not recommended for further evaluation based on the rationale in Section 5.4.3.7.

The COC list is similar to that identified for the direct-contact exposure pathways. Chemical concentrations of COC in soil exceed groundwater protection criteria based on a DAF of 20, and their concentrations in groundwater exceed tap water RSLs or MDE cleanup standards for groundwater and available SDWA MCLs. These chemicals are not recommended for further

evaluation if their concentrations are similar to background concentrations (for metals) or because their direct-contact risk-based remedial goals are generally more conservative (for PCBs).

It should be noted that the human health risk estimates presented in Section 5 were calculated in a conservative manner to assist risk managers tasked with making risk management decisions for RECs #9, #10, and #11. These sites are currently within active airport area which is not used for residential or recreational purposes, and the potential for trespass is very limited. The groundwater resource is not used as a domestic water supply source. Thus, to a large extent, the risk estimates presented herein are for *hypothetical* receptor exposure should the land use scenario change.

Table 5-1

Surface Soil (0-2 ft.) Samples Used in the Human Health Risk Assessment
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Location Identifier	Sample Identifier	Depth (feet)		REC #
		Top	Bottom	
Round 1 of Phase II Investigation (April and May 2010)				
GSP-SB-057	GSP-SB-57-0-2	0	2	REC 9
GSP-SB-058	GSP-SB-58-0-2	0	2	REC 9
GSP-SB-059	GSP-SB-59-0-2	0	2	REC 9
GSP-SB-060	GSP-SB-60-0-2	0	2	REC 9
GSP-SB-061	GSP-SB-61-0-2	0	2	REC 9
GSP-SB-062	GSP-SB-62-0-2	0	2	REC 9/10
GSP-SB-063	GSP-SB-63-0-2	0	2	REC 10
GSP-SB-064	GSP-SB-64-0-2	0	2	REC 10
GSP-SB-065	GSP-SB-65-0-2	0	2	REC 10
GSP-SB-066	GSP-SB-66-0-2	0	2	REC 10
GSP-SB-067	GSP-SB-67-0-2	0	2	REC 9
GSP-SB-068	GSP-SB-68-0-2	0	2	REC 10
GSP-SB-069	GSP-SB-69-0-2	0	2	REC 10
GSP-SB-070	GSP-SB-70-0-2	0	2	REC 10
GSP-SB-071	GSP-SB-71-0-2	0	2	REC 10
GSP-SB-072	GSP-SB-72-0-2	0	2	REC 11
GSP-SB-074	GSP-SB-74-0-2	0	2	REC 11
GSP-SB-075	GSP-SB-75-0-2	0	2	REC 11
GSP-SB-076	GSP-SB-76-1-3	1	3	REC 11
GSP-SB-077	GSP-SB-77-1-3	1	3	REC 11
GSP-SB-078	GSP-SB-78-0-2	0	2	REC 11
GSP-SB-080	GSP-SB-80-0-2	0	2	REC 11
GSP-SB-082	GSP-SB-82-0-2	0	2	REC 11
GSP-SB-083	GSP-SB-83-0-2	0	2	REC 11
GSP-SB-084	GSP-SB-84-0-2	0	2	REC 11
GSP-SB-086	GSP-SB-86-0-2	0	2	REC 11
GSP-SB-087	GSP-SB-87-0-2	0	2	REC 11
GSP-SB-090	GSP-SB-90-0-2	0	2	REC 11
Round 2 of Phase II Investigation (May and June 2011)				
GSP-SB-091	GSP-SB-91-0-2	0	2	REC 8/9
GSP-SB-093	GSP-SB-93-0-2	0	2	REC 9
GSP-SB-094	GSP-SB-94-0-2	0	2	REC 9
GSP-SB-095	GSP-SB-95-0-2	0	2	REC 9
GSP-SB-096	GSP-SB-96-0-2	0	2	REC 9
GSP-SB-097	GSP-SB-97-0-2	0	2	REC 9
GSP-SB-098	GSP-SB-98-0-2	0	2	REC 9
GSP-SB-099	GSP-SB-99-0-2	0	2	REC 9
GSP-SB-101	GSP-SB-101-0-2	0	2	REC 10
GSP-SB-102	GSP-SB-102-0-2	0	2	REC 10
GSP-SB-103	GSP-SB-103-0-2	0	2	REC 10
GSP-SB-104	GSP-SB-104-0-2	0	2	REC 10
GSP-SB-105	GSP-SB-105-0-2	0	2	REC 10
GSP-SB-106	GSP-SB-106-0-2	0	2	REC 10
GSP-SB-107	GSP-SB-107-0-2	0	2	REC 10

Table 5-1

Surface Soil (0-2 ft.) Samples Used in the Human Health Risk Assessment
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Location Identifier	Sample Identifier	Depth (feet)		REC #
		Top	Bottom	
Round 2 of Phase II Investigation (May and June 2011) (continued)				
GSP-SB-108	GSP-SB-108-0-2	0	2	REC 10
GSP-SB-109	GSP-SB-109-0-2	0	2	REC 10
GSP-SB-110	GSP-SB-110-0-2	0	2	REC 10
GSP-SB-111	GSP-SB-111-0-2	0	2	REC 11
GSP-SB-112	GSP-SB-112-0-2	0	2	REC 11
GSP-SB-113	GSP-SB-113-0-2	0	2	REC 11
GSP-SB-114	GSP-SB-114-0-2	0	2	REC 11
GSP-SB-115	GSP-SB-115-0-2	0	2	REC 11
GSP-SB-116	GSP-SB-116-0-2	0	2	REC 11
GSP-SB-117	GSP-SB-117-0-2	0	2	REC 11
GSP-SB-118	GSP-SB-118-0-2	0	2	REC 11
GSP-SB-119	GSP-SB-119-0-2	0	2	REC 11
GSP-SB-120	GSP-SB-120-0-2	0	2	REC 11
GSP-SB-121	GSP-SB-121-0-3	0	3	REC 11
GSP-SB-122	GSP-SB-122-0-2	0	2	REC 11
GSP-SB-123	GSP-SB-123-0-2	0	2	REC 11
GSP-SB-124	GSP-SB-124-0-2	0	2	REC 11
GSP-SB-125	GSP-SB-125-0-2	0	2	REC 11
GSP-SB-126	GSP-SB-126-0-2	0	2	REC 11
GSP-SB-127	GSP-SB-127-0-2	0	2	REC 11
GSP-SB-128	GSP-SB-128-0-2	0	2	REC 11
GSP-SB-129	GSP-SB-129-0-2	0	2	REC 11
GSP-SB-130	GSP-SB-130-0-2	0	2	REC 11

REC = recognized environmental condition

Table 5-2

Subsurface Soil (2-15 feet) Samples Used in Human Health Risk Assessment
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Location Identifier	Sample Identifier	Depth (feet)		REC #
		Top	Bottom	
Round 1 of Phase II Investigation				
Soil Boring Samples				
GSP-SB-056	GSP-SB-56-10-12	10	12	REC 9
GSP-SB-073	GSP-SB-73-12-14	12	14	REC 11
GSP-SB-073	GSP-SB-73-12-14-R	12	14	REC 11
GSP-SB-079	GSP-SB-79-4-6	4	6	REC 11
GSP-SB-080	GSP-SB-80-14-16	14	16	REC 11
GSP-SB-081	GSP-SB-81-2-4	2	4	REC 11
GSP-SB-085	GSP-SB-85-10-12	10	12	REC 11
GSP-SB-088	GSP-SB-88-2-4	2	4	REC 11
GSP-SB-089	GSP-SB-89-2-4	2	4	REC 11
GSP-SB-091	GSP-SB-91-8-10	8	10	REC 8/9
GSP-SB-093	GSP-SB-93-12-14	12	14	REC 9
GSP-SB-094	GSP-SB-94-6-8	6	8	REC 9
GSP-SB-095	GSP-SB-95-6-8	6	8	REC 9
GSP-SB-096	GSP-SB-96-6-8	6	8	REC 9
GSP-SB-097	GSP-SB-97-6-8	6	8	REC 9
GSP-SB-098	GSP-SB-98-6-8	6	8	REC 9
GSP-SB-099	GSP-SB-99-6-8	6	8	REC 9
Test Pit Samples				
GSP-TP-01	GSP-TP-1-10-12	10	12	REC 10
GSP-TP-02	GSP-TP-2-10-12	10	12	REC 10
GSP-TP-03	GSP-TP-3-5-7	5	7	REC 10
GSP-TP-04	GSP-TP-4-3-5	3	5	REC 10
GSP-TP-05	GSP-TP-5E-10-12	10	12	REC 10
GSP-TP-05	GSP-TP-5W-10-12	10	12	REC 10
GSP-TP-06	GSP-TP-6-4-6	4	6	REC 9
GSP-TP-07	GSP-TP-7-9-10	9	10	REC 9
GSP-TP-08	GSP-TP-8-6-7	6	7	REC 9
GSP-TP-09	GSP-TP-9-8-10	8	10	REC 9
Round 2 of Phase II Investigation				
GSP-SB-100	GSP-SB-100-2-4	2	4	REC 9
GSP-SB-100	GSP-SB-100-6-8	6	8	REC 9
GSP-SB-101	GSP-SB-101-6-8	6	8	REC 10
GSP-SB-102	GSP-SB-102-6-8	6	8	REC 10
GSP-SB-103	GSP-SB-103-6-8	6	8	REC 10
GSP-SB-104	GSP-SB-104-6-8	6	8	REC 10
GSP-SB-105	GSP-SB-105-6-8	6	8	REC 10
GSP-SB-106	GSP-SB-106-6-8	6	8	REC 10
GSP-SB-107	GSP-SB-107-6-8	6	8	REC 10
GSP-SB-108	GSP-SB-108-6-8	6	8	REC 10
GSP-SB-109	GSP-SB-109-6-8	6	8	REC 10
GSP-SB-110	GSP-SB-110-6-8	6	8	REC 10

Table 5-2

Subsurface Soil (2-15 feet) Samples Used in Human Health Risk Assessment
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Location Identifier	Sample Identifier	Depth (feet)		REC #
		Top	Bottom	
GSP-SB-111	GSP-SB-111-6-8	6	8	REC 11
GSP-SB-112	GSP-SB-112-6-8	6	8	REC 11
Round 2 of Phase II Investigation (continued)				
GSP-SB-113	GSP-SB-113-6-8	6	8	REC 11
GSP-SB-114	GSP-SB-114-6-8	6	8	REC 11
GSP-SB-115	GSP-SB-115-10-12	10	12	REC 11
GSP-SB-116	GSP-SB-116-6-8	6	8	REC 11
GSP-SB-117	GSP-SB-117-6-8	6	8	REC 11
GSP-SB-118	GSP-SB-118-6-8	6	8	REC 11
GSP-SB-119	GSP-SB-119-6-8	6	8	REC 11
GSP-SB-120	GSP-SB-120-6-8	6	8	REC 11
GSP-SB-121	GSP-SB-121-6-8	6	8	REC 11
GSP-SB-122	GSP-SB-122-6-8	6	8	REC 11
GSP-SB-123	GSP-SB-123-6-8	6	8	REC 11
GSP-SB-124	GSP-SB-124-6-8	6	8	REC 11
GSP-SB-125	GSP-SB-125-6-8	6	8	REC 11
GSP-SB-126	GSP-SB-126-8-10	8	10	REC 11
GSP-SB-127	GSP-SB-127-6-8	6	8	REC 11
GSP-SB-128	GSP-SB-128-6-8	6	8	REC 11
GSP-SB-129	GSP-SB-129-6-8	6	8	REC 11
GSP-SB-130	GSP-SB-130-6-8	6	8	REC 11

REC = recognized environmental condition

Table 5-3

Subsurface Soil (>15 feet) Samples - Not Used in Human Health Risk Assessment
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Location Identifier	Sample Identifier	Depth (feet)		REC #
		Top	Bottom	
Round 1 of Phase II Investigation (April and May 2010)				
GSP-SB-056	GSP-SB-56-20-22	20	22	REC 9
GSP-SB-057	GSP-SB-57-23-25	23	25	REC 9
GSP-SB-058	GSP-SB-58-23-25	23	25	REC 9
GSP-SB-059	GSP-SB-59-23-25	23	25	REC 9
GSP-SB-060	GSP-SB-60-22-24	22	24	REC 9
GSP-SB-060	GSP-SB-60-22-24-D	22	24	REC 9
GSP-SB-061	GSP-SB-61-20-22	20	22	REC 9
GSP-SB-062	GSP-SB-62-20-22	20	22	REC 9/10
GSP-SB-063	GSP-SB-63-20-22	20	22	REC 10
GSP-SB-064	GSP-SB-64-22-25	22	25	REC 10
GSP-SB-065	GSP-SB-65-20-22	20	22	REC 10
GSP-SB-066	GSP-SB-66-23-25	23	25	REC 10
GSP-SB-067	GSP-SB-67-23-25	23	25	REC 9
GSP-SB-068	GSP-SB-68-23-25	23	25	REC 10
GSP-SB-069	GSP-SB-69-23-25	23	25	REC 10
GSP-SB-070	GSP-SB-70-22-25	22	25	REC 10
GSP-SB-071	GSP-SB-71-23-25	23	25	REC 10
GSP-SB-072	GSP-SB-72-20-22	20	22	REC 11
GSP-SB-073	GSP-SB-73-16-18	16	18	REC 11
GSP-SB-073	GSP-SB-73-16-18-R	16	18	REC 11
GSP-SB-074	GSP-SB-74-20-22	20	22	REC 11
GSP-SB-075	GSP-SB-75-22-25	22	25	REC 11
GSP-SB-076	GSP-SB-76-23-25	23	25	REC 11
GSP-SB-077	GSP-SB-77-21-23	21	23	REC 11
GSP-SB-078	GSP-SB-78-20-22	20	22	REC 11
GSP-SB-079	GSP-SB-79-22-25	22	25	REC 11
GSP-SB-081	GSP-SB-81-20-22	20	22	REC 11
GSP-SB-082	GSP-SB-82-20-22	20	22	REC 11
GSP-SB-083	GSP-SB-83-23-25	23	25	REC 11
GSP-SB-084	GSP-SB-84-22-25	22	25	REC 11
GSP-SB-085	GSP-SB-85-22-25	22	25	REC 11
GSP-SB-086	GSP-SB-86-21-23	21	23	REC 11
GSP-SB-087	GSP-SB-87-22-25	22	25	REC 11
GSP-SB-088	GSP-SB-88-22-25	22	25	REC 11
GSP-SB-089	GSP-SB-89-20-22	20	22	REC 11
GSP-SB-090	GSP-SB-90-23-25	23	25	REC 11
Round 2 of Phase II Investigation (May and June 2011)				
GSP-SB-091	GSP-SB-91-22-24	22	24	REC 11
GSP-SB-093	GSP-SB-93-22-24	22	24	REC 9
GSP-SB-094	GSP-SB-94-20-22	20	22	REC 9
GSP-SB-095	GSP-SB-95-20-22	20	22	REC 9
GSP-SB-096	GSP-SB-96-22-24	22	24	REC 9

Table 5-3

Subsurface Soil (>15 feet) Samples - Not Used in Human Health Risk Assessment
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Location Identifier	Sample Identifier	Depth (feet)		REC #
		Top	Bottom	
GSP-SB-111	GSP-SB-111-22-24	22	24	REC 11
GSP-SB-113	GSP-SB-113-22-24	22	24	REC 11
Round 2 of Phase II Investigation (May and June 2011) (continued)				
GSP-SB-114	GSP-SB-114-22-24	22	24	REC 11
GSP-SB-115	GSP-SB-115-18-20	18	20	REC 11
GSP-SB-117	GSP-SB-117-20-22	20	22	REC 11
GSP-SB-118	GSP-SB-118-20-22	20	22	REC 11
GSP-SB-119	GSP-SB-119-20-22	20	22	REC 11
GSP-SB-120	GSP-SB-120-18-20	18	20	REC 11
GSP-SB-121	GSP-SB-121-18-20	18	20	REC 11
GSP-SB-122	GSP-SB-122-20-22	20	22	REC 11
GSP-SB-126	GSP-SB-126-20-22	20	22	REC 11
GSP-SB-129	GSP-SB-129-20-22	20	22	REC 11
GSP-SB-130	GSP-SB-130-20-22	20	22	REC 11

REC = recognized environmental condition

Table 5-4

Groundwater Samples Collected from Temporary and Permanent Wells
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Location Identifier	Sample Identifier	Screened Interval Depth (feet)		REC #
		Top	Bottom	
Round 1 of Phase II Investigation (April and May 2010)				
Temporary Well Samples				
GSP-SB-061	GSP-SB/WP-61-20100527	2	2	REC 9
GSP-SB-066	GSP-SB/WP-66-20100527	1.5	1.5	REC 10
GSP-SB-071	GSP-SB/WP-71-20100528	5	5	REC 10
GSP-SB-083	GSP-SB/WP-83-20100528	1	1	REC 11
GSP-SB-084	GSP-SB/WP-84-20100526	6	6	REC 11
GSP-SB-089	GSP-SB/WP-89-20100528	7	7	REC 11
Round 2 of Phase II Investigation (May and June 2011)				
Permanent Well Samples				
GSP-MW-01	GSP-MW-1-061711	5	15	REC 11
GSP-MW-02	GSP-MW-2-061711	21	31	REC 11
GSP-MW-03	GSP-MW-3-061711	25	35	REC 11
GSP-MW-04	GSP-MW-4-062011	10.5	20.5	REC 11
GSP-MW-05	GSP-MW-5-062011	30	40	REC 10
GSP-MW-06	GSP-MW-6-062011	12.5	22.5	REC 10
GSP-MW-07	GSP-MW-7-062211	12	22	REC 9
GSP-MW-08	GSP-MW-8-062311	7	17	REC 9
Temporary Well Samples				
GSP-SB-061	GSP-SB-WP-61-062211	2	2	REC 9
GSP-SB-061	GSP-SB-WP-61-062311	2	2	REC 9
GSP-SB-066	GSP-SB-WP-66-062311	1.5	1.5	REC 10
GSP-SB-066	GSP-SB-WP-66-062411	1.5	1.5	REC 10
GSP-SB-071	GSP-SB-WP-71-062111	5	5	REC 10
GSP-SB-083	GSP-SB-WP-83-062211	1	1	REC 11
GSP-SB-084	GSP-SB-WP-84-062311	6	6	REC 11
GSP-SB-089	GSP-SB-WP-89-062311	7	7	REC 11

REC = recognized environmental condition

Table 5-5

Human Health Screening Criteria for Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	USEPA Regional Screening Levels[1]		MDE Cleanup Standards[2]		USEPA Soil Screening Level[3]
		Residential Soil (mg/kg)	Protection of Groundwater (mg/kg)	Residential Soil (mg/kg)	Groundwater Protection (mg/kg)	Residential Soil to Air (mg/kg)
Volatile Organic Compounds						
87-61-6	1,2,3-Trichlorobenzene	49 N	0.087	NA	NA	NA
526-73-8	1,2,3-Trimethylbenzene	7100000 N	NA	NA	NA	NA
120-82-1	1,2,4-Trichlorobenzene	62 N[4]	0.0068	78	2.4	180 N
95-63-6	1,2,4-Trimethylbenzene	62 N	0.021	NA	NA	120 N
95-50-1	1,2-Dichlorobenzene	1,900 N	0.36	700	4.6	600 sat
541-73-1	1,3-Dichlorobenzene	2.4 C[5]	0.00041 [5]	23	0.29	NA
106-46-7	1,4-Dichlorobenzene	2.4 C	0.00041	27	0.0042	11,000 N
78-93-3	2-Butanone	28,000 N	1.5	4,700	29	24,000 sat
591-78-6	2-Hexanone	210 N	0.011	NA	NA	NA
99-87-6	4-Isopropyltoluene	NA	NA	NA	NA	NA
108-10-1	4-Methyl-2-Pentanone	5,300 N	0.45	NA	59	2,700 sat
67-64-1	Acetone	61,000 N	4.5	7,000	22	NA
71-43-2	Benzene	1.1 C	0.00021	12	0.0019	0.83 C
75-15-0	Carbon Disulfide	820 N	0.31	780	19	720 sat
108-90-7	Chlorobenzene	290 N	0.062	160	0.68	130 N
156-59-2	cis-1,2-Dichloroethene	160 N	0.021	78	NA	NA
100-41-4	Ethylbenzene	5.4 C	0.0017	780	15	400 sat
98-82-8	Isopropylbenzene	2,100 N	1.1	780	64	850 sat
- -	m+p-Xylenes	590 N[6]	0.2	1600 [7]	3 [7]	420 sat[6]
75-09-2	Methylene Chloride	11 C	0.0012	85	0.019	13 C
104-51-8	N-Butylbenzene	3900 N	5.9	NA	NA	NA
103-65-1	N-Propylbenzene	3,400 N	2.5	NA	NA	NA
91-20-3	Naphthalene	3.6 C	0.00047	160	0.15	170 N
95-47-6	o-Xylene	690 N	0.2	1,600 [7]	3 [7]	NA
135-98-8	sec-Butylbenzene	NA	NA	NA	NA	NA
100-42-5	Styrene	6,300 N	1.8	1,600	57	1,500 sat
75-65-0	Tertiary-Butyl Alcohol	NA	NA	NA	NA	NA
108-88-3	Toluene	5,000 N	1.6	630	27	650 sat
1330-20-7	Total Xylenes	630 N	0.2	1,600 [7]	3 [7]	700 N
79-01-6	Trichloroethene	4.4 N[4][16]	0.00023 [16]	1.6	0.00026	0.071 C
75-01-4	Vinyl Chloride	0.06 C	0.0000056	0.09	0.00012	0.28 C
Semivolatile Organic Compounds						
92-52-4	1,1-Biphenyl	51 N	0.0087	NA	NA	NA
91-57-6	2-Methylnaphthalene	310 N	0.75	31	4.4	NA
83-32-9	Acenaphthene	3,400 N	22	470	100	NA
208-96-8	Acenaphthylene	3,400 N[8]	22 [8]	470	100	NA
120-12-7	Anthracene	17,000 N	360	2,300	470	NA
56-55-3	Benzo(a)anthracene	0.15 C	0.01	0.22	0.48	NA
50-32-8	Benzo(a)pyrene	0.015 C	0.0035	0.022	0.12	NA
205-99-2	Benzo(b)fluoranthene	0.15 C	0.035	0.22	1.5	NA
191-24-2	Benzo(g,h,i)perylene	1,700 N[9]	120 [9]	230	680	NA
207-08-9	Benzo(k)fluoranthene	1.5 C	0.35	2.2	15	NA
117-81-7	Bis(2-ethylhexyl)phthalate	35 C	1.1	46	2,900	NA
85-68-7	Butyl Benzyl Phthalate	260 C	0.51	NA	NA	NA
105-60-2	Caprolactam	31,000 N	4.5	NA	NA	NA
86-74-8	Carbazole	NA	NA	32	0.47	NA
218-01-9	Chrysene	15 C	1.1	22	48	NA
84-74-2	di-n-Butyl Phthalate	6,100 N	9.2	780	5000	NA
53-70-3	Dibenzo(a,h)anthracene	0.015 C	0.011	0.022	0.46	NA
132-64-9	Dibenzofuran	78 N	0.68	7.8	NA	NA
84-66-2	Diethyl Phthalate	49,000 N	12	6,300	450	NA
206-44-0	Fluoranthene	2,300 N	160	310	6,300	NA
86-73-7	Fluorene	2,300 N	27	310	140	NA
193-39-5	Indeno(1,2,3-cd)pyrene	0.15 C	0.12	0.22	4.2	NA
91-20-3	Naphthalene	3.6 C	0.00047	160	0.15	170 N
621-64-7	n-Nitroso-di-n-propylamine	0.069 C	0.0000072	0.091	0.000047	NA
85-01-8	Phenanthrene	1,700 N[9]	120 [9]	2,300	470	NA
108-95-2	Phenol	18,000 N	6.3	2,300	67	NA
129-00-0	Pyrene	1,700 N	120	230	680	NA

Table 5-5

Human Health Screening Criteria for Soil
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	USEPA Regional Screening Levels[1]		MDE Cleanup Standards[2]		USEPA Soil Screening Level[3]
		Residential Soil (mg/kg)	Protection of Groundwater (mg/kg)	Residential Soil (mg/kg)	Groundwater Protection (mg/kg)	Residential Soil to Air (mg/kg)
Polychlorinated Biphenyls						
53469-21-9	Aroclor-1242	0.22 C	0.0053	0.32	NA	NA
11096-82-5	Aroclor-1260	0.22 C	0.024	0.32	NA	NA
--	Total Aroclor	0.22 C[10]	0.024 [11]	0.32 [11]	NA	NA
Inorganics						
7440-36-0	Antimony	31 N	0.66	3.1	13	NA
7440-38-2	Arsenic	0.39 C	0.0013	0.43	0.026	769 C
7440-39-3	Barium	15,000 N	300	1,600	6,000	709,000 N
7440-41-7	Beryllium	160 N	58	16	1,200	1,380 C
7440-43-9	Cadmium	70 N	1.4	3.9	27	1,840 C
7440-47-3	Chromium	0.29 C[12]	0.00083 [12]	23 [12]	42 [12]	276 C
7440-48-4	Cobalt	23 N	0.49	NA	NA	1,180 C
7440-50-8	Copper	3,100 N	51	310	11,000	NA
7439-89-6	Iron	55,000 N	640	5,500	NA	NA
7439-92-1	Lead	400	14 [13]	400	NA	NA
7439-96-5	Manganese	1,800 N	57	160	950	70,900 N
7439-97-6	Mercury	23 N[14]	0.033	2.3 [15]	NA	NA
7439-98-7	Molybdenum	390 N	3.7	NA	NA	NA
7440-02-0	Nickel	1,500 N	48	160	NA	NA
7782-49-2	Selenium	390 N	0.95	39	19	NA
7440-22-4	Silver	390 N	1.6	39	31	NA
7440-28-0	Thallium	0.78 N	0.026	0.55	3.6	NA
7440-62-2	Vanadium	390 N	180	7.8	730	NA
7440-66-6	Zinc	23,000 N	680	2,300	14,000	NA
Petroleum Hydrocarbons						
- -	Diesel Range Organics	NA	NA	230	NA	NA
- -	Gasoline Range Organics	NA	NA	230	NA	NA

Notes:
1 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, June 2011. Values correspond to a cancer risk level of 1E-06 or a hazard quotient (HQ) of 1.0.
2 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
3 - USEPA Soil Screening Levels. USEPA Internet Site at http://rais.ornl.gov/epa/ssl1.shtml.
4 - One tenth the noncarcinogenic level is less than the carcinogenic level; therefore, the non-carcinogenic level is presented.
5 - The value is for 1,4-dichlorobenzene.
6 - The value is for m-xylene.
7 - The value is for xylenes.
8 - The value is for acenaphthene.
9 - The value is for pyrene.
10 - The value is for polychlorinated biphenyls (PCBs) [high risk].
11 - The value is for PCB (total).
12 - The value is for hexavalent chromium.
13 - Maximum Contaminant Level (MCL)-based soil screening level (SSL).
14 - The value is for mercuric chloride (and other mercury salts).
15 - The value is for mercury (inorganic/mercuric dichloride).
16 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.

C = Carcinogenic
CAS = Chemical Abstract Service
MDE = Maryland Department of the Environment
mg/kg = milligram per kilogram
N = Non-carcinogenic
NA = Not available/not applicable
PCB = polychlorinated biphenyl
sat = Soil saturation concentration
USEPA = United States Environmental Protection Agency

Table 5-6

Human Health Screening Criteria for Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	USEPA Regional Screening Level[1] Tap Water (ug/L)	MDE Cleanup Standard[2] Groundwater (ug/L)	USEPA MCL[3] (ug/L)	Groundwater Volatilization Criterion[4] (ug/L)
Volatile Organic Compounds					
75-35-4	1,1-Dichloroethene	340 N	7	7	200 N
95-63-6	1,2,4-Trimethylbenzene	15 N	NA	NA	29 N
78-93-3	2-Butanone	7,100 N	700	NA	2,200,000 N
67-64-1	Acetone	22,000 N	550	NA	22,000,000 N
71-43-2	Benzene	0.41 C	5	5	1.4 C
75-15-0	Carbon Disulfide	1,000 N	100	NA	1200 N
56-23-5	Carbon Tetrachloride	0.44 C	5	5	0.36 C
67-66-3	Chloroform	0.19 C	80	80	0.73 C
74-87-3	Chloromethane	190 N	19	NA	260 N
156-59-2	cis-1,2-Dichloroethene	73 N	70	70	380 N[5]
- -	m+p-Xylenes	200 N	10,000 [6]	NA	340 N[7]
95-47-6	o-Xylene	200 N	10,000 [6]	NA	470 N
75-65-0	Tertiary-Butyl Alcohol	NA	NA	NA	NA
108-88-3	Toluene	2,300 N	1,000	1,000	19,000 N
1330-20-7	Total Xylenes	200 N	10,000 [6]	10,000	470 N
156-60-5	trans-1,2-Dichloroethene	110 N	100	100	380 N
79-01-6	Trichloroethene	0.66 C[8]	5	5	5.2 N[8]
75-01-4	Vinyl Chloride	0.016 C	2	2	0.14 C
Semivolatile Organic Compounds					
106-44-5	4-Methylphenol	180 N	18	NA	15,000,000
117-81-7	Bis(2-ethylhexyl)phthalate	4.8 C	6	6	91,000 C
85-68-7	Butyl Benzyl Phthalate	35 C	NA	NA	NA
105-60-2	Caprolactam	18,000 N	NA	NA	NA
108-95-2	Phenol	11,000 N	1,100	NA	15,000,000
Inorganics					
7440-36-0	Antimony	15 N	6	6	NA
7440-38-2	Arsenic	0.045 C	10	10	NA
7440-39-3	Barium	7,300 N	2,000	2,000	NA
7440-41-7	Beryllium	73 N	4	4	NA
7440-43-9	Cadmium	18 N	5	5	NA
7440-47-3	Chromium	0.043 C[9]	100 [9]	100 [10]	NA
7440-48-4	Cobalt	11 N	NA	NA	NA
7440-50-8	Copper	1,500 N	1,300	1,300	NA
7439-89-6	Iron	26,000 N	300	NA	NA
7439-92-1	Lead	NA	15	15	NA
7439-96-5	Manganese	880 N	50	NA	NA
7439-97-6	Mercury	11 N[11]	2	2	NA
7439-98-7	Molybdenum	180 N	NA	NA	NA
7440-02-0	Nickel	730 N	73	NA	NA
7782-49-2	Selenium	180 N	50	50	NA
7440-28-0	Thallium	0.37 N	2	2	NA
7440-62-2	Vanadium	180 N	3.7	NA	NA
7440-66-6	Zinc	11,000 N	5,000	NA	NA

Table 5-6

Human Health Screening Criteria for Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CAS Number	Chemical	USEPA Regional Screening Level[1] Tap Water (ug/L)	MDE Cleanup Standard[2] Groundwater (ug/L)	USEPA MCL[3] (ug/L)	Groundwater Volatilization Criterion[4] (ug/L)
Petroleum Hydrocarbons					
- -	Diesel Range Organics	NA	47	NA	NA
- -	Gasoline Range Organics	NA	47	NA	NA

Notes:
1 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011. Values correspond to a cancer risk level of 1E-06 or a hazard quotient (HQ) = 1.0.
2 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
3 - 2011 Edition of the Drinking Water Standards and Health Advisories (USEPA, January 2011).
4 - Calculated using methodology presented in Appendix D of USEPA's Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils, November 2002. EPA530-F-02-052. Values correspond to a target cancer risk level of 1E-6 or HQ = 1 and an attenuation factor of 0.001.
5 - Value is for trans-1,2-dichloroethene.
6 - Value is for xylenes.
7 - Value is for m-xylene.
8 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.
9 - The value is for hexavalent chromium.
10 - The value is for total chromium.
11 - The value is for mercuric chloride (and other mercury salts).

C = Carcinogenic
CAS = Chemical Abstract Service
MCL = Maximum Contaminant Level
MDE = Maryland Department of the Environment
N = Non-carcinogenic
NA = Not available/not applicable
USEPA = United States Environmental Protection Agency
ug/L = microgram per liter

Table 5-7

Occurrence, Distribution, and Selection of Global Chemicals of Potential Concern – All Surface Soil - Direct Contact
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	Adjusted USEPA SSL - Residential Soil-to-Air[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**VOLATILES**														
	526-73-8	1,2,3-Trimethylbenzene	0.16 J	0.55 J	UG/KG	GSP-SB-77-1-3	4/66	0.095 - 0.2	0.55	NA	710,000,000 N	NA	NA	No	BSL
	120-82-1	1,2,4-Trichlorobenzene	4.2 J	4.2 J	UG/KG	GSP-SB-119-0-2	1/66	0.15 - 0.32	4.2	NA	6,200 N[9]	78,000	18,000 N	No	BSL
	95-63-6	1,2,4-Trimethylbenzene	0.99 J	0.99 J	UG/KG	GSP-SB-77-1-3	1/66	0.36 - 0.78	0.99	NA	6,200 N	NA	12,000 N	No	BSL
	95-50-1	1,2-Dichlorobenzene	0.35 J	0.35 J	UG/KG	GSP-SB-119-0-2	1/66	0.2 - 0.43	0.35	NA	190,000 N	700,000	600,000 sat	No	BSL
	541-73-1	1,3-Dichlorobenzene	6.6	6.6	UG/KG	GSP-SB-119-0-2	1/66	0.2 - 0.42	6.6	NA	2,400 C[10]	23,000	NA	No	BSL
	78-93-3	2-Butanone	1.7 J	10 J	UG/KG	GSP-SB-104-0-2	11/66	0.87 - 4.7	10	NA	2,800,000 N	4,700,000	24,000,000 sat	No	BSL
	108-10-1	4-Methyl-2-Pentanone	0.58 J	0.58 J	UG/KG	GSP-SB-123-0-2	1/66	0.3 - 0.65	0.58	NA	530,000 N	NA	2,700,000 sat	No	BSL
	67-64-1	Acetone	5.9 J	2200 J	UG/KG	GSP-SB-64-0-2	18/66	3.9 - 37	2200	NA	6,100,000 N	7,000,000	NA	No	BSL
	71-43-2	Benzene	0.55 J	0.55 J	UG/KG	GSP-SB-77-1-3	1/66	0.13 - 0.28	0.55	NA	1,100 C	12,000	830 C	No	BSL
	75-15-0	Carbon Disulfide	0.8 J	3 J	UG/KG	GSP-SB-101-0-2	3/66	0.25 - 0.53	3	NA	82,000 N	780,000	720,000 sat	No	BSL
	108-90-7	Chlorobenzene	0.36 J	0.36 J	UG/KG	GSP-SB-119-0-2	1/66	0.18 - 0.4	0.36	NA	29,000 N	160,000	13,000 N	No	BSL
	156-59-2	cis-1,2-Dichloroethene	0.96 J	0.96 J	UG/KG	GSP-SB-74-0-2	1/66	0.2 - 0.43	0.96	NA	16,000 N	78,000	NA	No	BSL
	100-41-4	Ethylbenzene	0.21 J	0.31 J	UG/KG	GSP-SB-121-0-3	2/66	0.16 - 0.31	0.31	NA	5,400 C	780,000	400,000 sat	No	BSL
	75-09-2	Methylene Chloride	1.7 J	3.6 J	UG/KG	GSP-SB-97-0-2	4/66	0.49 - 4.5	3.6	NA	11,000 C	85,000	13,000 C	No	BSL
	91-20-3	Naphthalene	0.76 J	32	UG/KG	GSP-SB-121-0-3	3/66	0.11 - 1.3	32	NA	3,600 C	160,000	17,000 N	No	BSL
	103-65-1	N-Propylbenzene	0.24 J	0.24 J	UG/KG	GSP-SB-106-0-2	1/66	0.25 - 0.48	0.24	NA	340,000 N	NA	NA	No	BSL
	95-47-6	o-Xylene	0.32 J	0.52 J	UG/KG	GSP-SB-110-0-2	3/66	0.2 - 0.42	0.52	NA	69,000 N	1,600,000 [11]	NA	No	BSL
	75-65-0	Tertiary-Butyl Alcohol	8.1 J	8.1 J	UG/KG	GSP-SB-82-0-2	1/1	-	8.1	NA	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.27 J	0.68 J	UG/KG	GSP-SB-77-1-3	11/66	0.15 - 0.31	0.68	NA	500,000 N	630,000	650,000 sat	No	BSL
	1330-20-7	Total Xylenes	0.56 J	0.88 J	UG/KG	GSP-SB-77-1-3	2/66	0.38 - 0.81	0.88	NA	63,000 N	1,600,000 [11]	70,000 N	No	BSL
	79-01-6	Trichloroethene	4.1 J	4.1 J	UG/KG	GSP-SB-74-0-2	1/66	0.24 - 0.51	4.1	NA	440 N[9][18]	1,600	71 C	No	BSL
	SEMIVOLATILES														
	91-57-6	2-Methylnaphthalene	8.5	1,700	UG/KG	GSP-SB-68-0-2	36/66	3.6 - 39	1,700	NA	31,000 N	31,000	NA	No	BSL
	83-32-9	Acenaphthene	13	3,300	UG/KG	GSP-SB-68-0-2	38/66	3.6 - 35	3,300	NA	340,000 N	470,000	NA	No	BSL
	208-96-8	Acenaphthylene	5.7 J	3,100	UG/KG	GSP-SB-68-0-2	38/66	3.6 - 35	3,100	NA	340,000 N[12]	470,000	NA	No	BSL
	120-12-7	Anthracene	4.6 J	7,600	UG/KG	GSP-SB-68-0-2	52/66	3.6 - 19	7,600	NA	1,700,000 N	2,300,000	NA	No	BSL
	--	**BaP Equivalent-Half non-detect[17]**	5.7	19,300	UG/KG	GSP-SB-68-0-2	61/66	3.6 - 3.8	19,285	NA	**15 C**	**22**	NA	**Yes**	ASL
	--	**BaP Equivalent-Positive only[17]**	1.3	19,300	UG/KG	GSP-SB-68-0-2	61/66	3.6 - 3.8	19,235	NA	**15 C**	**22**	NA	**Yes**	ASL
	56-55-3	**Benzo(a)anthracene**	11	17,000	UG/KG	GSP-SB-68-0-2	59/66	3.6 - 19	17,000	NA	**150 C**	**220**	NA	**Yes**	ASL
	50-32-8	**Benzo(a)pyrene**	11	15,000	UG/KG	GSP-SB-68-0-2	59/66	3.6 - 19	15,000	NA	**15 C**	**22**	NA	**Yes**	ASL
	205-99-2	**Benzo(b)fluoranthene**	13	17,000	UG/KG	GSP-SB-68-0-2	61/66	3.6 - 3.8	17,000	NA	**150 C**	**220**	NA	**Yes**	ASL
	191-24-2	Benzo(g,h,i)perylene	7.9	9,400	UG/KG	GSP-SB-68-0-2	58/66	3.6 - 19	9,400	NA	170,000 N[13]	230,000	NA	No	BSL
	207-08-9	**Benzo(k)fluoranthene**	10	6,800	UG/KG	GSP-SB-68-0-2	53/66	3.6 - 19	6,800	NA	**1,500 C**	**2,200**	NA	**Yes**	ASL
	117-81-7	Bis(2-ethylhexyl)phthalate	23 J	100 J	UG/KG	GSP-SB-87-0-2	9/65	20 - 620	100	NA	35,000 C	46,000	NA	No	BSL
	85-68-7	Butyl Benzyl Phthalate	250	250	UG/KG	GSP-SB-86-0-2	1/65	10 - 300	250	NA	260,000 C	NA	NA	No	BSL
	105-60-2	Caprolactam	50 J	50 J	UG/KG	GSP-SB-111-0-2	1/65	38 - 1100	50	NA	3,100,000 N	NA	NA	No	BSL
	86-74-8	Carbazole	30 J	2,000	UG/KG	GSP-SB-68-0-2	16/65	28 - 590	2,000	NA	NA	32,000	NA	No	BSL
	218-01-9	**Chrysene**	8.8	17,000	UG/KG	GSP-SB-68-0-2	60/66	1.2 - 6.4	17,000	NA	**15,000 C**	22,000	NA	**Yes**	ASL
	53-70-3	**Dibenzo(a,h)anthracene**	6.3 J	1,400	UG/KG	GSP-SB-71-0-2	34/66	3.6 - 100	1,400	NA	**15 C**	**22**	NA	**Yes**	ASL
	132-64-9	Dibenzofuran	5.2 J	1,200 J	UG/KG	GSP-SB-68-0-2	13/66	3.4 - 300	1,200	NA	7,800 N	7,800	NA	No	BSL
	84-66-2	Diethyl Phthalate	45 J	45 J	UG/KG	GSP-SB-104-0-2	1/65	17 - 490	45	NA	4,900,000 N	6,300,000	NA	No	BSL
	84-74-2	di-n-Butyl Phthalate	16 J	20 J	UG/KG	GSP-SB-104-0-2	4/66	16 - 460	20	NA	610,000 N	780,000	NA	No	BSL
	206-44-0	Fluoranthene	5.2 J	33,000	UG/KG	GSP-SB-68-0-2	63/66	3.6 - 3.6	33,000	NA	230,000 N	310,000	NA	No	BSL
	86-73-7	Fluorene	9.4	3,600	UG/KG	GSP-SB-68-0-2	38/66	3.6 - 35	3,600	NA	230,000 N	310,000	NA	No	BSL
	193-39-5	**Indeno(1,2,3-cd)pyrene**	8.7	7,500	UG/KG	GSP-SB-68-0-2	56/66	3.6 - 19	7,500	NA	**150 C**	**220**	NA	**Yes**	ASL
	91-20-3	Naphthalene	10	1,900	UG/KG	GSP-SB-68-0-2	37/66	3.6 - 35	1,900	NA	3,600 C	160,000	17,000 N	No	BSL
	621-64-7	**N-Nitroso-di-n-Propylamine**	120	120	UG/KG	GSP-SB-72-0-2	1/65	28 - 820	120	NA	**69 C**	**91**	NA	**Yes**	ASL
	85-01-8	Phenanthrene	7.6	27,000	UG/KG	GSP-SB-68-0-2	60/66	3.6 - 19	27,000	NA	170,000 N[13]	2,300,000	NA	No	BSL
	129-00-0	Pyrene	7.1 J	34,000	UG/KG	GSP-SB-68-0-2	63/66	3.6 - 3.6	34,000	NA	170,000 N	230,000	NA	No	BSL

Table 5-7

Occurrence, Distribution, and Selection of Global Chemicals of Potential Concern – All Surface Soil - Direct Contact
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	Adjusted USEPA SSL - Residential Soil-to-Air[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**POLYCHLORINATED BIPHENYLS**														
	11096-82-5	**Aroclor-1260**	22 J	12,000	UG/KG	GSP-SB-78-0-2	21/66	18 - 22	12,000	NA	**220 C**	**320**	NA	**Yes**	ASL
	--	**Total Aroclor**	22	12,000	UG/KG	GSP-SB-78-0-2	21/66	-	12,000	NA	**220 C**	**320**	NA	**Yes**	ASL
	METALS														
	7440-36-0	Antimony	0.066 J	1.2 J	MG/KG	GSP-SB-121-0-3	29/66	0.026 - 1.2	1.2	6	3.1 N	3.1	NA	No	BSL
	7440-38-2	**Arsenic**	0.71	5.6	MG/KG	GSP-SB-110-0-2	66/66	-	5.6	3.6	**0.39 C**	**0.43**	769 C	**Yes**	ASL
	7440-39-3	Barium	2.9 J	266 J	MG/KG	GSP-SB-71-0-2	66/66	-	266	73	1,500 N	1,600	70,900 N	No	BSL
	7440-41-7	Beryllium	0.045 J	1.6 J	MG/KG	GSP-SB-71-0-2	60/66	0.03 - 0.053	1.6	0.66	16 N	16	1,380 C	No	BSL
	7440-43-9	Cadmium	0.035 J	1	MG/KG	GSP-SB-130-0-2	26/66	0.0027 - 0.046	1	0.73	7 N	3.9	1,840 C	No	BSL
	7440-47-3	**Chromium**	2.1 J	24.1 K	MG/KG	GSP-SB-82-0-2	66/66	-	24.1	28	**0.29 C**[14]	**23** [14]	276 C	**Yes**	ASL
	7440-48-4	**Cobalt**	0.22 J	10.8 J	MG/KG	GSP-SB-87-0-2	66/66	-	10.8	11	**2.3 N**	NA	1,180 C	**Yes**	ASL
	7440-50-8	Copper	1.1 J	38	MG/KG	GSP-SB-94-0-2	66/66	-	38	12	310 N	310	NA	No	BSL
	7439-89-6	**Iron**	866 J	15,000	MG/KG	GSP-SB-82-0-2	28/28	-	15,000	15,000	**5,500 N**	**5,500**	NA	**Yes**	ASL
	7439-92-1	Lead	0.86 J	41	MG/KG	GSP-SB-125-0-2	66/66	-	41	45	400	400	NA	No	BSL
	7439-96-5	**Manganese**	2.5 J	2,390 J	MG/KG	GSP-SB-71-0-2	28/28	-	2,390	480	**180 N**	**160**	7,090 N	**Yes**	ASL
	7439-97-6	Mercury	0.013 J	0.3	MG/KG	GSP-SB-113-0-2	48/66	0.011 - 0.02	0.3	0.51	2.3 N[15]	2.3 [16]	NA	No	BSL
	7439-98-7	Molybdenum	0.051 J	1	MG/KG	GSP-SB-63-0-2, GSP-SB-67-0-2	28/66	0.22 - 1.1	1	NA	39 N	NA	NA	No	BSL
	7440-02-0	Nickel	0.47	15	MG/KG	GSP-SB-108-0-2	66/66	-	15	13	150 N	160	NA	No	BSL
	7782-49-2	Selenium	0.13 J	3.1 L	MG/KG	GSP-SB-82-0-2	44/66	0.08 - 0.56	3.1	2.2	39 N	39	NA	No	BSL
	7440-22-4	Silver	0.038 J	0.49	MG/KG	GSP-SB-86-0-2	20/66	0.0018 - 0.13	0.49	0.94	39 N	39	NA	No	BSL
	7440-28-0	**Thallium**	0.7 J	2.3 K	MG/KG	GSP-SB-101-0-2	4/66	0.014 - 0.7	2.3	3.9	**0.078 N**	**0.55**	NA	**Yes**	ASL
	7440-62-2	**Vanadium**	3.5 J	65	MG/KG	GSP-SB-108-0-2	66/66	-	65	30	**39 N**	**7.8**	NA	**Yes**	ASL
	7440-66-6	Zinc	4.6 J	63.4	MG/KG	GSP-SB-68-0-2	62/66	1.9 - 5	63.4	63	2,300 N	2,300	NA	No	BSL
	PETROLEUM HYDROCARBONS														
	- -	**Diesel Range Organics**	3.6 J	1,800 J	MG/KG	GSP-SB-83-0-2	51/66	3 - 72	1,800	NA	NA	**230**	NA	**Yes**	ASL
	PETROLEUM HYDROCARBONS														
	- -	Gasoline Range Organics	33 J	89 J	UG/KG	GSP-SB-78-0-2	5/66	26 - 36	89	NA	NA	230,000	NA	No	BSL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008. Appendix 2 - Attachment 2.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, June 2011. Adjusted values correspond to a cancer risk level of 1E-06 or a hazard quotient (HQ) of 0.1.
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - USEPA Soil Screening Levels (SSLs). USEPA Internet Site at http://rais.ornl.gov/epa/ssl1.shtml.
8 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
9 - One tenth the non-carcinogenic level is less than the carcinogenic level; therefore, the non-carcinogenic level is presented.
10 - The value is for 1,4-dichlorobenzene.
11 - The value is for xylenes.
12 - The value is for acenaphthene.
13 - The value is for pyrene.
14 - The value is for hexavalent chromium.
15 - The value is for mercuric chloride (and other mercury salts).
16 - The value is for mercury (inorganic/mercuric dichloride).
17 - See text for BaP equivalent calculation methodology.
18 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
BaP = benzo(a)pyrene
C = carcinogen
COPC = chemical of potential concern
J = estimated value
K = biased high
L = biased low
mg/kg = milligram per kilogram
N = non-carcinogen
NA = not applicable/not available
sat = soil saturation concentration
ug/kg = microgram per kilogram

Rationale Codes:
For selection as a COPC:
ASL = above screening level

For elimination as a COPC:
BSL = below screening level
NTX = no toxicity criteria

Associated Samples:

GSP-SB-57-0-2	GSP-SB-82-0-2	GSP-SB-109-0-2
GSP-SB-58-0-2	GSP-SB-83-0-2	GSP-SB-110-0-2
GSP-SB-59-0-2	GSP-SB-84-0-2	GSP-SB-111-0-2
GSP-SB-60-0-2	GSP-SB-86-0-2	GSP-SB-112-0-2
GSP-SB-61-0-2	GSP-SB-87-0-2	GSP-SB-113-0-2
GSP-SB-62-0-2	GSP-SB-90-0-2	GSP-SB-114-0-2
GSP-SB-63-0-2	GSP-SB-91-0-2	GSP-SB-115-0-2
GSP-SB-64-0-2	GSP-SB-93-0-2	GSP-SB-116-0-2
GSP-SB-65-0-2	GSP-SB-94-0-2	GSP-SB-117-0-2
GSP-SB-66-0-2	GSP-SB-95-0-2	GSP-SB-118-0-2
GSP-SB-67-0-2	GSP-SB-96-0-2	GSP-SB-119-0-2
GSP-SB-68-0-2	GSP-SB-97-0-2	GSP-SB-120-0-2
GSP-SB-69-0-2	GSP-SB-98-0-2	GSP-SB-121-0-3
GSP-SB-70-0-2	GSP-SB-99-0-2	GSP-SB-122-0-2
GSP-SB-71-0-2	GSP-SB-101-0-2	GSP-SB-123-0-2
GSP-SB-72-0-2	GSP-SB-102-0-2	GSP-SB-124-0-2
GSP-SB-74-0-2	GSP-SB-103-0-2	GSP-SB-125-0-2
GSP-SB-75-0-2	GSP-SB-104-0-2	GSP-SB-126-0-2
GSP-SB-76-1-3	GSP-SB-105-0-2	GSP-SB-127-0-2
GSP-SB-77-1-3	GSP-SB-106-0-2	GSP-SB-128-0-2
GSP-SB-78-0-2	GSP-SB-107-0-2	GSP-SB-129-0-2
GSP-SB-80-0-2	GSP-SB-108-0-2	GSP-SB-130-0-2

TABLE 5-8

OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SURFACE SOIL - MIGRATION TO GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA SSL - Groundwater Protection[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
	VOLATILES													
RECs 9, 10, 11	526-73-8	1,2,3-Trimethylbenzene	0.16 J	0.55 J	UG/KG	GSP-SB-77-1-3	4/66	0.095 - 0.2	0.55	NA	NA	NA	No	NTX
	120-82-1	1,2,4-Trichlorobenzene	4.2 J	4.2 J	UG/KG	GSP-SB-119-0-2	1/66	0.15 - 0.32	4.2	NA	6.8	2400	No	BSL
	95-63-6	1,2,4-Trimethylbenzene	0.99 J	0.99 J	UG/KG	GSP-SB-77-1-3	1/66	0.36 - 0.78	0.99	NA	21	NA	No	BSL
	95-50-1	1,2-Dichlorobenzene	0.35 J	0.35 J	UG/KG	GSP-SB-119-0-2	1/66	0.2 - 0.43	0.35	NA	360	4600	No	BSL
	541-73-1	**1,3-Dichlorobenzene**	6.6	6.6	UG/KG	GSP-SB-119-0-2	1/66	0.2 - 0.42	6.6	NA	**0.41** [8]	290	**Yes**	ASL
	78-93-3	2-Butanone	1.7 J	10 J	UG/KG	GSP-SB-104-0-2	11/66	0.87 - 4.7	10	NA	1500	29000	No	BSL
	108-10-1	4-Methyl-2-Pentanone	0.58 J	0.58 J	UG/KG	GSP-SB-123-0-2	1/66	0.3 - 0.65	0.58	NA	450	59000	No	BSL
	67-64-1	Acetone	5.9 J	2200 J	UG/KG	GSP-SB-64-0-2	18/66	3.9 - 37	2200	NA	4500	22000	No	BSL
	71-43-2	**Benzene**	0.55 J	0.55 J	UG/KG	GSP-SB-77-1-3	1/66	0.13 - 0.28	0.55	NA	**0.21**	1.9	**Yes**	ASL
	75-15-0	Carbon Disulfide	0.8 J	3 J	UG/KG	GSP-SB-101-0-2	3/66	0.25 - 0.53	3	NA	310	19000	No	BSL
	108-90-7	Chlorobenzene	0.36 J	0.36 J	UG/KG	GSP-SB-119-0-2	1/66	0.18 - 0.4	0.36	NA	62	680	No	BSL
	156-59-2	cis-1,2-Dichloroethene	0.96 J	0.96 J	UG/KG	GSP-SB-74-0-2	1/66	0.2 - 0.43	0.96	NA	21	NA	No	BSL
	100-41-4	Ethylbenzene	0.21 J	0.31 J	UG/KG	GSP-SB-121-0-3	2/66	0.16 - 0.31	0.31	NA	1.7	15000	No	BSL
	75-09-2	**Methylene Chloride**	1.7 J	3.6 J	UG/KG	GSP-SB-97-0-2	4/66	0.49 - 4.5	3.6	NA	**1.2**	19	**Yes**	ASL
	91-20-3	**Naphthalene**	0.76 J	32	UG/KG	GSP-SB-121-0-3	3/66	0.11 - 1.3	32	NA	**0.47**	150	**Yes**	ASL
	103-65-1	N-Propylbenzene	0.24 J	0.24 J	UG/KG	GSP-SB-106-0-2	1/66	0.25 - 0.48	0.24	NA	2500	NA	No	BSL
	95-47-6	o-Xylene	0.32 J	0.52 J	UG/KG	GSP-SB-110-0-2	3/66	0.2 - 0.42	0.52	NA	200	3000 [9]	No	BSL
	75-65-0	Tertiary-Butyl Alcohol	8.1 J	8.1 J	UG/KG	GSP-SB-82-0-2	1/1	-	8.1	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.27 J	0.68 J	UG/KG	GSP-SB-77-1-3	11/66	0.15 - 0.31	0.68	NA	1600	27000	No	BSL
	1330-20-7	Total Xylenes	0.56 J	0.88 J	UG/KG	GSP-SB-77-1-3	2/66	0.38 - 0.81	0.88	NA	200	3000 [9]	No	BSL
	79-01-6	**Trichloroethene**	4.1 J	4.1 J	UG/KG	GSP-SB-74-0-2	1/66	0.24 - 0.51	4.1	NA	**0.23** [15]	**0.26**	**Yes**	ASL
	SEMIVOLATILES													
	91-57-6	**2-Methylnaphthalene**	8.5	1700	UG/KG	GSP-SB-68-0-2	36/66	3.6 - 39	1700	NA	**750**	4400	**Yes**	ASL
	83-32-9	Acenaphthene	13	3300	UG/KG	GSP-SB-68-0-2	38/66	3.6 - 35	3300	NA	22000	100000	No	BSL
	208-96-8	Acenaphthylene	5.7 J	3100	UG/KG	GSP-SB-68-0-2	38/66	3.6 - 35	3100	NA	22000 [10]	100000	No	BSL
	120-12-7	Anthracene	4.6 J	7600	UG/KG	GSP-SB-68-0-2	52/66	3.6 - 19	7600	NA	360000	470000	No	BSL
	--	BaP Equivalent-Half non-detect[14]	5.7288	19285	UG/KG	GSP-SB-68-0-2	61/66	3.6 - 3.8	19285	NA	NA	NA	No	NTX
	--	BaP Equivalent-Positive only[14]	1.3088	19235	UG/KG	GSP-SB-68-0-2	61/66	3.6 - 3.8	19235	NA	NA	NA	No	NTX
	56-55-3	**Benzo(a)anthracene**	11	17000	UG/KG	GSP-SB-68-0-2	59/66	3.6 - 19	17000	NA	**10**	**480**	**Yes**	ASL
	50-32-8	**Benzo(a)pyrene**	11	15000	UG/KG	GSP-SB-68-0-2	59/66	3.6 - 19	15000	NA	**3.5**	**120**	**Yes**	ASL
	205-99-2	**Benzo(b)fluoranthene**	13	17000	UG/KG	GSP-SB-68-0-2	61/66	3.6 - 3.8	17000	NA	**35**	**1500**	**Yes**	ASL
	191-24-2	Benzo(g,h,i)perylene	7.9	9400	UG/KG	GSP-SB-68-0-2	58/66	3.6 - 19	9400	NA	120000 [11]	680000	No	BSL
	207-08-9	**Benzo(k)fluoranthene**	10	6800	UG/KG	GSP-SB-68-0-2	53/66	3.6 - 19	6800	NA	**350**	15000	**Yes**	ASL
	117-81-7	Bis(2-ethylhexyl)phthalate	23 J	100 J	UG/KG	GSP-SB-87-0-2	9/65	20 - 620	100	NA	1100	2900000	No	BSL
	85-68-7	Butyl Benzyl Phthalate	250	250	UG/KG	GSP-SB-86-0-2	1/65	10 - 300	250	NA	510	NA	No	BSL
	105-60-2	Caprolactam	50 J	50 J	UG/KG	GSP-SB-111-0-2	1/65	38 - 1100	50	NA	4500	NA	No	BSL
	86-74-8	**Carbazole**	30 J	2000	UG/KG	GSP-SB-68-0-2	16/65	28 - 590	2000	NA	NA	**470**	**Yes**	ASL
	218-01-9	**Chrysene**	8.8	17000	UG/KG	GSP-SB-68-0-2	60/66	1.2 - 6.4	17000	NA	**1100**	48000	**Yes**	ASL
	53-70-3	**Dibenzo(a,h)anthracene**	6.3 J	1400	UG/KG	GSP-SB-71-0-2	34/66	3.6 - 100	1400	NA	**11**	**460**	**Yes**	ASL
	132-64-9	**Dibenzofuran**	5.2 J	1200 J	UG/KG	GSP-SB-68-0-2	13/66	3.4 - 300	1200	NA	**680**	NA	**Yes**	ASL
	84-66-2	Diethyl Phthalate	45 J	45 J	UG/KG	GSP-SB-104-0-2	1/65	17 - 490	45	NA	12000	450000	No	BSL
	84-74-2	di-n-Butyl Phthalate	16 J	20 J	UG/KG	GSP-SB-104-0-2	4/66	16 - 460	20	NA	9200	5000000	No	BSL
	206-44-0	Fluoranthene	5.2 J	33000	UG/KG	GSP-SB-68-0-2	63/66	3.6 - 3.6	33000	NA	160000	6300000	No	BSL

TABLE 5-8

OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SURFACE SOIL - MIGRATION TO GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA SSL - Groundwater Protection[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
	86-73-7	Fluorene	9.4	3600	UG/KG	GSP-SB-68-0-2	38/66	3.6 - 35	3600	NA	27000	140000	No	BSL
	193-39-5	**Indeno(1,2,3-cd)pyrene**	8.7	7500	UG/KG	GSP-SB-68-0-2	56/66	3.6 - 19	7500	NA	**120**	**4200**	**Yes**	ASL
	91-20-3	**Naphthalene**	10	1900	UG/KG	GSP-SB-68-0-2	37/66	3.6 - 35	1900	NA	**0.47**	**150**	**Yes**	ASL
	621-64-7	**N-Nitroso-di-n-Propylamine**	120	120	UG/KG	GSP-SB-72-0-2	1/65	28 - 820	120	NA	**0.0072**	**0.047**	**Yes**	ASL
	85-01-8	Phenanthrene	7.6	27000	UG/KG	GSP-SB-68-0-2	60/66	3.6 - 19	27000	NA	120000 [11]	470000	No	BSL
	129-00-0	Pyrene	7.1 J	34000	UG/KG	GSP-SB-68-0-2	63/66	3.6 - 3.6	34000	NA	120000	680000	No	BSL
	POLYCHLORINATED BIPHENYLS													
	11096-82-5	**Aroclor-1260**	22 J	12000	UG/KG	GSP-SB-78-0-2	21/66	18 - 22	12000	NA	**24**	NA	**Yes**	ASL
	Not Found	**Total Aroclor**	22	12000	UG/KG	GSP-SB-78-0-2	21/21	-	12000	NA	**24**	NA	**Yes**	ASL
	METALS													
RECs 9, 10, 11	7440-36-0	**Antimony**	0.066 J	1.2 J	MG/KG	GSP-SB-121-0-3	29/66	0.026 - 1.2	1.2	6	**0.66**	13	**Yes**	ASL
	7440-38-2	**Arsenic**	0.71	5.6	MG/KG	GSP-SB-110-0-2	66/66	-	5.6	3.6	**0.0013**	**0.026**	**Yes**	ASL
	7440-39-3	Barium	2.9 J	266 J	MG/KG	GSP-SB-71-0-2	66/66	-	266	73	300	6000	No	BSL
	7440-41-7	Beryllium	0.045 J	1.6 J	MG/KG	GSP-SB-71-0-2	60/66	0.03 - 0.053	1.6	0.66	58	1200	No	BSL
	7440-43-9	Cadmium	0.035 J	1	MG/KG	GSP-SB-130-0-2	26/66	0.0027 - 0.046	1	0.73	1.4	27	No	BSL
	7440-47-3	**Chromium**	2.1 J	24.1 K	MG/KG	GSP-SB-82-0-2	66/66	-	24.1	28	**0.00083** [12]	42 [12]	**Yes**	ASL
	7440-48-4	**Cobalt**	0.22 J	10.8 J	MG/KG	GSP-SB-87-0-2	66/66	-	10.8	11	**0.49**	NA	**Yes**	ASL
	7440-50-8	Copper	1.1 J	38	MG/KG	GSP-SB-94-0-2	66/66	-	38	12	51	11000	No	BSL
	7439-89-6	**Iron**	866 J	15000	MG/KG	GSP-SB-82-0-2	28/28	-	15000	15,000	**640**	NA	**Yes**	ASL
	7439-92-1	**Lead**	0.86 J	41	MG/KG	GSP-SB-125-0-2	66/66	-	41	45	**14** [13]	NA	**Yes**	ASL
	7439-96-5	**Manganese**	2.5 J	2390 J	MG/KG	GSP-SB-71-0-2	28/28	-	2390	480	**57**	**950**	**Yes**	ASL
	7439-97-6	**Mercury**	0.013 J	0.3	MG/KG	GSP-SB-113-0-2	48/66	0.011 - 0.02	0.3	0.51	**0.033**	NA	**Yes**	ASL
	7439-98-7	Molybdenum	0.051 J	1	MG/KG	GSP-SB-63-0-2, GSP-SB-67-0-2	28/66	0.22 - 1.1	1	NA	3.7	NA	No	BSL
	7440-02-0	Nickel	0.47	15	MG/KG	GSP-SB-108-0-2	66/66	-	15	13	48	NA	No	BSL
	7782-49-2	**Selenium**	0.13 J	3.1 L	MG/KG	GSP-SB-82-0-2	44/66	0.08 - 0.56	3.1	2.2	**0.95**	19	**Yes**	ASL
	7440-22-4	Silver	0.038 J	0.49	MG/KG	GSP-SB-86-0-2	20/66	0.0018 - 0.13	0.49	0.94	1.6	31	No	BSL
	7440-28-0	**Thallium**	0.7 J	2.3 K	MG/KG	GSP-SB-101-0-2	4/66	0.014 - 0.7	2.3	3.9	**0.026**	3.6	**Yes**	ASL
	7440-62-2	Vanadium	3.5 J	65	MG/KG	GSP-SB-108-0-2	66/66	-	65	30	180	730	No	BSL
	7440-66-6	Zinc	4.6 J	63.4	MG/KG	GSP-SB-68-0-2	62/66	1.9 - 5	63.4	63	680	14000	No	BSL
	PETROLEUM HYDROCARBONS													
	- -	Diesel Range Organics	3.6 J	1800 J	MG/KG	GSP-SB-83-0-2	51/66	3 - 72	1800	NA	NA	NA	No	NTX
	PETROLEUM HYDROCARBONS													
	- -	Gasoline Range Organics	33 J	89 J	UG/KG	GSP-SB-78-0-2	5/66	26 - 36	89	NA	NA	NA	No	NTX

TABLE 5-8

OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SURFACE SOIL - MIGRATION TO GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA SSL - Groundwater Protection[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008. Appendix 2 - Attachment 2.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, soil screening levels (SSLs) for groundwater protection, June 2011.
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
8 - The value is for 1,4-dichlorobenzene.
9 - The value is for xylenes.
10 - The value is for acenaphthene.
11 - The value is for pyrene.
12 - The value is for hexavalent chromium.
13 - Maximum Contaminant Level (MCL)-based soil screening level (SSL).
14 - See text for BaP equivalent calculation methodology.
15 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.

Definitions:
BaP = benzo(a)pyrene
C = carcinogen
COPC = chemical of potential concern
J = estimated value
K = biased high
L = biased low
mg/kg = milligram per kilogram
N = non-carcinogen
NA = not applicable/not available
ug/kg = microgram per kilogram

Rationale Codes:
For selection as a COPC:
ASL = Above screening level

For elimination as a COPC:
BSL = Below screening level
NTX = No toxicity criteria

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as COPC.

Associated Samples:

GSP-SB-57-0-2	GSP-SB-69-0-2	GSP-SB-84-0-2	GSP-SB-101-0-2	GSP-SB-113-0-2	GSP-SB-125-0-2
GSP-SB-58-0-2	GSP-SB-70-0-2	GSP-SB-86-0-2	GSP-SB-102-0-2	GSP-SB-114-0-2	GSP-SB-126-0-2
GSP-SB-59-0-2	GSP-SB-71-0-2	GSP-SB-87-0-2	GSP-SB-103-0-2	GSP-SB-115-0-2	GSP-SB-127-0-2
GSP-SB-60-0-2	GSP-SB-72-0-2	GSP-SB-90-0-2	GSP-SB-104-0-2	GSP-SB-116-0-2	GSP-SB-128-0-2
GSP-SB-61-0-2	GSP-SB-74-0-2	GSP-SB-91-0-2	GSP-SB-105-0-2	GSP-SB-117-0-2	GSP-SB-129-0-2
GSP-SB-62-0-2	GSP-SB-75-0-2	GSP-SB-93-0-2	GSP-SB-106-0-2	GSP-SB-118-0-2	GSP-SB-130-0-2
GSP-SB-63-0-2	GSP-SB-76-1-3	GSP-SB-94-0-2	GSP-SB-107-0-2	GSP-SB-119-0-2	
GSP-SB-64-0-2	GSP-SB-77-1-3	GSP-SB-95-0-2	GSP-SB-108-0-2	GSP-SB-120-0-2	
GSP-SB-65-0-2	GSP-SB-78-0-2	GSP-SB-96-0-2	GSP-SB-109-0-2	GSP-SB-121-0-3	
GSP-SB-66-0-2	GSP-SB-80-0-2	GSP-SB-97-0-2	GSP-SB-110-0-2	GSP-SB-122-0-2	
GSP-SB-67-0-2	GSP-SB-82-0-2	GSP-SB-98-0-2	GSP-SB-111-0-2	GSP-SB-123-0-2	
GSP-SB-68-0-2	GSP-SB-83-0-2	GSP-SB-99-0-2	GSP-SB-112-0-2	GSP-SB-124-0-2	

TABLE 5-9

OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SUBSURFACE SOIL (2-15 FEET) - DIRECT CONTACT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	Adjusted USEPA SSL - Residential Soil-to-Air[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**VOLATILES**														
	526-73-8	1,2,3-Trimethylbenzene	0.43 J	620 J	UG/KG	GSP-TP-5E-10-12	4/58	0.096 - 0.21	620	NA	710,000,000 N	NA	NA	No	BSL
	95-63-6	1,2,4-Trimethylbenzene	1.8 J	940 J	UG/KG	GSP-TP-5E-10-12	5/58	0.37 - 5.6	940	NA	6,200 N	NA	12,000 N	No	BSL
	78-93-3	2-Butanone	1.3 J	97 J	UG/KG	GSP-TP-5W-10-12	7/58	0.79 - 270	97	NA	2,800,000 N	4,700,000	24,000,000 sat	No	BSL
	591-78-6	2-Hexanone	1.1 J	1.1 J	UG/KG	GSP-TP-6-4-6	1/58	0.36 - 130	1.1	NA	21,000 N	NA	NA	No	BSL
	99-87-6	4-Isopropyltoluene	0.24 J	190 J	UG/KG	GSP-TP-5E-10-12	3/58	0.12 - 5.5	190	NA	NA	NA	NA	No	NTX
	67-64-1	Acetone	6.2 J	220 J	UG/KG	GSP-SB-93-12-14, GSP-SB-121-6-8	8/58	4.3 - 1100	220	NA	6,100,000 N	7,000,000	NA	No	BSL
	71-43-2	Benzene	0.62 J	0.62 J	UG/KG	GSP-SB-91-8-10	1/58	0.13 - 75	0.62	NA	1,100 C	12,000	830 C	No	BSL
	75-15-0	Carbon Disulfide	0.55 J	12 J	UG/KG	GSP-TP-5W-10-12	6/58	0.3 - 75	12	NA	82,000 N	780,000	720,000 sat	No	BSL
	156-59-2	cis-1,2-Dichloroethene	1.7 J	2.2 J	UG/KG	GSP-SB-119-6-8	2/58	0.2 - 43	2.2	NA	16,000 N	78,000	NA	No	BSL
	100-41-4	Ethylbenzene	0.26 J	270 J	UG/KG	GSP-TP-5E-10-12	6/58	0.15 - 6.2	270	NA	5,400 C	780,000	400,000 sat	No	BSL
	98-82-8	Isopropylbenzene	58 J	58 J	UG/KG	GSP-TP-5W-10-12	1/58	0.09 - 41	58	NA	210,000 N	780,000	850,000 sat	No	BSL
	- -	m+p-Xylenes	1.9 J	310 J	UG/KG	GSP-TP-5E-10-12	4/58	0.68 - 56	310	NA	59,000 N[9]	1,600,000 [10]	420,000 sat[10]	No	BSL
	75-09-2	Methylene Chloride	1.3 J	2.4 J	UG/KG	GSP-SB-97-6-8	4/58	0.46 - 820	2.4	NA	11,000 C	85,000	13,000 C	No	BSL
	91-20-3	**Naphthalene**	3.4 J	42,000	UG/KG	GSP-TP-5E-10-12	8/58	0.11 - 25	42,000	NA	**3,600 C**	160,000	**17,000 N**	**Yes**	ASL
	104-51-8	N-Butylbenzene	110 J	270 J	UG/KG	GSP-TP-5E-10-12	2/58	0.13 - 9.2	270	NA	390,000 N	NA	NA	No	BSL
	103-65-1	N-Propylbenzene	85 J	200 J	UG/KG	GSP-TP-5E-10-12	2/58	0.23 - 16	200	NA	340,000 N	NA	NA	No	BSL
	95-47-6	o-Xylene	0.29 J	230 J	UG/KG	GSP-TP-5E-10-12	5/58	0.2 - 9.8	230	NA	69,000 N	1,600,000 [10]	NA	No	BSL
	135-98-8	sec-Butylbenzene	75 J	150 J	UG/KG	GSP-TP-5E-10-12	2/58	0.1 - 5.4	150	NA	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.24 J	44	UG/KG	GSP-SB-113-6-8	18/58	0.15 - 110	44	NA	500,000 N	630,000	650,000 sat	No	BSL
	1330-20-7	Total Xylenes	0.72 J	540 J	UG/KG	GSP-TP-5E-10-12	5/58	0.38 - 9.1	540	NA	63,000 N	1,600,000 [10]	70,000 N	No	BSL
	79-01-6	**Trichloroethene**	0.81 J	360	UG/KG	GSP-SB-93-12-14	6/58	0.24 - 61	360	NA	440 N[11][19]	1,600	**71 C**	**Yes**	ASL
	75-01-4	Vinyl Chloride	0.36 J	0.36 J	UG/KG	GSP-SB-73-12-14-R	1/58	0.22 - 110	0.36	NA	60 C	90	280 C	No	BSL
	SEMIVOLATILES														
	92-52-4	1,1-Biphenyl	1100 J	1,100 J	UG/KG	GSP-TP-5E-10-12	1/58	29 - 760	1,100	NA	5,100 N	NA	NA	No	BSL
	91-57-6	2-Methylnaphthalene	15	13,000	UG/KG	GSP-TP-5E-10-12	13/58	3.6 - 47	13,000	NA	31,000 N	31,000	NA	No	BSL
	83-32-9	Acenaphthene	34	2,000	UG/KG	GSP-TP-5E-10-12	14/58	3.6 - 36	2,000	NA	340,000 N	470,000	NA	No	BSL
	208-96-8	Acenaphthylene	9	1,900	UG/KG	GSP-SB-109-6-8	10/58	3.6 - 47	1,900	NA	340,000 N[12]	470,000	NA	No	BSL
	120-12-7	Anthracene	11 L	5,700	UG/KG	GSP-SB-81-2-4	16/58	3.6 - 9.3	5,700	NA	1,700,000 N	2,300,000	NA	No	BSL
	--	**BaP Equivalent-Half non-detect[19]**	4.8891	20,027	UG/KG	GSP-SB-109-6-8	23/58	3.6 - 9.3	20,027	NA	**15 C**	**22**	NA	**Yes**	ASL
	--	**BaP Equivalent-Positive only[19]**	0.52	20,027	UG/KG	GSP-SB-109-6-8	23/58	3.6 - 9.3	20,027	NA	**15 C**	**22**	NA	**Yes**	ASL
	56-55-3	**Benzo(a)anthracene**	8	13,000	UG/KG	GSP-SB-109-6-8	20/58	3.6 - 9.3	13,000	NA	**150 C**	**220**	NA	**Yes**	ASL
	50-32-8	**Benzo(a)pyrene**	5.9 J	14,000	UG/KG	GSP-SB-109-6-8	20/58	3.6 - 9.3	14,000	NA	**15 C**	**22**	NA	**Yes**	ASL
	205-99-2	**Benzo(b)fluoranthene**	5.2 J	12,000	UG/KG	GSP-SB-109-6-8	22/58	3.6 - 9.3	12,000	NA	**150 C**	**220**	NA	**Yes**	ASL
	191-24-2	Benzo(g,h,i)perylene	13	10,000	UG/KG	GSP-SB-109-6-8	19/58	3.6 - 9.3	10,000	NA	170,000 N[13]	230,000	NA	No	BSL
	207-08-9	**Benzo(k)fluoranthene**	7 J	6,300	UG/KG	GSP-SB-109-6-8	18/58	3.6 - 9.3	6,300	NA	**1,500 C**	**2,200**	NA	**Yes**	ASL
	117-81-7	Bis(2-ethylhexyl)phthalate	22 J	140 J	UG/KG	GSP-TP-5W-10-12	9/58	21 - 540	140	NA	35,000 C	46,000	NA	No	BSL
	105-60-2	Caprolactam	43 J	43 J	UG/KG	GSP-SB-79-4-6	1/58	40 - 1000	43	NA	3,100,000 N	NA	NA	No	BSL
	86-74-8	Carbazole	420 J	1,600	UG/KG	GSP-SB-121-6-8	4/58	29 - 760	1,600	NA	NA	32,000	NA	No	BSL
	218-01-9	Chrysene	7.8 J	14,000	UG/KG	GSP-SB-109-6-8	20/58	1.2 - 3.1	14,000	NA	15,000 C	22,000	NA	No	BSL
	53-70-3	**Dibenzo(a,h)anthracene**	36	2,700	UG/KG	GSP-SB-109-6-8	13/58	3.6 - 36	2,700	NA	**15 C**	**22**	NA	**Yes**	ASL
	132-64-9	Dibenzofuran	22 J	1,000	UG/KG	GSP-SB-121-6-8	9/58	3.6 - 450	1,000	NA	7,800 N	7,800	NA	No	BSL
	84-74-2	di-n-Butyl Phthalate	18 J	34 J	UG/KG	GSP-SB-114-6-8	5/58	16 - 420	34	NA	610,000 N	780,000	NA	No	BSL
	206-44-0	Fluoranthene	8.3	21,000	UG/KG	GSP-SB-109-6-8	22/58	3.6 - 9.3	21,000	NA	230,000 N	310,000	NA	No	BSL
	86-73-7	Fluorene	7.6 L	3,900	UG/KG	GSP-TP-5E-10-12	15/58	3.6 - 36	3,900	NA	230,000 N	310,000	NA	No	BSL
	193-39-5	**Indeno(1,2,3-cd)pyrene**	10	7,500	UG/KG	GSP-SB-109-6-8	18/58	3.6 - 9.3	7,500	NA	**150 C**	**220**	NA	**Yes**	ASL
	91-20-3	**Naphthalene**	23	17,000	UG/KG	GSP-TP-5E-10-12	13/58	3.6 - 47	17,000	NA	**3,600 C**	160,000	17,000 N	**Yes**	ASL
	85-01-8	Phenanthrene	7.6 J	23,000	UG/KG	GSP-SB-81-2-4	20/58	3.6 - 9.3	23,000	NA	170,000 N[13]	2,300,000	NA	No	BSL
	108-95-2	Phenol	54 J	130 J	UG/KG	GSP-SB-120-6-8	2/57	29 - 760	130	NA	1,800,000 N	2,300,000	NA	No	BSL
	129-00-0	Pyrene	6.6 J	32,000	UG/KG	GSP-SB-109-6-8	25/58	3.6 - 9.3	32,000	NA	170,000 N	230,000	NA	No	BSL

TABLE 5-9

OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SUBSURFACE SOIL (2-15 FEET) - DIRECT CONTACT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	Adjusted USEPA SSL - Residential Soil-to-Air[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**POLYCHLORINATED BIPHENYLS**														
	53469-21-9	Aroclor-1242	21 J	130	UG/KG	GSP-SB-121-6-8	2/58	14 - 150	130	NA	220 C	320	NA	No	BSL
	11096-82-5	**Aroclor-1260**	19 J	2,700	UG/KG	GSP-SB-119-6-8	5/58	18 - 100	2,700	NA	**220 C**	**320**	NA	**Yes**	ASL
	--	**Total Aroclor**	19	2,700	UG/KG	GSP-SB-119-6-8	5/58	-	2,700	NA	**220 C[14]**	**320 [15]**	NA	**Yes**	ASL
	METALS														
	7440-36-0	Antimony	0.075 J	0.79 J	MG/KG	GSP-TP-5W-10-12	10/58	0.019 - 0.99	0.79	6	3.1 N	3.1	NA	No	BSL
	7440-38-2	**Arsenic**	0.4 J	52	MG/KG	GSP-SB-111-6-8	56/58	0.33 - 0.34	52	3.6	**0.39 C**	**0.43**	769 C	**Yes**	ASL
	7440-39-3	Barium	1.1 J	250	MG/KG	GSP-SB-110-6-8	58/58	-	250	73	1,500 N	1,600	70,900 N	No	BSL
	7440-41-7	Beryllium	0.072 J	0.74 J	MG/KG	GSP-SB-81-2-4	16/58	0.021 - 0.054	0.74	0.66	16 N	16	1380 C	No	BSL
	7440-43-9	Cadmium	0.065 J	0.85	MG/KG	GSP-TP-4-3-5	5/58	0.0019 - 0.045	0.85	0.73	7 N	3.9	1840 C	No	BSL
	7440-47-3	**Chromium**	1.4 J	39	MG/KG	GSP-SB-91-8-10	58/58	-	39	28	**0.29 C[16]**	**23 [16]**	276 C	**Yes**	ASL
	7440-48-4	**Cobalt**	0.11 J	8.8	MG/KG	GSP-TP-5W-10-12	51/58	0.15 - 0.2	8.8	11	**2.3 N**	NA	1,180 C	**Yes**	ASL
	7440-50-8	Copper	0.73 J	170	MG/KG	GSP-TP-2-10-12	54/58	0.8 - 0.93	170	12	310 N	310	NA	No	BSL
	7439-89-6	**Iron**	183	15,600 J	MG/KG	GSP-SB-81-2-4	8/8	-	15,600	15,000	**5,500 N**	**5,500**	NA	**Yes**	ASL
	7439-92-1	Lead	0.42	41	MG/KG	GSP-TP-4-3-5	52/58	0.73 - 1.1	41	45	400	400	NA	No	BSL
	7439-96-5	**Manganese**	0.98	713 J	MG/KG	GSP-SB-81-2-4	8/8	-	713	480	**180 N**	**160**	7,090 N	**Yes**	ASL
	7439-97-6	Mercury	0.011 J	0.093	MG/KG	GSP-TP-5W-10-12	19/58	0.011 - 0.02	0.093	0.51	2.3 N[17]	2.3 [18]	NA	No	BSL
	7439-98-7	Molybdenum	0.15 J	0.65	MG/KG	GSP-SB-79-4-6	7/58	0.062 - 2.4	0.65	NA	39 N	NA	NA	No	BSL
	7440-02-0	Nickel	0.21	22	MG/KG	GSP-SB-108-6-8	49/58	0.26 - 0.34	22	13	150 N	160	NA	No	BSL
	7782-49-2	Selenium	0.051 J	0.84 J	MG/KG	GSP-SB-111-6-8	11/58	0.37 - 0.57	0.84	2.2	39 N	39	NA	No	BSL
	7440-22-4	Silver	0.052 J	0.18 J	MG/KG	GSP-SB-130-6-8	3/58	0.0018 - 0.13	0.18	0.94	39 N	39	NA	No	BSL
	7440-28-0	**Thallium**	0.64 J	1.5 J	MG/KG	GSP-SB-110-6-8	9/58	0.016 - 0.69	1.5	3.9	**0.078 N**	**0.55**	NA	**Yes**	ASL
	7440-62-2	**Vanadium**	1.3	300	MG/KG	GSP-SB-111-6-8	57/58	3.7 - 3.7	300	30	**39 N**	**7.8**	NA	**Yes**	ASL
	7440-66-6	Zinc	1.4 J	63	MG/KG	GSP-SB-121-6-8	44/58	0.88 - 5.2	63	63	2,300 N	2,300	NA	No	BSL
	PETROLEUM HYDROCARBONS														
	- -	**Diesel Range Organics**	3.7 J	5,200	MG/KG	GSP-SB-81-2-4	23/58	3.3 - 27	5,200	NA	NA	**230**	NA	**Yes**	ASL
	PETROLEUM HYDROCARBONS														
	- -	Gasoline Range Organics	36 J	88,000	UG/KG	GSP-TP-5E-10-12	8/58	27 - 34	88,000	NA	NA	230,000	NA	No	BSL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - To determine whether chemical concentrations were within background levels, a statistical analysis was conducted using the site and background datasets.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, June 2011. Adjusted values correspond to a cancer risk level of 1E-06 or a hazard quotient (HQ) of 0.1.
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - USEPA Soil Screening Levels (SSLs). EPA Internet Site at http://rais.ornl.gov/epa/ssl1.shtml.
8 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
9 - The value is for m-xylene.
10 - The value is for xylenes.
11 - One tenth the non-carcinogenic level is less than the carcinogenic level; therefore, the non-carcinogenic level is presented.
12 - The value is for acenaphthene.
13 - The value is for pyrene.
14 - The value is for polychlorinated biphenyls [PCBs] (high risk).
15 - The value is for PCB (total).
16 - The value is for hexavalent chromium.
17 - The value is for mercuric chloride (and other mercury salts).
18 - The value is for mercury (inorganic/mercuric dichloride).
19 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chmical was retained as a COPC.

Definitions:
BaP = benzo(a)pyrene
C = Carcinogen
COPC = Chemical of potential concern
J = Estimated value
L = Biased low
mg/kg = milligram per kilogram
N = Non-carcinogen
NA = Not applicable/not available
PCB = polychlorinated biphenyl
sat = soil saturation concentration
ug/kg = microgram per kilogram

Rationale Codes:
For selection as a COPC:
ASL = Above screening level

For elimination as a COPC:

BSL = Below screening level
NTX = No toxicity criteria

Associated Samples:

GSP-SB-56-10-12	GSP-SB-95-6-8	GSP-SB-106-6-8	GSP-SB-118-6-8	GSP-SB-130-6-8
GSP-SB-73-12-14	GSP-SB-96-6-8	GSP-SB-107-6-8	GSP-SB-119-6-8	GSP-TP-1-10-12
GSP-SB-73-12-14-R	GSP-SB-97-6-8	GSP-SB-108-6-8	GSP-SB-120-6-8	GSP-TP-2-10-12
GSP-SB-79-4-6	GSP-SB-98-6-8	GSP-SB-109-6-8	GSP-SB-121-6-8	GSP-TP-3-5-7
GSP-SB-80-14-16	GSP-SB-99-6-8	GSP-SB-110-6-8	GSP-SB-122-6-8	GSP-TP-4-3-5
GSP-SB-81-2-4	GSP-SB-100-2-4	GSP-SB-111-6-8	GSP-SB-123-6-8	GSP-TP-5E-10-12
GSP-SB-85-10-12	GSP-SB-100-6-8	GSP-SB-112-6-8	GSP-SB-124-6-8	GSP-TP-5W-10-12
GSP-SB-88-2-4	GSP-SB-101-6-8	GSP-SB-113-6-8	GSP-SB-125-6-8	GSP-TP-6-4-6
GSP-SB-89-2-4	GSP-SB-102-6-8	GSP-SB-114-6-8	GSP-SB-126-8-10	GSP-TP-7-9-10
GSP-SB-91-8-10	GSP-SB-103-6-8	GSP-SB-115-10-12	GSP-SB-127-6-8	GSP-TP-8-6-7
GSP-SB-94-6-8	GSP-SB-105-6-8	GSP-SB-117-6-8	GSP-SB-129-6-8	

Table 5-10

Occurrence, Distribution, and Selection of Chemicals of Global Potential Concern – All Subsurface soil (2-15 feet) - Migration to Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA SSL - Groundwater Protection[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**VOLATILES**													
	526-73-8	1,2,3-Trimethylbenzene	0.43 J	620 J	UG/KG	GSP-TP-5E-10-12	4/58	0.096 - 0.21	620	NA	NA	NA	No	NTX
	95-63-6	**1,2,4-Trimethylbenzene**	1.8 J	940 J	UG/KG	GSP-TP-5E-10-12	5/58	0.37 - 5.6	940	NA	**21**	NA	**Yes**	ASL
	78-93-3	2-Butanone	1.3 J	97 J	UG/KG	GSP-TP-5W-10-12	7/58	0.79 - 270	97	NA	1,500	29000	No	BSL
	591-78-6	2-Hexanone	1.1 J	1.1 J	UG/KG	GSP-TP-6-4-6	1/58	0.36 - 130	1.1	NA	11	NA	No	BSL
	99-87-6	4-Isopropyltoluene	0.24 J	190 J	UG/KG	GSP-TP-5E-10-12	3/58	0.12 - 5.5	190	NA	NA	NA	No	NTX
	67-64-1	Acetone	6.2 J	220 J	UG/KG	GSP-SB-93-12-14, GSP-SB-121-6-8	8/58	4.3 - 1100	220	NA	4,500	22000	No	BSL
	71-43-2	**Benzene**	0.62 J	0.62 J	UG/KG	GSP-SB-91-8-10	1/58	0.13 - 75	0.62	NA	**0.21**	1.9	**Yes**	ASL
	75-15-0	Carbon Disulfide	0.55 J	12 J	UG/KG	GSP-TP-5W-10-12	6/58	0.3 - 75	12	NA	310	19000	No	BSL
	156-59-2	cis-1,2-Dichloroethene	1.7 J	2.2 J	UG/KG	GSP-SB-119-6-8	2/58	0.2 - 43	2.2	NA	21	NA	No	BSL
	100-41-4	**Ethylbenzene**	0.26 J	270 J	UG/KG	GSP-TP-5E-10-12	6/58	0.15 - 6.2	270	NA	**1.7**	15000	**Yes**	ASL
	98-82-8	Isopropylbenzene	58 J	58 J	UG/KG	GSP-TP-5W-10-12	1/58	0.09 - 41	58	NA	1,100	64000	No	BSL
	- -	**m+p-Xylenes**	1.9 J	310 J	UG/KG	GSP-TP-5E-10-12	4/58	0.68 - 56	310	NA	**200**	3000 [9]	**Yes**	ASL
	75-09-2	**Methylene Chloride**	1.3 J	2.4 J	UG/KG	GSP-SB-97-6-8	4/58	0.46 - 820	2.4	NA	**1.2**	19	**Yes**	ASL
	91-20-3	**Naphthalene**	3.4 J	42,000	UG/KG	GSP-TP-5E-10-12	8/58	0.11 - 25	42,000	NA	**0.47**	**150**	**Yes**	ASL
	104-51-8	N-Butylbenzene	110 J	270 J	UG/KG	GSP-TP-5E-10-12	2/58	0.13 - 9.2	270	NA	5,900	NA	No	BSL
	103-65-1	N-Propylbenzene	85 J	200 J	UG/KG	GSP-TP-5E-10-12	2/58	0.23 - 16	200	NA	2,500	NA	No	BSL
	95-47-6	**o-Xylene**	0.29 J	230 J	UG/KG	GSP-TP-5E-10-12	5/58	0.2 - 9.8	230	NA	**200**	3000 [9]	**Yes**	ASL
	135-98-8	sec-Butylbenzene	75 J	150 J	UG/KG	GSP-TP-5E-10-12	2/58	0.1 - 5.4	150	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.24 J	44	UG/KG	GSP-SB-113-6-8	18/58	0.15 - 110	44	NA	1,600	27000	No	BSL
	1330-20-7	**Total Xylenes**	0.72 J	540 J	UG/KG	GSP-TP-5E-10-12	5/58	0.38 - 9.1	540	NA	**200**	3000 [9]	**Yes**	ASL
	79-01-6	**Trichloroethene**	0.81 J	360	UG/KG	GSP-SB-93-12-14	6/58	0.24 - 61	360	NA	**0.23** [16]	**0.26**	**Yes**	ASL
	75-01-4	**Vinyl Chloride**	0.36 J	0.36 J	UG/KG	GSP-SB-73-12-14-R	1/58	0.22 - 110	0.36	NA	**0.0056**	**0.12**	**Yes**	ASL
	SEMIVOLATILES													
	92-52-4	**1,1-Biphenyl**	1100 J	1,100 J	UG/KG	GSP-TP-5E-10-12	1/58	29 - 760	1,100	NA	**8.7**	NA	**Yes**	ASL
	91-57-6	**2-Methylnaphthalene**	15	13,000	UG/KG	GSP-TP-5E-10-12	13/58	3.6 - 47	13,000	NA	**750**	**4400**	**Yes**	ASL
	83-32-9	Acenaphthene	34	2,000	UG/KG	GSP-TP-5E-10-12	14/58	3.6 - 36	2,000	NA	22,000	100000	No	BSL
	208-96-8	Acenaphthylene	9	1,900	UG/KG	GSP-SB-109-6-8	10/58	3.6 - 47	1,900	NA	22,000 [10]	100000	No	BSL
	120-12-7	Anthracene	11 L	5,700	UG/KG	GSP-SB-81-2-4	16/58	3.6 - 9.3	5,700	NA	360,000	470000	No	BSL
	--	BaP Equivalent-Half non-detect[15]	4.8891	20,027	UG/KG	GSP-SB-109-6-8	23/58	3.6 - 9.3	20,027	NA	NA	NA	No	NTX
	--	BaP Equivalent-Positive only[15]	0.52	20,027	UG/KG	GSP-SB-109-6-8	23/58	3.6 - 9.3	20,027	NA	NA	NA	No	NTX
	56-55-3	**Benzo(a)anthracene**	8	13,000	UG/KG	GSP-SB-109-6-8	20/58	3.6 - 9.3	13,000	NA	**10**	**480**	**Yes**	ASL
	50-32-8	**Benzo(a)pyrene**	5.9 J	14,000	UG/KG	GSP-SB-109-6-8	20/58	3.6 - 9.3	14,000	NA	**3.5**	**120**	**Yes**	ASL
	205-99-2	**Benzo(b)fluoranthene**	5.2 J	12,000	UG/KG	GSP-SB-109-6-8	22/58	3.6 - 9.3	12,000	NA	**35**	**1500**	**Yes**	ASL
	191-24-2	Benzo(g,h,i)perylene	13	10,000	UG/KG	GSP-SB-109-6-8	19/58	3.6 - 9.3	10,000	NA	120,000 [11]	680000	No	BSL
	207-08-9	**Benzo(k)fluoranthene**	7 J	6,300	UG/KG	GSP-SB-109-6-8	18/58	3.6 - 9.3	6,300	NA	**350**	15000	**Yes**	ASL
	117-81-7	Bis(2-ethylhexyl)phthalate	22 J	140 J	UG/KG	GSP-TP-5W-10-12	9/58	21 - 540	140	NA	1,100	2900000	No	BSL
	105-60-2	Caprolactam	43 J	43 J	UG/KG	GSP-SB-79-4-6	1/58	40 - 1000	43	NA	4,500	NA	No	BSL
	86-74-8	**Carbazole**	420 J	1,600	UG/KG	GSP-SB-121-6-8	4/58	29 - 760	1,600	NA	NA	**470**	**Yes**	ASL
	218-01-9	**Chrysene**	7.8 J	14,000	UG/KG	GSP-SB-109-6-8	20/58	1.2 - 3.1	14,000	NA	**1,100**	48000	**Yes**	ASL
	53-70-3	**Dibenzo(a,h)anthracene**	36	2,700	UG/KG	GSP-SB-109-6-8	13/58	3.6 - 36	2,700	NA	**11**	**460**	**Yes**	ASL

Table 5-10

Occurrence, Distribution, and Selection of Chemicals of Global Potential Concern – All Subsurface soil (2-15 feet) - Migration to Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA SSL - Groundwater Protection[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
	132-64-9	**Dibenzofuran**	22 J	1,000	UG/KG	GSP-SB-121-6-8	9/58	3.6 - 450	1,000	NA	**680**	NA	**Yes**	ASL
	84-74-2	di-n-Butyl Phthalate	18 J	34 J	UG/KG	GSP-SB-114-6-8	5/58	16 - 420	34	NA	9,200	5000000	No	BSL
	206-44-0	Fluoranthene	8.3	21,000	UG/KG	GSP-SB-109-6-8	22/58	3.6 - 9.3	21,000	NA	160,000	6300000	No	BSL
	86-73-7	Fluorene	7.6 L	3,900	UG/KG	GSP-TP-5E-10-12	15/58	3.6 - 36	3,900	NA	27,000	140000	No	BSL
	193-39-5	**Indeno(1,2,3-cd)pyrene**	10	7,500	UG/KG	GSP-SB-109-6-8	18/58	3.6 - 9.3	7,500	NA	**120**	**4200**	**Yes**	ASL
	91-20-3	**Naphthalene**	23	17,000	UG/KG	GSP-TP-5E-10-12	13/58	3.6 - 47	17,000	NA	**0.47**	**150**	**Yes**	ASL
	85-01-8	Phenanthrene	7.6 J	23,000	UG/KG	GSP-SB-81-2-4	20/58	3.6 - 9.3	23,000	NA	120,000 [11]	470000	No	BSL
	108-95-2	Phenol	54 J	130 J	UG/KG	GSP-SB-120-6-8	2/57	29 - 760	130	NA	6,300	67000	No	BSL
	129-00-0	Pyrene	6.6 J	32,000	UG/KG	GSP-SB-109-6-8	25/58	3.6 - 9.3	32,000	NA	120,000	680000	No	BSL
RECs 9, 10, 11	**POLYCHLORINATED BIPHENYLS**													
	53469-21-9	**Aroclor-1242**	21 J	130	UG/KG	GSP-SB-121-6-8	2/58	14 - 150	130	NA	**5.3**	NA	**Yes**	ASL
	11096-82-5	**Aroclor-1260**	19 J	2,700	UG/KG	GSP-SB-119-6-8	5/58	18 - 100	2,700	NA	**24**	NA	**Yes**	ASL
	--	**Total Aroclor**	19	2,700	UG/KG	GSP-SB-119-6-8	5/5	-	2,700	NA	**24** [12]	NA	**Yes**	ASL
	METALS													
	7440-36-0	**Antimony**	0.075 J	0.79 J	MG/KG	GSP-TP-5W-10-12	10/58	0.019 - 0.99	0.79	6	**0.66**	13	**Yes**	ASL
	7440-38-2	**Arsenic**	0.4 J	52	MG/KG	GSP-SB-111-6-8	56/58	0.33 - 0.34	52	3.6	**0.0013**	**0.026**	**Yes**	ASL
	7440-39-3	Barium	1.1 J	250	MG/KG	GSP-SB-110-6-8	58/58	-	250	73	300	6000	No	BSL
	7440-41-7	Beryllium	0.072 J	0.74 J	MG/KG	GSP-SB-81-2-4	16/58	0.021 - 0.054	0.74	0.66	58	1200	No	BSL
	7440-43-9	Cadmium	0.065 J	0.85	MG/KG	GSP-TP-4-3-5	5/58	0.0019 - 0.045	0.85	0.73	1.4	27	No	BSL
	7440-47-3	**Chromium**	1.4 J	39	MG/KG	GSP-SB-91-8-10	58/58	-	39	28	**0.00083** [13]	42 [13]	**Yes**	ASL
	7440-48-4	**Cobalt**	0.11 J	8.8	MG/KG	GSP-TP-5W-10-12	51/58	0.15 - 0.2	8.8	11	**0.49**	NA	**Yes**	ASL
	7440-50-8	**Copper**	0.73 J	170	MG/KG	GSP-TP-2-10-12	54/58	0.8 - 0.93	170	12	**51**	11000	**Yes**	ASL
	7439-89-6	**Iron**	183	15,600 J	MG/KG	GSP-SB-81-2-4	8/8	-	15,600	15,000	**640**	NA	**Yes**	ASL
	7439-92-1	**Lead**	0.42	41	MG/KG	GSP-TP-4-3-5	52/58	0.73 - 1.1	41	45	**14** [14]	NA	**Yes**	ASL
	7439-96-5	**Manganese**	0.98	713 J	MG/KG	GSP-SB-81-2-4	8/8	-	713	480	**57**	950	**Yes**	ASL
	7439-97-6	**Mercury**	0.011 J	0.093	MG/KG	GSP-TP-5W-10-12	19/58	0.011 - 0.02	0.093	0.51	**0.033**	NA	**Yes**	ASL
	7439-98-7	Molybdenum	0.15 J	0.65	MG/KG	GSP-SB-79-4-6	7/58	0.062 - 2.4	0.65	NA	3.7	NA	No	BSL
	7440-02-0	Nickel	0.21	22	MG/KG	GSP-SB-108-6-8	49/58	0.26 - 0.34	22	13	48	NA	No	BSL
	7782-49-2	Selenium	0.051 J	0.84 J	MG/KG	GSP-SB-111-6-8	11/58	0.37 - 0.57	0.84	2.2	0.95	19	No	BSL
	7440-22-4	Silver	0.052 J	0.18 J	MG/KG	GSP-SB-130-6-8	3/58	0.0018 - 0.13	0.18	0.94	1.6	31	No	BSL
	7440-28-0	**Thallium**	0.64 J	1.5 J	MG/KG	GSP-SB-110-6-8	9/58	0.016 - 0.69	1.5	3.9	**0.026**	3.6	**Yes**	ASL
	7440-62-2	**Vanadium**	1.3	300	MG/KG	GSP-SB-111-6-8	57/58	3.7 - 3.7	300	30	**180**	730	**Yes**	ASL
	7440-66-6	Zinc	1.4 J	63	MG/KG	GSP-SB-121-6-8	44/58	0.88 - 5.2	63	63	680	14000	No	BSL
	PETROLEUM HYDROCARBONS													
	- -	Diesel Range Organics	3.7 J	5,200	MG/KG	GSP-SB-81-2-4	23/58	3.3 - 27	5,200	NA	NA	NA	No	NTX
	PETROLEUM HYDROCARBONS													
	- -	Gasoline Range Organics	36 J	88,000	UG/KG	GSP-TP-5E-10-12	8/58	27 - 34	88,000	NA	NA	NA	No	NTX

Table 5-10

Occurrence, Distribution, and Selection of Chemicals of Global Potential Concern – All Subsurface soil (2-15 feet) - Migration to Groundwater
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - To determine whether chemical concentrations were within background levels, a statistical analysis was conducted using the site and background datasets.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, June 2011. [Cancer benchmark value = 1E-06, Hazard index (HI) = 0.1].
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - USEPA Soil Screening Levels (SSLs). USEPA Internet Site at http://rais.ornl.gov/epa/ssl1.shtml.
8 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
9 - The value is for xylenes.
10 - The value is for acenaphthene.
11 - The value is for pyrene.
12 - The value is for polychlorinated biphenyls (high risk).
13 - The value is for hexavalent chromium.
14 - Maximum Contaminant Level (MCL)-based soil screening level (SSL).
15 - See text for BaP equivalent calculation methodology.
16 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was reatined as a COPC.

Definitions:
BaP = benzo(a)pyrene
C = carcinogen
COPC = chemical of potential concern
J = estimated value
L = biased low
mg/kg = milligram per kilogram
N = non-carcinogen
NA = not applicable/not available
sat = soil saturation concentration
ug/kg = microgram per kilogram

Rationale Codes:
For selection as a COPC:
ASL = above screening level

For elimination as a COPC:
BSL = below screening level
NTX = no toxicity criteria

Associated Samples:

GSP-SB-56-10-12	GSP-SB-95-6-8	GSP-SB-106-6-8	GSP-SB-118-6-8	GSP-SB-130-6-8
GSP-SB-73-12-14	GSP-SB-96-6-8	GSP-SB-107-6-8	GSP-SB-119-6-8	GSP-TP-1-10-12
GSP-SB-73-12-14-R	GSP-SB-97-6-8	GSP-SB-108-6-8	GSP-SB-120-6-8	GSP-TP-2-10-12
GSP-SB-79-4-6	GSP-SB-98-6-8	GSP-SB-109-6-8	GSP-SB-121-6-8	GSP-TP-3-5-7
GSP-SB-80-14-16	GSP-SB-99-6-8	GSP-SB-110-6-8	GSP-SB-122-6-8	GSP-TP-4-3-5
GSP-SB-81-2-4	GSP-SB-100-2-4	GSP-SB-111-6-8	GSP-SB-123-6-8	GSP-TP-5E-10-12
GSP-SB-85-10-12	GSP-SB-100-6-8	GSP-SB-112-6-8	GSP-SB-124-6-8	GSP-TP-5W-10-12
GSP-SB-88-2-4	GSP-SB-101-6-8	GSP-SB-113-6-8	GSP-SB-125-6-8	GSP-TP-6-4-6
GSP-SB-89-2-4	GSP-SB-102-6-8	GSP-SB-114-6-8	GSP-SB-126-8-10	GSP-TP-7-9-10
GSP-SB-91-8-10	GSP-SB-103-6-8	GSP-SB-115-10-12	GSP-SB-127-6-8	GSP-TP-8-6-7
GSP-SB-93-12-14	GSP-SB-104-6-8	GSP-SB-116-6-8	GSP-SB-128-6-8	GSP-TP-9-8-10
GSP-SB-94-6-8	GSP-SB-105-6-8	GSP-SB-117-6-8	GSP-SB-129-6-8	

Table 5-11

Occurrence, Distribution, and Selection of Global Chemicals of Potential Concern - All Deep Subsurface Soil (Greater than 15 Feet) - Direct Contact
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	Adjusted USEPA SSL - Residential Soil-to-Air[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**VOLATILES**														
	87-61-6	1,2,3-Trichlorobenzene	0.36 J	0.36 J	UG/KG	GSP-SB-119-20-22	1/52	0.22 - 10	0.36	NA	4,900 N	NA	NA	No	BSL
	526-73-8	1,2,3-Trimethylbenzene	0.1 J	0.78 J	UG/KG	GSP-SB-119-20-22	3/52	0.11 - 0.21	0.78	NA	710,000,000 N	NA	NA	No	BSL
	120-82-1	1,2,4-Trichlorobenzene	11	11	UG/KG	GSP-SB-119-20-22	1/52	0.16 - 7.3	11	NA	6,200 N[9]	78,000	18,000 N	No	BSL
	95-63-6	1,2,4-Trimethylbenzene	1.2 J	1.2 J	UG/KG	GSP-SB-119-20-22	1/52	0.37 - 5	1.2	NA	6,200 N	NA	12,000 N	No	BSL
	541-73-1	1,3-Dichlorobenzene	10	10	UG/KG	GSP-SB-119-20-22	1/52	0.2 - 4.8	10	NA	2,400 C[10]	23,000	NA	No	BSL
	106-46-7	1,4-Dichlorobenzene	0.61 J	0.61 J	UG/KG	GSP-SB-119-20-22	1/52	0.38 - 8	0.61	NA	2,400 C	27,000	1,100,000 N	No	BSL
	78-93-3	2-Butanone	1.8 J	84 J	UG/KG	GSP-SB-56-20-22	5/52	0.81 - 43	84	NA	2,800,000 N	4,700,000	24,000,000 sat	No	BSL
	99-87-6	4-Isopropyltoluene	1.3 J	1.3 J	UG/KG	GSP-SB-121-18-20	1/52	0.14 - 4.8	1.3	NA	NA	NA	NA	No	NTX
	67-64-1	Acetone	7.6 J	660 J	UG/KG	GSP-SB-87-22-25	19/52	4.2 - 160	660	NA	6,100,000 N	7,000,000	NA	No	BSL
	71-43-2	Benzene	0.45 J	1.4 J	UG/KG	GSP-SB-91-22-24	3/52	0.15 - 12	1.4	NA	1,100 C	12,000	830 C	No	BSL
	75-15-0	Carbon Disulfide	0.55 J	1.8 J	UG/KG	GSP-SB-119-20-22	4/52	0.25 - 12	1.8	NA	82,000 N	780,000	720,000 sat	No	BSL
	108-90-7	Chlorobenzene	0.26 J	0.26 J	UG/KG	GSP-SB-57-23-25	1/52	0.19 - 6.4	0.26	NA	29,000 N	160,000	13,000 N	No	BSL
	156-59-2	cis-1,2-Dichloroethene	0.31 J	4.2	UG/KG	GSP-SB-118-20-22	5/52	0.21 - 6.9	4.2	NA	16,000 N	78,000	NA	No	BSL
	100-41-4	Ethylbenzene	0.24 J	0.53 J	UG/KG	GSP-SB-121-18-20	3/52	0.17 - 5.4	0.53	NA	5,400 C	780,000	400,000 sat	No	BSL
	75-09-2	Methylene Chloride	3.1 J	3.1 J	UG/KG	GSP-SB-96-22-24	1/52	0.45 - 570	3.1	NA	11,000 C	85,000	13,000 C	No	BSL
	91-20-3	Naphthalene	11	38	UG/KG	GSP-SB-120-18-20	3/52	0.13 - 6.7	38	NA	3,600 C	160,000	17,000 N	No	BSL
	95-47-6	o-Xylene	0.36 J	0.65 J	UG/KG	GSP-SB-120-18-20	3/52	0.23 - 8.5	0.65	NA	69,000 N	1,600,000 [11]	NA	No	BSL
	100-42-5	Styrene	0.17 J	0.17 J	UG/KG	GSP-SB-120-18-20	1/52	0.086 - 5.6	0.17	NA	630,000 N	1,600,000	1,500,000 sat	No	BSL
	75-65-0	Tertiary-Butyl Alcohol	14 J	14 J	UG/KG	GSP-SB-62-20-22	1/1	-	14	NA	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.29 J	1 J	UG/KG	GSP-SB-121-18-20	7/52	0.18 - 17	1	NA	500,000 N	630,000	650,000 sat	No	BSL
	1330-20-7	Total Xylenes	0.65 J	0.65 J	UG/KG	GSP-SB-120-18-20	1/52	0.39 - 8.1	0.65	NA	63,000 N	1,600,000 [11]	70,000 N	No	BSL
	79-01-6	**Trichloroethene**	0.89 J	1100	UG/KG	GSP-SB-56-20-22	14/52	0.24 - 0.45	1100	NA	**440 N[9][18]**	1,600	**71 C**	**Yes**	ASL
	75-01-4	Vinyl Chloride	0.45 J	1.5 J	UG/KG	GSP-SB-118-20-22	4/52	0.22 - 18	1.5	NA	60 C	90	280 C	No	BSL
	SEMIVOLATILES														
	91-57-6	2-Methylnaphthalene	13	460	UG/KG	GSP-SB-120-18-20	4/47	3.8 - 4.4	460	NA	31,000 N	31,000	NA	No	BSL
	83-32-9	Acenaphthene	14	2,000	UG/KG	GSP-SB-120-18-20	5/47	3.8 - 4.4	2,000	NA	340,000 N	470,000	NA	No	BSL
	208-96-8	Acenaphthylene	17	430	UG/KG	GSP-SB-120-18-20	2/47	3.8 - 4.4	430	NA	340,000 N[12]	470,000	NA	No	BSL
	120-12-7	Anthracene	7.4 J	7,400	UG/KG	GSP-SB-120-18-20	4/47	3.8 - 4.4	7,400	NA	1,700,000 N	2,300,000	NA	No	BSL
	--	**BaP Equivalent-Half non-detect[17]**	6.20065	12,725	UG/KG	GSP-SB-120-18-20	12/47	3.8 - 4.4	12,725	NA	**15 C**	**22**	NA	**Yes**	ASL
	--	**BaP Equivalent-Positive only[17]**	1.98	12,725	UG/KG	GSP-SB-120-18-20	12/47	3.8 - 4.4	12,725	NA	**15 C**	**22**	NA	**Yes**	ASL
	56-55-3	**Benzo(a)anthracene**	12	11,000	UG/KG	GSP-SB-120-18-20	7/47	3.8 - 4.4	11,000	NA	**150 C**	**220**	NA	**Yes**	ASL
	50-32-8	**Benzo(a)pyrene**	6 J	8,700	UG/KG	GSP-SB-120-18-20	8/47	3.8 - 4.4	8,700	NA	**15 C**	**22**	NA	**Yes**	ASL
	205-99-2	**Benzo(b)fluoranthene**	8.8	9,200	UG/KG	GSP-SB-120-18-20	12/47	3.8 - 4.4	9,200	NA	**150 C**	**220**	NA	**Yes**	ASL
	191-24-2	Benzo(g,h,i)perylene	4.4 J	4,500	UG/KG	GSP-SB-120-18-20	8/47	3.8 - 4.4	4,500	NA	170000 N[13]	230000	NA	No	BSL
	207-08-9	**Benzo(k)fluoranthene**	5.6 J	6,400	UG/KG	GSP-SB-120-18-20	7/47	3.8 - 4.4	6,400	NA	**1500 C**	**2200**	NA	**Yes**	ASL
	117-81-7	Bis(2-ethylhexyl)phthalate	23 J	5,500	UG/KG	GSP-SB-61-20-22	6/47	22 - 470	5,500	NA	35,000 C	46,000	NA	No	BSL
	85-68-7	Butyl Benzyl Phthalate	16 J	16 J	UG/KG	GSP-SB-61-20-22	1/47	11 - 250	16	NA	260,000 C	NA	NA	No	BSL
	86-74-8	Carbazole	130	920 J	UG/KG	GSP-SB-120-18-20	2/47	31 - 36	920	NA	NA	32,000	NA	No	BSL
	218-01-9	Chrysene	14	11,000	UG/KG	GSP-SB-120-18-20	7/47	1.3 - 1.5	11,000	NA	15,000 C	22,000	NA	No	BSL
	53-70-3	**Dibenzo(a,h)anthracene**	74	1,500	UG/KG	GSP-SB-120-18-20	2/47	3.8 - 4.4	1,500	NA	**15 C**	**22**	NA	**Yes**	ASL
	132-64-9	Dibenzofuran	74 J	1,800	UG/KG	GSP-SB-120-18-20	2/47	3.9 - 27	1,800	NA	7,800 N	7,800	NA	No	BSL
	84-74-2	di-n-Butyl Phthalate	18 J	27 J	UG/KG	GSP-SB-129-20-22	5/47	17 - 370	27	NA	610,000 N	780,000	NA	No	BSL
	206-44-0	Fluoranthene	7.2 J	28,000	UG/KG	GSP-SB-120-18-20	12/47	3.8 - 4.4	28,000	NA	230,000 N	310,000	NA	No	BSL
	86-73-7	Fluorene	13	3,900	UG/KG	GSP-SB-120-18-20	3/47	3.8 - 4.4	3,900	NA	230,000 N	310,000	NA	No	BSL
	193-39-5	**Indeno(1,2,3-cd)pyrene**	4.1 J	4,300	UG/KG	GSP-SB-120-18-20	8/47	3.8 - 4.4	4,300	NA	**150 C**	**220**	NA	**Yes**	ASL
	91-20-3	Naphthalene	12	730	UG/KG	GSP-SB-120-18-20	4/47	3.8 - 4.4	730	NA	3,600 C	160,000	17,000 N	No	BSL
	85-01-8	Phenanthrene	12	26,000	UG/KG	GSP-SB-120-18-20	8/47	3.8 - 4.4	26,000	NA	170,000 N[13]	2,300,000	NA	No	BSL
	129-00-0	Pyrene	6.4 J	20,000	UG/KG	GSP-SB-120-18-20	11/47	3.8 - 4.4	20,000	NA	170,000 N	230,000	NA	No	BSL

Table 5-11

Occurrence, Distribution, and Selection of Global Chemicals of Potential Concern - All Deep Subsurface Soil (Greater than 15 Feet) - Direct Contact
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	Adjusted USEPA SSL - Residential Soil-to-Air[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**METALS**														
	7440-36-0	Antimony	0.059 L	0.84 L	MG/KG	GSP-SB-56-20-22	17/34	0.013 - 0.062	0.84	6	3.1 N	3.1	NA	No	BSL
	7440-38-2	**Arsenic**	0.37 J	42.6	MG/KG	GSP-SB-84-22-25	34/34	-	42.6	3.6	**0.39 C**	**0.43**	769 C	**Yes**	ASL
	7440-39-3	Barium	1.3 K	21.7 K	MG/KG	GSP-SB-83-23-25	34/34	-	21.7	73	1,500 N	1,600	70,900 N	No	BSL
	7440-41-7	Beryllium	0.03 J	0.8	MG/KG	GSP-SB-65-20-22	27/34	0.024 - 0.065	0.8	0.66	16 N	16	1,380 C	No	BSL
	7440-43-9	Cadmium	0.038 J	0.49	MG/KG	GSP-SB-65-20-22	6/34	0.0029 - 0.026	0.49	0.73	7 N	3.9	1,840 C	No	BSL
	7440-47-3	**Chromium**	2.1	28.4	MG/KG	GSP-SB-56-20-22	33/33	-	28.4	28	**0.29 C**[14]	**23** [14]	276 C	**Yes**	ASL
	7440-48-4	**Cobalt**	0.1 J	93.4	MG/KG	GSP-SB-84-22-25	34/34	-	93.4	11	**2.3 N**	NA	1,180 C	**Yes**	ASL
	7440-50-8	**Copper**	1 L	481	MG/KG	GSP-SB-78-20-22	32/34	0.56 - 0.59	481	12	**310 N**	**310**	NA	**Yes**	ASL
	7439-89-6	Iron	171 J	5130	MG/KG	GSP-SB-86-21-23	34/34	-	5130	15,000	5,500 N	5,500	NA	No	BSL
	7439-92-1	Lead	0.63 J	24.5	MG/KG	GSP-SB-84-22-25	34/34	-	24.5	45	400	400	NA	No	BSL
	7439-96-5	Manganese	0.87 J	15.1	MG/KG	GSP-SB-56-20-22	34/34	-	15.1	480	180 N	160	7,090 N	No	BSL
	7439-97-6	Mercury	0.025 J	0.099 J	MG/KG	GSP-SB-85-22-25	8/34	0.019 - 0.022	0.099	0.51	2.3 N[15]	2.3 [16]	NA	No	BSL
	7439-98-7	Molybdenum	0.072 J	0.62	MG/KG	GSP-SB-57-23-25	18/34	0.017 - 0.17	0.62	NA	39 N	NA	NA	No	BSL
	7440-02-0	Nickel	0.31	134	MG/KG	GSP-SB-84-22-25	29/34	0.15 - 0.28	134	13	150 N	160	NA	No	BSL
	7782-49-2	Selenium	0.065 J	3.6	MG/KG	GSP-SB-63-20-22	33/34	0.11 - 0.11	3.6	2.2	39 N	39	NA	No	BSL
	7440-22-4	Silver	0.046 J	0.067 J	MG/KG	GSP-SB-81-20-22	6/34	0.0017 - 0.051	0.067	0.94	39 N	39	NA	No	BSL
	7440-28-0	**Thallium**	0.15	0.37	MG/KG	GSP-SB-84-22-25	4/34	0.015 - 0.21	0.37	3.9	**0.078 N**	0.55	NA	**Yes**	ASL
	7440-62-2	**Vanadium**	3.7	50.2 J	MG/KG	GSP-SB-73-16-18	34/34	-	50.2	30	**39 N**	**7.8**	NA	**Yes**	ASL
	7440-66-6	Zinc	3.9 J	39 J	MG/KG	GSP-SB-65-20-22	14/34	1 - 3.3	39	63	2,300 N	2,300	NA	No	BSL
	PETROLEUM HYDROCARBONS														
	- -	**Diesel Range Organics**	3.5 J	320 J	MG/KG	GSP-SB-119-20-22	23/52	3.2 - 16	320	NA	NA	**230**	NA	**Yes**	ASL
	PETROLEUM HYDROCARBONS														
	- -	Gasoline Range Organics	34 J	62 J	UG/KG	GSP-SB-56-20-22	7/52	30 - 35	62	NA	NA	230,000	NA	No	BSL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008. Appendix 2 - Attachment 2.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, June 2011. Adjusted values correspond to a cancer risk level of 1E-06 or a hazard quotient (HQ) of 0.1.
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - USEPA Soil Screening Levels (SSLs). USEPA Internet Site at http://rais.ornl.gov/epa/ssl1.shtml.
8 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
9 - One tenth the non-carcinogenic level is less than the carcinogenic level; therefore, the non-carcinogenic level is presented.
10 - The value is for 1,4-dichlorobenzene.
11 - The value is for xylenes.
12 - The value is for acenaphthene.
13 - The value is for pyrene.
14 - The value is for hexavalent chromium.
15 - The value is for mercuric chloride (and other mercury salts).
16 - The value is for mercury (inorganic/mercuric dichloride).
17 - See text for BaP equivalent calculation methodology.
18 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.
Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Definitions:
BaP = benzo(a)pyrene
C = carcinogen
COPC = chemical of potential concern
J = estimated value
K = biased high
L = biased low
mg/kg = milligram per kilogram
N = non-carcinogen
NA = not applicable/not available
sat = soil saturation concentration
ug/kg = microgram per kilogram

Rationale Codes:
For selection as a COPC:
ASL = above screening level

For elimination as a COPC:
BSL = below screening level
NTX = no toxicity criteria

Table 5-11

Occurrence, Distribution, and Selection of Global Chemicals of Potential Concern - All Deep Subsurface Soil (Greater than 15 Feet) - Direct Contact
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Associated Samples:

GSP-SB-56-20-22	GSP-SB-66-23-25	GSP-SB-77-21-23	GSP-SB-90-23-25	GSP-SB-119-20-22
GSP-SB-57-23-25	GSP-SB-67-23-25	GSP-SB-78-20-22	GSP-SB-91-22-24	GSP-SB-120-18-20
GSP-SB-58-23-25	GSP-SB-68-23-25	GSP-SB-79-22-25	GSP-SB-93-22-24	GSP-SB-121-18-20
GSP-SB-59-23-25	GSP-SB-69-23-25	GSP-SB-81-20-22	GSP-SB-94-20-22	GSP-SB-122-20-22
GSP-SB-60-22-24	GSP-SB-70-22-25	GSP-SB-82-20-22	GSP-SB-95-20-22	GSP-SB-126-20-22
GSP-SB-60-22-24-AVG	GSP-SB-71-23-25	GSP-SB-83-23-25	GSP-SB-96-22-24	GSP-SB-129-20-22
GSP-SB-60-22-24-D	GSP-SB-72-20-22	GSP-SB-84-22-25	GSP-SB-111-22-24	GSP-SB-130-20-22
GSP-SB-61-20-22	GSP-SB-73-16-18	GSP-SB-85-22-25	GSP-SB-113-22-24	
GSP-SB-62-20-22	GSP-SB-73-16-18-R	GSP-SB-86-21-23	GSP-SB-114-22-24	
GSP-SB-63-20-22	GSP-SB-74-20-22	GSP-SB-87-22-25	GSP-SB-115-18-20	
GSP-SB-64-22-25	GSP-SB-75-22-25	GSP-SB-88-22-25	GSP-SB-117-20-22	
GSP-SB-65-20-22	GSP-SB-76-23-25	GSP-SB-89-20-22	GSP-SB-118-20-22	

Table 5-12

Occurrence, Distribution, and Selection of Globle Chemicals of Potential Concern - All Groundwater - Direct Contact
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Tap Water[5]	MDE Cleanup Standard - Groundwater[6]	USEPA MCL[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**VOLATILES**														
	75-35-4	1,1-Dichloroethene	0.45 J	1.3	µg/L	GSP-SB/WP-89-20100528	3/20	0.19 - 3.2	1.3	NA	34 N	7	7	No	BSL
	95-63-6	1,2,4-Trimethylbenzene	0.26 J	0.26 J	µg/L	GSP-MW-1-061711	1/20	0.12 - 2	0.26	NA	1.5 N	NA	NA	No	BSL
	78-93-3	2-Butanone	0.62 J	3.2 J	µg/L	GSP-SB-WP-66-062311	2/20	0.57 - 9.5	3.2	NA	710 N	700	NA	No	BSL
	67-64-1	Acetone	1.5 J	2.6 J	µg/L	GSP-MW-6-062011	4/20	1.1 - 22	2.6	NA	2200 N	550	NA	No	BSL
	71-43-2	**Benzene**	0.13 J	3.1 J	µg/L	GSP-MW-7-062211	2/20	0.13 - 0.35	3.1	NA	**0.41 C**	5	5	**Yes**	ASL
	75-15-0	Carbon Disulfide	0.27 J	0.27 J	µg/L	GSP-SB-WP-66-062311	1/20	0.13 - 2.2	0.27	NA	100 N	100	NA	No	BSL
	56-23-5	**Carbon Tetrachloride**	2.6	2.6	µg/L	GSP-MW-5-062011	1/20	0.13 - 2.2	2.6	NA	**0.44 C**	5	5	**Yes**	ASL
	67-66-3	**Chloroform**	0.92 J	0.92 J	µg/L	GSP-MW-5-062011	1/20	0.16 - 2.7	0.92	NA	**0.19 C**	80	80	**Yes**	ASL
	74-87-3	Chloromethane	0.42 J	0.42 J	µg/L	GSP-MW-8-062311	1/20	0.3 - 5	0.42	NA	19 N	19	NA	No	BSL
	156-59-2	cis-1,2-Dichloroethene	0.32 J	4.5	µg/L	GSP-SB/WP-89-20100528	7/20	0.17 - 2.8	4.5	NA	7.3 N	70	70	No	BSL
	- -	m+p-Xylenes	0.71 J	0.71 J	µg/L	GSP-MW-1-061711	1/20	0.24 - 4	0.71	NA	20 N	10000 [9]	NA	No	BSL
	95-47-6	o-Xylene	0.33 J	0.33 J	µg/L	GSP-MW-1-061711	1/20	0.14 - 2.3	0.33	NA	20 N	10000 [9]	NA	No	BSL
	75-65-0	Tertiary-Butyl Alcohol	6.9 J	6.9 J	µg/L	GSP-SB-WP-66-062311	1/1	-	6.9	NA	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.13 J	22	µg/L	GSP-SB-WP-66-062311	3/20	0.13 - 2.2	22	NA	230 N	1000	1000	No	BSL
	1330-20-7	Total Xylenes	1 J	1 J	µg/L	GSP-MW-1-061711	1/20	0.28 - 4.7	1	NA	20 N	10000 [9]	10000	No	BSL
	156-60-5	trans-1,2-Dichloroethene	0.19 J	0.22 J	µg/L	GSP-SB/WP-89-20100528	2/20	0.19 - 3.2	0.22	NA	11 N	100	100	No	BSL
	79-01-6	**Trichloroethene**	0.27 J	450	µg/L	GSP-MW-7-062211	10/20	0.17 - 0.17	450	NA	**0.66 C**[13]	**5**	**5**	**Yes**	ASL
	75-01-4	**Vinyl Chloride**	0.28 J	0.66 J	µg/L	GSP-MW-4-062011	2/20	0.22 - 3.7	0.66	NA	**0.016 C**	2	2	**Yes**	ASL
	SEMIVOLATILES														
	106-44-5	4-Methylphenol	2.1	8.4	µg/L	GSP-SB/WP-83-20100528	2/6	0.8 - 0.8	8.4	NA	18 N	18	NA	No	BSL
	117-81-7	Bis(2-ethylhexyl)phthalate	0.85 J	1.3 J	µg/L	GSP-SB/WP-84-20100526	3/20	0.76 - 1.2	1.3	NA	4.8 C	6	6	No	BSL
	85-68-7	Butyl Benzyl Phthalate	0.82 J	2.3	µg/L	GSP-SB/WP-66-20100527	4/20	0.76 - 1.2	2.3	NA	35 C	NA	NA	No	BSL
	105-60-2	Caprolactam	0.77 J	0.77 J	µg/L	GSP-MW-1-061711	1/20	0.76 - 1.2	0.77	NA	1800 N	NA	NA	No	BSL
	108-95-2	Phenol	0.69 J	1.7	µg/L	GSP-SB/WP-66-20100527, GSP-SB/WP-83-20100528	5/20	0.57 - 0.91	1.7	NA	1100 N	1100	NA	No	BSL
	DISSOLVED METALS														
	7440-36-0	Antimony	0.23 J	0.49 J	µg/L	GSP-SB-WP-66-062311	2/20	0.06 - 0.55	0.49	NA	1.5 N	6	6	No	BSL
	7440-38-2	**Arsenic**	0.27 J	9.4 J	µg/L	GSP-SB-WP-83-062211	15/20	0.092 - 0.66	9.4	NA	**0.045 C**	10	10	**Yes**	ASL
	7440-39-3	Barium	10	120	µg/L	GSP-MW-3-061711	20/20	-	120	NA	730 N	2000	2000	No	BSL
	7440-41-7	Beryllium	0.16 J	2.8	µg/L	GSP-MW-5-062011	9/20	0.0059 - 0.092	2.8	NA	7.3 N	4	4	No	BSL
	7440-43-9	Cadmium	0.053 J	1.3	µg/L	GSP-MW-5-062011	9/20	0.044 - 0.13	1.3	NA	1.8 N	5	5	No	BSL
	7440-47-3	**Chromium**	0.11 J	5.8	µg/L	GSP-SB/WP-83-20100528	14/20	0.11 - 0.65	5.8	NA	**0.043 C**[10]	100 [10]	100 [11]	**Yes**	ASL
	7440-48-4	**Cobalt**	0.42 J	220	µg/L	GSP-SB-WP-84-062311	20/20	-	220	NA	**1.1 N**	NA	NA	**Yes**	ASL
	7440-50-8	Copper	0.39 J	36	µg/L	GSP-MW-3-061711	14/20	0.42 - 3.3	36	NA	150 N	1300	1300	No	BSL
	7439-89-6	**Iron**	464	19800	µg/L	GSP-SB/WP-83-20100528	6/6	-	19800	NA	**2600 N**	**300**	NA	**Yes**	ASL
	7439-92-1	Lead	1.2 J	2.7	µg/L	GSP-SB-WP-66-062311	4/20	0.071 - 0.5	2.7	NA	NA	15	15	No	BSL
	7439-96-5	**Manganese**	27.5	772	µg/L	GSP-SB/WP-71-20100528	6/6	-	772	NA	**88 N**	**50**	NA	**Yes**	ASL
	7439-97-6	Mercury	0.09 J	0.09 J	µg/L	GSP-MW-7-062211	1/20	0.066 - 0.1	0.09	NA	1.1 N[12]	2	2	No	BSL
	7439-98-7	Molybdenum	1 J	5.4	µg/L	GSP-SB/WP-71-20100528	5/20	0.27 - 2.9	5.4	NA	18 N	NA	NA	No	BSL
	7440-02-0	**Nickel**	0.73 J	410	µg/L	GSP-SB-WP-84-062311	18/20	0.63 - 0.63	410	NA	**73 N**	**73**	NA	**Yes**	ASL
	7782-49-2	Selenium	0.35 J	5.2	µg/L	GSP-MW-8-062311	7/20	0.15 - 0.87	5.2	NA	18 N	50	50	No	BSL
	7440-28-0	**Thallium**	1.1 J	1.1 J	µg/L	GSP-SB-WP-84-062311	1/20	0.13 - 1	1.1	NA	**0.037 N**	2	2	**Yes**	ASL
	7440-62-2	**Vanadium**	0.45 J	13 J	µg/L	GSP-SB-WP-66-062311, GSP-SB-WP-84-062311	12/20	0.3 - 0.43	13	NA	18 N	**3.7**	NA	**Yes**	ASL

Table 5-12

Occurrence, Distribution, and Selection of Globle Chemicals of Potential Concern - All Groundwater - Direct Contact
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Tap Water[5]	MDE Cleanup Standard - Groundwater[6]	USEPA MCL[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
	7440-66-6	**Zinc**	4.9 J	1600 J	µg/L	GSP-SB-WP-84-062311	15/20	0.5 - 22.6	1600	NA	**1100 N**	5000	NA	**Yes**	ASL
	TOTAL METALS														
RECs 9, 10, 11	7440-36-0	Antimony	0.43 J	0.53 J	µg/L	GSP-SB-WP-66-062311	2/20	0.073 - 0.39	0.53	NA	1.5 N	6	6	No	BSL
	7440-38-2	**Arsenic**	0.42 J	11 J	µg/L	GSP-MW-3-061711, GSP-SB-WP-83-062211	19/20	0.48 - 0.48	11	NA	**0.045 C**	**10**	**10**	**Yes**	ASL
	7440-39-3	Barium	16	120	µg/L	GSP-MW-1-061711	20/20	-	120	NA	730 N	2000	2000	No	BSL
	7440-41-7	Beryllium	0.12 J	3.5	µg/L	GSP-MW-5-062011	11/20	0.0059 - 0.12	3.5	NA	7.3 N	4	4	No	BSL
	7440-43-9	Cadmium	0.07 J	1.4	µg/L	GSP-MW-5-062011	10/20	0.026 - 0.14	1.4	NA	1.8 N	5	5	No	BSL
	7440-47-3	**Chromium**	0.79 J	8.2	µg/L	GSP-SB-WP-66-062311	17/20	0.36 - 0.73	8.2	NA	**0.043 C**[10]	100 [10]	100 [11]	**Yes**	ASL
	7440-48-4	**Cobalt**	0.68 J	210	µg/L	GSP-SB-WP-84-062311	20/20	-	210	NA	**1.1 N**	NA	NA	**Yes**	ASL
	7440-50-8	Copper	0.93 J	39	µg/L	GSP-SB-WP-61-062211	15/20	0.65 - 5.6	39	NA	150 N	1300	1300	No	BSL
	7439-89-6	**Iron**	5040	20800	µg/L	GSP-SB/WP-83-20100528	6/6	-	20800	NA	**2600 N**	**300**	NA	**Yes**	ASL
	7439-92-1	Lead	0.58 J	8.5	µg/L	GSP-SB-WP-66-062311	13/20	0.073 - 0.84	8.5	NA	NA	15	15	No	BSL
	7439-96-5	**Manganese**	29.8	756	µg/L	GSP-SB/WP-71-20100528	6/6	-	756	NA	**88 N**	**50**	NA	**Yes**	ASL
	7439-97-6	Mercury	0.073 J	0.19 J	µg/L	GSP-MW-7-062211	2/20	0.066 - 0.1	0.19	NA	1.1 N[12]	2	2	No	BSL
	7439-98-7	Molybdenum	0.47 J	5.9	µg/L	GSP-MW-5-062011	6/20	0.27 - 2.6	5.9	NA	18 N	NA	NA	No	BSL
	7440-02-0	**Nickel**	0.69 J	380	µg/L	GSP-SB-WP-84-062311	19/20	0.63 - 0.63	380	NA	**73 N**	**73**	NA	**Yes**	ASL
	7782-49-2	Selenium	0.36 J	5.2	µg/L	GSP-MW-8-062311	8/20	0.26 - 0.9	5.2	NA	18 N	50	50	No	BSL
	7440-28-0	**Thallium**	1.1 J	1.1 J	µg/L	GSP-SB-WP-84-062311	1/20	0.13 - 1.1	1.1	NA	**0.037 N**	2	2	**Yes**	ASL
	7440-62-2	**Vanadium**	0.37 J	48	µg/L	GSP-MW-3-061711	19/20	0.3 - 0.3	48	NA	**18 N**	**3.7**	NA	**Yes**	ASL
	7440-66-6	**Zinc**	6 J	1500 J	µg/L	GSP-SB-WP-84-062311	15/20	3.5 - 98.1	1500	NA	**1100 N**	5000	NA	**Yes**	ASL
	PETROLEUM HYDROCARBONS														
	- -	**Diesel Range Organics**	42 J	1600	µg/L	GSP-MW-6-062011	9/20	30 - 740	1600	NA	NA	**47**	NA	**Yes**	ASL
	- -	**Gasoline Range Organics**	27 J	300	µg/L	GSP-MW-7-062211	3/20	25 - 53	300	NA	NA	**47**	NA	**Yes**	ASL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available for groundwater.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, June 2011.
Adjusted values correspond to a cancer risk level of 1E-06 or a hazard quotient (HQ) of 0.1.
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - 2011 Edition of the Drinking Water Standards and Health Advisories (USEPA, January 2011).
8 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
9 - Value is for xylenes.
10 - The value is for hexavalent chromium.
11 - The value is for total chromium.
12 - The value is for mercuric chloride (and other mercury salts).
13 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.

Definitions:
C = carcinogen
COPC = chemical of potential concern
J = estimated value
N = non-carcinogen
NA = not applicable/not available
µg/L = microgram per liter

Rationale Codes:
For selection as a COPC:
ASL = above screening level

For elimination as a COPC:
BSL = below screening level
NTX = no toxicity criteria

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples:

GSP-MW-1-061711	GSP-SB/WP-61-20100527	GSP-SB/WP-83-20100528
GSP-MW-2-061711	GSP-SB-WP-61-062211	GSP-SB-WP-83-062211
GSP-MW-3-061711	GSP-SB-WP-61-062311	GSP-SB/WP-84-20100526
GSP-MW-4-062011	GSP-SB/WP-66-20100527	GSP-SB-WP-84-062311
GSP-MW-5-062011	GSP-SB-WP-66-062311	GSP-SB/WP-89-20100528
GSP-MW-6-062011	GSP-SB-WP-66-062411	GSP-SB-WP-89-062311
GSP-MW-7-062211	GSP-SB/WP-71-20100528	
GSP-MW-8-062311	GSP-SB-WP-71-062111	

TABLE 5-13
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL GROUNDWATER - VAPOR INTRUSION
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted Groundwater Volatilization Criterion[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
RECs 9, 10, 11	**VOLATILES**														
	75-35-4	1,1-Dichloroethene	0.45 J	1.3	µg/L	GSP-SB/WP-89-20100528	3/20	0.19 - 3.2	1.3	NA	20 N	NA	NA	No	BSL
	95-63-6	1,2,4-Trimethylbenzene	0.26 J	0.26 J	µg/L	GSP-MW-1-061711	1/20	0.12 - 2	0.26	NA	2.9 N	NA	NA	No	BSL
	78-93-3	2-Butanone	0.62 J	3.2 J	µg/L	GSP-SB-WP-66-062311	2/20	0.57 - 9.5	3.2	NA	220000 N	NA	NA	No	BSL
	67-64-1	Acetone	1.5 J	2.6 J	µg/L	GSP-MW-6-062011	4/20	1.1 - 22	2.6	NA	2200000 N	NA	NA	No	BSL
	71-43-2	**Benzene**	0.13 J	3.1 J	µg/L	GSP-MW-7-062211	2/20	0.13 - 0.35	3.1	NA	**1.4 C**	NA	NA	**Yes**	ASL
	75-15-0	Carbon Disulfide	0.27 J	0.27 J	µg/L	GSP-SB-WP-66-062311	1/20	0.13 - 2.2	0.27	NA	120 N	NA	NA	No	BSL
	56-23-5	**Carbon Tetrachloride**	2.6	2.6	µg/L	GSP-MW-5-062011	1/20	0.13 - 2.2	2.6	NA	**0.36 C**	NA	NA	**Yes**	ASL
	67-66-3	**Chloroform**	0.92 J	0.92 J	µg/L	GSP-MW-5-062011	1/20	0.16 - 2.7	0.92	NA	**0.73 C**	NA	NA	**Yes**	ASL
	74-87-3	Chloromethane	0.42 J	0.42 J	µg/L	GSP-MW-8-062311	1/20	0.3 - 5	0.42	NA	26 N	NA	NA	No	BSL
	156-59-2	cis-1,2-Dichloroethene	0.32 J	4.5	µg/L	GSP-SB/WP-89-20100528	7/20	0.17 - 2.8	4.5	NA	38 N[7]	NA	NA	No	BSL
	- -	m+p-Xylenes	0.71 J	0.71 J	µg/L	GSP-MW-1-061711	1/20	0.24 - 4	0.71	NA	34 N[8]	NA	NA	No	BSL
	95-47-6	o-Xylene	0.33 J	0.33 J	µg/L	GSP-MW-1-061711	1/20	0.14 - 2.3	0.33	NA	47 N	NA	NA	No	BSL
	75-65-0	Tertiary-Butyl Alcohol	6.9 J	6.9 J	µg/L	GSP-SB-WP-66-062311	1/1	-	6.9	NA	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.13 J	22	µg/L	GSP-SB-WP-66-062311	3/20	0.13 - 2.2	22	NA	1900 N	NA	NA	No	BSL
	1330-20-7	Total Xylenes	1 J	1 J	µg/L	GSP-MW-1-061711	1/20	0.28 - 4.7	1	NA	47 N	NA	NA	No	BSL
	156-60-5	trans-1,2-Dichloroethene	0.19 J	0.22 J	µg/L	GSP-SB/WP-89-20100528	2/20	0.19 - 3.2	0.22	NA	38 N	NA	NA	No	BSL
	79-01-6	**Trichloroethene**	0.27 J	450	µg/L	GSP-MW-7-062211	10/20	0.17 - 0.17	450	NA	**0.52 N[9]**	NA	NA	**Yes**	ASL
	75-01-4	**Vinyl Chloride**	0.28 J	0.66 J	µg/L	GSP-MW-4-062011	2/20	0.22 - 3.7	0.66	NA	**0.14 C**	NA	NA	**Yes**	ASL
	SEMIVOLATILES														
	106-44-5	4-Methylphenol	2.1	8.4	µg/L	GSP-SB/WP-83-20100528	2/6	0.8 - 0.8	8.4	NA	15000000	NA	NA	No	BSL
	117-81-7	Bis(2-ethylhexyl)phthalate	0.85 J	1.3 J	µg/L	GSP-SB/WP-84-20100526	3/20	0.76 - 1.2	1.3	NA	91000 C	NA	NA	No	BSL
	85-68-7	Butyl Benzyl Phthalate	0.82 J	2.3	µg/L	GSP-SB/WP-66-20100527	4/20	0.76 - 1.2	2.3	NA	NA	NA	NA	No	NTX
	105-60-2	Caprolactam	0.77 J	0.77 J	µg/L	GSP-MW-1-061711	1/20	0.76 - 1.2	0.77	NA	NA	NA	NA	No	NTX
	108-95-2	Phenol	0.69 J	1.7	µg/L	GSP-SB/WP-66-20100527, GSP-SB/WP-83-20100528	5/20	0.57 - 0.91	1.7	NA	15000000	NA	NA	No	BSL
	DISSOLVED METALS														
	7440-36-0	Antimony	0.23 J	0.49 J	µg/L	GSP-SB-WP-66-062311	2/20	0.06 - 0.55	0.49	NA	NA	NA	NA	No	NTX
	7440-38-2	Arsenic	0.27 J	9.4 J	µg/L	GSP-SB-WP-83-062211	15/20	0.092 - 0.66	9.4	NA	NA	NA	NA	No	NTX
	7440-39-3	Barium	10	120	µg/L	GSP-MW-3-061711	20/20	-	120	NA	NA	NA	NA	No	NTX
	7440-41-7	Beryllium	0.16 J	2.8	µg/L	GSP-MW-5-062011	9/20	0.0059 - 0.092	2.8	NA	NA	NA	NA	No	NTX
	7440-43-9	Cadmium	0.053 J	1.3	µg/L	GSP-MW-5-062011	9/20	0.044 - 0.13	1.3	NA	NA	NA	NA	No	NTX
	7440-47-3	Chromium	0.11 J	5.8	µg/L	GSP-SB/WP-83-20100528	14/20	0.11 - 0.65	5.8	NA	NA	NA	NA	No	NTX
	7440-48-4	Cobalt	0.42 J	220	µg/L	GSP-SB-WP-84-062311	20/20	-	220	NA	NA	NA	NA	No	NTX
	7440-50-8	Copper	0.39 J	36	µg/L	GSP-MW-3-061711	14/20	0.42 - 3.3	36	NA	NA	NA	NA	No	NTX
	7439-89-6	Iron	464	19800	µg/L	GSP-SB/WP-83-20100528	6/6	-	19800	NA	NA	NA	NA	No	NTX
	7439-92-1	Lead	1.2 J	2.7	µg/L	GSP-SB-WP-66-062311	4/20	0.071 - 0.5	2.7	NA	NA	NA	NA	No	NTX
	7439-96-5	Manganese	27.5	772	µg/L	GSP-SB/WP-71-20100528	6/6	-	772	NA	NA	NA	NA	No	NTX
	7439-97-6	Mercury	0.09 J	0.09 J	µg/L	GSP-MW-7-062211	1/20	0.066 - 0.1	0.09	NA	NA	NA	NA	No	NTX
	7439-98-7	Molybdenum	1 J	5.4	µg/L	GSP-SB/WP-71-20100528	5/20	0.27 - 2.9	5.4	NA	NA	NA	NA	No	NTX
	7440-02-0	Nickel	0.73 J	410	µg/L	GSP-SB-WP-84-062311	18/20	0.63 - 0.63	410	NA	NA	NA	NA	No	NTX
	7782-49-2	Selenium	0.35 J	5.2	µg/L	GSP-MW-8-062311	7/20	0.15 - 0.87	5.2	NA	NA	NA	NA	No	NTX
	7440-28-0	Thallium	1.1 J	1.1 J	µg/L	GSP-SB-WP-84-062311	1/20	0.13 - 1	1.1	NA	NA	NA	NA	No	NTX
	7440-62-2	Vanadium	0.45 J	13 J	µg/L	GSP-SB-WP-66-062311, GSP-SB-WP-84-062311	12/20	0.3 - 0.43	13	NA	NA	NA	NA	No	NTX
	7440-66-6	Zinc	4.9 J	1600 J	µg/L	GSP-SB-WP-84-062311	15/20	0.5 - 22.6	1600	NA	NA	NA	NA	No	NTX

TABLE 5-13
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL GROUNDWATER - VAPOR INTRUSION
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	Adjusted Groundwater Volatilization Criterion(5)	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection(6)
RECs 9, 10, 11	**METALS**														
	7440-36-0	Antimony	0.43 J	0.53 J	µg/L	GSP-SB-WP-66-062311	2/20	0.073 - 0.39	0.53	NA	NA	NA	NA	No	NTX
	7440-38-2	Arsenic	0.42 J	11 J	µg/L	GSP-MW-3-061711, GSP-SB-WP-83-062211	19/20	0.48 - 0.48	11	NA	NA	NA	NA	No	NTX
	7440-39-3	Barium	16	120	µg/L	GSP-MW-1-061711	20/20	-	120	NA	NA	NA	NA	No	NTX
	7440-41-7	Beryllium	0.12 J	3.5	µg/L	GSP-MW-5-062011	11/20	0.0059 - 0.12	3.5	NA	NA	NA	NA	No	NTX
	7440-43-9	Cadmium	0.07 J	1.4	µg/L	GSP-MW-5-062011	10/20	0.026 - 0.14	1.4	NA	NA	NA	NA	No	NTX
	7440-47-3	Chromium	0.79 J	8.2	µg/L	GSP-SB-WP-66-062311	17/20	0.36 - 0.73	8.2	NA	NA	NA	NA	No	NTX
	7440-48-4	Cobalt	0.68 J	210	µg/L	GSP-SB-WP-84-062311	20/20	-	210	NA	NA	NA	NA	No	NTX
	7440-50-8	Copper	0.93 J	39	µg/L	GSP-SB-WP-61-062211	15/20	0.65 - 5.6	39	NA	NA	NA	NA	No	NTX
	7439-89-6	Iron	5040	20800	µg/L	GSP-SB/WP-83-20100528	6/6	-	20800	NA	NA	NA	NA	No	NTX
	7439-92-1	Lead	0.58 J	8.5	µg/L	GSP-SB-WP-66-062311	13/20	0.073 - 0.84	8.5	NA	NA	NA	NA	No	NTX
	7439-96-5	Manganese	29.8	756	µg/L	GSP-SB/WP-71-20100528	6/6	-	756	NA	NA	NA	NA	No	NTX
	7439-97-6	Mercury	0.073 J	0.19 J	µg/L	GSP-MW-7-062211	2/20	0.066 - 0.1	0.19	NA	NA	NA	NA	No	NTX
	7439-98-7	Molybdenum	0.47 J	5.9	µg/L	GSP-MW-5-062011	6/20	0.27 - 2.6	5.9	NA	NA	NA	NA	No	NTX
	7440-02-0	Nickel	0.69 J	380	µg/L	GSP-SB-WP-84-062311	19/20	0.63 - 0.63	380	NA	NA	NA	NA	No	NTX
	7782-49-2	Selenium	0.36 J	5.2	µg/L	GSP-MW-8-062311	8/20	0.26 - 0.9	5.2	NA	NA	NA	NA	No	NTX
	7440-28-0	Thallium	1.1 J	1.1 J	µg/L	GSP-SB-WP-84-062311	1/20	0.13 - 1.1	1.1	NA	NA	NA	NA	No	NTX
	7440-62-2	Vanadium	0.37 J	48	µg/L	GSP-MW-3-061711	19/20	0.3 - 0.3	48	NA	NA	NA	NA	No	NTX
	7440-66-6	Zinc	6 J	1500 J	µg/L	GSP-SB-WP-84-062311	15/20	3.5 - 98.1	1500	NA	NA	NA	NA	No	NTX
	PETROLEUM HYDROCARBONS														
	- -	Diesel Range Organics	42 J	1600	µg/L	GSP-MW-6-062011	9/20	30 - 740	1600	NA	NA	NA	NA	No	NTX
	- -	Gasoline Range Organics	27 J	300	µg/L	GSP-MW-7-062211	3/20	25 - 53	300	NA	NA	NA	NA	No	NTX

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available for groundwater.
5 - Calculated using methodology presented in Appendix D of USEPA's Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils, November 2002. EPA530-F-02-052. Adjusted values correspond to a target cancer risk level of 1E-06 or a hazard quotient (HQ) of 0.1 and an attenuation factor of 0.001.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
7 - Value is for trans-1,2-dichloroethene.
8 - Value is for m-xylene.
9 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples:

GSP-MW-1-061711	GSP-SB/WP-66-20100527
GSP-MW-2-061711	GSP-SB-WP-66-062311
GSP-MW-3-061711	GSP-SB-WP-66-062411
GSP-MW-4-062011	GSP-SB/WP-71-20100528
GSP-MW-5-062011	GSP-SB-WP-71-062111
GSP-MW-6-062011	GSP-SB/WP-83-20100528
GSP-MW-7-062211	GSP-SB-WP-83-062211
GSP-MW-8-062311	GSP-SB/WP-84-20100526
GSP-SB/WP-61-201005	GSP-SB-WP-84-062311
GSP-SB-WP-61-062211	GSP-SB/WP-89-20100528
GSP-SB-WP-61-062311	GSP-SB-WP-89-062311

Definitions:
ARAR/TBC = Applicable or relevant and appropriate requirements to be considered
C = Carcinogen
COPC = Chemical of potential concern
J = Estimated value
N = Non-carcinogen
NA = Not applicable/not available
µg/L = microgram per liter

Rationale Codes:
For selection as a COPC:
ASL = Above screening level

For elimination as a COPC:
BSL = Below screening level
NTX = No toxicity criteria

Table 5-14

Chemicals Retained as Global COPC
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Surface Soil (0-2 Feet)			Subsurface Soil (2-10 Feet)			Groundwater	
	Direct Contact	Soil to Air	Soil to Groundwater	Direct Contact	Soil to Air	Soil to Groundwater	Direct Contact	Vapor Intrusion
Volatile Organic Compounds								
1,2,4-Trimethylbenzene						X		
1,3-Dichlorobenzene			X					
Benzene			X			X	X	X
Carbon Tetrachloride							X	X
Chloroform							X	X
Ethylbenzene						X		
m+p-Xylenes						X		
Methylene Chloride			X			X		
Naphthalene			X	X	X	X		
o-Xylene						X		
Total Xylenes						X		
Trichloroethene			X		X	X	X	X
Vinyl Chloride						X	X	X
Semivolatile Organic Compounds								
1,1-Biphenyl						X		
2-Methylnaphthalene			X			X		
BaP Equivalent[(1)]	X			X				
Benzo(a)anthracene	X		X	X		X		
Benzo(a)pyrene	X		X	X		X		
Benzo(b)fluoranthene	X		X	X		X		
Benzo(k)fluoranthene	X		X	X		X		
Carbazole			X			X		
Chrysene	X		X			X		
Dibenzo(a,h)anthracene	X		X	X		X		
Dibenzofuran			X			X		
Indeno(1,2,3-cd)pyrene	X		X	X		X		
Naphthalene			X	X		X		
n-Nitroso-di-n-propylamine	X		X					

Table 5-14

Chemicals Retained as Global COPC
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Surface Soil (0-2 Feet)			Subsurface Soil (2-10 Feet)			Groundwater	
	Direct Contact	Soil to Air	Soil to Groundwater	Direct Contact	Soil to Air	Soil to Groundwater	Direct Contact	Vapor Intrusion
Polychlorinated Biphenyls								
Aroclor-1242						X		
Aroclor-1260	X		X	X		X		
Total Aroclor	X		X	X		X		
Inorganics								
Antimony			X			X		
Arsenic	X		X	X		X	X	
Chromium[(2)]	X		X	X		X	X	
Cobalt	X		X	X		X	X	
Copper						X		
Iron	X		X	X		X	X	
Lead			X			X		
Manganese	X		X	X		X	X	
Mercury			X			X		
Nickel							X	
Selenium			X					
Thallium	X		X	X		X	X	
Vanadium	X			X		X	X	
Zinc							X	
Petroleum Hydrocarbons								
Diesel Range Organics	X			X			X	
Gasoline Range Organics							X	

Notes:
1 - See text for benzo(a)pyrene (BaP) equivalent calculation methodology.
2 - Total chromium was selected as a COPC using hexavalent chromium screening criteria.

COPC = chemical of potential concern
X = Chemical was retained as a global COPC.

Table 5-15

Selection of Exposure Pathways
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Surface Soil	Surface Soil	Greater Strawberry Point	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with surface soil during excavation activities.
				Commercial/ Industrial Worker	Adult	Ingestion Dermal	Quant Quant	Industrial workers may contact surface soil during normal work activities.
				Trespassers	Child	Ingestion Dermal	Quant Quant	Child trespassers may contact surface soil while at the site.
					Adolescent	Ingestion Dermal	Quant Quant	Adolescent trespassers may contact surface soil while at the site.
		Air	Greater Strawberry Point	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to fugitive dust and volatile emissions from surface soil during construction activities.
				Commercial/ Industrial Worker	Adult	Inhalation	Quant	Industrial workers may be exposed to fugitive dust and volatile emissions from surface soil during work activities.
				Trespassers	Child	Inhalation	Quant	Child trespassers may be exposed to fugitive dust and volatile emissions from surface soil while at the site.
					Adolescent	Inhalation	Quant	Adolescent trespassers may be exposed to fugitive dust and volatile emissions from surface soil while at the site.
	Subsurface Soil	Subsurface Soil	Greater Strawberry Point	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with subsurface soil during excavation activities.
				Commercial/ Industrial Worker	Adult	Ingestion Dermal	Quant Quant	Although exposure to subsurface soil by industrial workers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
				Trespassers	Child	Ingestion Dermal	Quant Quant	Although exposure to subsurface soil by child trespassers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Ingestion Dermal	Quant Quant	Although exposure to subsurface soil by adolescent trespassers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
		Air	Greater Strawberry Point	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to fugitive dust and volatile emissions from subsurface soil during construction activities.
				Commercial/ Industrial Worker	Adult	Inhalation	Quant	Although exposure to subsurface soil by industrial workers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
				Trespassers	Child	Inhalation	Quant	Although exposure to subsurface soil by child trespassers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Inhalation	Quant	Although exposure to subsurface soil by adolescent trespassers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.

Table 5-15

Selection of Exposure Pathways
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Groundwater	Groundwater	Greater Strawberry Point	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with groundwater during excavation activities.
				Commercial/ Industrial Worker	Adult	Ingestion Dermal	None None	Industrial workers are not expected to have contact with groundwater.
				Trespassers	Child	Ingestion Dermal	None None	Adolescent trespassers are not expected to be exposed to groundwater.
					Adolescent	Ingestion Dermal	None None	Adolescent trespassers are not expected to be exposed to groundwater.
		Air	Greater Strawberry Point	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to COPCs that have volatilized from groundwater during excavation activities.
				Commercial/ Industrial Worker	Adult	Inhalation	None	Industrial workers are not expected to be exposed to COPCs that have volatilized from groundwater.
				Trespassers	Child	Inhalation	None	Child trespassers are not expected to be exposed to COPCs that have volatilized from groundwater.
					Adolescent	Inhalation	None	Adolescent trespassers are not expected to be exposed to COPCs that have volatilized from groundwater.
			Vapor Intrusion	Commercial/ Industrial Worker	Adult	Inhalation	Qual	Industrial workers may be exposed to COPCs that have volatilized from groundwater and migrated through building foundations into indoor air.
Future	Surface Soil	Surface Soil	Greater Strawberry Point	Residents	Child	Ingestion Dermal	Quant Quant	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Ingestion Dermal	Quant Quant	
					Adult	Ingestion Dermal	Quant Quant	
				Recreational Users	Child	Ingestion Dermal	Quant Quant	Child recreational users may contact surface soil while at the site.
					Adolescent	Ingestion Dermal	Quant Quant	Adolescent recreational users may contact surface soil while at the site.
					Adult	Ingestion Dermal	Quant Quant	Adult recreational users may contact surface soil while at the site.
		Air	Greater Strawberry Point	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Inhalation	Quant	
					Adult	Inhalation	Quant	
				Recreational Users	Child	Inhalation	Quant	Child recreational users may be exposed to fugitive dust and volatile emissions from surface soil while at the site.
					Adolescent	Inhalation	Quant	Adolescent recreational users may be exposed to fugitive dust and volatile emissions from surface soil while at the site.
					Adult	Inhalation	Quant	Adult recreational users may be exposed to fugitive dust and volatile emissions from surface soil while at the site.

Table 5-15

Selection of Exposure Pathways
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future	Subsurface Soil	Subsurface Soil	Greater Strawberry Point	Residents	Child	Ingestion Dermal	Quant Quant	
					Adolescent	Ingestion Dermal	Quant Quant	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adult	Ingestion Dermal	Quant Quant	
				Recreational Users	Child	Ingestion Dermal	Quant Quant	Although exposure to subsurface soil by child recreational users is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Ingestion Dermal	Quant Quant	Although exposure to subsurface soil by adolescent recreational users is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adult	Ingestion Dermal	Quant Quant	Although exposure to subsurface soil by adult recreational users is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
		Air	Greater Strawberry Point	Residents	Child	Inhalation	Quant	
					Adolescent	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	
				Recreational Users	Child	Inhalation	Quant	Although exposure to subsurface soil by child recreational users is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Inhalation	Quant	Although exposure to subsurface soil by adolescent recreational users is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	Although exposure to subsurface soil by adult recreational users is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
	Groundwater	Groundwater	Greater Strawberry Point	Residents	Child	Ingestion Dermal	Quant Quant	
					Adult	Ingestion Dermal	Quant Quant	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Ingestion Dermal	Quant Quant	
				Recreational Users	Child	Ingestion Dermal	None None	Child recreational users are not expected to be exposed to groundwater.
					Adolescent	Ingestion Dermal	None None	Adolescent recreational users are not expected to be exposed to groundwater.
					Adult	Ingestion Dermal	None None	Adult recreational users are not expected to be exposed to groundwater.

Table 5-15

Selection of Exposure Pathways
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future	Groundwater	Air	Greater Strawberry Point	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	
					Adolescent	Inhalation	Quant	
				Recreational Users	Child	Inhalation	None	Child recreational users are not expected to be exposed to COPCs that have volatilized from groundwater.
					Adolescent	Inhalation	None	Adolescent recreational users are not expected to be exposed to COPCs that have volatilized from groundwater.
					Adult	Inhalation	None	Adult recreational user are not expected to be exposed to COPCs that have volatilized from groundwater.
			Vapor Intrusion	Residents	Child	Inhalation	Qual	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Inhalation	Qual	
					Adult	Inhalation	Qual	

Notes:
COPC - Chemical of potential concern.
Qual - Qualitative.
Quant - Quantitative.

Table 5-16

Receptors and Exposure Routes for Quantitative Evaluation
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Receptors	Exposure Routes
Construction Workers (current/future land use)	• Soil incidental ingestion (surface/subsurface) • Soil dermal contact (surface/subsurface) • Inhalation of air/dust/emissions • Groundwater incidental ingestion (during excavation) • Groundwater dermal contact (during excavation) • Groundwater inhalation of volatile organics (during excavation)
Commercial/Industrial Workers (current/future land use)	• Soil ingestion (surface/subsurface[1]) • Soil dermal contact (surface/subsurface[1]) • Inhalation of air/dust/emissions (surface/subsurface[1]) • Inhalation of vapors intruding into a building from the groundwater[2]
Visitors/Trespassers (child and adolescent) (current/future land use)	• Soil ingestion (surface/subsurface[1]) • Soil dermal contact (surface/subsurface[1]) • Inhalation of air/dust/emissions (surface/subsurface[1])
Recreational Users (child, adolescent, and adult) (future land use)	• Soil ingestion (surface/subsurface[1]) • Soil dermal contact (surface/subsurface[1]) • Inhalation of air/dust/emissions (surface/subsurface[1])
Hypothetical Residents (child, adolescent, and adults) (future land use)	• Soil ingestion (surface/subsurface[1]) • Soil dermal contact (surface/subsurface[1]) • Inhalation of air/dust/emissions (surface/subsurface[1]) • Groundwater ingestion • Groundwater dermal contact (showering/bathing) • Inhalation of volatiles in groundwater (showering/bathing) • Inhalation of vapors intruding into a building from the groundwater [2]

1 – These receptors are not expected to be exposed to subsurface soil, but exposure to subsurface is evaluated to aid in risk management decisions.
2 – The vapor intrusion exposure route is evaluated qualitatively.

Table 5-17

Exposure Point Concentrations
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	RECs 9 & 10						REC 11					
	Surface Soil		Subsurface Soil (mg/kg)		Groundwater (µg/L)		Surface Soil		Subsurface Soil (mg/kg)		Groundwater (ug/L)	
	Maximum	EPC	Maximum	EPC	Maximum	EPC	Maximum	EPC	Maximum	EPC	Maximum	EPC
Volatile Organic Compounds												
Benzene	NA	NA	NA	NA	3.1	3.1[(1)]	NA	NA	NA	NA	0.13	0.13[(1)]
Carbon Tetrachloride	NA	NA	NA	NA	2.6	2.6[(1)]	NA	NA	NA	NA	NA	NA
Chloroform	NA	NA	NA	NA	0.92	0.92[(1)]	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	42	4.5[(8)]	NA	NA	NA	NA	1.7	0.31[(8)]	NA	NA
Trichloroethene	NA	NA	0.36	0.36[(1)]	450	450[(1)]	NA	NA	19	0.0033[(8)]	25	25[(1)]
Vinyl Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.66	0.66[(1)]
Semivolatile Organic Compounds												
Benzo(a)pyrene Equivalents	19	7.8[(2)]	20	2.2[(8)]	NA	NA	7.4	1.8[(4)]	14	2.3[(8)]	NA	NA
Naphthalene	NA	NA	17	1.8[(8)]	NA	NA	NA	NA	2.9	0.37[(8)]	NA	NA
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	0.12	0.12[(1)]	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1260	0.063	0.063[(1)]	0.064	0.064[(1)]	NA	NA	12	1.6[(11)]	2.7	1.2[(2)]	NA	NA
Inorganics												
Arsenic	5.6	2.9[(4)]	6.8	3.8[(3)]	9.7	9.7[(1)]	4.5	3.3[(5)]	52	11.9[(3)]	11	11[(1)]
Chromium	24	11.8[(5)(12)]	39	14.9[(4)(12)]	8.2	8.2[(1)]	24.1	14.4[(5)(12)]	27	13.2[(4)(12)]	7.5	7.5[(1)]
Cobalt	7.1	2.9[(4)]	8.8	5.1[(9)]	76	76[(1)]	10.8	3.8[(4)]	6	1.9[(11)]	210	210[(1)]
Iron	12,900	8,400[(5)]	1,020	1020[(1)]	13,600	13,600[(1)]	15,000	10,000[(5)]	15,600	15,600[(1)]	20,800	20,800[(1)]
Manganese	2,390	2,200[(6)]	2	2[(1)]	756	756[(1)]	1,050	370[(4)]	713	713[(1)]	215	215[(1)]
Nickel	NA	NA	NA	NA	53	53[(1)]	NA	NA	NA	NA	380	380[(1)]
Thallium	2.3	0.91[(8)]	1.5	0.81[(8)]	NA	NA	0.92	0.92[(1)]	0.94	0.68[(8)]	1.1	1.1[(1)]
Vanadium	65	24[(7)]	93	25.9[(4)]	23	23[(1)]	54.2	24.7[(4)]	300	72.0[(3)]	48	48[(1)]
Zinc	NA	NA	NA	NA	79	79[(1)]	NA	NA	NA	NA	1,500	1,500[(1)]
Petroleum Hydrocarbons												
Diesel Range Organics	1,200	350[(3)]	1,100	220[(10)]	1,600	1,600[(1)]	1,800	660[(9)]	5,200	1,400[(9)]	360	360[(1)]
Gasoline Range Organics	NA	NA	NA	NA	300	300[(1)]	NA	NA	NA	NA	NA	NA

Table 5-17

Exposure Point Concentrations
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Notes:
1 - The maximum concentration is used as the EPC when there are less than 10 samples or 3 positive detections.
2 - 99% KM (Chebyshev) UCL.
3 - 95% KM (Chebyshev) UCL.
4 - 95% Approximate Gamma UCL.
5 - 95% Student's-t UCL.
6 - 99% Chebyshev (Mean, Sd) UCL.
7 - 95% H-UCL.
8 - 95% KM (t) UCL.
9 - 97.5% KM (Chebyshev) UCL.
10 - 95% KM (Percentile Bootstrap) UCL.
11 - 95% KM (BCA) UCL.
12 - One percent of total chromium in soil was evaluated as hexavalent chromium; therefore, one percent of this EPC was used in the quantitative risk evaluation.

EPC - Exposure point concentration.
kg - kilogram
KM - Kaplan-Meier method
L - liter
µg - microgram
mg - milligram
NA - Not applicable, not a COPC for this medium or exposure unit.
UCL - upper confidence limit

RAGS Part D tables for the exposure point concentrations and ProUCL printouts are included in Appendix H.

Table 5-18

Summary of Exposure Input Parameters - Reasonable Maximum Exposure (RME)
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Exposure Parameter	Visitors/Trespassers		Construction Worker	Adult Commercial/ Industrial Worker	Recreational Users			Future On-Property Resident		
	Child	Adolescent			Child	Adolescent	Adult	Child	Adolescent	Adult
All Exposures										
C_{soil} (mg/kg)	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]
C_{gw} (ug/L)	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]	Maximum or 95% UCL[1]
ED (years)	6[4]	12[4]	1[3]	25[7]	6[4]	12[4]	12[4]	6[2]	12[14]	12[14]
BW (kg)	15[4]	40[4]	70[2]	70[2]	15[4]	40[4]	70[4]	15[2]	40[2]	70[2]
AT_n (days)	ED x 365[2]	ED x 365[2]	ED x 365[2]	ED x 365[2]	ED x 365[2]	ED x 365[2]	ED x 365[2]	ED x 365[2]	ED x 365[2]	ED x 365[2]
AT_c (days)	25550[2]	25550[2]	25550[2]	25550[2]	25550[2]	25550[2]	25550[2]	25550[2]	25550[2]	25550[2]
Incidental Ingestion/Dermal Contact with Soil										
IR (mg/day)	200[4]	100[4]	480[14]	50[14]	200[4]	100[4]	100[4]	200[9]	100[9]	100[9]
EF (days/year)	52[6]	52[6]	250[3]	250[7]	70[5]	70[5]	70[5]	350[7]	350[7]	350[7]
FI (unitless)	1[4]	1[4]	1[3]	1[7]	1[4]	1[4]	1[4]	1[9]	1[9]	1[9]
SA (cm^2)	2800[4]	4320[4]	3280[14]	3300[8]	2800[4]	4320[4]	5700[4]	2800[8]	4320[14]	5700[8]
AF (mg/cm^2-event)	0.2[4]	0.07[4]	0.3[14]	0.2[8]	0.2[4]	0.07[4]	0.07[4]	0.2[8]	0.07[8]	0.07[8]
EV (events/day)	1[8]	1[8]	1[8]	1[8]	1[8]	1[8]	1[8]	1[8]	1[8]	1[8]
ABS (unitless)	Chemical Specific	Chemical Specific	Chemical Specific	Chemical Specific	Chemical Specific	Chemical Specific	Chemical Specific	Chemical Specific	Chemical Specific	Chemical Specific
CF (kg/mg)	1E-06	1E-06	1E-06	1E-06	1E-06	1E-06	1E-06	1E-06	1E-06	1E-06
Inhalation Fugitive Dust/Volatile Emissions from Soil										
C_{air} (mg/m^3)	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated	Calculated
ET (hours/day)	8[3]	8[3]	8[3]	8[3]	8[5]	8[5]	8[5]	24[9]	24[9]	24[9]
PEF (m^3/kg)	3.23E+09[10]	3.23E+09[10]	1.43E+06[7]	3.23E+09[10]	3.23E+09[10]	3.23E+09[10]	3.23E+09[10]	3.23E+09[10]	3.23E+09[10]	3.23E+09[10]
Ingestion/Dermal Contact with Groundwater										
IR (L/day)	-	-	0.20[3]	-	-	-	-	1[13]	2[13]	2[13]
EF (days/year)	-	-	90[3,12]	-	-	-	-	350[9]	350[9]	350[9]
ET (hours/day) and t_{event} (hours/event)	-	-	4[3]	-	-	-	-	1[8]	0.58[8]	0.58[8]
EV (events/day)	-	-	1[3]	-	-	-	-	1[3]	1[3]	1[3]
SA (cm^2)	-	-	3300[8]	-	-	-	-	6600[8]	13100[14]	18000[8]
K_p (cm/hour)	-	-	Chemical Specific	-	-	-	-	Chemical Specific	Chemical Specific	Chemical Specific
t* (hour/event), τ (hour), and B (unitless)	-	-	Chemical Specific	-	-	-	-	Chemical Specific	Chemical Specific	Chemical Specific
CF (L/cm^3)	-	-	1E-03	-	-	-	-	1E-03	1E-03	1E-03
Inhalation of Volatiles from Groundwater										
C_{air} (mg/m^3)	-	-	Calculated	-	-	-	-	-	-	Calculated
ET (hours/day)	-	-	4[3]	-	-	-	-	-	-	1[3]
EF (days/year)	-	-	90[3,12]	-	-	-	-	-	-	350[9]
VF (L/m^3)	-	-	Calculated	-	-	-	-	-	-	Calculated

Table 5-18

Summary of Exposure Input Parameters - Reasonable Maximum Exposure (RME)
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Notes:

ABS	Absorption factor
AF	Soil-to-skin adherence factor
AT_c	Averaging time for carcinogenic effects
AT_n	Averaging time for non-carcinogenic effects
B	Bunge Model partitioning coefficient
BW	Body weight
CF	Conversion factor
cm	centimeter
CR	Contact rate
$C_{soil/gw/air}$	Exposure concentration for soil/groundwater/air
ED	Exposure duration
EF	Exposure frequency
ET	Exposure time
EV	Event frequency
FI	Fraction ingested from contaminated source
IR	Ingestion rate
K_p	Permeability coefficient from water through skin
L	liter
m	meter
mg	milligram
PEF	Particulate emissions factor
Q/C	Inverse of mean concentration at the center of the source
SA	Skin surface area available for contact
τ	Lag time
t*	Time it takes to reach steady-state conditions
t_{event}	Duration of event
UCL	upper confidence limit
VF	Volatization factor

1 - USEPA (United States Environmental Protection Agency), 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10.
2 - USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.
3 - Professional Judgment (see text).
4 - Assumed same as resident.
5 - Recreational users' exposure frequency and time on site are assumed to be 70 days per year and 8 hours per day.
6 - Assumed on site for an average of one day per week.
7 - USEPA, 2002: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.
8 - USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.
9 - USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.
10 - USEPA, 2011: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm. Site-specific values for Philadelphia, PA.
11 - Same as resident exposure to soil.
12 - Construction worker exposures to groundwater are assumed to occur 3 months (90 days) a year.
13 - USEPA, 1997: Exposure Factors Handbook. USEPA/600/8-95/002FA.
14 - MDE (Maryland Department of the Environment), 2008: Cleanup Standards for Soil and Groundwater. Interim Final Guidance, June.

Table 5-19

Chemical Properties for Volatilization from Soil/Groundwater to Outdoor Air Models
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Molecular Weight (g/mole)	Organic Carbon Partition Coefficient (cm^3/g)	Air Diffusivity (cm^2/sec)	Water Diffusivity (cm^2/sec)	Solubility Limit (mg/L)	Henry's Law Constant	
						(Dimensionless)	($atm\text{-}m^3/mole$)
Benzene	7.81E+01	1.46E+02	9.00E-02	1.00E-05	1.79E+03	2.30E-01	5.55E-03
Carbon Tetrachloride	1.54E+02	4.39E+01	5.70E-02	9.80E-06	7.93E+02	1.10E+00	2.76E-02
Chloroform	1.19E+02	3.18E+01	7.70E-02	1.10E-05	7.95E+03	1.50E-01	3.67E-03
cis-1,2-Dichloroethene	9.69E+01	3.96E+01	8.80E-02	1.10E-05	6.41E+03	1.70E-01	4.08E-03
Ethylbenzene	1.06E+02	4.46E+02	6.80E-02	8.50E-06	1.69E+02	3.20E-01	7.88E-03
Methylene Chloride	8.49E+01	2.17E+01	1.00E-01	1.30E-05	1.30E+04	1.30E-01	3.25E-03
Naphthalene	1.28E+02	1.54E+03	6.00E-02	8.40E-06	3.10E+01	1.80E-02	4.40E-04
Trichloroethene	1.31E+02	6.07E+01	6.90E-02	1.00E-05	1.28E+03	4.00E-01	9.85E-03
Vinyl Chloride	6.25E+01	2.17E+01	1.10E-01	1.20E-05	8.80E+03	1.10E+00	2.78E-02

Source:
USEPA, 2011: USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011.

Abbreviations:
atm - atmosphere
cm - centimeter
g - grams
L - liter
m - meter
mg - milligram
sec - second

Table 5-20

Input Parameters for Calculation of the Volatilization from Soil to Outdoor Air Models
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Parameter	Definition	Value	Reference
Q/C	Inverse of mean concentration at center of source (g/m^2-s per kg/m^3).	Receptor specific(1)	USEPA, 2011a, 2002
T	Exposure interval (seconds).	Receptor specific(2)	USEPA, 2002
pb	Dry soil bulk density (g/cm^3).	1.5	USEPA, 2002
ps	Soil particle density (g/cm^3).	2.65	USEPA, 2002
θw	Water-filled soil porosity (L_{pore}/L_{soil}).	0.15	USEPA, 2002
n	Total soil porosity (L_{pore}/L_{soil}).	0.434	USEPA, 2002
Di	Diffusivity in air (cm^2/sec).	Chemical specific(3)	USEPA, 2011b
H'	Dimensionless Henry's Law Constant.	Chemical specific(3)	USEPA, 2011b
S	Solubility limit (mg/L)	Chemical specific(3)	USEPA, 2011b
Dw	Diffusivity in water (cm^2/sec).	Chemical specific(3)	USEPA, 2011b
Koc	Soil organic carbon partition coefficient (cm^3/g).	Chemical specific(3)	USEPA, 2011b
foc	Fraction organic carbon in soil (g/g).	0.006	USEPA, 2002

Notes:
1 - Value is 14.31 for construction workers and 87.36898 for all other receptors evaluated.
2 - Value is 3.2E+07 for construction workers and 9.5E+08 for all other receptors evaluated.
3 - Chemical specific values are presented in Table 6-19.
USEPA 2002: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.
USEPA, 2011a: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm.
Site-specific values for Philadelphia, Pennsylvania.
USEPA 2011b: USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011.

Abbreviations:
cm - centimeter
g - gram
L - liter
m - meter
mg - milligram
sec - second
USEPA - U.S. Environmental Protection Agency

Table 5-21

Intermediate Variables For Calculating DA(Event)
Greater Strawberry Point
Lockheed Martin, Martin State Airport

Chemical of Potential Concern	Media	Dermal Absorption Fraction (soil)	FA	Kp		T(event)		Tau		T*		B
			Value	Value	Units	Value	Units	Value	Units	Value	Units	Value
Volatile Organic Compounds												
Benzene	Groundwater	NA	1	1.5E-02	cm/hr	(1)	hr	2.9E-01	hr	7.0E-01	hr	5.1E-02
Carbon Tetrachloride	Groundwater	NA	1	1.6E-02	cm/hr	(1)	hr	7.8E-01	hr	1.9E+00	hr	7.8E-02
Chloroform	Groundwater	NA	1	6.8E-03	cm/hr	(1)	hr	5.0E-01	hr	1.2E+00	hr	2.9E-02
Naphthalene	Soil	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	Soil, Groundwater	0.03	1	1.16E-02	cm/hr	(1)	hr	5.81E-01	hr	1.39E+00	hr	5.13E-02
Vinyl Chloride	Groundwater	NA	1	5.60E-03	cm/hr	(1)	hr	2.39E-01	hr	5.73E-01	hr	1.70E-02
Semivolatile Organic Compounds												
Benzo(a)anthracene	Soil	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	Soil	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	Soil	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	Soil	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	Soil	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	Soil	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	Soil	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	Soil	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Nitroso-di-n-propylamine	Soil	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls												
Aroclor-1260	Soil	0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Arsenic	Soil, Groundwater	0.03	1	1.0E-03	cm/hr	NA	NA	NA	NA	NA	NA	NA
Chromium	Soil, Groundwater	0.01	1	2.0E-03	cm/hr	NA	NA	NA	NA	NA	NA	NA
Cobalt	Soil, Groundwater	0.01	1	1.0E-03	cm/hr	NA	NA	NA	NA	NA	NA	NA
Iron	Soil, Groundwater	0.01	1	1.0E-03	cm/hr	NA	NA	NA	NA	NA	NA	NA
Manganese	Soil, Groundwater	0.01	1	1.0E-03	cm/hr	NA	NA	NA	NA	NA	NA	NA
Nickel	Groundwater	NA	1	2.0E-04	cm/hr	NA	NA	NA	NA	NA	NA	NA
Thallium	Soil, Groundwater	0.01	1	1.00E-03	cm/hr	NA	NA	NA	NA	NA	NA	NA
Vanadium	Soil, Groundwater	0.01	1	1.0E-03	cm/hr	NA	NA	NA	NA	NA	NA	NA
Zinc	Groundwater	NA	1	6.00E-04	cm/hr	NA	NA	NA	NA	NA	NA	NA
Petroleum Hydrocarbons												
Diesel Range Organics	Soil, Groundwater	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gasoline Range Organics	Groundwater	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
All values are from USEPA's Risk Assessment Guidance for Superfund Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final, July 2004.
1 - T(event) is 4 hours for the construction worker, 1 hour for hypothetical child residents, and 0.58 hours for hypothetical adolescent and adult residents.
FA = fraction absorbed water
Kp = dermal permeability coefficient of compound in water
T(event) = event duration
Tau = lag time
T* = time to reach steady-state
B = dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis
NA = not applicable

TABLE 5-22

NON-CANCER TOXICITY DATA -- ORAL/DERMAL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal[1]	Absorbed RfD for Dermal[2]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfD: Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Volatile Organic Compounds										
Benzene	Subchronic	1.0E-02	mg/kg/day	1	1.0E-02	mg/kg/day	Blood	100/1	PPRTV	9/29/2009
	Chronic	4.0E-03	mg/kg/day	1	4.0E-03	mg/kg/day	Blood	300/1	IRIS	10/10/2011
Carbon Tetrachloride	Subchronic	7.0E-03	mg/kg/day	1	7.0E-03	mg/kg/day	Liver	100/1	ATSDR	9/2005
	Chronic	4.0E-03	mg/kg/day	1	4.0E-03	mg/kg/day	Liver	1000/1	IRIS	10/10/2011
Chloroform	Subchronic	1.0E-01	mg/kg/day	1	1.0E-01	mg/kg/day	Liver	100/1	ATSDR	9/1997
	Chronic	1.0E-02	mg/kg/day	1	1.0E-02	mg/kg/day	Liver	100/1	IRIS	10/10/2011
Naphthalene	Subchronic	6.0E-01	mg/kg/day	1	6.0E-01	mg/kg/day	CNS	90/1	ATSDR	9/2005
	Chronic	2.0E-02	mg/kg/day	1	2.0E-02	mg/kg/day	Body Weight	3000/1	IRIS	10/10/2011
Trichloroethene	Chronic	5.0E-04	mg/kg/day	1	5.0E-04	mg/kg/day	CVS, Fetotoxicity, Immune	10 to 100/1	IRIS	10/10/2011
Vinyl Chloride	Chronic	3.0E-03	mg/kg/day	1	3.0E-03	mg/kg/day	Liver	30/1	IRIS	10/10/2011
Semivolatile Organic Compounds										
BaP Equivalent[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	Subchronic	6.0E-01	mg/kg/day	1	6.0E-01	mg/kg/day	CNS	90/1	ATSDR	9/2005
	Chronic	2.0E-02	mg/kg/day	1	2.0E-02	mg/kg/day	Body Weight	3000/1	IRIS	10/10/2011
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls										
Aroclor-1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics										
Arsenic	Chronic	3.0E-04	mg/kg/day	1	3.0E-04	mg/kg/day	Skin, CVS	3/1	IRIS	10/10/2011
Chromium VI[4]	Subchronic	2.0E-02	mg/kg/day	0.025	5.0E-04	mg/kg/day	None Reported	100/3	HEAST	9/1997
	Chronic	3.0E-03	mg/kg/day	0.025	7.5E-05	mg/kg/day	None Reported	300/3	IRIS	10/10/2011
Cobalt	Subchronic	3.0E-03	mg/kg/day	1	3.0E-03	mg/kg/day	Thyroid	300/1	PPRTV	8/25/2008
	Chronic	3.0E-04	mg/kg/day	1	3.0E-04	mg/kg/day	Blood	NA	PPRTV	8/25/2008
Iron	Subchronic	7.0E-01	mg/kg/day	1	7.0E-01	mg/kg/day	GS	1.5	PPRTV	9/11/2006
	Chronic	7.0E-01	mg/kg/day	1	7.0E-01	mg/kg/day	GS	1.5	PPRTV	9/11/2006
Manganese[5]	Chronic	2.4E-02	mg/kg/day	0.04	9.6E-04	mg/kg/day	CNS	1	IRIS	10/10/2011
Nickel	Chronic	2.0E-02	mg/kg/day	0.04	8.0E-04	mg/kg/day	Body Weight	300/1	IRIS	10/10/2011
Thallium	Subchronic	4.0E-05	mg/kg/day	1	4.0E-05	mg/kg/day	Skin	1/1000	PPRTV	10/2010
	Chronic	1.0E-05	mg/kg/day	1	1.0E-05	mg/kg/day	Skin	1/3000	PPRTV	10/2010
Vanadium	Chronic	5.0E-03	mg/kg/day	1	5.0E-03	mg/kg/day	Kidney	300	RSL	6/2011
Zinc	Chronic	3.0E-01	mg/kg/day	1	3.0E-01	mg/kg/day	Blood	3/1	IRIS	10/10/2011
Petroleum Hydrocarbons										
Diesel Range Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gasoline Range Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
1 - U.S. EPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.
2 - Adjusted dermal RfD = Oral RfD x Oral Absorption Efficiency for Dermal.
3 - See text for BaP equivalent calculation methodology.
4 - Hexavalent chromium toxicity criteria are used to evaluate one percent of total chromium - see text.
5 - Adjusted IRIS value in accordance with recommendations on IRIS.

Definitions:
BaP = benzo(a)pyrene
CNS = central nervous system
CVS = cardiovascular system
GS = gastrointestinal system
HEAST = Health Effects Assessment Summary Tables
IRIS = Integrated Risk Information System
kg = kilogram
mg = milligram
NA = not available
RfD = reference dose
RSL = USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011.
PPRTV = Provisional Peer Reviewed Toxicity Value

TABLE 5-23

NON-CANCER TOXICITY DATA -- INHALATION
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND
PAGE1 OF 2

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD[1]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Volatile Organic Compounds									
Benzene	Subchronic	8.0E-02	mg/m^3	2.3E-02	(mg/kg/day)	Blood	100/1	PPRTV	9/29/2009
	Chronic	3.0E-02	mg/m^3	8.6E-03	(mg/kg/day)	Blood	300/1	IRIS	10/10/2011
Carbon Tetrachloride	Subchronic	1.9E-01	mg/m^3	5.4E-02	(mg/kg/day)	Liver	30/1	ATSDR	9/2005
	Chronic	1.0E-01	mg/m^3	2.9E-02	(mg/kg/day)	Liver	100/1	IRIS	10/10/2011
Chloroform	Subchronic	2.4E-01	mg/m^3	6.9E-02	(mg/kg/day)	Liver	300/1	ATSDR	9/1997
	Chronic	9.8E-02	mg/m^3	2.8E-02	(mg/kg/day)	Liver	NA	ATSDR	9/1997
Naphthalene	Chronic	3.0E-03	mg/m^3	8.6E-04	(mg/kg/day)	Respiratory	3000/1	IRIS	10/10/2011
Trichloroethene	Subchronic	5.4E-01	mg/m^3	1.5E-01	(mg/kg/day)	CNS	300/1	ATSDR	9/1997
	Chronic	2.0E-03	mg/m^3	5.7E-04	(mg/kg/day)	CVS, Immune	10 to 100/1	IRIS	10/10/2011
Vinyl chloride	Subchronic	7.7E-02	mg/m^3	2.2E-02	(mg/kg/day)	Liver	30/1	ATSDR	7/2006
	Chronic	1.0E-01	mg/m^3	2.9E-02	(mg/kg/day)	Liver	30/1	IRIS	10/10/2011
Semivolatile Organic Compounds									
BaP Equivalent[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	Chronic	3.0E-03	mg/m^3	8.6E-04	(mg/kg/day)	Respiratory	3000/1	IRIS	10/10/2011
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls									
Aroclor-1260	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 5-23

NON-CANCER TOXICITY DATA -- INHALATION
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND
PAGE2 OF 2

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD[1]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Inorganics									
Arsenic	Chronic	1.5E-05	mg/m^3	4.3E-06	(mg/kg/day)	Skin, CVS	NA	Cal EPA	9/2009
Chromium VI[3]	Chronic	1.0E-04	mg/m^3	2.9E-05	(mg/kg/day)	Respiratory	300/1	IRIS	10/10/2011
Cobalt	Subchronic	2.0E-05	mg/m^3	5.7E-06	(mg/kg/day)	Respiratory	100/1	PPRTV	8/25/2008
	Chronic	6.0E-06	mg/m^3	1.7E-06	(mg/kg/day)	Respiratory	NA	PPRTV	8/25/2008
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	Chronic	5.0E-05	mg/m^3	1.4E-05	(mg/kg/day)	CNS	1000/1	IRIS	10/10/2011
Inorganics (Continued)									
	Subchronic	2.0E-04	mg/m^3	5.7E-05	(mg/kg/day)	Respiratory	30/1	ATSDR	9/2005
Nickel	Chronic	9.0E-05	mg/m^3	2.6E-05	(mg/kg/day)	Respiratory	30/1	ATSDR	9/2005
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum Hydrocarbons									
Diesel Range Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gasoline Range Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

1 - Extrapolated RfD = RfC *$20m^3$/day / 70 kg

2 - See text for BaP equivalent calculation methodology.

3 - Hexavalent chromium toxicity criteria are used to evaluate one percent of total chromium - see text.

Definitions:

ATSDR = Agency for Toxic Substances and Disease Registry

BaP = benzo(a)pyrene

Cal EPA = California Environmental Protection Agency, Technical Support Document for Describing Available Cancer Slope Factors, September 2009.

CNS = central nervous system

CVS = cardiovascular system

HEAST= Health Effects Assessment Summary Tables

IRIS = Integrated Risk Information System

kg = kilogram

m^3 = cubic meter

mg = milligram

NA = not available

PPRTV = Provisional Peer Reviewed Toxicity Value

RfC = reference concentration

RfD = reference dose

TABLE 5-24

CANCER TOXICITY DATA -- ORAL/DERMAL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal[1]	Absorbed Cancer Slope Factor for Dermal[2]		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Volatile Organic Compounds								
Benzene	5.5E-02	$(mg/kg/day)^{-1}$	1	5.5E-02	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	10/10/2011
Carbon Tetrachloride	7.0E-02	$(mg/kg/day)^{-1}$	1	7.0E-02	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	10/10/2011
Chloroform	3.1E-02	$(mg/kg/day)^{-1}$	1	3.1E-02	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA	9/2009
Naphthalene	NA	NA	NA	NA	NA	C / Inadequate data of carcinogenicity in humans	IRIS	10/10/2011
Trichloroethene	4.6E-02	$(mg/kg/day)^{-1}$	1	4.6E-02	$(mg/kg/day)^{-1}$	Carcinogenic to humans	IRIS	10/10/2011
Vinyl Chloride	7.2E-01	$(mg/kg/day)^{-1}$	1	7.2E-01	$(mg/kg/day)^{-1}$	A / Likely human carcinogen	IRIS	10/10/2011
Semivolatile Organic Compounds								
BaP Equivalent[3][4]	7.3E+00	$(mg/kg/day)^{-1}$	1	7.3E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	10/10/2011
Benzo(a)anthracene[4]	7.3E-01	$(mg/kg/day)^{-1}$	1	7.3E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	ECAO	1993
Benzo(a)pyrene[4]	7.3E+00	$(mg/kg/day)^{-1}$	1	7.3E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	10/10/2011
Benzo(b)fluoranthene[4]	7.3E-01	$(mg/kg/day)^{-1}$	1	7.3E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	ECAO	1993
Benzo(k)fluoranthene[4]	7.3E-02	$(mg/kg/day)^{-1}$	1	7.3E-02	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	ECAO	1993
Chrysene[4]	7.3E-03	$(mg/kg/day)^{-1}$	1	7.3E-03	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	ECAO	1993
Dibenzo(a,h)anthracene[4]	7.3E+00	$(mg/kg/day)^{-1}$	1	7.3E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	ECAO	1993
Indeno(1,2,3-cd)pyrene[4]	7.3E-01	$(mg/kg/day)^{-1}$	1	7.3E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	ECAO	1993
Naphthalene	NA	NA	NA	NA	NA	C / Inadequate data of carcinogenicity in humans	IRIS	10/10/2011
n-Nitroso-di-n-propylamine	7.0E+00	$(mg/kg/day)^{-1}$	1	7.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	10/10/2011
Polychlorinated Biphenyls								
Aroclor-1260	2.0E+00	$(mg/kg/day)^{-1}$	1	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA	9/1996
Inorganics								
Arsenic	1.5E+00	$(mg/kg/day)^{-1}$	1	1.5E+00	$(mg/kg/day)^{-1}$	A	IRIS	10/10/2011
Chromium VI[4][5]	5.0E-01	$(mg/kg/day)^{-1}$	0.025	2.0E+01	$(mg/kg/day)^{-1}$	A / Known human carcinogen	NJDEP	11/2010
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	D (Not classifiable as to human carcinogenicity)	IRIS	10/10/2011
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	D (Not classifiable as to human carcinogenicity)	NA	NA
Petroleum Hydrocarbons								
Diesel Range Organics	NA	NA	NA	NA	NA	NA	NA	NA
Gasoline Range Organics	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 5-24

CANCER TOXICITY DATA -- ORAL/DERMAL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND
PAGE 2 OF 2

Notes:

1 - United States Environmental Protection Agency (USEPA), 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.

2 - Adjusted cancer slope factor for dermal = Oral cancer slope factor / Oral Absorption Efficiency for Dermal.

3 - See text for BaP equivalent calculation methodology.

4 - Benzo(a)pyrene and related compounds and hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

5 - Hexavalent chromium toxicity criteria are used to evaluate one percent of total chromium - see text.

BaP = benzo(a)pyrene

Cal EPA = California Environmental Protection Agency, Technical Support Document for Describing Available Cancer Slope Factors, September 2009.

CSF = cancer slope factor

ECAO = Environmental Criteria and Assessment Office (USEPA, 1993).

IRIS = Integrated Risk Information System

kg = kilogram

mg = milligram

NA = not available

NJDEP = New Jersey Department of Environmental Protection, Derivation of Ingestion-Based Soil Remediation Criterion for Cr+6 Based on the NTP Chronic Bioassay Data for Sodium Dichromate Dihydrate, April 8, 2009.

USEPA = USEPA, PCBs: Cancer Dose-Response Assessment and Applications to Environmental Mixtures, September 1996, EPA/600/P-96/001F.

TABLE 5-25

CANCER TOXICITY DATA -- INHALATION
GREATER STRAWBERRY POINT
LOCKHEE MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND
PAGE 1 OF 2

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor[1]		Weight of Evidence/ Cancer Guideline Description	Unit Risk: Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Volatile Organic Compounds							
Benzene	7.8E-06	$(ug/m^3)^{-1}$	2.7E-02	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	10/10/2011
Carbon Tetrachloride	6.0E-06	$(ug/m^3)^{-1}$	2.1E-02	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	10/10/2011
Chloroform	2.3E-05	$(ug/m^3)^{-1}$	8.1E-02	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	10/10/2011
Naphthalene	3.4E-05	$(ug/m^3)^{-1}$	1.2E-01	$(mg/kg/day)^{-1}$	C / Possible Human Carcinogen	Cal EPA(1)	8/2004
Trichloroethene	4.1E-06	$(ug/m^3)^{-1}$	1.4E-02	$(mg/kg/day)^{-1}$	Carcinogenic to humans	IRIS	10/10/2011
Vinyl Chloride	4.4E-06	$(ug/m^3)^{-1}$	1.5E-02	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	10/10/2011
Semivolatile Organic Compounds							
BaP Equivalent[2][3]	1.1E-03	$(ug/m^3)^{-1}$	3.9E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Benzo(a)anthracene[3]	1.1E-04	$(ug/m^3)^{-1}$	3.9E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Benzo(a)pyrene[3]	1.1E-03	$(ug/m^3)^{-1}$	3.9E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Benzo(b)fluoranthene[3]	1.1E-04	$(ug/m^3)^{-1}$	3.9E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Benzo(k)fluoranthene[3]	1.1E-04	$(ug/m^3)^{-1}$	3.9E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Chrysene[3]	1.1E-05	$(ug/m^3)^{-1}$	3.9E-02	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Dibenzo(a,h)anthracene[3]	1.2E-03	$(ug/m^3)^{-1}$	4.2E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Indeno(1,2,3-cd)pyrene[3]	1.1E-04	$(ug/m^3)^{-1}$	3.9E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Naphthalene	3.4E-05	$(ug/m^3)^{-1}$	1.2E-01	$(mg/kg/day)^{-1}$	C / Possible Human Carcinogen	Cal EPA(1)	8/2004
n-Nitroso-di-n-propylamine	2.0E-03	$(ug/m^3)^{-1}$	7.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Polychlorinated Biphenyls							
Aroclor-1260	5.7E-04	$(ug/m^3)^{-1}$	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA	9/1996
Inorganics							
Arsenic	4.3E-03	$(ug/m^3)^{-1}$	1.5E+01	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	10/10/2011

TABLE 5-25

CANCER TOXICITY DATA -- INHALATION
GREATER STRAWBERRY POINT
LOCKHEE MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND
PAGE 2 OF 2

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor[(1)]		Weight of Evidence/ Cancer Guideline Description	Unit Risk: Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Inorganics (Continued)							
Chromium VI	8.4E-02	$(ug/m^3)^{-1}$	2.9E+02	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	10/10/2011
Cobalt	9.0E-03	$(ug/m^3)^{-1}$	3.2E+01	$(mg/kg/day)^{-1}$	NA	PPRTV	8/25/2008
Iron	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	D / Not classifiable as to human carcinogenicity	IRIS	10/10/2011
Nickel	2.6E-04	$(ug/m^3)^{-1}$	9.1E-01	$(mg/kg/day)^{-1}$	NA	Cal EPA(2)	9/2009
Thallium	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	D (Not classifiable as to human carcinogenicity)	NA	NA
Petroleum Hydrocarbons							
Diesel Range Organics	NA	NA	NA	NA	NA	NA	NA
Gasoline Range Organics	NA	NA	NA	NA	NA	NA	NA

Notes:

1 - Inhalation CSF = Unit Risk * 70 kg / $20m^3$/day.

2 - See text for BaP equivalent calculation methodology.

3 - Benzo(a)pyrene and related compounds and hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

4 - Hexavalent chromium toxicity criteria are used to evaluate one percent of total chromium - see text.

Definitions:

BaP = benzo(a)pyrene

Cal EPA(1) = Adoption of Unit Risk Values for Naphthalene, August 2004.

Cal EPA(2) = California Environmental Protection Agency, Technical Support Document for Describing Available Cancer Slope Factors, September 2009.

CSF = cancer slope factor

IRIS = Integrated Risk Information System.

kg = kilogram

m = meter

mg = milligram

NA = not available

PPRTV = Provisional Peer Reviewed Toxicity Value

ug = microgram

USEPA = USEPA, PCBs: Cancer Dose-Response Assessment and Applications to Environmental Mixtures, September 1996, EPA/600/P-96/001F

Table 5-26

Occurrence and Distribution of Chemicals - Surface Soil (0-2 feet) - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards - Groundwater Protection[1]	USEPA Soil Screening Level (SSL) for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20[1]
Volatile Organics (ug/kg)														
2-BUTANONE	9/33	1.7	J	10	J	GSP-SB-104-0-2	0.87	1.7	4.9	1.8	29000	0	30000	0
ACETONE	9/33	5.9	J	2200	J	GSP-SB-64-0-2	3.9	34	387	109	22000	0	90000	0
CARBON DISULFIDE	2/33	0.8	J	3	J	GSP-SB-101-0-2	0.25	0.53	1.9	0.29	19000	0	6200	0
ETHYLBENZENE	1/33	0.21	J	0.21	J	GSP-SB-106-0-2	0.16	0.31	0.21	0.12	15000	0	34	0
METHYLENE CHLORIDE	4/33	1.7	J	3.6	J	GSP-SB-97-0-2	0.5	4	2.5	0.83	19	0	24	0
N-PROPYLBENZENE	1/33	0.24	J	0.24	J	GSP-SB-106-0-2	0.25	0.48	0.24	0.18	NC	--	50000	0
NAPHTHALENE	1/33	4	J	4	J	GSP-SB-102-0-2	0.11	1.3	4.0	0.24	150	0	9.4	0
O-XYLENE	1/33	0.52	J	0.52	J	GSP-SB-110-0-2	0.2	0.42	0.52	0.16	3000[6]	0	4000	0
TOLUENE	7/33	0.27	J	0.66	J	GSP-SB-110-0-2	0.15	0.29	0.47	0.19	27000	0	32000	0
Semivolatile Organics (ug/kg)														
2-METHYLNAPHTHALENE	9/33	21		1700		GSP-SB-68-0-2	3.6	39	310	88	4400	0	15000	0
ACENAPHTHENE	11/33	17		3300		GSP-SB-68-0-2	3.6	35	459	155	100000	0	440000	0
ACENAPHTHYLENE	12/33	5.7	J	3100		GSP-SB-68-0-2	3.6	35	411	152	100000	0	440000[7]	0
ANTHRACENE	20/33	4.6	J	7600		GSP-SB-68-0-2	3.6	19	634	386	470000	0	7200000	0
BAP EQUIVALENT-HALFND	28/33	15.7		19285		GSP-SB-68-0-2	3.6	3.8	1558	1322	NC	--	NC	--
BAP EQUIVALENT-POS	28/33	8		19235		GSP-SB-68-0-2	3.6	3.8	1552	1317	NC	--	NC	--
BENZO(A)ANTHRACENE	27/33	11		17000		GSP-SB-68-0-2	3.6	19	1204	986	480	7	200	9
BENZO(A)PYRENE	27/33	11		15000		GSP-SB-68-0-2	3.6	19	1207	988	120	11	70	15
BENZO(B)FLUORANTHENE	28/33	14		17000		GSP-SB-68-0-2	3.6	3.8	1282	1088	1500	5	700	6
BENZO(G,H,I)PERYLENE	26/33	7.9		9400		GSP-SB-68-0-2	3.6	19	903	713	680000	0	2400000[8]	0
BENZO(K)FLUORANTHENE	21/33	10		6800		GSP-SB-68-0-2	3.6	19	712	454	15000	0	7000	0
BIS(2-ETHYLHEXYL)PHTHALATE	3/33	25	J	56	J	GSP-SB-64-0-2	20	620	37	47	2900000	0	22000	0
CARBAZOLE	2/33	700		2000		GSP-SB-68-0-2	28	320	1350	118	470	2	NC	--
CHRYSENE	27/33	13		17000		GSP-SB-68-0-2	1.2	6.4	1289	1055	48000	0	22000	0
DI-N-BUTYL PHTHALATE	3/33	16	J	20	J	GSP-SB-104-0-2	16	460	18	30	5000000	0	184000	0
DIBENZO(A,H)ANTHRACENE	6/33	13		1400		GSP-SB-71-0-2	3.6	100	338	67	460	2	220	2
DIBENZOFURAN	3/33	9.1	J	1200	J	GSP-SB-68-0-2	3.4	230	503	63	NC	--	13600	0
DIETHYL PHTHALATE	1/33	45	J	45	J	GSP-SB-104-0-2	17	490	45	32	450000	0	240000	0
FLUORANTHENE	30/33	5.2	J	33000		GSP-SB-68-0-2	3.6	3.6	1987	1806	6300000	0	3200000	0
FLUORENE	11/33	9.4		3600		GSP-SB-68-0-2	3.6	35	478	162	140000	0	540000	0
INDENO(1,2,3-CD)PYRENE	24/33	8.7		7500		GSP-SB-68-0-2	3.6	19	754	549	4200	2	2400	2
NAPHTHALENE	12/33	10		1900		GSP-SB-68-0-2	3.6	35	295	109	150	5	9.4	12
PHENANTHRENE	27/33	7.6		27000		GSP-SB-68-0-2	3.6	19	1555	1273	470000	0	2400000[8]	0
PYRENE	30/33	7.1	J	34000		GSP-SB-68-0-2	3.6	3.6	2201	2001	680000	0	2400000	0
Polychlorinated Biphenyls (ug/kg)														
AROCLOR-1260	2/33	22	J	63	J	GSP-SB-96-0-2	18	22	43	12	NC	--	480	0
TOTAL AROCLOR	2/33	22		63		GSP-SB-96-0-2	0	0	43	2.6	NC	--	480[9]	0
Inorganics (mg/kg)														
ANTIMONY	12/33	0.066	J	0.72	J	GSP-SB-102-0-2	0.033	0.44	0.18	0.17	13	0	13.2	0
ARSENIC	33/33	0.71		5.6		GSP-SB-110-0-2			2.5	2.5	0.026	33	0.026	33
BARIUM	33/33	2.9	J	266	J	GSP-SB-71-0-2			47	47	6000	0	6000	0
BERYLLIUM	28/33	0.045	J	1.6	J	GSP-SB-71-0-2	0.03	0.046	0.32	0.28	1200	0	1160	0
CADMIUM	13/33	0.035	J	0.68		GSP-SB-68-0-2	0.0027	0.04	0.16	0.072	27	0	28	0
CHROMIUM	33/33	2.1	J	24	K	GSP-SB-108-0-2			10	10	42[10]	0	0.017[10]	33
COBALT	33/33	0.26	J	7.1		GSP-SB-108-0-2			2.4	2.4	NC	--	9.8	0
COPPER	33/33	1.1	J	38		GSP-SB-94-0-2			7.7	7.7	11000	0	1020	0
IRON	15/15	1860	J	12900		GSP-SB-63-0-2			6933	6933	NC	--	12800	1
LEAD	33/33	0.86	J	25.1		GSP-SB-62-0-2, GSP-SB-71-0-2			9.3	9.3	NC	--	280	0
MANGANESE	15/15	4.6	J	2390	J	GSP-SB-71-0-2			398	398	950	2	1140	2
MERCURY	24/33	0.013	J	0.16		GSP-SB-62-0-2	0.011	0.02	0.048	0.037	NC	--	0.66	0
MOLYBDENUM	15/33	0.13	J	1		GSP-SB-63-0-2, GSP-SB-67-0-2	0.22	1.1	0.51	0.34	NC	--	74	0
NICKEL	33/33	0.56		15		GSP-SB-108-0-2			4.5	4.5	NC	--	960	0

Table 5-26

Occurrence and Distribution of Chemicals - Surface Soil (0-2 feet) - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards - Groundwater Protection[1]	USEPA Soil Screening Level (SSL) for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20[1]
SELENIUM	23/33	0.13	J	1.2	J	GSP-SB-71-0-2	0.08	0.51	0.59	0.47	19	0	19	0
SILVER	9/33	0.038	J	0.38	J	GSP-SB-99-0-2	0.0028	0.11	0.12	0.060	31	0	32	0
THALLIUM	3/33	0.7	J	2.3	K	GSP-SB-101-0-2	0.014	0.62	1.7	0.29	3.6	0	0.52	3
VANADIUM	33/33	3.5	J	65		GSP-SB-108-0-2			19	19	730	0	3600	0
ZINC	30/33	5.2		63.4		GSP-SB-68-0-2	2.8	5	22	20	14000	0	13600	0
Petroleum Hydrocarbons (mg/kg)														
DIESEL RANGE ORGANICS	24/33	3.6	J	1200	J	GSP-SB-68-0-2	3	72	205	152	NC	--	NC	--

Notes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedanc
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011.
The SSL at a DAF of 20 is 20x the SSL at a DAF of 1.
6 - The value is for xylenes.
7 - The value is for acenaphthene.
8 - The value is for pyrene.
9 - The value is for polychlorinated biphenyls (total).
10 - The value is for hexavalent chromium.

Defintions:
DAF = dilution attenuation factor
J = Estimated value
K = Biased high
kg = kilogram
MDE = Maryland Department of the Environment
mg = milligram
NC = No criteria
SSl = soil screening level
ug = microgram
USEPA = U.S. Environmental Protection Agency

Table 5-27

Occurrence and Distribution of Chemicals - Subsurface Soil (2-15 feet) - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards - Groundwater Protection[1]	USEPA Soil Screening Level (SSL) for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20[1]
Volatile Organics (ug/kg)														
1,2,3-TRIMETHYLBENZENE	3/31	1.4	J	620	J	GSP-TP-5E-10-12	0.096	0.21	232	23	NC	--	NC	--
1,2,4-TRIMETHYLBENZENE	3/31	1.8	J	940	J	GSP-TP-5E-10-12	0.37	5.6	384	38	NC	--	420	1
2-BUTANONE	4/31	1.9	J	97	J	GSP-TP-5W-10-12	0.79	270	29	9.4	29000	0	30000	0
2-HEXANONE	1/31	1.1	J	1.1	J	GSP-TP-6-4-6	0.36	130	1.1	3.0	NC	--	220	0
4-ISOPROPYLTOLUENE	2/31	0.25	J	190	J	GSP-TP-5E-10-12	0.12	5.4	95	6.4	NC	--	NC	--
ACETONE	2/31	9.2	J	220	J	GSP-SB-93-12-14	5.3	1100	115	34	22000	0	90000	0
BENZENE	1/31	0.62	J	0.62	J	GSP-SB-91-8-10	0.13	75	0.62	1.7	1.9	0	4.2	0
CARBON DISULFIDE	3/31	0.63	J	12	J	GSP-TP-5W-10-12	0.32	75	4.6	2.0	19000	0	6200	0
ETHYLBENZENE	3/31	0.41	J	270	J	GSP-TP-5E-10-12	0.15	6.1	113	11	15000	0	34	2
ISOPROPYLBENZENE	1/31	58	J	58	J	GSP-TP-5W-10-12	0.09	41	58	2.7	64000	0	22000	0
M+P-XYLENES	2/31	1.9	J	310	J	GSP-TP-5E-10-12	0.68	7	156	11	3000[6]	0	4000	0
METHYLENE CHLORIDE	4/31	1.3	J	2.4	J	GSP-SB-97-6-8	0.57	820	1.9	24	19	0	24	0
N-BUTYLBENZENE	2/31	110	J	270	J	GSP-TP-5E-10-12	0.13	9	190	13	NC	--	120000	0
N-PROPYLBENZENE	2/31	85	J	200	J	GSP-TP-5E-10-12	0.23	16	143	10	NC	--	50000	0
NAPHTHALENE	3/31	21		42000		GSP-TP-5E-10-12	0.11	25	16874	1633	150	2	9.4	3
O-XYLENE	2/31	1.2	J	230	J	GSP-TP-5E-10-12	0.2	9.5	116	7.9	3000[6]	0	4000	0
SEC-BUTYLBENZENE	2/31	75	J	150	J	GSP-TP-5E-10-12	0.1	5.3	113	7.4	NC	--	NC	--
TOLUENE	10/31	0.24	J	0.79	J	GSP-TP-6-4-6	0.15	110	0.35	2.5	27000	0	32000	0
TOTAL XYLENES	2/31	3.1	J	540	J	GSP-TP-5E-10-12	0.38	9.1	272	18	3000	0	4000	0
TRICHLOROETHENE	2/31	19		360		GSP-SB-93-12-14	0.24	61	190	14	0.26	2	4.6[7]	2
Semivolatile Organics (ug/kg)														
1,1-BIPHENYL	1/31	1100	J	1100	J	GSP-TP-5E-10-12	29	760	1100	74	NC	--	174	1
2-METHYLNAPHTHALENE	6/31	44		13000		GSP-TP-5E-10-12	3.6	36	2731	531	4400	1	15000	0
ACENAPHTHENE	6/31	45		2000		GSP-TP-5E-10-12	3.6	36	724	142	100000	0	440000	0
ACENAPHTHYLENE	6/31	54		1900		GSP-SB-109-6-8	3.6	36	481	95	100000	0	440000[8]	0
ANTHRACENE	7/31	130		4000		GSP-SB-109-6-8	3.6	4.2	1466	332	470000	0	7200000	0
BAP EQUIVALENT-HALFND	10/31	4.9		20027		GSP-SB-109-6-8	3.6	4.2	3180	1027	NC	--	NC	--
BAP EQUIVALENT-POS	10/31	0.52		20027		GSP-SB-109-6-8	3.6	4.2	3178	1026	NC	--	NC	--
BENZO(A)ANTHRACENE	8/31	14		13000		GSP-SB-109-6-8	3.6	4.2	2602	673	480	5	200	7
BENZO(A)PYRENE	9/31	7.6		14000		GSP-SB-109-6-8	3.6	4.2	2476	720	120	7	70	7
BENZO(B)FLUORANTHENE	9/31	5.2	J	12000		GSP-SB-109-6-8	3.6	4.2	2238	651	1500	4	700	5
BENZO(G,H,I)PERYLENE	9/31	13		10000		GSP-SB-109-6-8	3.6	4.2	1732	504	680000	0	2400000[9]	0
BENZO(K)FLUORANTHENE	8/31	14		6300		GSP-SB-109-6-8	3.6	4.2	1199	311	15000	0	7000	0
BIS(2-ETHYLHEXYL)PHTHALATE	6/31	22	J	140	J	GSP-TP-5W-10-12	21	540	46	39	2900000	0	22000	0
CHRYSENE	8/31	20		14000		GSP-SB-109-6-8	1.2	1.4	2825	730	48000	0	22000	0
DI-N-BUTYL PHTHALATE	4/31	18	J	32	J	GSP-SB-104-6-8	16	420	24	27	5000000	0	184000	0
DIBENZO(A,H)ANTHRACENE	6/31	88		2700		GSP-SB-109-6-8	3.6	36	683	134	460	2	220	4
DIBENZOFURAN	5/31	22	J	610	J	GSP-TP-5E-10-12	3.6	36	255	44	NC	--	13600	0
FLUORANTHENE	9/31	8.3		21000		GSP-SB-109-6-8	3.6	4.2	3928	1142	6300000	0	3200000	0
FLUORENE	6/31	62		3900		GSP-TP-5E-10-12	3.6	36	1395	272	140000	0	540000	0
INDENO(1,2,3-CD)PYRENE	8/31	15		7500		GSP-SB-109-6-8	3.6	4.2	1471	381	4200	1	2400	1
NAPHTHALENE	6/31	57		17000		GSP-TP-5E-10-12	3.6	36	3704	719	150	4	9.4	6
PHENANTHRENE	9/31	11		13000		GSP-SB-109-6-8, GSP-TP-5E-10-12	3.6	4.2	4040	1174	470000	0	2400000[9]	0
PYRENE	12/31	6.6	J	32000		GSP-SB-109-6-8	3.6	4.2	4126	1598	680000	0	2400000	0

Table 5-27

Occurrence and Distribution of Chemicals - Subsurface Soil (2-15 feet) - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards - Groundwater Protection[1]	USEPA Soil Screening Level (SSL) for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20[1]
Ppolychlorinated Biphenyls (ug/kg)														
AROCLOR-1260	1/31	64		64		GSP-SB-109-6-8	18	100	64	13	NC	--	480	0
TOTAL AROCLOR	1/31	64		64		GSP-SB-109-6-8	0	0	64	2	NC	--	480[10]	0
Inorganics (mg/kg)														
ANTIMONY	6/31	0.075	J	0.79	J	GSP-TP-5W-10-12	0.32	0.49	0.53	0.27	13	0	13.2	0
ARSENIC	30/31	0.4	J	6.8		GSP-SB-91-8-10	0.34	0.34	2.5	2.4	0.026	30	0.026	30
BARIUM	31/31	1.1	J	250		GSP-SB-110-6-8			28	28	6000	0	6000	0
BERYLLIUM	8/31	0.084	J	0.65		GSP-SB-108-6-8	0.021	0.054	0.30	0.10	1200	0	1160	0
CADMIUM	1/31	0.85		0.85		GSP-TP-4-3-5	0.003	0.045	0.85	0.045	27	0	28	0
CHROMIUM	31/31	1.4	K	39		GSP-SB-91-8-10			11	11	42[11]	0	0.017[11]	31
COBALT	27/31	0.11	J	8.8		GSP-TP-5W-10-12	0.15	0.2	2.4	2.1	NC	--	9.8	0
COPPER	28/31	0.73	J	170		GSP-TP-2-10-12	0.83	0.93	13	12	11000	0	1020	0
IRON	1/1	1020		1020		GSP-SB-56-10-12			1020	1020	NC	--	12800	0
LEAD	29/31	0.47	J	41		GSP-TP-4-3-5	0.79	1.1	5.6	5.3	NC	--	280[12]	0
MANGANESE	1/1	2		2		GSP-SB-56-10-12			2.0	2.0	950	0	1140	0
MERCURY	8/31	0.011	J	0.093		GSP-TP-5W-10-12	0.011	0.02	0.056	0.020	NC	--	0.66	0
MOLYBDENUM	1/31	0.19	J	0.19	J	GSP-SB-56-10-12	0.22	0.98	0.19	0.21	NC	--	74	0
NICKEL	25/31	0.31		22		GSP-SB-108-6-8	0.26	0.34	3.9	3.1	NC	--	960	0
SELENIUM	2/31	0.11	J	0.54	J	GSP-SB-108-6-8	0.37	0.57	0.33	0.25	19	0	19	0
SILVER	1/31	0.17	J	0.17	J	GSP-TP-4-3-5	0.0018	0.13	0.17	0.056	31	0	32	0
THALLIUM	6/31	0.67	J	1.5	J	GSP-SB-110-6-8	0.016	0.69	1.0	0.43	3.6	0	0.52	6
VANADIUM	31/31	1.3		93		GSP-SB-91-8-10			19.4	19.4	730	0	3600	0
ZINC	23/31	1.4	J	57		GSP-TP-5W-10-12	0.97	5.2	15.3	11.7	14000	0	13600	0
Petroleum Hydrocarbons (mg/kg)														
DIESEL RANGE ORGANICS	10/31	14	J	1100	J	GSP-TP-4-3-5	3.3	27	348	116	NC	--	NC	--
Petroleum Hydrocarbons (ug/kg)														
GASOLINE RANGE ORGANICS	2/31	41000		88000		GSP-TP-5E-10-12	27	33	64500	4175	NC	--	NC	--

Notes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011.
The SSL at a DAF of 20 is 20x the SSL at a DAF of 1.
6 - The value is for xylenes.
7 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.
8 - The value is for acenaphthene.
9 - The value is for pyrene.
10 - The value is for polychlorinated biphenyls (total).
11 - The value is for hexavalent chromium.
12 - Maximum Contaminant Level (MCL)-based soil screening level (SSL).

Definitions:
DAF = dilution attenuation factor
J = estimated value
K = biased high
kg = kilogram
MDE = Maryland Department of the Environment
mg = milligram
NC = No criteria
SSL = soil screening level
ug = microgram
USEPA = U.S. Environmental Protection Agency

Table 5-28

Occurrence and Distribution of Chemicals - Subsurface Soil (Greater than 15 feet) - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]
Volatile Organics (ug/kg)										
2-BUTANONE	4/20	1.8	J	84	J	GSP-SB-56-20-22	0.97	43	23	6.2
ACETONE	10/20	7.6	J	650	J	GSP-SB-68-23-25	4.4	160	343	177
CHLOROBENZENE	1/20	0.26	J	0.26	J	GSP-SB-57-23-25	0.23	6.4	0.26	0.45
METHYLENE CHLORIDE	1/20	3.1	J	3.1	J	GSP-SB-96-22-24	0.47	570	3.1	17
TERTIARY-BUTYL ALCOHOL	1/1	14	J	14	J	GSP-SB-62-20-22			14	14
TOLUENE	2/20	0.29	J	0.37	J	GSP-SB-61-20-22	0.19	17	0.33	1.0
TRICHLOROETHENE	5/20	5		1100		GSP-SB-56-20-22	0.35	0.44	294	74
Semivolatile Organics (ug/kg)										
2-METHYLNAPHTHALENE	2/16	13		33		GSP-SB-64-22-25	3.8	4.1	23	4.6
ACENAPHTHENE	2/16	17		19		GSP-SB-69-23-25	3.8	4.1	18	4.0
BAP EQUIVALENT-HALFND	2/16	6.8		7.8		GSP-SB-65-20-22	3.8	4.1	7	2.6
BAP EQUIVALENT-POS	2/16	2.4		3.3		GSP-SB-65-20-22	3.8	4.1	2.9	2.1
BENZO(B)FLUORANTHENE	2/16	24		33		GSP-SB-65-20-22	3.8	4.1	29	5.3
BIS(2-ETHYLHEXYL)PHTHALATE	2/16	41	J	5500		GSP-SB-61-20-22	22	49	2771	358
BUTYL BENZYL PHTHALATE	1/16	16	J	16	J	GSP-SB-61-20-22	11	12	16	6.6
FLUORANTHENE	2/16	13		17		GSP-SB-65-20-22	3.8	4.1	15	3.6
NAPHTHALENE	2/16	12		19		GSP-SB-64-22-25	3.8	4.1	16	3.7
PYRENE	2/16	11		15		GSP-SB-65-20-22	3.8	4.1	13	3.3
Inorganics (mg/kg)										
ANTIMONY	9/16	0.059	L	0.84	L	GSP-SB-56-20-22	0.013	0.062	0.17	0.11
ARSENIC	16/16	0.37	J	5.4		GSP-SB-56-20-22			1.8	1.8
BARIUM	16/16	1.3	K	20.1	K	GSP-SB-64-22-25			9.3	9.3
BERYLLIUM	11/16	0.03	J	0.8		GSP-SB-65-20-22	0.024	0.065	0.24	0.17
CADMIUM	3/16	0.038	J	0.49		GSP-SB-65-20-22	0.0029	0.0082	0.19	0.038
CHROMIUM	15/15	2.1		28.4		GSP-SB-56-20-22			12	12
CHROMIUM	15/15	2.1	J	28.4		GSP-SB-56-20-22			12	12

Table 5-28

Occurrence and Distribution of Chemicals - Subsurface Soil (Greater than 15 feet) - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]
COBALT	16/16	0.1	J	36.3		GSP-SB-63-20-22			4.4	4.4
COPPER	14/16	1	L	122	L	GSP-SB-64-22-25	0.56	0.59	23	21
IRON	16/16	171	J	5070		GSP-SB-56-20-22			837	837
LEAD	16/16	0.63	J	5.6		GSP-SB-65-20-22			2.6	2.6
MANGANESE	16/16	0.87	J	15.1		GSP-SB-56-20-22			3.5	3.5
MERCURY	3/16	0.025	J	0.034	J	GSP-SB-67-23-25	0.019	0.021	0.029	0.014
MOLYBDENUM	11/16	0.072	J	0.62		GSP-SB-57-23-25	0.031	0.17	0.24	0.17
NICKEL	11/16	0.31		56		GSP-SB-63-20-22	0.15	0.28	9.1	6.3
SELENIUM	15/16	0.065	J	3.6		GSP-SB-63-20-22	0.11	0.11	1.3	1.3
SILVER	2/16	0.046	J	0.052	J	GSP-SB-63-20-22	0.0017	0.037	0.049	0.012
VANADIUM	16/16	3.7		43.5		GSP-SB-56-20-22			17	17
ZINC	3/16	4.2		39	J	GSP-SB-65-20-22	1	3.3	18	4.0
Petroleum Hydrocarbons (mg/kg)										
DIESEL RANGE ORGANICS	7/20	4.1	J	35		GSP-SB-65-20-22	3.2	12	14.4	6.7
Petroleum Hydrocarbons (ug/kg)										
GASOLINE RANGE ORGANICS	1/20	62	J	62	J	GSP-SB-56-20-22	30	35	62	18.6

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.

Definitions:

J = Estimated value
K = Biased high
L = Biased low
mg = milligram
kg = kilogram
ug = microgram

Table 5-29

Occurrence and Distribution of Chemicals - Groundwater - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater[4]	# Detects Greater than MDE Cleanup Standards - Groundwater[1]	USEPA RBC - Tap Water[5]	# Detects Greater than USEPA RBC - Tap Water[1]
Volatile Organics (ug/l)														
2-BUTANONE	1/10	3.2	J	3.2	J	GSP-SB-WP-66-062311	0.57	9.5	3.2	1.0	700	0	7100	0
ACETONE	3/10	1.9	J	2.6	J	GSP-MW-6-062011	1.4	22	2.2	4.1	550	0	22000	0
BENZENE	1/10	3.1	J	3.1	J	GSP-MW-7-062211	0.13	0.13	3.1	0.4	5	0	0.41	1
CARBON DISULFIDE	1/10	0.27	J	0.27	J	GSP-SB-WP-66-062311	0.13	2.2	0.3	0.2	100	0	1000	0
CARBON TETRACHLORIDE	1/10	2.6		2.6		GSP-MW-5-062011	0.13	2.2	2.6	0.4	5	0	0.44	1
CHLOROFORM	1/10	0.92	J	0.92	J	GSP-MW-5-062011	0.16	2.7	0.9	0.3	80	0	0.19	1
CHLOROMETHANE	1/10	0.42	J	0.42	J	GSP-MW-8-062311	0.3	5	0.4	0.4	19	0	190	0
TERTIARY-BUTYL ALCOHOL	1/1	6.9	J	6.9	J	GSP-SB-WP-66-062311			6.9	6.9	NC	--	NC	--
TOLUENE	2/10	0.28	J	22		GSP-SB-WP-66-062311	0.13	2.2	11.1	2.4	1000	0	2300	0
TRICHLOROETHENE	2/10	0.27	J	450		GSP-MW-7-062211	0.17	0.17	225.1	45.1	5	1	0.66[6]	1
Semivolatile Organics (ug/l)														
4-METHYLPHENOL	1/3	2.1		2.1		GSP-SB/WP-66-20100527	0.8	0.8	2.1	1.0	18	0	180	0
BIS(2-ETHYLHEXYL)PHTHALATE	1/10	0.85	J	0.85	J	GSP-SB/WP-71-20100528	0.76	1.2	0.9	0.5	6	0	4.8	0
BUTYL BENZYL PHTHALATE	2/10	1.1		2.3		GSP-SB/WP-66-20100527	0.76	1.2	1.7	0.7	NC	--	35	0
PHENOL	2/10	0.77	J	1.7		GSP-SB/WP-66-20100527	0.57	0.91	1.2	0.5	1100	0	11000	0
Inorganics (ug/l)														
ANTIMONY	2/10	0.43	J	0.53	J	GSP-SB-WP-66-062311	0.1	0.39	0.5	0.2	6	0	15	0
ARSENIC	9/10	0.42	J	9.7	J	GSP-SB-WP-71-062111	0.48	0.48	3.0	2.7	10	0	0.045	9
BARIUM	10/10	30		110		GSP-MW-8-062311			55.6	55.6	2000	0	7300	0
BERYLLIUM	5/10	0.12	J	3.5		GSP-MW-5-062011	0.0059	0.12	1.0	0.5	4	0	73	0
CADMIUM	5/10	0.07	J	1.4		GSP-MW-5-062011	0.026	0.14	0.4	0.2	5	0	18	0
CHROMIUM	9/10	0.79	J	8.2		GSP-SB-WP-66-062311	0.67	0.67	4.8	4.4	100[7]	0	0.043[7]	9
COBALT	10/10	0.68	J	76		GSP-MW-5-062011			15.7	15.7	NC	--	11	3
COPPER	8/10	1.9	J	39		GSP-SB-WP-61-062211	3.1	3.4	13.4	11.0	1300	0	1500	0
IRON	3/3	5040		13600		GSP-SB/WP-71-20100528			8240	8240	300	3	26000	0
LEAD	8/10	0.58	J	8.5		GSP-SB-WP-66-062311	0.28	0.84	2.2	1.9	15	0	NC	--
MANGANESE	3/3	212		756		GSP-SB/WP-71-20100528			488	488	50	3	880	0
MERCURY	1/10	0.19	J	0.19	J	GSP-MW-7-062211	0.066	0.1	0.2	0.1	2	0	11[8]	0
MOLYBDENUM	6/10	0.47	J	5.9		GSP-MW-5-062011	0.33	2.6	2.4	1.8	NC	--	180	0
NICKEL	9/10	1	J	53		GSP-MW-5-062011	0.63	0.63	13.2	11.9	73	0	730	0
SELENIUM	4/10	0.6	J	5.2		GSP-MW-8-062311	0.26	0.62	2.4	1.1	50	0	180	0
VANADIUM	10/10	0.55	J	23		GSP-SB-WP-66-062311			6.8	6.8	3.7	5	180	0
ZINC	7/10	6	J	79		GSP-MW-5-062011	10.2	44	29.7	24.0	5000	0	11000	0

Table 5-29

Occurrence and Distribution of Chemicals - Groundwater - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater[4]	# Detects Greater than MDE Cleanup Standards - Groundwater[1]	USEPA RBC - Tap Water[5]	# Detects Greater than USEPA RBC - Tap Water[1]
Filtered Inorganics (ug/l)														
ANTIMONY	2/10	0.23	J	0.49	J	GSP-SB-WP-66-062311	0.06	0.31	0.4	0.1	6	0	15	0
ARSENIC	5/10	0.38	J	9.1	J	GSP-SB-WP-71-062111	0.092	0.66	4.2	2.2	10	0	0.045	5
BARIUM	10/10	28		110		GSP-MW-8-062311			51.5	51.5	2000	0	7300	0
BERYLLIUM	3/10	0.16	J	2.8		GSP-MW-5-062011	0.0059	0.092	1.1	0.4	4	0	73	0
CADMIUM	4/10	0.053	J	1.3		GSP-MW-5-062011	0.044	0.13	0.4	0.2	5	0	18	0
CHROMIUM	7/10	0.11	J	3.7		GSP-MW-5-062011	0.11	0.65	1.9	1.4	100[7]	0	0.043[7]	7
COBALT	10/10	0.42	J	70		GSP-MW-5-062011			15.8	15.8	NC	--	11	5
COPPER	7/10	0.47	J	15		GSP-MW-5-062011	0.76	2.5	7.2	5.3	1300	0	1500	0
IRON	3/3	464		14200		GSP-SB/WP-71-20100528			7065	7065	300	3	26000	0
LEAD	1/10	2.7		2.7		GSP-SB-WP-66-062311	0.071	0.5	2.7	0.4	15	0	NC	--
MANGANESE	3/3	222		772		GSP-SB/WP-71-20100528			493	493	50	3	880	0
MERCURY	1/10	0.09	J	0.09	J	GSP-MW-7-062211	0.066	0.1	0.1	0.0	2	0	11[8]	0
MOLYBDENUM	5/10	1	J	5.4		GSP-SB/WP-71-20100528	0.27	2.9	2.3	1.4	NC	--	180	0
NICKEL	8/10	2.1		50		GSP-MW-5-062011	0.63	0.63	14.1	11.4	73	0	730	0
SELENIUM	4/10	0.53	J	5.2		GSP-MW-8-062311	0.32	0.44	1.8	0.8	50	0	180	0
VANADIUM	5/10	0.63	J	13	J	GSP-SB-WP-66-062311	0.3	0.43	4.4	2.3	3.7	2	180	0
ZINC	6/10	7.6	J	69		GSP-MW-5-062011	0.5	22.6	26.6	17.4	5000	0	11000	0
Petroleum Hydrocarbons (ug/l)														
DIESEL RANGE ORGANICS	3/10	450		1600		GSP-MW-6-062011	30	380	1150	418	47	3	NC	--
GASOLINE RANGE ORGANICS	3/10	27	J	300		GSP-MW-7-062211	31	42	118	47.8	47	1	NC	--

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011.
6 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.
7 - The value is for hexavalent chromium.
8 - The value is for mercuric chloride (and other mercury salts).

Definitions:
J = Estimated value
MDE = Maryland Department of the Environment
NC = No criteria
RBC = risk based concentration
ug/L = microgram per liter
USEPA = U.S. Environmental Protection Agency

Table 5-30

Summary Of Cancer Risks And Hazard Indices - RECs #9 and 10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks > 10^{-4}	Chemicals with Cancer Risks > 10^{-5} and ≤ 10^{-4}	Chemicals with Cancer Risks > 10^{-6} and ≤ 10^{-5}	Hazard Index	Chemicals Contributing to an Target Organ HI > 1
Construction Workers	Surface Soil	Incidental Ingestion	4E-06	--	--	Benzo(a)pyrene Equivalents	0.7	--
		Dermal Contact	1E-06	--	--	--	0.2	--
		Inhalation	1E-07	--	--	--	7	Manganese
		Total	5E-06	--	--	Benzo(a)pyrene Equivalents	8	Manganese
	Subsurface Soil	Incidental Ingestion	2E-06	--	--	--	0.2	--
		Dermal Contact	3E-07	--	--	--	0.007	--
		Inhalation	2E-07	--	--	--	0.1	--
		Total	2E-06	--	--	--	0.3	--
	Groundwater	Incidental Ingestion	4E-08	--	--	--	0.07	--
		Dermal Contact	4E-07	--	--	--	0.7	--
		Inhalation	4E-08	--	--	--	0.001	--
		Total	5E-07	--	--	--	0.7	--
	Total Surface Soil and Groundwater		6E-06				9	
	Total Subsurface Soil and Groundwater		3E-06				1	
Industrial Workers	Surface Soil	Incidental Ingestion	1E-05	--	--	Benzo(a)pyrene Equivalents	0.1	--
		Dermal Contact	2E-05	--	Benzo(a)pyrene Equivalents	--	0.2	--
		Inhalation	1E-09	--	--	--	0.003	--
		Total	3E-05	--	Benzo(a)pyrene Equivalents	--	0.3	--
	Subsurface Soil	Incidental Ingestion	4E-06	--	--	Benzo(a)pyrene Equivalents	0.06	--
		Dermal Contact	6E-06	--	--	Benzo(a)pyrene Equivalents	0.010	--
		Inhalation	2E-07	--	--	--	0.02	--
		Total	1E-05	--	--	Benzo(a)pyrene Equivalents	0.09	--
Child Trespassers	Surface Soil	Incidental Ingestion	5E-05	--	Benzo(a)pyrene Equivalents	--	0.4	--
		Dermal Contact	2E-05	--	Benzo(a)pyrene Equivalents	--	0.2	--
		Inhalation	2E-10	--	--	--	0.0007	--
		Total	7E-05	--	Benzo(a)pyrene Equivalents	--	0.6	--
	Subsurface Soil	Incidental Ingestion	2E-05	--	--	Benzo(a)pyrene Equivalents	0.2	--
		Dermal Contact	7E-06	--	--	Benzo(a)pyrene Equivalents	0.01	--
		Inhalation	1E-08	--	--	--	0.004	--
		Total	2E-05	--	Benzo(a)pyrene Equivalents	--	0.2	--
Adolescent Trespassers	Surface Soil	Incidental Ingestion	1E-05	--	--	Benzo(a)pyrene Equivalents	0.08	--
		Dermal Contact	4E-06	--	--	Benzo(a)pyrene Equivalents	0.03	--
		Inhalation	2E-10	--	--	--	0.0007	--
		Total	1E-05	--	--	Benzo(a)pyrene Equivalents	0.1	--
	Subsurface Soil	Incidental Ingestion	3E-06	--	--	Benzo(a)pyrene Equivalents	0.04	--
		Dermal Contact	1E-06	--	--	--	0.002	--
		Inhalation	2E-08	--	--	--	0.004	--
		Total	5E-06	--	--	Benzo(a)pyrene Equivalents	0.05	--
Child Recreational Users	Surface Soil	Incidental Ingestion	7E-05	--	Benzo(a)pyrene Equivalents	--	0.6	--
		Dermal Contact	2E-05	--	Benzo(a)pyrene Equivalents	--	0.2	--
		Inhalation	2E-10	--	--	--	0.0009	--
		Total	9E-05	--	Benzo(a)pyrene Equivalents	--	0.7	--
	Subsurface Soil	Incidental Ingestion	2E-05	--	Benzo(a)pyrene Equivalents	--	0.3	--
		Dermal Contact	7E-06	--	--	Benzo(a)pyrene Equivalents	0.01	--
		Inhalation	2E-08	--	--	--	0.005	--
		Total	3E-05	--	Benzo(a)pyrene Equivalents	--	0.3	--
Adolescent Recreational Users	Surface Soil	Incidental Ingestion	1E-05	--	--	Benzo(a)pyrene Equivalents	0.1	--
		Dermal Contact	5E-06	--	--	Benzo(a)pyrene Equivalents	0.04	--
		Inhalation	3E-10	--	--	--	0.0009	--
		Total	2E-05	--	Benzo(a)pyrene Equivalents	--	0.1	--

Table 5-30

Summary Of Cancer Risks And Hazard Indices - RECs #9 and 10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks > 10^{-4}	Chemicals with Cancer Risks > 10^{-5} and ≤ 10^{-4}	Chemicals with Cancer Risks > 10^{-6} and ≤ 10^{-5}	Hazard Index	Chemicals Contributing to an Target Organ HI > 1
	Subsurface Soil	Incidental Ingestion	4E-06	--	--	Benzo(a)pyrene Equivalents	0.06	--
		Dermal Contact	1E-06	--	--	Benzo(a)pyrene Equivalents	0.002	--
		Inhalation	3E-08	--	--	--	0.005	--
		Total	6E-06	--	--	Benzo(a)pyrene Equivalents	0.06	--
Adult Recreational Users	Surface Soil	Incidental Ingestion	3E-06	--	--	Benzo(a)pyrene Equivalents	0.06	--
		Dermal Contact	1E-06	--	--	--	0.03	--
		Inhalation	2E-10	--	--	--	0.0009	--
		Total	4E-06	--	--	Benzo(a)pyrene Equivalents	0.09	--
	Subsurface Soil	Incidental Ingestion	1E-06	--	--	--	0.03	--
		Dermal Contact	5E-07	--	--	--	0.002	--
		Inhalation	3E-08	--	--	--	0.005	--
		Total	2E-06	--	--	--	0.04	--
Lifelong Recreational Users (Child, Adolescent, and Adults)	Surface Soil	Incidental Ingestion	8E-05	--	Benzo(a)pyrene Equivalents	Arsenic	NA	--
		Dermal Contact	3E-05	--	Benzo(a)pyrene Equivalents	--	NA	--
		Inhalation	7E-10	--	--	--	NA	--
		Total	1E-04	--	Benzo(a)pyrene Equivalents	Arsenic	NA	--
	Subsurface Soil	Incidental Ingestion	3E-05	--	Benzo(a)pyrene Equivalents	Arsenic	NA	--
		Dermal Contact	9E-06	--	--	Benzo(a)pyrene Equivalents	NA	--
		Inhalation	8E-08	--	--	--	NA	--
		Total	3E-05	--	Benzo(a)pyrene Equivalents	Arsenic	NA	--
Child Residents	Surface Soil	Incidental Ingestion	3E-04	Benzo(a)pyrene Equivalents	--	Arsenic	3	Target Organs HI < 1
		Dermal Contact	1E-04	--	Benzo(a)pyrene Equivalents	--	0.9	--
		Inhalation	4E-09	--	--	--	0.01	--
		Total	5E-04	Benzo(a)pyrene Equivalents	--	Arsenic	4	Manganese
	Subsurface Soil	Incidental Ingestion	1E-04	--	Benzo(a)pyrene Equivalents	Arsenic	2	Target Organs HI < 1
		Dermal Contact	4E-05	--	Benzo(a)pyrene Equivalents	--	0.05	--
		Inhalation	2E-07	--	--	--	0.08	--
		Total	1E-04	--	Benzo(a)pyrene Equivalents	Aroclor-1260, Arsenic	2	Target Organs HI < 1
	Groundwater	Incidental Ingestion	3E-04	--	Trichloroethene, Arsenic, Chromium VI	--	80	Cobalt, Manganese, Trichloroethene, Arsenic
		Dermal Contact	8E-05	--	Trichloroethene, Chromium VI	--	10	Trichloroethene
		Total	4E-04	Chromium VI	Trichloroethene, Arsenic	--	90	Cobalt, Manganese, Trichloroethene, Arsenic
	Total Surface Soil and Groundwater		9E-04				93	
	Total Subsurface Soil and Groundwater		5E-04				91	
Adolescent Residents	Surface Soil	Incidental Ingestion	6E-05	--	Benzo(a)pyrene Equivalents	Arsenic	0.5	--
		Dermal Contact	2E-05	--	Benzo(a)pyrene Equivalents	--	0.2	--
		Inhalation	4E-09	--	--	--	0.01	--
		Total	9E-05	--	Benzo(a)pyrene Equivalents	Arsenic	0.7	--
	Subsurface Soil	Incidental Ingestion	2E-05	--	Benzo(a)pyrene Equivalents	Arsenic	0.3	--
		Dermal Contact	7E-06	--	--	Benzo(a)pyrene Equivalents	0.01	--
		Inhalation	5E-07	--	--	--	0.08	--
		Total	3E-05	--	Benzo(a)pyrene Equivalents	Arsenic	0.4	--
	Groundwater	Incidental Ingestion	4E-04	Trichloroethene	Arsenic, Chromium VI	--	60	Cobalt, Manganese, Trichloroethene, Arsenic
		Dermal Contact	5E-05	--	Trichloroethene, Chromium VI	--	6	Trichloroethene
		Total	4E-04	Trichloroethene	Arsenic, Chromium VI	Benzene, Carbon Tetrachloride	65	Cobalt, Manganese, Trichloroethene, Arsenic
	Total Surface Soil and Groundwater		5E-04				66	
	Total Subsurface Soil and Groundwater		5E-04				66	

Table 5-30

Summary Of Cancer Risks And Hazard Indices - RECs #9 and 10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks > 10^{-4}	Chemicals with Cancer Risks > 10^{-5} and ≤ 10^{-4}	Chemicals with Cancer Risks > 10^{-6} and ≤ 10^{-5}	Hazard Index	Chemicals Contributing to an Target Organ HI > 1
Adult Residents	Surface Soil	Incidental Ingestion	1E-05	--	--	Benzo(a)pyrene Equivalents	0.3	--
		Dermal Contact	7E-06	--	--	Benzo(a)pyrene Equivalents	0.1	--
		Inhalation	3E-09	--	--	--	0.01	--
		Total	2E-05	--	Benzo(a)pyrene Equivalents	--	0.4	--
	Subsurface Soil	Incidental Ingestion	5E-06	--	--	Benzo(a)pyrene Equivalents	0.2	--
		Dermal Contact	2E-06	--	--	Benzo(a)pyrene Equivalents	0.008	--
		Inhalation	5E-07	--	--	--	0.08	--
		Total	8E-06	--	--	Benzo(a)pyrene Equivalents	0.3	--
	Groundwater	Incidental Ingestion	2E-04	--	Trichloroethene, Arsenic, Chromium VI	--	34	Cobalt, Trichloroethene, Arsenic
		Dermal Contact	3E-05	--	Trichloroethene	Chromium VI	4	Trichloroethene
		Inhalation	2E-05	--	Trichloroethene	--	14	Trichloroethene
		Total	2E-04	--	Trichloroethene, Arsenic, Chromium VI	--	53	Cobalt, Trichloroethene, Arsenic
	Total Surface Soil and Groundwater		3E-04				53	
	Total Subsurface Soil and Groundwater		2E-04				53	
Lifelong Residents (Child, Adolescent, and Adults)	Surface Soil	Incidental Ingestion	4E-04	Benzo(a)pyrene Equivalents	--	Arsenic	NA	--
		Dermal Contact	2E-04	Benzo(a)pyrene Equivalents	--	--	NA	--
		Inhalation	1E-08	--	--	--	NA	--
		Total	6E-04	Benzo(a)pyrene Equivalents	--	Arsenic	NA	--
	Subsurface Soil	Incidental Ingestion	1E-04	--	Benzo(a)pyrene Equivalents	Aroclor-1260, Arsenic	NA	--
		Dermal Contact	5E-05	--	Benzo(a)pyrene Equivalents	--	NA	--
		Inhalation	1E-06	--	--	--	NA	--
		Total	2E-04	Benzo(a)pyrene Equivalents	--	Aroclor-1260, Arsenic	NA	--
	Groundwater	Incidental Ingestion	9E-04	Trichloroethene, Arsenic, Chromium VI	--	Benzene, Carbon Tetrachloride	NA	--
		Dermal Contact	2E-04	--	Trichloroethene, Chromium VI	--	NA	--
		Inhalation	2E-05	--	Trichloroethene	--	NA	--
		Total	1E-03	Trichloroethene, Arsenic, Chromium VI	--	Benzene, Carbon Tetrachloride	NA	--
	Total Surface Soil and Groundwater		2E-03				NA	
	Total Subsurface Soil and Groundwater		1E-03				NA	

Notes:
NA - Not applicable.

Table 5-31

Occurrence and Distribution of Chemicals - Surface Soil (0-2 feet) - REC #11
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards - Groundwater Protection[1]	USEPA Soil Screening Level (SSL) for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20[1]
Volatile Organics (ug/kg)														
1,2,3-TRIMETHYLBENZENE	4/33	0.16	J	0.55	J	GSP-SB-77-1-3	0.13	0.2	0.3	0.1	NC	--	NC	--
1,2,4-TRICHLOROBENZENE	1/33	4.2	J	4.2	J	GSP-SB-119-0-2	0.2	0.31	4.2	0.2	2400	0	136	0
1,2,4-TRIMETHYLBENZENE	1/33	0.99	J	0.99	J	GSP-SB-77-1-3	0.47	0.76	1.0	0.3	NC	--	420	0
1,2-DICHLOROBENZENE	1/33	0.35	J	0.35	J	GSP-SB-119-0-2	0.26	0.42	0.4	0.2	4600	0	7200	0
1,3-DICHLOROBENZENE	1/33	6.6		6.6		GSP-SB-119-0-2	0.25	0.41	6.6	0.4	290	0	8.2[6]	0
2-BUTANONE	2/33	4.3	J	7.9	J	GSP-SB-77-1-3	1	4.7	6.1	1.0	29000	0	30000	0
4-METHYL-2-PENTANONE	1/33	0.58	J	0.58	J	GSP-SB-123-0-2	0.39	0.63	0.6	0.3	59000	0	9000	0
ACETONE	9/33	25		750	J	GSP-SB-82-0-2	4.9	37	190	55	22000	0	90000	0
BENZENE	1/33	0.55	J	0.55	J	GSP-SB-77-1-3	0.17	0.27	0.6	0.1	1.9	0	4.2	0
CARBON DISULFIDE	1/33	1.9	J	1.9	J	GSP-SB-121-0-3	0.32	0.51	1.9	0.3	19000	0	6200	0
CHLOROBENZENE	1/33	0.36	J	0.36	J	GSP-SB-119-0-2	0.24	0.38	0.4	0.2	680	0	1240	0
CIS-1,2-DICHLOROETHENE	1/33	0.96	J	0.96	J	GSP-SB-74-0-2	0.26	0.42	1.0	0.2	NC	--	420	0
ETHYLBENZENE	1/33	0.31	J	0.31	J	GSP-SB-121-0-3	0.19	0.3	0.3	0.1	15000	0	34	0
NAPHTHALENE	2/33	0.76	J	32		GSP-SB-121-0-3	0.15	1.2	16.4	1.1	150	0	9.4	1
O-XYLENE	2/33	0.32	J	0.5	J	GSP-SB-121-0-3	0.25	0.41	0.4	0.2	3000[7]	0	4000	0
TERTIARY-BUTYL ALCOHOL	1/1	8.1	J	8.1	J	GSP-SB-82-0-2			8.1	8.1	NC	--	NC	--
TOLUENE	4/33	0.29	J	0.68	J	GSP-SB-77-1-3	0.2	0.31	0.4	0.2	27000	0	32000	0
TOTAL XYLENES	2/33	0.56	J	0.88	J	GSP-SB-77-1-3	0.49	0.78	0.7	0.3	3000	0	4000	0
TRICHLOROETHENE	1/33	4.1	J	4.1	J	GSP-SB-74-0-2	0.3	0.49	4.1	0.3	0.26	1	4.6[8]	0
Semivolatile Organics (ug/kg)														
2-METHYLNAPHTHALENE	27/33	8.5		500		GSP-SB-83-0-2	3.6	15	77	64	4400	0	15000	0
ACENAPHTHENE	27/33	13		520		GSP-SB-83-0-2	3.6	15	107	88	100000	0	440000	0
ACENAPHTHYLENE	26/33	11		300		GSP-SB-124-0-2	3.6	15	62	49	100000	0	440000[9]	0
ANTHRACENE	32/33	10		1900		GSP-SB-83-0-2	4	4	292	283	470000	0	7200000	0
BAP EQUIVALENT-HALFND	33/33	5.7		7404		GSP-SB-83-0-2			1241	1241	NC	--	NC	--
BAP EQUIVALENT-POS	33/33	1.3		7404		GSP-SB-83-0-2			1241	1241	NC	--	NC	--
BENZO(A)ANTHRACENE	32/33	42		5800		GSP-SB-83-0-2	4	4	933	905	480	18	200	26
BENZO(A)PYRENE	32/33	41		5200		GSP-SB-83-0-2	4	4	885	859	120	27	70	28
BENZO(B)FLUORANTHENE	33/33	13		5100		GSP-SB-83-0-2			932	932	1500	6	700	16
BENZO(G,H,I)PERYLENE	32/33	26		3100		GSP-SB-83-0-2	4	4	557	541	680000	0	2400000[10]	0
BENZO(K)FLUORANTHENE	32/33	26		1800		GSP-SB-83-0-2	4	4	418	406	15000	0	7000	0
BIS(2-ETHYLHEXYL)PHTHALATE	6/32	23	J	100	J	GSP-SB-87-0-2	21	420	50	36	2900000	0	22000	0
BUTYL BENZYL PHTHALATE	1/32	250		250		GSP-SB-86-0-2	11	220	250	22	NC	--	10200	0
CAPROLACTAM	1/32	50	J	50	J	GSP-SB-111-0-2	40	810	50	55	NC	--	90000	0
CARBAZOLE	14/32	30	J	260		GSP-SB-76-1-3	29	590	101	71	470	0	NC	--
CHRYSENE	33/33	8.8		6200		GSP-SB-83-0-2			933	933	48000	0	22000	0
DI-N-BUTYL PHTHALATE	1/33	17	J	17	J	GSP-SB-122-0-2	16	330	17	22	5000000	0	184000	0
DIBENZO(A,H)ANTHRACENE	28/33	6.3	J	850		GSP-SB-83-0-2	3.6	4.3	176	149	460	2	220	7
DIBENZOFURAN	10/33	5.2	J	170		GSP-SB-76-1-3	3.6	300	60	30	NC	--	13600	0
FLUORANTHENE	33/33	18		8800		GSP-SB-83-0-2			1560	1560	6300000	0	3200000	0
FLUORENE	27/33	12		910		GSP-SB-83-0-2	3.6	15	143	118	140000	0	540000	0
INDENO(1,2,3-CD)PYRENE	32/33	22		2400		GSP-SB-83-0-2	4	4	459	445	4200	0	2400	0
N-NITROSO-DI-N-PROPYLAMINE	1/32	120		120		GSP-SB-72-0-2	29	590	120	42	0.047	1	0.144	1
NAPHTHALENE	25/33	12		560		GSP-SB-83-0-2	3.6	15	102	78	150	3	9.4	25
PHENANTHRENE	33/33	12		7900		GSP-SB-83-0-2			969	969	470000	0	2400000[10]	0
PYRENE	33/33	15		13000		GSP-SB-83-0-2			1751	1751	680000	0	2400000	0
Polychlorinated Biphenyls (ug/kg)														
AROCLOR-1260	19/33	24	J	12000		GSP-SB-78-0-2	19	22	1592	921	NC	--	480	9
TOTAL AROCLOR	19/33	24		12000		GSP-SB-78-0-2	0	0	1592	917	NC	--	480[11]	9

Table 5-31

Occurrence and Distribution of Chemicals - Surface Soil (0-2 feet) - REC #11
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards - Groundwater Protection[1]	USEPA Soil Screening Level (SSL) for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20[1]
Inorganics (mg/kg)														
ANTIMONY	17/33	0.079	J	1.2	J	GSP-SB-121-0-3	0.026	1.2	0.4	0.3	13	0	13.2	0
ARSENIC	33/33	0.98		4.5		GSP-SB-126-0-2			3.1	3.1	0.026	33	0.026	33
BARIUM	33/33	3.9	J	73	K	GSP-SB-84-0-2			30.1	30.1	6000	0	6000	0
BERYLLIUM	32/33	0.046	J	0.87		GSP-SB-84-0-2	0.053	0.053	0.3	0.3	1200	0	1160	0
CADMIUM	13/33	0.049	J	1		GSP-SB-130-0-2	0.0031	0.046	0.2	0.1	27	0	28	0
CHROMIUM	33/33	3.4	J	24.1	K	GSP-SB-82-0-2			13.2	13.2	42[12]	0	0.017[12]	33
COBALT	33/33	0.22	J	10.8	J	GSP-SB-87-0-2			3.0	3.0	NC	--	9.8	1
COPPER	33/33	1.8	J	26		GSP-SB-121-0-3			11.1	11.1	11000	0	1020	0
IRON	13/13	866	J	15000		GSP-SB-82-0-2			8240	8240	NC	--	12800	2
LEAD	33/33	1.1	J	41		GSP-SB-125-0-2			13.0	13.0	NC	--	280[13]	0
MANGANESE	13/13	2.5	J	1050		GSP-SB-84-0-2			174.9	174.9	950	1	1140	0
MERCURY	24/33	0.028	J	0.3		GSP-SB-113-0-2	0.014	0.02	0.1	0.1	NC	--	0.66	0
MOLYBDENUM	13/33	0.051	J	0.47		GSP-SB-87-0-2, GSP-SB-77-1-3	0.24	0.68	0.3	0.3	NC	--	74	0
NICKEL	33/33	0.47		12.5	J	GSP-SB-87-0-2			5.5	5.5	NC	--	960	0
SELENIUM	21/33	0.2	J	3.1	L	GSP-SB-82-0-2	0.45	0.56	0.6	0.5	19	0	19	0
SILVER	11/33	0.073	J	0.49		GSP-SB-86-0-2	0.0018	0.13	0.2	0.1	31	0	32	0
THALLIUM	1/33	0.92	J	0.92	J	GSP-SB-120-0-2	0.016	0.7	0.9	0.2	3.6	0	0.52	1
VANADIUM	33/33	5.6	J	54.2		GSP-SB-82-0-2			22.2	22.2	730	0	3600	0
ZINC	32/33	4.6	J	51		GSP-SB-121-0-3	1.9	1.9	27.6	26.7	14000	0	13600	0
Petroleum Hydrocarbons (mg/kg)														
DIESEL RANGE ORGANICS	27/33	3.6	J	1800	J	GSP-SB-83-0-2	3.4	22	274	225	NC	--	NC	--
Petroleum Hydrocarbons (ug/kg)														
GASOLINE RANGE ORGANICS	5/33	33	J	89	J	GSP-SB-78-0-2	27	34	63.0	22.2	NC	0	NC	--

Notes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011.
The SSL at a DAF of 20 is 20x the SSL at a DAF of 1.
6 - The value is for 1,4-dichlorobenzene.
7 - The value is for xylenes.
8 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.
9 - The value is for acenaphthene.
10 - The value is for pyrene.
11 - The value is for polychlorinated biphenyls (total).
12 - The value is for hexavalent chromium.
13 - Maximum Contaminant Level (MCL)-based soil screening level (SSL).

Definitions:
DAF = dilution attenuation factor
J = Estimated value
K = Biased high
kg = kilogram
L = biased low
MCL = Maximum Contaminant Level
MDE = Maryland Department of the Environment
mg = milligram
NC = No criteria
SSL = soil screening level
ug = microgram
USEPA = U.S. Environmental Protection Agency

Table 5-32

Occurrence and Distribution of Chemicals - Subsurface Soil (2-15 feet) - REC #11
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards - Groundwater Protection[1]	USEPA Soil Screening Level (SSL) for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20[1]
Volatile Organics (ug/kg)														
1,2,3-TRIMETHYLBENZENE	1/27	0.43	J	0.43	J	GSP-SB-79-4-6	0.12	0.2	0.4	0.1	NC	--	NC	--
1,2,4-TRIMETHYLBENZENE	2/27	8.2	J	9.4	J	GSP-SB-121-6-8	0.44	4.5	8.8	1.0	NC	--	420	0
2-BUTANONE	3/27	1.3	J	8.4	J	GSP-SB-113-6-8	0.95	50	4.7	3.3	29000	0	30000	0
4-ISOPROPYLTOLUENE	1/27	0.24	J	0.24	J	GSP-SB-79-4-6	0.14	5.5	0.2	0.3	NC	--	NC	--
ACETONE	6/27	6.2	J	220	J	GSP-SB-121-6-8	4.3	200	78.2	29.1	22000	0	90000	0
CARBON DISULFIDE	3/27	0.55	J	1.1	J	GSP-SB-114-6-8	0.3	14	0.7	0.9	19000	0	6200	0
CIS-1,2-DICHLOROETHENE	2/27	1.7	J	2.2	J	GSP-SB-119-6-8	0.24	8	2.0	0.6	NC	--	420	0
ETHYLBENZENE	3/27	0.26	J	4.4	J	GSP-SB-121-6-8	0.18	6.2	2.0	0.5	15000	0	34	0
M+P-XYLENES	2/27	14	J	15	J	GSP-SB-120-6-8	0.81	56	14.5	2.6	3000[6]	0	4000	0
NAPHTHALENE	5/27	3.4	J	1700	J	GSP-SB-121-6-8	0.13	3	822.7	152.5	150	3	9.4	4
O-XYLENE	3/27	0.29	J	6.4	J	GSP-SB-121-6-8	0.24	9.8	2.4	0.7	3000[6]	0	4000	0
TOLUENE	8/27	0.33	J	44		GSP-SB-113-6-8	0.18	20	5.9	2.7	27000	0	32000	0
TOTAL XYLENES	3/27	0.72	J	20	J	GSP-SB-121-6-8	0.45	7.3	11.9	1.7	3000	0	4000	0
TRICHLOROETHENE	4/27	0.81	J	19	J	GSP-SB-124-6-8	0.28	11	8.1	1.8	0.26	4	4.6[7]	2
VINYL CHLORIDE	1/27	0.36	J	0.36	J	GSP-SB-73-12-14-R	0.26	21	0.4	1.1	0.12	1	0.11	1
Semivolatile Organics (ug/kg)														
2-METHYLNAPHTHALENE	7/27	15		2700		GSP-SB-81-2-4	3.7	47	513	135	4400	0	15000	0
ACENAPHTHENE	8/27	34		1700		GSP-SB-81-2-4	3.7	9.3	566	169	100000	0	440000	0
ACENAPHTHYLENE	4/27	9		710		GSP-SB-81-2-4	3.7	47	187	31	100000	0	440000[8]	0
ANTHRACENE	9/27	11	L	5700		GSP-SB-81-2-4	3.7	9.3	1169	391	470000	0	7200000	0
BAP EQUIVALENT-HALFND	13/27	4.9		13917		GSP-SB-81-2-4	3.7	9.3	2498	1204	NC	--	NC	--
BAP EQUIVALENT-POS	13/27	0.8		13917		GSP-SB-81-2-4	3.7	9.3	2496	1203	NC	--	NC	--
BENZO(A)ANTHRACENE	12/27	8		11000		GSP-SB-81-2-4	3.7	9.3	2062	918	480	5	200	7
BENZO(A)PYRENE	11/27	5.9	J	10000		GSP-SB-81-2-4	3.7	9.3	2036	831	120	8	70	8
BENZO(B)FLUORANTHENE	13/27	8		9000		GSP-SB-81-2-4	3.7	9.3	1896	914	1500	3	700	5
BENZO(G,H,I)PERYLENE	10/27	19		5300		GSP-SB-81-2-4	3.7	9.3	1255	466	680000	0	2400000[9]	0
BENZO(K)FLUORANTHENE	10/27	7	J	4500		GSP-SB-81-2-4	3.7	9.3	1216	452	15000	0	7000	0
BIS(2-ETHYLHEXYL)PHTHALATE	3/27	43	J	120		GSP-SB-88-2-4	21	430	88	37	2900000	0	22000	0
CAPROLACTAM	1/27	43	J	43	J	GSP-SB-79-4-6	41	830	43	55	NC	--	90000	0
CARBAZOLE	4/27	420	J	1600		GSP-SB-121-6-8	30	610	728	133	470	1	NC	--
CHRYSENE	12/27	7.8	J	12000		GSP-SB-81-2-4	1.2	3.1	2146	954	48000	0	22000	0
DI-N-BUTYL PHTHALATE	1/27	34	J	34	J	GSP-SB-114-6-8	17	340	34	23	5000000	0	184000	0
DIBENZO(A,H)ANTHRACENE	7/27	36		1400		GSP-SB-81-2-4	3.7	9.3	548	144	460	3	220	3
DIBENZOFURAN	4/27	26	J	1000		GSP-SB-121-6-8	3.7	450	384	73	NC	--	13600	0
FLUORANTHENE	13/27	8.8		19000		GSP-SB-81-2-4	3.7	9.3	3737	1800	6300000	0	3200000	0
FLUORENE	9/27	7.6	L	3800		GSP-SB-81-2-4	3.7	9.3	736	247	140000	0	540000	0
INDENO(1,2,3-CD)PYRENE	10/27	10		4600		GSP-SB-81-2-4	3.7	9.3	1134	421	4200	1	2400	2
NAPHTHALENE	7/27	23		2900		GSP-SB-81-2-4	3.7	47	616	162	150	4	9.4	7
PHENANTHRENE	11/27	7.6	J	23000		GSP-SB-81-2-4	3.7	9.3	3747	1528	470000	0	2400000[9]	0
PHENOL	2/26	54	J	130	J	GSP-SB-120-6-8	30	610	92	41	67000	0	126000	0
PYRENE	13/27	9.1		26000		GSP-SB-81-2-4	3.7	9.3	3869	1864	680000	0	2400000	0
Polychlorinated Biphenyls (ug/kg)														
AROCLOR-1242	2/27	21	J	130		GSP-SB-121-6-8	14	150	75.5	15.2	NC	--	106	1
AROCLOR-1260	4/27	19	J	2700		GSP-SB-119-6-8	19	22	700.8	112.4	NC	--	480	1
TOTAL AROCLOR	4/27	19		2700		GSP-SB-119-6-8	0	0	738.5	109.4	NC	--	480[10]	1

Table 5-32

Occurrence and Distribution of Chemicals - Subsurface Soil (2-15 feet) - REC #11
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]	MDE Cleanup Standards - Groundwater Protection[4]	# Detects Greater than MDE Cleanup Standards - Groundwater Protection[1]	USEPA Soil Screening Level (SSL) for Groundwater Protection - Dilution Attenuation Factor (DAF) of 20[5]	# Detects Greater than USEPA SSL for Groundwater Protection - DAF of 20[1]
Inorganics (mg/kg)														
ANTIMONY	4/27	0.081	J	0.71	J	GSP-SB-119-6-8	0.019	0.99	0.3	0.2	13	0	13.2	0
ARSENIC	26/27	0.46	J	52		GSP-SB-111-6-8	0.33	0.33	3.8	3.7	0.026	26	0.026	26
BARIUM	27/27	1.5		67.2	J	GSP-SB-81-2-4			17.1	17.1	6000	0	6000	0
BERYLLIUM	8/27	0.072	J	0.74	J	GSP-SB-81-2-4	0.022	0.053	0.3	0.1	1200	0	1160	0
CADMIUM	4/27	0.065	J	0.14	J	GSP-SB-121-6-8	0.0019	0.044	0.1	0.0	27	0	28	0
CHROMIUM	27/27	1.4	J	27		GSP-SB-111-6-8			10.0	10.0	42[11]	0	0.017[11]	27
COBALT	24/27	0.12		6	J	GSP-SB-81-2-4	0.17	0.19	1.6	1.4	NC	--	9.8	0
COPPER	26/27	1.2	J	68		GSP-SB-118-6-8	0.8	0.8	8.8	8.5	11000	0	1020	0
IRON	7/7	183		15600	J	GSP-SB-81-2-4			6637	6637	NC	--	12800	2
LEAD	23/27	0.42		19		GSP-SB-121-6-8	0.73	1.1	6.1	5.3	NC	--	280[12]	0
MANGANESE	7/7	0.98		713	J	GSP-SB-81-2-4			131.2	131.2	950	0	1140	0
MERCURY	11/27	0.017	J	0.048	J	GSP-SB-118-6-8	0.013	0.02	0.0	0.0	NC	--	0.66	0
MOLYBDENUM	6/27	0.15	J	0.65		GSP-SB-79-4-6	0.062	2.4	0.3	0.2	NC	--	74	0
NICKEL	24/27	0.21		10.3	J	GSP-SB-81-2-4	0.29	0.33	2.7	2.4	NC	--	960	0
SELENIUM	9/27	0.051	J	0.84	J	GSP-SB-111-6-8	0.42	0.55	0.4	0.3	19	0	19	0
SILVER	2/27	0.052	J	0.18	J	GSP-SB-130-6-8	0.0044	0.12	0.1	0.0	31	0	32	0
THALLIUM	3/27	0.64	J	0.94	J	GSP-SB-121-6-8	0.021	0.67	0.8	0.3	3.6	0	0.52	3
VANADIUM	26/27	4.2		300		GSP-SB-111-6-8	3.7	3.7	26.1	25.2	730	0	3600	0
ZINC	21/27	1.9	J	63		GSP-SB-121-6-8	0.88	4.4	14.3	11.3	14000	0	13600	0
Petroleum Hydrocarbons (mg/kg)														
DIESEL RANGE ORGANICS	13/27	3.7	J	5200		GSP-SB-81-2-4	3.3	15	464	226	NC	--	NC	--
Petroleum Hydrocarbons (ug/kg)														
GASOLINE RANGE ORGANICS	6/27	36	J	150	J	GSP-SB-81-2-4	28	34	82.8	30.1	NC	--	NC	--

Notes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011.
The SSL at a DAF of 20 is 20x the SSL at a DAF of 1.
6 - The value is for xylenes.
7 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.
8 - The value is for acenaphthene.
9 - The value is for pyrene.
10 - The value is for polychlorinated biphenyls (total).
11 - The value is for hexavalent chromium.
12 - Maximum Contaminant Level (MCL)-based soil screening level (SSL).

Definitions:
DAF = dilution attentuation factor
J = Estimated value
kg = kilogram
L = Biased low
MCL = Maximim Contaminant Level
MDE = Maryland Department of the Environment
mg = milligram
NC = No criteria
REC = recognized environmental condition
SSL = soil screening level
ug = microgram
USEPA = U.S. Environmental Protection Agency

Table 5-33

Occurrence and Distribution of Chemicals - Subsurface Soil (Greater than 15 feet) - REC #11
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]
Volatile Organics (ug/kg)										
1,2,3-TRICHLOROBENZENE	1/32	0.36	J	0.36	J	GSP-SB-119-20-22	0.22	0.43	0.4	0.2
1,2,3-TRIMETHYLBENZENE	3/32	0.1	J	0.78	J	GSP-SB-119-20-22	0.11	0.19	0.4	0.1
1,2,4-TRICHLOROBENZENE	1/32	11		11		GSP-SB-119-20-22	0.16	0.31	11.0	0.5
1,2,4-TRIMETHYLBENZENE	1/32	1.2	J	1.2	J	GSP-SB-119-20-22	0.37	0.74	1.2	0.3
1,3-DICHLOROBENZENE	1/32	10		10		GSP-SB-119-20-22	0.2	0.4	10.0	0.5
1,4-DICHLOROBENZENE	1/32	0.61	J	0.61	J	GSP-SB-119-20-22	0.38	0.75	0.6	0.3
2-BUTANONE	1/32	11	J	11	J	GSP-SB-119-20-22	0.81	1.6	11.0	1.0
4-ISOPROPYLTOLUENE	1/32	1.3	J	1.3	J	GSP-SB-121-18-20	0.14	0.24	1.3	0.1
ACETONE	9/32	8.6	J	660	J	GSP-SB-87-22-25	4.2	52	197.1	59.5
BENZENE	3/32	0.45	J	1.4	J	GSP-SB-91-22-24	0.15	0.26	0.8	0.2
CARBON DISULFIDE	4/32	0.55	J	1.8	J	GSP-SB-119-20-22	0.25	0.46	1.0	0.3
CIS-1,2-DICHLOROETHENE	5/32	0.31	J	4.2		GSP-SB-118-20-22	0.21	0.41	1.9	0.4
ETHYLBENZENE	3/32	0.24	J	0.53	J	GSP-SB-121-18-20	0.17	0.3	0.4	0.1
NAPHTHALENE	3/32	11		38		GSP-SB-120-18-20	0.14	2.5	26.7	2.7
O-XYLENE	3/32	0.36	J	0.65	J	GSP-SB-120-18-20	0.23	0.4	0.5	0.2
STYRENE	1/32	0.17	J	0.17	J	GSP-SB-120-18-20	0.086	0.17	0.2	0.1
TOLUENE	5/32	0.32	J	1	J	GSP-SB-121-18-20	0.18	0.31	0.6	0.2
TOTAL XYLENES	1/32	0.65	J	0.65	J	GSP-SB-120-18-20	0.39	0.76	0.7	0.3
TRICHLOROETHENE	9/32	0.89	J	32		GSP-SB-115-18-20	0.24	0.45	8.2	2.5
VINYL CHLORIDE	4/32	0.45	J	1.5	J	GSP-SB-118-20-22	0.22	0.44	0.7	0.2
Semivolatile Organics (ug/kg)										
2-METHYLNAPHTHALENE	2/31	59		460		GSP-SB-120-18-20	3.8	4.4	260	19
ACENAPHTHENE	3/31	14		2000		GSP-SB-120-18-20	3.8	4.4	721	72
ACENAPHTHYLENE	2/31	17		430		GSP-SB-120-18-20	3.8	4.4	224	16
ANTHRACENE	4/31	7.4	J	7400		GSP-SB-120-18-20	3.8	4.4	1922	250
BAP EQUIVALENT-HALFND	10/31	6.20065		12725		GSP-SB-120-18-20	3.8	4.4	1367	442
BAP EQUIVALENT-POS	10/31	1.98		12725		GSP-SB-120-18-20	3.8	4.4	1365	442
BENZO(A)ANTHRACENE	7/31	12		11000		GSP-SB-120-18-20	3.8	4.4	1690	383
BENZO(A)PYRENE	8/31	6	J	8700		GSP-SB-120-18-20	3.8	4.4	1169	303
BENZO(B)FLUORANTHENE	10/31	8.8		9200		GSP-SB-120-18-20	3.8	4.4	993	322
BENZO(G,H,I)PERYLENE	8/31	4.4	J	4500		GSP-SB-120-18-20	3.8	4.4	610	159

Table 5-33

Occurrence and Distribution of Chemicals - Subsurface Soil (Greater than 15 feet) - REC #11
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]
BENZO(K)FLUORANTHENE	7/31	5.6	J	6400		GSP-SB-120-18-20	3.8	4.4	991	225
BIS(2-ETHYLHEXYL)PHTHALATE	4/31	23	J	46	J	GSP-SB-122-20-22	22	470	34	25
CARBAZOLE	2/31	130		920	J	GSP-SB-120-18-20	31	36	525	49
CHRYSENE	7/31	14		11000		GSP-SB-120-18-20	1.3	1.5	1670	378
DI-N-BUTYL PHTHALATE	5/31	18	J	27	J	GSP-SB-129-20-22	17	370	23	17
DIBENZO(A,H)ANTHRACENE	2/31	74		1500		GSP-SB-120-18-20	3.8	4.4	787	53
DIBENZOFURAN	2/31	74	J	1800		GSP-SB-120-18-20	3.9	27	937	68
FLUORANTHENE	10/31	7.2	J	28000		GSP-SB-120-18-20	3.8	4.4	2964	958
FLUORENE	3/31	13		3900		GSP-SB-120-18-20	3.8	4.4	1354	133
INDENO(1,2,3-CD)PYRENE	8/31	4.1	J	4300		GSP-SB-120-18-20	3.8	4.4	584	152
NAPHTHALENE	2/31	54		730		GSP-SB-120-18-20	3.8	4.4	392	27
PHENANTHRENE	8/31	12		26000		GSP-SB-120-18-20	3.8	4.4	3396	878
PYRENE	9/31	6.4	J	20000		GSP-SB-120-18-20	3.8	4.4	2377	692
Inorganics (mg/kg)										
ANTIMONY	8/18	0.059	J	0.3	L	GSP-SB-74-20-22	0.013	0.062	0.1	0.1
ARSENIC	18/18	0.69		42.6		GSP-SB-84-22-25			6.6	6.6
BARIUM	18/18	3.1	J	21.7	K	GSP-SB-83-23-25			10.8	10.8
BERYLLIUM	16/18	0.067	J	0.65		GSP-SB-83-23-25	0.027	0.029	0.3	0.3
CADMIUM	3/18	0.045	J	0.075	J	GSP-SB-74-20-22	0.0029	0.026	0.1	0.0
CHROMIUM	18/18	5.7	J	24.5	J	GSP-SB-86-21-23			16.3	16.3
COBALT	18/18	0.25	J	93.4		GSP-SB-84-22-25			12.2	12.2
COPPER	18/18	1.3	J	481		GSP-SB-78-20-22			45.9	45.9
IRON	18/18	294	J	5130		GSP-SB-86-21-23			1865	1865
LEAD	18/18	0.89	J	24.5		GSP-SB-84-22-25			6.3	6.3
MANGANESE	18/18	0.97	J	11.6		GSP-SB-86-21-23			4.0	4.0
MERCURY	5/18	0.026	J	0.099	J	GSP-SB-85-22-25	0.019	0.022	0.1	0.0
MOLYBDENUM	7/18	0.1	J	0.57		GSP-SB-74-20-22	0.017	0.13	0.3	0.1
NICKEL	18/18	0.55		134		GSP-SB-84-22-25			20.3	20.3
SELENIUM	18/18	0.27	J	3.1	L	GSP-SB-83-23-25			1.8	1.8
SILVER	4/18	0.049	J	0.067	J	GSP-SB-81-20-22	0.0018	0.051	0.1	0.0
THALLIUM	4/18	0.15		0.37		GSP-SB-84-22-25	0.015	0.21	0.2	0.1

Table 5-33

Occurrence and Distribution of Chemicals - Subsurface Soil (Greater than 15 feet) - REC #11
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection[1]	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results[2]	Overall Average[3]
VANADIUM	18/18	5	J	50.2	J	GSP-SB-73-16-18			20.6	20.6
ZINC	11/18	3.9	J	24.5		GSP-SB-90-23-25	1.7	3.1	11.0	7.2
Petroleum Hydrocarbons (mg/kg)										
DIESEL RANGE ORGANICS	16/32	3.5	J	320	J	GSP-SB-119-20-22	3.3	16	32.7	18.5
Petroleum Hydrocarbons (ug/kg)										
GASOLINE RANGE ORGANICS	6/32	34	J	44	J	GSP-SB-120-18-20	30	34	38.0	20.3

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations as one sample when determining the frequency of detection and exceedances.
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.

Definitions:
L = Biased low
J = Estimated value
K = Biased high
REC = recognized environmental condition
kg = kilogram
mg = milligram
ug = microgram

Table 5-34

Occurrence and Distribution of Chemicals - Groundwater - REC #11
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results	Overall Average	MDE Cleanup Standards - Groundwater[4]	# Detects Greater than MDE Cleanup Standards - Groundwater[1]	USEPA RBC - Tap Water[5]	# Detects Greater than USEPA RBC - Tap Water[1]
Volatile Organics (ug/l)														
1,1-DICHLOROETHENE	3/10	0.45	J	1.3		GSP-SB/WP-89-20100528	0.19	0.19	0.9	0.3	7	0	340	0
1,2,4-TRIMETHYLBENZENE	1/10	0.26	J	0.26	J	GSP-MW-1-061711	0.12	0.12	0.3	0.1	NC	--	15	0
2-BUTANONE	1/10	0.62	J	0.62	J	GSP-MW-3-061711	0.57	0.57	0.6	0.3	700	0	7100	0
ACETONE	1/10	1.5	J	1.5	J	GSP-MW-4-062011	1.1	16	1.5	2.3	550	0	22000	0
BENZENE	1/10	0.13	J	0.13	J	GSP-MW-4-062011	0.13	0.35	0.1	0.1	5	0	0.41	0
CIS-1,2-DICHLOROETHENE	7/10	0.32	J	4.5		GSP-SB/WP-89-20100528	0.17	0.17	2.0	1.4	70	0	73	0
M+P-XYLENES	1/10	0.71	J	0.71	J	GSP-MW-1-061711	0.24	0.24	0.7	0.2	10000	0	200	0
O-XYLENE	1/10	0.33	J	0.33	J	GSP-MW-1-061711	0.14	0.14	0.3	0.1	10000	0	200	0
TOLUENE	1/10	0.13	J	0.13	J	GSP-MW-4-062011	0.13	1.1	0.1	0.1	1000	0	2300	0
TOTAL XYLENES	1/10	1	J	1	J	GSP-MW-1-061711	0.28	0.28	1.0	0.2	10000	0	200	0
TRANS-1,2-DICHLOROETHENE	2/10	0.19	J	0.22	J	GSP-SB/WP-89-20100528	0.19	0.19	0.2	0.1	100	0	110	0
TRICHLOROETHENE	8/10	1.3		25		GSP-SB-WP-89-062311, GSP-SB/WP-89-20100528	0.17	0.17	10.1	8.1	5	4	0.66[6]	8
VINYL CHLORIDE	2/10	0.28	J	0.66	J	GSP-MW-4-062011	0.22	0.22	0.5	0.2	2	0	0.016	2
Semivolatile Organics (ug/l)														
4-METHYLPHENOL	1/3	8.4		8.4		GSP-SB/WP-83-20100528	0.8	0.8	8.4	3.1	18	0	180	0
BIS(2-ETHYLHEXYL)PHTHALATE	2/10	0.99	J	1.3	J	GSP-SB/WP-84-20100526	0.76	0.8	1.1	0.5	6	0	4.8	0
BUTYL BENZYL PHTHALATE	2/10	0.82	J	0.9	J	GSP-SB/WP-83-20100528	0.76	0.8	0.9	0.5	NC	--	35	0
CAPROLACTAM	1/10	0.77	J	0.77	J	GSP-MW-1-061711	0.76	0.8	0.8	0.4	NC	--	18000	0
PHENOL	3/10	0.69	J	1.7		GSP-SB/WP-83-20100528	0.57	0.59	1.2	0.6	1100	0	11000	0
Inorganics (ug/l)														
ARSENIC	10/10	0.55	J	11	J	GSP-SB-WP-83-062211, GSP-MW-3-061711			5.6	5.6	10	2	0.045	10
BARIUM	10/10	16		120		GSP-MW-1-061711			53.7	53.7	2000	0	7300	0
BERYLLIUM	6/10	0.51	J	1.7		GSP-MW-1-061711	0.092	0.092	0.8	0.5	4	0	73	0
CADMIUM	5/10	0.1	J	1		GSP-SB-WP-84-062311	0.029	0.058	0.5	0.3	5	0	18	0
CHROMIUM	8/10	2.2		7.5		GSP-SB/WP-84-20100526	0.36	0.73	4.8	3.9	100[7]	0	0.043[7]	8
COBALT	10/10	4.5		210		GSP-SB-WP-84-062311			61.9	61.9	NC	--	11	7
COPPER	7/10	0.93	J	35		GSP-MW-1-061711	0.65	5.6	9.4	7.1	1300	0	1500	0
IRON	3/3	7470		20800		GSP-SB/WP-83-20100528			12320	12320	300	3	26000	0
LEAD	5/10	1.1	J	5	J	GSP-SB/WP-84-20100526	0.073	0.75	2.4	1.3	15	0	NC	--
MANGANESE	3/3	29.8		215		GSP-SB/WP-83-20100528			121.6	121.6	50	2	880	0
MERCURY	1/10	0.073	J	0.073	J	GSP-SB-WP-84-062311	0.066	0.1	0.1	0.0	2	0	11[8]	0
NICKEL	10/10	0.69	J	380		GSP-SB-WP-84-062311			100	100	73	3	730	0
SELENIUM	4/10	0.36	J	1.2	J	GSP-SB-WP-89-062311	0.32	0.9	0.8	0.5	50	0	180	0
THALLIUM	1/10	1.1	J	1.1	J	GSP-SB-WP-84-062311	0.13	1.1	1.1	0.3	2	0	0.37	1
VANADIUM	9/10	0.37	J	48		GSP-MW-3-061711	0.3	0.3	11.4	10.2	3.7	5	180	0
ZINC	8/10	6	J	1500	J	GSP-SB-WP-84-062311	3.5	98.1	413	335	5000	0	11000	0

Table 5-34

Occurrence and Distribution of Chemicals - Groundwater - REC #11
Greater Strawberry Point
Lockheed Martin, Middle River Complex
Middle River, Maryland

Parameter	Frequency of Detection	Minimum Concentration[1]		Maximum Concentration[1]		Sample of Maximum Concentration	Minimum Nondetect	Maximum Nondetect	Average of Positive Results	Overall Average	MDE Cleanup Standards - Groundwater[4]	# Detects Greater than MDE Cleanup Standards - Groundwater[1]	USEPA RBC - Tap Water[5]	# Detects Greater than USEPA RBC - Tap Water[1]
Filtered Inorganics (ug/l)														
ARSENIC	10/10	0.27	J	9.4	J	GSP-SB-WP-83-062211			3.9	3.9	10	0	0.045	10
BARIUM	10/10	10		120		GSP-MW-3-061711			51.1	51.1	2000	0	7300	0
BERYLLIUM	6/10	0.61	J	1.8		GSP-MW-3-061711	0.092	0.092	1.0	0.6	4	0	73	0
CADMIUM	5/10	0.074	J	1.1		GSP-SB-WP-84-062311	0.046	0.096	0.5	0.3	5	0	18	0
CHROMIUM	7/10	1.4	J	5.8		GSP-SB/WP-83-20100528	0.2	0.62	3.0	2.1	100[7]	0	0.043[7]	7
COBALT	10/10	4		220		GSP-SB-WP-84-062311			63.6	63.6	NC	0	11	7
COPPER	7/10	0.39	J	36		GSP-MW-3-061711	0.42	3.3	7.5	5.5	1300	0	1500	0
IRON	3/3	5680		19800		GSP-SB/WP-83-20100528			10697	10697	300	3	26000	0
LEAD	3/10	1.2	J	2.6		GSP-SB-WP-84-062311	0.078	0.34	2.0	0.7	15	0	NC	--
MANGANESE	3/3	27.5		193		GSP-SB/WP-83-20100528			110.5	110.5	50	2	880	0
NICKEL	10/10	0.73	J	410		GSP-SB-WP-84-062311			103.6	103.6	73	3	730	0
SELENIUM	3/10	0.35	J	0.96	J	GSP-SB-WP-89-062311	0.15	0.87	0.7	0.3	50	0	180	0
THALLIUM	1/10	1.1	J	1.1	J	GSP-SB-WP-84-062311	0.13	1	1.1	0.3	2	0	0.37	1
VANADIUM	7/10	0.45	J	13	J	GSP-SB-WP-84-062311	0.3	0.3	4.1	2.9	3.7	2	180	0
ZINC	9/10	4.9	J	1600	J	GSP-SB-WP-84-062311	6.1	6.1	390	351	5000	0	11000	0
Petroleum Hydrocarbons (ug/l)														
DIESEL RANGE ORGANICS	6/10	42	J	360	J	GSP-MW-3-061711	230	740	211	211	47	5	NC	--

1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum detected concentrations and as one sample when determining the frequency of detection and exceedances.
2 - Average of positive analytical results only.
3 - Average of all analytical results are calculated using half of the detection limit for nondetects.
4 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
5 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011.
6 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.
7 - The value is for hexavalent chromium.
8 - The value is for mercuric chloride (and other mercury salts).

Definitions:
J = Estimated value
MDE = Maryland Department of the Environment
NC = No criteria
RBC = risk based concentration
REC = recognized environmental condition
USEPA = U.S. Environmental Protection Agency
ug/L = micrograms per liter

Table 5-35

Summary Of Cancer Risks And Hazard Indices - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks $> 10^{-4}$	Chemicals with Cancer Risks $> 10^{-5}$ and $\leq 10^{-4}$	Chemicals with Cancer Risks $> 10^{-6}$ and $\leq 10^{-5}$	Hazard Index	Chemicals Contributing to an Target Organ HI > 1
Construction Workers	Surface Soil	Incidental Ingestion	1E-06	--	--	--	0.3	--
		Dermal Contact	3E-07	--	--	--	0.04	--
		Inhalation	1E-07	--	--	--	1	--
		Total	2E-06	--	--	--	2	Manganese
	Subsurface Soil	Incidental Ingestion	2E-06	--	--	--	0.6	--
		Dermal Contact	4E-07	--	--	--	0.09	--
		Inhalation	2E-07	--	--	--	2	Manganese
		Total	3E-06	--	--	--	3	Manganese
	Groundwater	Incidental Ingestion	2E-08	--	--	--	0.02	--
		Dermal Contact	2E-07	--	--	--	0.06	--
		Inhalation	2E-09	--	--	--	0.00008	--
		Total	2E-07	--	--	--	0.07	--
	Total Surface Soil and Groundwater		2E-06				2	
	Total Subsurface Soil and Groundwater		3E-06				3	
Industrial Workers	Surface Soil	Incidental Ingestion	4E-06	--	--	Benzo(a)pyrene Equivalents	0.07	--
		Dermal Contact	6E-06	--	--	Benzo(a)pyrene Equivalents	0.04	--
		Inhalation	2E-09	--	--	--	0.0006	--
		Total	9E-06	--	--	Benzo(a)pyrene Equivalents, Aroclor-1260	0.1	--
	Subsurface Soil	Incidental Ingestion	6E-06	--	--	Benzo(a)pyrene Equivalents, Arsenic	0.09	--
		Dermal Contact	7E-06	--	--	Benzo(a)pyrene Equivalents	0.06	--
		Inhalation	2E-08	--	--	--	0.002	--
		Total	1E-05	--	--	Benzo(a)pyrene Equivalents, Arsenic	0.2	--
Child Trespassers	Surface Soil	Incidental Ingestion	1E-05	--	--	Benzo(a)pyrene Equivalents	0.3	--
		Dermal Contact	6E-06	--	--	Benzo(a)pyrene Equivalents	0.04	--
		Inhalation	2E-10	--	--	--	0.0001	--
		Total	2E-05	--	Benzo(a)pyrene Equivalents	--	0.3	--
	Subsurface Soil	Incidental Ingestion	2E-05	--	--	Benzo(a)pyrene Equivalents, Arsenic	0.3	--
		Dermal Contact	8E-06	--	--	Benzo(a)pyrene Equivalents	0.07	--
		Inhalation	1E-09	--	--	--	0.0003	--
		Total	3E-05	--	Benzo(a)pyrene Equivalents	Arsenic	0.4	--
Adolescent Trespassers	Surface Soil	Incidental Ingestion	3E-06	--	--	Benzo(a)pyrene Equivalents	0.05	--
		Dermal Contact	1E-06	--	--	--	0.006	--
		Inhalation	2E-10	--	--	--	0.0001	--
		Total	4E-06	--	--	Benzo(a)pyrene Equivalents	0.06	--
	Subsurface Soil	Incidental Ingestion	4E-06	--	--	Benzo(a)pyrene Equivalents	0.06	--
		Dermal Contact	1E-06	--	--	--	0.01	--
		Inhalation	2E-09	--	--	--	0.0003	--
		Total	6E-06	--	--	Benzo(a)pyrene Equivalents	0.08	--
Child Recreational Users	Surface Soil	Incidental Ingestion	2E-05	--	Benzo(a)pyrene Equivalents	--	0.4	--
		Dermal Contact	6E-06	--	--	Benzo(a)pyrene Equivalents	0.04	--
		Inhalation	2E-10	--	--	--	0.0002	--
		Total	2E-05	--	Benzo(a)pyrene Equivalents	--	0.4	--
	Subsurface Soil	Incidental Ingestion	2E-05	--	Benzo(a)pyrene Equivalents	Arsenic	0.5	--
		Dermal Contact	8E-06	--	--	Benzo(a)pyrene Equivalents	0.07	--
		Inhalation	1E-09	--	--	--	0.0005	--
		Total	3E-05	--	Benzo(a)pyrene Equivalents	Arsenic	0.5	--

Table 5-35

Summary Of Cancer Risks And Hazard Indices - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks > 10^{-4}	Chemicals with Cancer Risks > 10^{-5} and ≤ 10^{-4}	Chemicals with Cancer Risks > 10^{-6} and ≤ 10^{-5}	Hazard Index	Chemicals Contributing to an Target Organ HI > 1
Adolescent Recreational Users	Surface Soil	Incidental Ingestion	4E-06	--	--	Benzo(a)pyrene Equivalents	0.07	--
		Dermal Contact	1E-06	--	--	--	0.008	--
		Inhalation	3E-10	--	--	--	0.0002	--
		Total	5E-06	--	--	Benzo(a)pyrene Equivalents	0.08	--
	Subsurface Soil	Incidental Ingestion	5E-06	--	--	Benzo(a)pyrene Equivalents	0.09	--
		Dermal Contact	2E-06	--	--	--	0.01	--
		Inhalation	3E-09	--	--	--	0.0005	--
		Total	7E-06	--	--	Benzo(a)pyrene Equivalents, Arsenic	0.1	--
Adult Recreational Users	Surface Soil	Incidental Ingestion	1E-06	--	--	--	0.04	--
		Dermal Contact	5E-07	--	--	--	0.006	--
		Inhalation	2E-10	--	--	--	0.0002	--
		Total	1E-06	--	--	--	0.05	--
	Subsurface Soil	Incidental Ingestion	2E-06	--	--	--	0.05	--
		Dermal Contact	6E-07	--	--	--	0.01	--
		Inhalation	2E-09	--	--	--	0.0005	--
		Total	2E-06	--	--	--	0.06	--
Lifelong Recreational Users (Child, Adolescent, and Adults)	Surface Soil	Incidental Ingestion	2E-05	--	Benzo(a)pyrene Equivalents	Arsenic	NA	--
		Dermal Contact	8E-06	--	--	Benzo(a)pyrene Equivalents	NA	--
		Inhalation	7E-10	--	--	--	NA	--
		Total	3E-05	--	Benzo(a)pyrene Equivalents	Aroclor-1260, Arsenic	NA	--
	Subsurface Soil	Incidental Ingestion	3E-05	--	Benzo(a)pyrene Equivalents	Arsenic	NA	--
		Dermal Contact	1E-05	--	--	Benzo(a)pyrene Equivalents	NA	--
		Inhalation	6E-09	--	--	--	NA	--
		Total	4E-05	--	Benzo(a)pyrene Equivalents	Arsenic	NA	--
Child Residents	Surface Soil	Incidental Ingestion	9E-05	--	Benzo(a)pyrene Equivalents	Aroclor-1260, Arsenic	2	Target Organs HI < 1
		Dermal Contact	3E-05	--	Benzo(a)pyrene Equivalents	--	0.2	--
		Inhalation	3E-09	--	--	--	0.002	--
		Total	1E-04	--	Benzo(a)pyrene Equivalents	Aroclor-1260, Arsenic	2	Target Organs HI < 1
	Subsurface Soil	Incidental Ingestion	1E-04	--	Benzo(a)pyrene Equivalents, Arsenic	Aroclor-1260	2	Target Organs HI < 1
		Dermal Contact	4E-05	--	Benzo(a)pyrene Equivalents	Arsenic	0.3	--
		Inhalation	2E-08	--	--	--	0.007	--
		Total	2E-04	--	Benzo(a)pyrene Equivalents, Arsenic	Aroclor-1260	3	Target Organs HI < 1
	Groundwater	Incidental Ingestion	2E-04	--	Vinyl Chloride, Arsenic, Chromium VI	Trichloroethene	62	Cobalt, Zinc, Trichloroethene, Arsenic, Iron, Thallium
		Dermal Contact	6E-05	--	Chromium VI	Vinyl Chloride	0.9	--
		Total	3E-04	Chromium VI	Vinyl Chloride, Arsenic	Trichloroethene	63	Cobalt, Zinc, Trichloroethene, Arsenic, Iron, Thallium
	Total Surface Soil and Groundwater		4E-04				65	
	Total Subsurface Soil and Groundwater		5E-04				66	

Table 5-35

Summary Of Cancer Risks And Hazard Indices - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks > 10^{-4}	Chemicals with Cancer Risks > 10^{-5} and ≤ 10^{-4}	Chemicals with Cancer Risks > 10^{-6} and ≤ 10^{-5}	Hazard Index	Chemicals Contributing to an Target Organ HI > 1
Adolescent Residents	Surface Soil	Incidental Ingestion	2E-05	--	--	Benzo(a)pyrene Equivalents, Arsenic	0.4	--
		Dermal Contact	7E-06	--	--	Benzo(a)pyrene Equivalents	0.04	--
		Inhalation	4E-09	--	--	--	0.002	--
		Total	2E-05	--	Benzo(a)pyrene Equivalents	Aroclor-1260, Arsenic	0.4	--
	Subsurface Soil	Incidental Ingestion	3E-05	--	Benzo(a)pyrene Equivalents	Arsenic	0.4	--
		Dermal Contact	8E-06	--	--	Benzo(a)pyrene Equivalents	0.07	--
		Inhalation	4E-08	--	--	--	0.007	--
		Total	4E-05	--	Benzo(a)pyrene Equivalents	Arsenic	0.5	--
	Groundwater	Incidental Ingestion	2E-04	--	Arsenic, Chromium VI	Trichloroethene, Vinyl Chloride	47	Cobalt, Zinc, Trichloroethene, Arsenic, Thallium
		Dermal Contact	3E-05	--	Chromium VI	--	0.5	--
		Total	3E-04	--	Arsenic, Chromium VI	Trichloroethene, Vinyl Chloride	47	Cobalt, Zinc, Trichloroethene, Arsenic, Thallium
	Total Surface Soil and Groundwater		3E-04				47	
	Total Subsurface Soil and Groundwater		3E-04				48	
Adult Residents	Surface Soil	Incidental Ingestion	5E-06	--	--	Benzo(a)pyrene Equivalents	0.2	--
		Dermal Contact	2E-06	--	--	Benzo(a)pyrene Equivalents	0.03	--
		Inhalation	3E-09	--	--	--	0.002	--
		Total	7E-06	--	--	Benzo(a)pyrene Equivalents	0.2	--
	Subsurface Soil	Incidental Ingestion	9E-06	--	--	Benzo(a)pyrene Equivalents, Arsenic	0.2	--
		Dermal Contact	3E-06	--	--	Benzo(a)pyrene Equivalents	0.05	--
		Inhalation	4E-08	--	--	--	0.007	--
		Total	1E-05	--	--	Benzo(a)pyrene Equivalents, Arsenic	0.3	--
	Groundwater	Incidental Ingestion	1E-04	--	Arsenic, Chromium VI	Trichloroethene, Vinyl Chloride	27	Cobalt, Trichloroethene, Arsenic, Thallium
		Dermal Contact	9E-06	--	--	Chromium VI	0.4	--
		Inhalation	1E-06	--	--	--	0.8	--
		Total	1E-04	--	Arsenic, Chromium VI	Trichloroethene, Vinyl Chloride	28	Cobalt, Trichloroethene, Arsenic, Thallium
	Total Surface Soil and Groundwater		1E-04				28	
	Total Subsurface Soil and Groundwater		1E-04				28	
Lifelong Residents (Child, Adolescent, and Adults)	Surface Soil	Incidental Ingestion	1E-04	--	Benzo(a)pyrene Equivalents	Aroclor-1260, Arsenic	NA	--
		Dermal Contact	4E-05	--	Benzo(a)pyrene Equivalents	Aroclor-1260	NA	--
		Inhalation	1E-08	--	--	--	NA	--
		Total	1E-04	--	Benzo(a)pyrene Equivalents	n-Nitroso-di-n-propylamine, Aroclor-1260, Arsenic	NA	--
	Subsurface Soil	Incidental Ingestion	2E-04	--	Benzo(a)pyrene Equivalents, Arsenic	Aroclor-1260	NA	--
		Dermal Contact	5E-05	--	Benzo(a)pyrene Equivalents	Aroclor-1260, Arsenic	NA	--
		Inhalation	1E-07	--	--	--	NA	--
		Total	2E-04	Benzo(a)pyrene Equivalents	Arsenic	Aroclor-1260	NA	--
	Groundwater	Incidental Ingestion	6E-04	Arsenic, Chromium VI	Trichloroethene, Vinyl Chloride	--	NA	--
		Dermal Contact	1E-04	--	Chromium VI	Trichloroethene, Vinyl Chloride, Arsenic	NA	--
		Inhalation	1E-06	--	--	--	NA	--
		Total	7E-04	Arsenic, Chromium VI	Trichloroethene, Vinyl Chloride	--	NA	--
	Total Surface Soil and Groundwater		8E-04				NA	
	Total Subsurface Soil and Groundwater		9E-04				NA	

Notes:
NA - Not applicable. REC = recognized environmental condition

Table 5-36

Preliminary Remedial Goals - Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CONSTRUCTION WORKERS					
Chemical	**USEPA RSL[1,2] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.21	1.6	16.0	160	NA
Manganese	23,000	NA	NA	NA	290

INDUSTRIAL WORKERS					
Chemical	**USEPA RSL[1,2] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.21	0.29	2.9	29	NA

CHILD TRESPASSERS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.11	1.1	11	NA

ADOLESCENT TRESPASSERS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.54	5.4	54	NA

CHILD RECREATIONAL USERS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.086	0.86	8.6	NA

ADOLESCENT RECREATIONAL USERS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.40	4.0	40	NA

ADULT RECREATIONAL USERS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	1.9	19	190	NA

Table 5-36

Preliminary Remedial Goals - Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LIFELONG RECREATIONAL USERS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.068	0.68	6.8	NA
Arsenic	0.39	1.8	18	180	NA

CHILD RESIDENTS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.017	0.17	1.7	NA
Aroclor-1260	0.22	0.33	3.3	33	NA
Arsenic	0.39	0.56	5.6	56	22
Manganese	1,800	NA	NA	NA	1,100

ADOLESCENT RESIDENTS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.080	0.80	8.0	NA
Arsenic	0.39	1.5	15	150	110

ADULT RESIDENTS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.38	3.8	38	NA

LIFELONG RESIDENTS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.014	0.14	1.4	NA
Aroclor-1260	0.22	0.20	2.0	20	NA
Arsenic	0.39	0.35	3.5	35	NA

Notes:
1 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011. [Cancer benchmark value = 1E-06, Hazard index (HI) = 1.0].
2 - Industrial soil.
3 - Residential soil.
mg/kg = milligrams per kilogram
NA - Not applicable/not available.
REC = recognized environmental condition
USEPA = U.S. Environmental Protection Agency

Table 5-37

Preliminary Remedial Goals - Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CONSTRUCTION WORKERS					
Chemical	**USEPA RSL[1,2] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Manganese	23,000	NA	NA	NA	290
INDUSTRIAL WORKERS					
Chemical	**USEPA RSL[1,2] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.21	0.29	2.9	29	NA
Aroclor-1260	0.74	1.0	10	100	NA
Arsenic	1.6	2.7	27	270	440
CHILD TRESPASSERS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.11	1.1	11	NA
Arsenic	0.39	3.7	37	370	140
ADOLESCENT TRESPASSERS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.54	5.4	54	NA
CHILD RECREATIONAL USERS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.086	0.86	8.6	NA
Arsenic	0.39	2.8	28	280	110
ADOLESCENT RECREATIONAL USERS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.40	4.0	40	NA
Arsenic	0.39	7.4	74	740	570

Table 5-37

Preliminary Remedial Goals - Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LIFELONG RECREATIONAL USERS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.068	0.68	6.8	NA
Aroclor-1260	0.22	1.0	10	100	NA
Arsenic	0.39	1.8	18	180	NA

CHILD RESIDENTS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.017	0.17	1.7	NA
Aroclor-1260	0.22	0.33	3.3	33	NA
Arsenic	0.39	0.56	5.6	56	22

ADOLESCENT RESIDENTS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.080	0.80	8.0	NA
Aroclor-1260	0.22	0.86	8.6	86	NA
Arsenic	0.39	1.5	15	150	110

ADULT RESIDENTS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.38	3.8	38	NA
Arsenic	0.39	2.5	25	250	190

LIFELONG RESIDENTS					
Chemical	**USEPA RSL[1,3] (mg/kg)**	**Target Cancer Risk Level**			**Hazard Index = 1 (mg/kg)**
		10^{-6} (mg/kg)	**10^{-5} (mg/kg)**	**10^{-4} (mg/kg)**	
Benzo(a)pyrene Equivalents	0.015	0.014	0.14	1.36	NA
n-Nitroso-di-n-propylamine	0.069	0.063	0.63	6.3	NA
Aroclor-1260	0.22	0.20	2.0	20	NA
Arsenic	0.39	0.35	3.5	35	NA

Table 5-37

Preliminary Remedial Goals - Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Notes:
1 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011. [Cancer benchmark value = 1E-06, Hazard index (HI) = 1.0].
2 - Industrial soil.
3 - Residential soil.
mg/kg = milligrams per kilogram
NA - Not applicable/not available.
REC = recognized environmental condition
USEPA = U.S. Environmental Protection Agency

Table 5-38

Preliminary Remedial Goals - Groundwater - Direct Contact - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CHILD RESIDENTS						
Chemical	**USEPA RSL[1] (ug/L)**	**USEPA MCL[2] (ug/L)**	**Target Cancer Risk Level**			**Hazard Index = 1 (ug/L)**
			10^{-6} (ug/L)	**10^{-5} (ug/L)**	**10^{-4} (ug/L)**	
Trichloroethene	0.66	5	3.1	31	310	6.7
Arsenic	0.045	10	0.12	1.2	12	4.7
Chromium[3]	0.043	100	0.045	0.45	4.5	31
Cobalt	11	NA	NA	NA	NA	4.7
Manganese	880	NA	NA	NA	NA	320
ADOLESCENT RESIDENTS						
Chemical	**USEPA RSL[1] (ug/L)**	**USEPA MCL[2] (ug/L)**	**Target Cancer Risk Level**			**Hazard Index = 1 (ug/L)**
			10^{-6} (ug/L)	**10^{-5} (ug/L)**	**10^{-4} (ug/L)**	
Benzene	0.41	5	2.0	20	200	75
Carbon Tetrachloride	0.44	5	1.5	15	150	70
Trichloroethene	0.66	5	2.2	22	220	9.3
Arsenic	0.045	10	0.081	0.81	8.1	6.2
Chromium[3]	0.043	100	0.062	0.62	6.2	48
Cobalt	11	NA	NA	NA	NA	6.2
Manganese	880	NA	NA	NA	NA	460
ADULT RESIDENTS						
Chemical	**USEPA RSL[1] (ug/L)**	**USEPA MCL[2] (ug/L)**	**Target Cancer Risk Level**			**Hazard Index = 1 (ug/L)**
			10^{-6} (ug/L)	**10^{-5} (ug/L)**	**10^{-4} (ug/L)**	
Trichloroethene	0.66	5	3.2	32	320	11
Arsenic	0.045	10	0.14	1.4	14	11
Chromium[3]	0.043	100	0.3	3	30	77
Cobalt	11	NA	NA	NA	NA	11
LIFELONG RESIDENTS						
Chemical	**USEPA RSL[1] (ug/L)**	**USEPA MCL[2] (ug/L)**	**Target Cancer Risk Level**			**Hazard Index = 1 (ug/L)**
			10^{-6} (ug/L)	**10^{-5} (ug/L)**	**10^{-4} (ug/L)**	
Benzene	0.41	5	0.80	8.0	80	NA
Carbon Tetrachloride	0.44	5	0.61	6.1	61	NA
Trichloroethene	0.66	5	0.91	9.1	91	NA
Arsenic	0.045	10	0.036	0.36	3.6	NA
Chromium[3]	0.043	100	0.024	0.24	2.4	NA

Notes:
1 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011. [Cancer benchmark value = 1E-06, Hazard index (HI) = 1.0].
2 - 2011 Edition of the Drinking Water Standards and Health Advisories (USEPA, January 2011).
3 - RSL and cleanup goals are for hexavalent chromium, MCL is for total chromium.
NA - Not applicable/not available.

Table 5-39

Preliminary Remedial Goals - Groundwater - Direct Contact - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

CHILD RESIDENTS						
Chemical	**USEPA RSL[1] (ug/L)**	**USEPA MCL[2] (ug/L)**	**Target Cancer Risk Level**			**Hazard Index = 1 (ug/L)**
			10^{-6} (ug/L)	**10^{-5} (ug/L)**	**10^{-4} (ug/L)**	
Trichloroethene	0.66	5	3.1	31	310	6.7
Vinyl Chloride	0.016	2	0.018	0.18	1.8	45
Arsenic	0.045	10	0.12	1.2	12	4.7
Chromium[3]	0.043	100	0.045	0.45	4.5	31
Cobalt	11	NA	NA	NA	NA	4.7
Iron	26,000	NA	NA	NA	NA	10,900
Thallium	0.37	2	NA	NA	NA	0.16
Zinc	11,000	NA	NA	NA	NA	4,700

ADOLESCENT RESIDENTS						
Chemical	**USEPA RSL[1] (ug/L)**	**USEPA MCL[2] (ug/L)**	**Target Cancer Risk Level**			**Hazard Index = 1 (ug/L)**
			10^{-6} (ug/L)	**10^{-5} (ug/L)**	**10^{-4} (ug/L)**	
Trichloroethene	0.66	5	2.2	22	220	9.3
Vinyl Chloride	0.016	2	0.16	1.6	16	60
Arsenic	0.045	10	0.081	0.81	8.1	6.2
Chromium[3]	0.043	100	0.062	0.62	6.2	48
Cobalt	11	NA	NA	NA	NA	6.2
Thallium	0.37	2	NA	NA	NA	0.21
Zinc	11,000	NA	NA	NA	NA	6,200

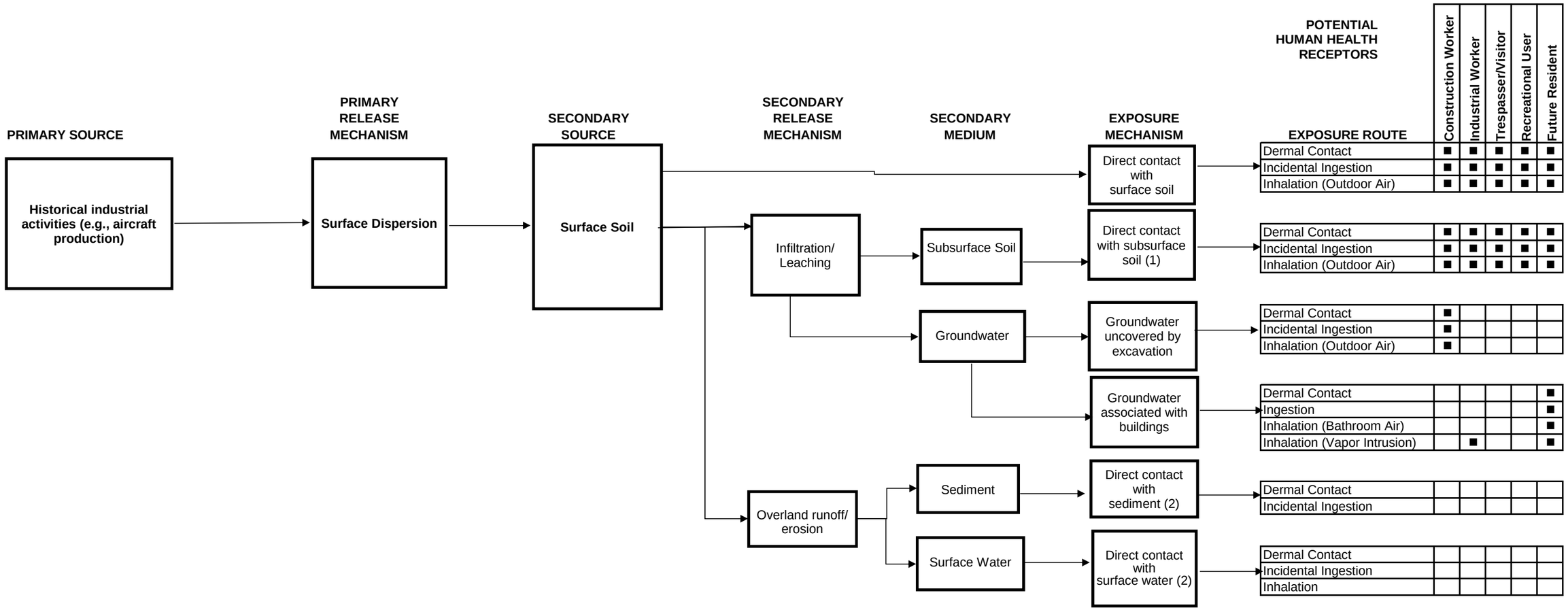
ADULT RESIDENTS						
Chemical	**USEPA RSL[1] (ug/L)**	**USEPA MCL[2] (ug/L)**	**Target Cancer Risk Level**			**Hazard Index = 1 (ug/L)**
			10^{-6} (ug/L)	**10^{-5} (ug/L)**	**10^{-4} (ug/L)**	
Trichloroethene	0.66	5	3.2	32	320	11
Vinyl Chloride	0.016	2	0.28	2.8	28	95
Arsenic	0.045	10	0.14	1.4	14	11
Chromium[3]	0.043	100	0.30	3.0	30	77
Cobalt	11	NA	NA	NA	NA	11
Thallium	0.37	2	NA	NA	NA	0.36

LIFELONG RESIDENTS						
Chemical	**USEPA RSL[1] (ug/L)**	**USEPA MCL[2] (ug/L)**	**Target Cancer Risk Level**			**Hazard Index = 1 (ug/L)**
			10^{-6} (ug/L)	**10^{-5} (ug/L)**	**10^{-4} (ug/L)**	
Trichloroethene	0.66	5	0.91	9.1	91	NA
Vinyl Chloride	0.016	2	0.015	0.15	1.5	NA
Arsenic	0.045	10	0.036	0.36	3.6	NA
Chromium[3]	0.043	100	0.024	0.24	2.4	NA

Notes:
1 - USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011. [Cancer benchmark value = 1E-06, Hazard index (HI) = 1.0].
2 - 2011 Edition of the Drinking Water Standards and Health Advisories (USEPA, January 2011).
3 - RSL and cleanup goals are for hexavalent chromium, MCL is for total chromium.
NA - Not applicable/not available.

Figure 5-1

Human Health Conceptual Site Model
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland



■ = POTENTIALLY COMPLETE EXPOSURE PATHWAY

1. Direct contact with subsurface soil (2 to 15 feet below ground surface) is not expected for industrial workers, trespassers, recreational users, and hypothetical residents. Direct exposure to subsurface soil would not be likely unless future construction activities brought subsurface soil to the surface. However, this pathway was evaluated to aid in risk-management decisions.

2. Exposure to surface water or sediment was not evaluated in this risk assessment.

Section 6
Ecological Risk Assessment

6.1 INTRODUCTION

This ecological risk assessment (ERA) aims to determine whether adverse ecological effects result from exposure to chemicals released to the environment through historical activities at Greater Strawberry Point (GSP) at the Martin State Airport (MSA) in Middle River, Maryland. This ERA presents information to enable risk managers to conclude whether ecological risks at the site are negligible, or if further information is necessary to evaluate these risks. The ERA methodology follows the guidance found in the following documents:

- *Final Guidelines for Ecological Risk Assessment* (U.S. Environmental Protection Agency [USEPA], 1998)
- *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments* (USEPA, 1997c)

This ERA consists of steps 1, 2, and 3a of an eight-step ERA process. The first two screening steps comprise the screening-level ecological risk assessment (SERA), where conservative exposure estimates are compared to screening-level values and threshold toxicity-values. Step 3a is the first step of a baseline ecological risk assessment (BERA), and consists of refining the conservative assumptions of Steps 1 and 2 to further focus the ERA process on the chemicals of greatest concern at a site. The remaining steps of the ERA process, that is, the rest of step 3 and steps 4–8, are not included in this ERA. This ERA evaluates recently collected data to characterize risks to ecological receptors.

6.2 PROBLEM FORMULATION

Problem formulation is the first phase in an ERA, and includes defining the goals, size, and focus of the assessment. It includes general descriptions of GSP at MSA, with an emphasis on the habitats and ecological receptors present. This phase also characterizes site-related chemicals, chemical sources, and migration routes, and evaluates routes of chemical exposure. The

assessment endpoints and measures of effects to be evaluated are also selected. Finally, a conceptual site-model (CSM) is developed describing how chemicals of interest associated with the subject site may contact ecological receptors.

6.2.1 Environmental Setting

This step initially identifies and characterizes the habitats and ecological resources throughout the site and identifies ecological receptors that could be adversely affected by chemicals from the site. GSP at MSA is a 75-acre site south of the main MSA terminal and southwest of the airport runway. The areas included in this ERA are an approximately 4.5-acre site (Recognized Environmental Conditions [RECs] #9 and #10), and an approximately two-acre site (REC #11). The sites are partially developed and are in a clearing between a wooded area and Taxiway F. This investigation focuses on GSP surface soil and groundwater seeps.

The RECs evaluated in the ERA mainly consist of cleared land with short-grass and no canopy or woody plants. A wooded area is adjacent to RECs #9, #10, and #11. Stansbury Creek is on the western edge of GSP. The eastern, southern, and western boundaries of MSA are bordered by Frog Mortar Creek and Stansbury Creek, which are wide, brackish, tidal tributaries of the middle Chesapeake Bay. Surface drainage from GSP is discharged via multiple outfalls to Stansbury Creek and Frog Mortar Creek. Groundwater in the surficial aquifer at GSP is expected to follow the surface topography and flow from the watershed divide near the airport runway area to the southwest and west (toward Stansbury Creek) and to the southeast (toward Frog Mortar Creek).

Suitable habitat for most ecological receptors is limited at the RECs evaluated in this ERA, as these disturbed sites consist of partially developed, cleared land. However, GSP also includes forest, field, and aquatic habitats that support ecological receptors. A variety of bird species are likely to frequent GSP, including geese, ducks (wading, diving, and wood ducks), herons, finches, sparrows, robins, warblers, hawks, eagles, kingfishers, and woodpeckers. Given the site's proximity to a surface water body (i.e., Stansbury Creek), its relative lack of human activity, and the range of habitats available, mammals, such as deer, fox, moles, shrews, rabbits, woodchucks, squirrels, and raccoons are also likely to be found on-site. Amphibians and reptiles are also likely to inhabit GSP, but for the most part screening-level effects data are unavailable to assess risks to these organisms.

6.2.2 Potential Sources of Contamination

Section 2 provides detailed background information regarding historical activities at GSP. The site was used by the Navy from the 1940s through 1960s for seaplane maintenance, launching, and recovery. Several naval weapons research and nuclear research buildings were on the site; aboveground storage tanks (ASTs) and underground storage tanks (USTs) were also present. Several USTs have been removed from the site, and no evidence of leakage was found. However, a known oil spill did occur during hanger construction in 1989–1990. Currently, the site has a tank farm with ASTs for jet fuel, gasoline, diesel fuel, and waste oil; an airport maintenance area; and several buildings used by the airport. Information regarding the toxicity, bioaccumulation potential (food-chain and trophic transfer), and fate and transport properties of chemicals detected at the site are in Appendix K-1.

6.2.3 Potential Exposure Pathways

Legacy chemicals resulting from historical site operations are today found primarily in the surface and subsurface soil, although chemicals may have migrated to groundwater after leaching from the soil. Chemicals in surface soil can enter the air via volatile organic compound (VOC) emissions or through wind erosion and dust. This pathway is unlikely because much of the site is vegetated, which limits the amount of dust produced.

Surface soil—For this ERA, the surface soil data-set consists of soil samples collected in the 0-2 feet and 1–3 feet below-grade interval. Several groups of terrestrial ecological receptors could be exposed to chemicals in surface soil. Soil-associated invertebrates such as earthworms are exposed to chemicals as they move through the soil and ingest soil particles as they forage. Plants are exposed to chemicals via direct contact; chemicals may also be absorbed through the roots and may translocate to different parts of the plants (e.g., leaves, seeds).

Small mammals may be exposed to chemicals in the soil via several exposure routes as they directly contact soil while foraging or burrowing through the soil. Exposure of terrestrial wildlife to chemicals in the soil via dermal contact is unlikely to represent a major exposure pathway because fur, feathers, scales, and chitinous exoskeletons are expected to minimize transfer of chemicals across dermal tissue. Small mammals have the greatest potential for exposure to chemicals in soil via incidental ingestion of soil and ingestion of food items, such as plants

and/or invertebrates that have accumulated chemicals from the soil. Carnivorous predatory species, including those with larger foraging ranges such as red fox and red-tailed hawk, can be indirectly exposed to site chemicals in soil by ingesting smaller animals that have accumulated chemicals from the soil and from contaminated food items.

Groundwater—Aquatic receptors are unlikely to be directly exposed to chemicals in groundwater. However, they can be indirectly exposed to chemicals in groundwater if the groundwater discharges to surface water. Aquatic vertebrates (such as fish and larval amphibians), benthic invertebrates, and adult amphibians, and reptiles can be exposed to contamination through direct contact and ingestion of surface water near groundwater discharge points. Groundwater data were collected as part of this investigation, and these data are used to conservatively evaluate receptor exposure to groundwater based on the assumption that aquatic receptors could be directly exposed to chemicals in groundwater at concentrations measured in groundwater.

6.2.4 Endpoints

Assessment endpoints—Assessment endpoints are an explicit expression of the environmental value to be protected (USEPA, 1997c). Selection of these endpoints is based on the habitats present, the chemicals' migration pathways, and the routes they may follow to exposure receptors. For this ERA, assessment endpoints include protecting the following groups of receptors from ecologically significant reductions in growth, survival, and/or reproduction due to exposure to site-related chemicals:

- soil invertebrates
- aquatic organisms
- invertivorous birds and mammals
- terrestrial vegetation
- herbivorous birds and mammals

The paragraphs below discuss why the following assessment endpoints were selected for this ERA:

Soil invertebrates: Soil invertebrates at the site help form soil, redistribute and decompose organic matter in the soil, and serve as a food source for higher, trophic-level organisms.

They can also accumulate some contaminants, which can then be transferred to the higher trophic-level organisms that consume soil invertebrates.

Terrestrial vegetation: Terrestrial vegetation at the site consists of grasses, shrubs, and trees. They serve as a food source, and provide shade, cover, and habitat for many organisms. They also help prevent soil erosion and serve other important functions. Vegetation can also accumulate some contaminants, which can then be transferred to the higher trophic-level organisms that consume plants.

Aquatic organisms: Aquatic organisms such as fish, invertebrates, and larval amphibians serve as a food source for higher trophic-level organisms (i.e., adult amphibians, reptiles, birds, mammals). Aquatic organisms can also accumulate contaminants, which can then be transferred to higher trophic-level organisms that consume them. Aquatic organisms are present in Stansbury Creek and Frog Mortar Creek.

Herbivorous birds and mammals: Herbivorous birds and mammals (e.g., animals that consume only plant tissue) are present at the site, due to its vegetative habitats (i.e., open field). Their role in the ecological community is essential, because without them, higher trophic-level organisms could not exist (Smith, 1966). They may be exposed to and accumulate contaminants that are in the plants they consume. These generally have smaller home and foraging ranges than larger carnivorous species.

Invertivorous birds and mammals: Invertivorous birds and mammals that primarily consume invertebrates are considered first-level carnivores. They are a food source for higher trophic-level carnivores, and may be exposed to, and accumulate chemicals from, the food items they consume. These species generally have smaller home and foraging ranges than larger carnivorous species.

USEPA guidance (USEPA, 1997c) states that "it is not practical or possible to directly evaluate risks to all of the individual components of the ecosystem at a site. Instead, assessment endpoints focus the risk assessment on particular components of the ecosystem that could be adversely affected by contaminants from the site." Therefore, this ERA focuses on the endpoints expected to yield the highest risks for exposed environmental receptors, thereby accounting for endpoints associated with lower risks.

Carnivorous birds and mammals generally have large home ranges. GSP covers approximately 75 acres, and the areas of the RECs evaluated are approximately 4.5 acres (RECs #9 and #10) and two acres (REC #11). When the size of the site is compared to the home range of higher trophic carnivores, such as the red-tailed hawk (whose range averages 1,692 acres) and the red fox (with an average range of 1,793 acres) (USEPA, 1993c), carnivores would only receive a very small portion of their diet from GSP. These carnivores are therefore not included as receptors in this ERA.

Threshold dietary or oral toxicity values for reptiles and amphibians are not available for most chemicals, so risks to reptiles and amphibians were not quantitatively evaluated. With these factors in mind, amphibians, reptiles, and carnivores were not retained as receptor groups associated with selected assessment endpoints. Instead, risks from bioaccumulation and biomagnification of contaminants are assessed for herbivorous and invertivorous birds and mammals.

***Measures of effects*—**Measures of effects or measurement endpoints are estimates of ecologically significant biological effects (e.g., reductions in or impairment of survival, growth, and/or reproduction) used to evaluate assessment endpoints. The following measures of effects were used to evaluate the assessment endpoints for this ERA:

- Ecologically significant decreases in survival, growth, and/or reproduction of plants, soil invertebrates, and aquatic biota were evaluated by comparing measured concentrations of chemicals in the surface soil and groundwater (used as proxy for and evaluated as surface water) to screening values designed to protect ecological receptors.

- Decreases in survival, reproduction, and/or adverse developmental effects in birds and mammals were evaluated by comparing the estimated ingested dose of contaminants in the surface soil to no observed adverse effects levels (NOAELs) and lowest observed adverse effects levels (LOAELs) for surrogate wildlife species.

6.2.5 Conceptual Site-Model

A CSM in ERA problem-formulation is a written description of predicted relationships between ecological entities and the stressors to which they may be exposed (USEPA, 1998). The CSM has two primary components: (1) predicted relationships among stressor, exposure, and assessment endpoint response, and (2) a diagram illustrating these relationships (USEPA, 1998). Figure 6-1 illustrates these relationships. At GSP, the primary source of chemicals originates in the soil,

although chemicals may have migrated to groundwater after leaching from the soil. Chemicals in groundwater may discharge as a seep that flows into surface water, or may discharge directly into a surface water body. However, groundwater discharging into Stansbury Creek or Frog Mortar Creek would be mixed with surface water and substantially diluted at the groundwater/surface water interface. Chemicals in soil can serve as a direct-exposure medium, but also can enter the air via emission of VOCs, or through wind erosion and dust. This pathway is unlikely, however, as the site is vegetated, which limits the amount of dust.

Aquatic organisms can be exposed to surface water by direct contact with and/or ingestion of surface water. Terrestrial plants, soil invertebrates, and terrestrial vertebrates can be exposed to chemicals in the surface soil by direct contact with and/or uptake (plants) and ingestion of soil and food items. Terrestrial vertebrates may also be exposed to volatile chemicals in the air via inhalation. Although this pathway is possible, it is considered insignificant and therefore is not evaluated in this ERA.

6.3 ECOLOGICAL EFFECTS EVALUATION

The preliminary ecological-effects assessment investigates the relationship between the exposure to a chemical and the potential for adverse effects resulting from that exposure. In this step, chemical-specific toxicity screening-levels for ecological receptors were compiled and selected for specific receptor groups. Receptor-group-specific screening levels are discussed below.

6.3.1 Terrestrial Plants and Invertebrates

Risks to terrestrial plants and soil-associated invertebrates from exposure to chemicals in site surface soil were evaluated by comparing chemical concentrations to ecological screening-levels. Selected screening levels include USEPA ecological soil-screening levels (Eco SSLs, for invertebrates, terrestrial plants, mammals and birds; [USEPA, 2003c, 2005c-k, 2006c, 2007a-g, 2008b]); Canadian soil-quality guidelines (SQGs; [CCME, 2006] and supporting documents from CCME, [1999a-d, 2001, 2004a-d, 2006a-b, 2010 and EC, 2001]); NOAA Screening Quick Reference Tables (Buchman, 2008); and USEPA Region 3 Biological Technical Assistance Group (BTAG) screening levels (USEPA, 1995). These toxicity values are expressed as chemical concentrations in soil because terrestrial plants and invertebrates are in direct contact with soil. Appendix K-1 contains the screening values and sources used in this ERA.

6.3.2 Aquatic Organisms

Risks to aquatic receptors from exposure to chemicals in groundwater via the surface water pathway were evaluated by comparing the chemical concentrations in groundwater to USEPA Region 3 *BTAG Freshwater Screening Benchmarks* and *Marine Screening Benchmarks* (USEPA, 2006a, b). These toxicity values are expressed as chemical concentrations in water because aquatic organisms are assumed to be in direct contact with surface water containing chemicals at concentrations measured in groundwater.

6.3.3 Terrestrial Wildlife

Risks to wildlife from exposure to chemicals in surface soil were determined by estimating chronic daily intake ([CDI]; an estimate of the average daily dose) using food-chain models, and comparing the CDI to dietary or dose-based toxicity reference-values (TRVs). Dietary TRVs represent regulatorily acceptable daily doses (in milligrams per kilogram body weight per day [mg/kg BW-day]). TRVs were developed from NOAELs and LOAELs obtained from wildlife studies. Most TRVs were obtained from the Oak Ridge National Laboratory (ORNL) *Toxicological Benchmarks for Wildlife: 1996 Revision* (Sample, et al., 1996), and USEPA's Eco SSL documents, supplemented with other toxicity information as necessary. Only chemicals that USEPA considers important bioaccumulative chemicals (USEPA, 2006a), or chemicals exceeding wildlife criteria (i.e., values based on dietary exposure of chemicals to mammals and birds), were included in the food-chain model.

Appendix K-1 presents the TRVs and sources of the NOAELs and LOAELs used in this ERA. If a subchronic study was used to develop the TRV, the final value was multiplied by a factor of 0.1 to account for uncertainty between subchronic and chronic effects. In addition, the LOAEL was multiplied by a factor of 0.1 to estimate a NOAEL TRV if only a LOAEL study was available. The chemical-specific Eco SSL documents provide both NOAELs and LOAELS for various chemicals based on multiple studies, but overall, TRVs are calculated only for NOAELs. The geometric mean of the chemical-specific growth and reproduction LOAELs from the chemical-specific Eco SSL documents were used as the LOAEL TRVs.

6.4 EXPOSURE CHARACTERIZATION

This portion of the ERA identifies contaminant concentrations used as exposure-point concentrations (EPCs) to represent ecological exposure in various media. EPCs are derived for surface soil and groundwater based on the conservative assumption of discharge to surface water without changes in concentration. GSP was divided into two exposure units, RECs #9 and #10 and REC #11, to evaluate risks to ecological receptors because these areas are separated by several hundred feet. Maximum chemical concentrations in exposure media from RECs #9 and #10 and REC #11 were used as the EPCs for the initial screening step. In accordance with USEPA (1993c), dissolved metal more closely approximates the bioavailable fraction of metal in the water column than total recoverable metal. Therefore, for metals, only the results in the filtered samples were evaluated for exposure to aquatic organisms.

As discussed above, the total exposure dose to terrestrial wildlife from chemicals in soil and food items such as plants and invertebrates was estimated using food-chain models. Selection of a particular species is required to estimate intake through ingestion. The availability of exposure parameters (e.g., body mass and ingestion rates) is a factor in selecting representative or surrogate species. The following receptors were selected for food-chain modeling:

- herbivorous mammal: meadow vole
- invertivorous mammal: short-tailed shrew
- herbivorous bird: bobwhite quail
- invertivorous bird: American robin

Receptor profiles for the surrogate species, including the exposure parameters used in the food-chain modeling, are included in Appendix K-2.

The following equation was used to calculate the CDI for wildlife receptors:

$$CDI = \frac{[(Cf * If) + (Cs * Is)] * H}{BW}$$

where:

CDI = chronic daily intake (mg/kg BW-day)

Cf = chemical concentration in food (mg/kg dry weight [dw])

Cs = chemical concentration in surface soil (mg/kg dw)

If = food ingestion rate (kilograms per day [kg/day dw])

Is = incidental surface soil ingestion rate (kg/day dw)

H = portion of food intake from the contaminated area (unitless)

BW = body weight (kg)

dw = dry weight

Chemical concentrations in soil and food items for invertivorous and herbivorous receptors were calculated using soil-to-invertebrate or soil-to-plant bioaccumulation factors (BAFs), regression equations from the USEPA Eco SSL guidance document (USEPA, 2007c), or other published sources. Sources of BAFs are documented in Appendix K-1. The following equation was used to calculate the chemical concentration in plants or invertebrates when BAFs are used:

$$Cf = Cs * BAF$$

where:

Cf = contaminant concentration in food (mg/kg dw)

Cs = contaminant concentration in surface soil (mg/kg dw)

BAF = biota-soil bioaccumulation factor (unitless)

Table 6-1 summarizes the exposure factors used in the food-chain model. Food ingestion rates were calculated on a dry-weight basis. The following input parameters were used in the dose equations under the conservative screening scenario:

- maximum surface-soil concentrations
- highest receptor-ingestion rates
- higher-end BAFs
- lowest receptor-body-weight

6.5 RISK CHARACTERIZATION

Risk characterization, the final phase of an ERA, compares exposure data to ecological effects data. This phase evaluates the likelihood that adverse effects will occur to a receptor from exposure to a stressor. An ecological-effects quotient (EEQ) approach was used to characterize risk to ecological receptors. EEQs greater than 1.0 indicate that ecological receptors could

potentially suffer adverse effects, and additional evaluation or data may be necessary to reduce uncertainties associated with risk estimates. Uncertainties can be high at this stage of the ERA process because most screening-level benchmarks are developed using conservative exposure assumptions. The EEQ value should not be construed as probabilistic; rather, it is a numerical indicator of the extent to which an EPC exceeds or falls short of a benchmark.

EEQs for surface soil receptors were calculated as follows:

$$EEQ = \frac{Css}{SSSL}$$

where:

EEQ = ecological effects quotient (unitless)

Css = chemical concentration in surface soil (micrograms per kilogram [µg/kg] or mg/kg, dw)

SSSL = surface soil screening-level (µg/kg or mg/kg)

EEQs for aquatic organisms were calculated as follows:

$$EEQ = \frac{Cgw}{SwSL}$$

where:

EEQ = ecological effects quotient (unitless)

Cgw = chemical concentration in groundwater (µg/L)

SwSL = surface water screening level (µg/L)

EEQs for wildlife were calculated as follows:

$$EEQ = \frac{CDI}{TRV}$$

where:

EEQ = ecological effects quotient (unitless)

CDI = chronic daily intake dose (mg/kg-day)

TRV = toxicity reference value (NOAEL or LOAEL) (mg/kg BW -day)

6.6 SELECTION OF CHEMICALS OF POTENTIAL CONCERN

The final step of the screening evaluation is selection of chemicals of potential concern (COPC). Chemicals not selected as COPC are assumed to present negligible risk to ecological receptors and were not considered for further evaluation in the ERA. Chemicals selected as COPC are evaluated further in Step 3a. Ecological COPC were selected using the following procedures:

- chemicals with initial screening level EEQs greater than 1.0 were selected as COPC for further evaluation because they could potentially pose risk to ecological receptors
- chemicals with EEQs greater than 1.0, based on the conservative food-chain model using NOAEL TRVs, were selected as COPC because they could potentially pose risk to mammals and birds. The LOAEL TRVs are used in the Step 3a refinement (discussed below).
- chemicals without screening values were selected as COPC, but were only evaluated qualitatively

6.6.1 Risks to Soil Invertebrates

Tables 6-2 and 6-3 present the occurrence, distribution, and selection of ecological COPC for soil invertebrates in the surface soil of GSP for RECs #9 and #10 and REC #11, respectively. The following summarizes COPC selection results for RECs #9 and #10 (Table 6-2):

- four VOCs were selected as COPC because a screening level was not available
- four semivolatile organic compounds (SVOCs) were selected as COPC: two because the maximum detected concentration exceeds the screening level, and two because a screening level was not available
- four inorganics were selected as COPC: three because the maximum detected concentration exceeds the screening level, and one because a screening level was not available.
- petroleum hydrocarbons (diesel-range organics) were selected as COPC because a screening level was not available

The following summarizes COPC selection results for REC #11 (Table 6-3):

- seven VOCs were selected as COPC because a screening level was not available

- five SVOCs were selected as COPC: one because the maximum detected concentration exceeds the screening level, and four because a screening level was not available

- three inorganics were selected as COPC: two because the maximum detected concentration exceeds the screening level, and one because a screening level was not available

- petroleum hydrocarbons (diesel-range organics and gasoline-range organics) were selected as COPC because a screening level was not available

6.6.2 Risks to Plants

Tables 6-2 and 6-3 present the occurrence, distribution, and selection of ecological COPC for plants in the surface soil of GSP for RECs #9 and #10, and REC #11, respectively. The following summarizes the selection of COPC for RECs #9 and #10 (Table 6-2):

- four VOCs were selected as COPC because a screening level was not available

- 16 SVOCs were selected as COPC: 13 because the maximum detected concentration exceeded the screening level, and three because a screening level was not available

- four inorganics were selected as COPC: three because the maximum detected concentration exceeds the screening level, and one because a screening level was not available

- petroleum hydrocarbons (diesel-range organics) were selected as COPC because a screening level was not available

The following summarizes the selection of COPC for REC #11 (Table 6-3):

- seven VOCs were selected as COPC because a screening level was not available

- 18 SVOCs were selected as COPC: 13 because the maximum detected concentration exceeds the screening level, and five because a screening level was not available

- three inorganics were selected as COPC: two because the maximum detected concentration exceeds the screening level, and one because a screening level was not available

- petroleum hydrocarbons (diesel-range organics and gasoline-range organics) were selected as COPC because a screening level was not available

6.6.3 Risks to Aquatic Organisms from Groundwater Evaluated as Surface Water

Tables 6-4 and 6-5 present the occurrence, distribution, and selection of ecological COPC for groundwater evaluated as surface water from GSP for RECs #9 and #10, and REC #11, respectively. Groundwater discharging into water bodies as large as Stansbury Creek or Frog Mortar Creek would be expected to be substantially diluted at the groundwater/surface-water interface. Therefore, Tables 6-4 and 6-5 also present groundwater concentrations with a range of dilution factors considered reasonably representative of possible levels of dilution (i.e., 10-, 25-, and 50-fold).

The following summarizes the results of the COPC selection with no dilution factor applied to chemical concentrations measured in groundwater for RECs #9 and #10:

- Three VOCs were selected as COPC: two because the maximum detected concentration exceeds the screening level, and one (tertiary-butyl alcohol) because a screening level was not available
- 12 inorganics in filtered samples were selected as COPC because the maximum detected concentration exceeds the screening level
- petroleum hydrocarbons (diesel-range organics and gasoline-range organics) were selected as COPC because a screening level was not available

The following summarizes the results of the COPC selection with no dilution factor applied to chemical concentrations measured in groundwater for REC #11:

- one VOC was selected as a COPC because the maximum detected concentration exceeds the screening level.
- one SVOC was selected as a COPC because a screening level was not available
- 12 inorganics in filtered samples were selected as COPC because the maximum detected concentration exceeds the screening level
- petroleum hydrocarbons (diesel-range organics) were selected as COPC because a screening level was not available

6.6.4 Risks to Terrestrial Wildlife from Surface Soil via Food-Chain Modeling

Tables 6-2 and 6-3 list chemicals selected for food-chain modeling for RECs #9 and #10, and REC #11, respectively. Tables 6-6 and 6-7 summarize EEQs for the conservative food-chain

model for RECs #9 and #10, and REC #11, respectively. Appendix K-3 contains spreadsheets with EEQ calculations for each receptor. Chemicals were selected as COPC if their calculated NOAEL EEQs were greater than 1.0 for any receptor.

The following sections summarize the results of the COPC selection for REC #9 and #10:

- *herbivorous mammal:* two polycyclic aromatic-hydrocarbons (PAHs) and three inorganics had EEQs greater than 1.0 in the food-chain model
- *herbivorous bird:* three PAHs and three inorganics had EEQs greater than 1.0 in the food-chain model
- *invertivorous mammal:* eight PAHs and four inorganics had EEQs greater than 1.0 in the food-chain model
- *invertivorous bird:* 13 PAHs and four inorganics had EEQs greater than 1.0 in the food-chain model

The following sections summarize the results of the COPC selection for REC #11:

- *herbivorous mammal:* one PAH and three inorganics had EEQs greater than 1.0 in the food-chain model
- *herbivorous bird:* three inorganics had EEQs greater than 1.0 in the food-chain model
- *invertivorous mammal:* seven PAHs, one PCB, and six inorganics had EEQs greater than 1.0 in the food-chain model
- *invertivorous bird:* five PAHs, one PCB, and five inorganics had EEQs greater than 1.0 in the food-chain model

6.7 STEP 3A: COPC REFINEMENT

Step 3a refines the conservative exposure-assumptions and concentrations to evaluate risks to ecological receptors (i.e., plants, invertebrates, aquatic biota, and wildlife receptors). The Step 3a evaluation further refines the number of chemicals retained as COPC to focus additional effort on chemicals of major ecological concern, based on the criteria presented below. The following describes this further evaluation of chemicals initially selected as COPC in soil and groundwater.

The following criteria were evaluated, as appropriate, to determine if chemicals identified as COPC in the initial screening-level steps of the ERA warrant additional evaluations. (Note that not all of these factors are necessarily discussed for each chemical and/or receptor group.)

- *Magnitude of criterion exceedance*: Although the magnitude of the risks may not relate directly to the magnitude of a criterion exceedance, the magnitude of the criterion exceedance may be one item used in a lines-of-evidence approach to determine the need for further site evaluation. The greater the criterion exceedance, the greater the probability and concern that a regulatorily unacceptable risk exists.

- *Frequency of chemical detection and spatial distribution*: A chemical infrequently detected typically is of less concern than a chemical detected at higher frequency if toxicity, concentrations, and spatial areas represented by the data are similar. All else being equal, chemicals detected frequently were given greater consideration than those detected relatively infrequently. In addition, the spatial distribution of a chemical may be evaluated to determine the area that a given sample represents.

- *Contaminant bioavailability*: Many contaminants (especially inorganics) are present in the environment in forms that are typically not bioavailable, and this limited bioavailability was considered when evaluating receptor exposures to site contaminants. Contaminants with generally less bioavailability are considered less toxic than the more bioavailable contaminants, all other factors being equal.

- *Habitat*: Although exceedances of criteria may be identified, risks to ecological receptors may be minimal if little habitat exists for those receptors. Therefore, the extent of habitat was used qualitatively in considering additional evaluation. Areas with little habitat were of less concern than areas with suitable habitat to support the receptors of interest.

- *More appropriate benchmarks* were used to further evaluate risks to specific groups of ecological receptors (e.g., plants, invertebrates, and benthic organisms), because although screening levels are useful for initial screening, they are very conservative and may be inappropriate for evaluating all assessment endpoints.

- *Background*: Concentrations of chemicals in surface soil were compared anticipated typical concentrations (ATC) for eastern Maryland, as presented in State of Maryland Department of the Environment *Cleanup Standards for Soil and Groundwater* (June 2008).

- *Food-chain modeling*: Dietary exposure via the food chain is a major pathway of concern for chemicals known to significantly bioaccumulate and/or biomagnify. Thus, potential risk to upper-trophic-level receptors was evaluated using food-chain models. The conservative exposure doses initially calculated at the screening level step of the ERA for terrestrial wildlife were recalculated using less conservative exposure-assumptions and chemical concentrations.

Note that diesel-range organics (DRO) and gasoline-range organics (GRO) were initially selected as COPC because they lack ecological screening-levels. However, because the soil samples were analyzed for PAHs and VOCs, which are major components of DRO and GRO, risks from diesel-range organics and gasoline-range organics are evaluated indirectly by evaluating risks

from the individual PAHs and VOCs. Therefore, risks from diesel-range organics and gasoline-range organics are not discussed below and these compounds are not retained as COPC.

6.7.1 Risks to Soil Invertebrates and Plants

The first step in the Step 3a evaluation compares a maximum chemical concentration in soil to screening benchmarks specific to plants and invertebrates. This is because the Region 3 BTAG soil-screening levels are understood to be the lowest values available for plants, invertebrates, or wildlife, but the actual basis for some of these values is either not known or may not be based on plants or invertebrates. Chemicals with concentrations greater than the appropriate plant or invertebrate benchmark (or chemicals that do not have a benchmark) are further evaluated in Step 3a to determine if the risks they pose are sufficient to warrant additional evaluations.

6.7.1.1 Soil Invertebrates

Several VOCs, SVOCs, inorganics, and petroleum hydrocarbon were initially selected as COPC for soil invertebrates in GSP surface soil for RECs #9 and #10, and REC #11.

VOCs—1,2,3-Trimethylbenzene, 1,2,4-trimethylbenzene, 2-butanone, 4-methyl-2-pentanone, acetone, carbon disulfide, n-propylbenzene, and tertiary-butyl alcohol were initially selected as COPC in surface soil because screening levels are not currently available. These chemicals have been detected at relatively low concentrations (i.e., less than 10 µg/kg, except for acetone). 1,2,4-Trimethylbenzene, 2-butanone, carbon disulfide, and n-propylbenzene have been detected at low frequencies (≤6% for these chemicals) (see Tables 6-2 and 6-3). VOCs are typically not very toxic to invertebrates via direct contact, and screening levels for other VOCs are typically high (e.g., USEPA Region 3 surface soil screening-level [SSSL] for many VOCs are 100 or 300 µg/kg). Canadian Soil-Quality Guidelines for VOCs are over 1,000 µg/kg (CCME, 2006a). Acetone and 2-butanone are also common or possible laboratory contaminants. For these reasons, the aforementioned VOCs are not retained as chemicals of ecological concern for soil invertebrates, and do not warrant further evaluation at this site.

SVOCs—Toxicity data for soil invertebrates were not available for carbazole and dibenzofuran detected in RECs #9 and #10, and REC #11 and for caprolactam and n-nitroso-di-n-propylamine detected in REC #11, so their effects could not be evaluated quantitatively. Caprolactam and n-nitroso-di-n-propylamine were detected in only one of 32 samples from REC #11. Carbazole

and dibenzofuran, which tend to be associated with PAHs, were detected at GSP at concentrations less than PAHs and they are not expected to be more toxic than PAHs. Therefore, risks from these chemicals, if any, should be accounted for in the evaluation of risks from PAHs. The maximum concentrations of these SVOCs (2,000 µg/kg) are much lower than the soil invertebrate Eco SSLs for PAHs (18,000 µg/kg (high molecular-weight PAHs) and 29,000 µg/kg (low molecular-weight PAHs)). Therefore, carbazole, dibenzofuran, caprolactam, and n-nitroso-di-n-propylamine are not expected to adversely affect soil invertebrates at this site, and do not warrant further evaluation.

Butyl benzyl phthalate was selected as a COPC for REC #11 because the maximum concentration (250 µg/kg) exceeds the screening level (100 µg/kg). The toxicological basis of this screening value is not known. Although an alternative benchmark is not available for this specific phthalate, other phthalates are toxic to invertebrates at concentrations much greater than those detected at Greater Strawberry Point. For example, the ORNL soil-invertebrate toxicological benchmark (Efroymson et al., 1997a) for dimethylphthalate is 200,000 µg/kg. Butyl benzyl phthalate was detected in only one of 32 samples, so it is not expected to be toxic to soil invertebrates at the detected concentration and is not retained as a COPC for this receptor group.

Two individual PAHs (fluoranthene and pyrene) were selected as COPC for RECs #9 and #10. Only one sample (SB-68 in REC #10, southwest of Building 029) had detected concentrations of fluoranthene (33,000 µg/kg) and pyrene (34,000 µg/kg) exceeding their screening values of 29,000 µg/kg and 18,000 µg/kg, respectively. The EEQs were slightly greater than one for fluoranthene (1.1) and pyrene (1.9) for soil invertebrates. Adjacent samples had concentrations of these constituents below screening values, suggesting the area associated with risk from these chemicals is small. Adverse effects to individual organisms would likely be minimal, and adverse population and community-level effects are highly unlikely, so PAHs are eliminated as COPC for soil invertebrates.

***Inorganics*—**Iron and manganese were selected as COPC for REC #11 because maximum concentrations exceed screening levels. Iron, manganese, molybdenum, and thallium were selected as COPC for RECs #9 and #10 because maximum concentrations exceed screening levels. Silver was selected as a COPC for RECs #9 and #10 and REC #11 because a screening level was not available.

Iron was selected as a COPC because it was detected at a concentration in excess of its screening value of 200 mg/kg, based on adverse effects to exposed soil microorganisms. The distribution of iron across the site does not suggest a pattern that would indicate a specific source of iron. The maximum iron concentrations in RECs #9 and #10 (12,900 mg/kg) and REC #11 (15,000 mg/kg) are less than or equal to the State of Maryland (2008) anticipated typical concentration (ATC) for iron (15,000 mg/kg). Average iron concentrations in RECs #9 and #10 (6,933 mg/kg) and REC #11 (8,240 mg/kg) are much lower than the Maryland ATC for iron. Iron is typically not considered bioavailable and is rarely implicated as a toxic metal under most conditions. Therefore, adverse effects from iron are expected to be minimal and not site-related, and it is eliminated as a COPC for soil invertebrates.

Manganese was selected as a COPC for RECs #9 and #10 and REC #11 because the maximum detected concentrations exceed the Eco SSL for soil invertebrates (450 mg/kg). The average manganese concentrations for RECs #9 and #10 (398 mg/kg) and REC #11 (175 mg/kg) are less than the screening level. Manganese concentrations exceed the screening value in samples collected from SB-62 (864 mg/kg), SB-63 (1,590 mg/kg), and SB-71 (2,390 mg/kg) from RECs #9 and #10. Samples from SB-62 and SB-63 in RECs #9 and #10 were collected adjacent to a road. The sample from SB-71 was collected northwest of REC #10, and adjacent samples were not analyzed for manganese. Only the maximum concentration of manganese from SB-84 in REC #11 (1,050 mg/kg) exceeds its screening value.

In REC #11, adjacent samples to the northeast and northwest of sampling location SB-84 detected manganese concentrations well below the screening value. Samples collected south of SB-84 in REC #11 were not analyzed for manganese; however, the sample from SB-84 was bounded to the southeast by an adjacent road. Adverse effects from manganese are expected to be minimal at REC #11, so manganese is eliminated as a COPC for soil invertebrates at REC #11. Potential adverse effects on soil invertebrates from manganese at RECs #9 and #10 are possible, and the greatest detected concentration is not bounded; therefore, manganese is retained as a COPC for soil invertebrates at REC #9 and #10.

Molybdenum was selected as a COPC for RECs #9 and #10 because the maximum concentration detected (1 mg/kg) exceeds the Region 3 screening level (0.59 mg/kg); however, the receptor upon which this value is based was not reported. Screening levels for molybdenum in soil are

few and confidence is low in the ability of the few available screening levels to assess the potential for adverse ecological effects. Several detected concentrations of molybdenum exceed its screening level. An alternative value for soil invertebrates was not available; however, concentrations are well below the ORNL value for soil microorganisms of 200 mg/kg (Efroymson, et al., 1997a). Therefore, risks to soil invertebrates from molybdenum are expected to be minimal, and molybdenum is eliminated as a COPC for soil invertebrates.

Silver was selected as a COPC for RECs #9 and #10 and REC #11 because no screening level for soil invertebrates was available. Although no benchmark for invertebrates was available, the ORNL benchmark concentration for soil microorganisms is 50 mg/kg (Efroymson et al., 1997a). Maximum concentrations of silver in RECs #9 and #10 (0.38 mg/kg) and REC #11 (0.49 mg/kg) are well below this value. Concentrations of silver are also less than the Maryland (2008) ATC for silver (0.94 mg/kg). Risks to soil invertebrates from silver are likely minimal and not site-related, so silver is not retained as a COPC for this receptor.

Thallium was selected as a COPC for RECs #9 and #10 because the maximum concentration detected (2.3 mg/kg) slightly exceeds the screening value of 1.4 mg/kg. Thallium was detected infrequently in three of 33 samples with only two samples exceeding the screening value. The maximum concentration of thallium in RECs #9 and #10 is less than the Maryland (2008) ATC for thallium (3.9 mg/kg). Risks to soil invertebrates from thallium are therefore likely minimal and not site-related, so thallium is not retained as a COPC for this receptor.

6.7.1.2 Plants

VOCs—1,2,3-Trimethylbenzene, 1,2,4-trimethylbenzene, 2-butanone, 4-methyl-2-pentanone, acetone, carbon disulfide, n-propylbenzene, and tertiary-butyl alcohol were initially selected as COPC in surface soil because screening levels are not currently available, but these VOCs were eliminated as COPC for plants for reasons similar to those presented for eliminating them as COPC for soil invertebrates.

SVOCs—Carbazole, dibenzofuran, caprolactam, and n-nitroso-di-n-propylamine were initially selected as COPC in surface soil because screening levels are not currently available, but these SVOCs were eliminated as COPC for plants for similar reasons to those presented for eliminating them as COPC for soil invertebrates. Several PAHs (2-methylnaphthalene,

acenaphthylene, anthracene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[g,h,i]perylene, benzo[k]fluoranthene, chrysene, dibenzo[a,h]anthracene, fluorene, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene) were selected as COPC for plants because the maximum detected concentrations exceed their screening level (100 µg/kg), or because no screening level was available (2-methylnaphthalene).

The screening level of 100 µg/kg for these PAHs is based on their effects on mice; no Eco SSL is available for plants. However, data in Table 3.1 of the Eco SSL document for PAHs (USEPA, 2007e) show that PAHs are typically not toxic to plants except at high soil concentrations, with the lowest listed EC_{50} being 30,000 µg/kg from Mitchell, et al. (1988). In addition, seed germination and growth were not affected in agricultural soils spiked with benzo(a)pyrene, benz(a)anthracene, or dibenz(a,h)anthracene concentrations in the range of 31,000–155,000 µg/kg (CCME, 2010). All of the detected concentrations of individual PAHs are much less than 155,000 µg/kg, and most are less than 30,000 µg/kg. Thus, PAHs in the soil are unlikely to adversely affect plants. Risks to plants are therefore regulatorily acceptable, and PAHs are not retained as COPC for risks to this receptor.

Inorganics—Iron was selected as a COPC for RECs #9 and #10 and REC #11 because a screening level was not available. Manganese and selenium were selected as COPC for REC #9 and #10 because the maximum concentration exceeds the screening level. Manganese, selenium, and thallium were selected as COPC for REC #11 because the maximum concentration exceeds the screening level.

Iron was selected as a COPC because soil pH data were not available. The USEPA Eco SSL guidance for iron (USEPA, 2003c) indicates that the toxicity of iron in surface soil is directly related to soil pH. Iron is expected to be toxic only at a pH less than 5 or greater than 8. Although pH data at the site were not available, iron is typically not bioavailable in surface soils. In addition, the maximum iron concentration in RECs #9 and #10 and REC #11 is less than or equal to the Maryland (2008) ATC for iron of 15,000 mg/kg. The presence of iron is not likely attributable to site-related activities. Therefore, iron is unlikely to be toxic to plants and is not retained as a COPC for this receptor.

Manganese was selected as a COPC because concentrations in several samples from RECs #9 and #10 and REC #11 exceed the Eco SSL for plants (220 mg/kg). The average manganese concentration (398 mg/kg) from RECs #9 and #10 is greater than the screening value. Detected manganese concentrations exceed the screening level in four samples from RECs #9 and #10: SB-62 (864 mg/kg), SB-63 (1,590 mg/kg), SB-67 (417 mg/kg), and SB-71 (2,390 mg/kg). Sampling locations SB-62, SB-63, and SB-67 in RECs #9 and #10 are adjacent to a road; location SB-71 is northwest of REC #10, and adjacent samples were not analyzed for manganese.

The average manganese concentration (175 mg/kg) from REC #11 is less than the screening value. Manganese exceeds its screening level in two samples from REC #11: SB-84 (1,050 mg/kg) and SB-87 (323 mg/kg). Sampling location SB-84 is adjacent to a road, and adjacent samples had manganese concentrations below the screening value. Sampling location SB-87 is in the northeastern corner of REC #11, bounded by two roads to the north and east. Risks to plants from manganese concentrations at REC #11 are expected to be minimal, and manganese is eliminated as a COPC for plants at REC #11. Adverse effects on plants from exposure to manganese in soil at RECs #9 and #10 cannot be ruled out, and the greatest detected concentration is not bounded; therefore, manganese is retained as a COPC for plants at RECs #9 and #10.

Selenium was selected as a COPC because the maximum concentration detected in RECs #9 and #10 (1.2 mg/kg) and REC #11 (3.1 mg/kg) exceeds the Eco SSL for plants (0.52 mg/kg). Many samples collected from GSP had detected concentrations of selenium exceeding the Eco SSL. However, the ATC for selenium for eastern Maryland is 2.2 mg/kg (State of Maryland, 2008). The only selenium concentration exceeding this background level is the maximum detected concentration in REC #11. Therefore, site-related risks to plants from selenium are likely minimal, and selenium is not retained as a COPC for this receptor.

Thallium was selected as a COPC for RECs #9 and #10 because the maximum concentration detected (2.3 mg/kg) slightly exceeds its screening value of 1.4 mg/kg. Thallium was detected infrequently in three of 33 samples, with only two exceeding the screening value. In addition, the maximum concentration of thallium in RECs #9 and #10 is less than the Maryland (2008) ATC

for thallium (3.9 mg/kg). Therefore, risks to plants from thallium are likely minimal and not site-related, and thallium is not retained as a COPC for this receptor.

6.7.2 Risks to Aquatic Organisms from Groundwater Evaluated as Surface Water

Several VOCs, one SVOC, filtered inorganics, and petroleum hydrocarbons were initially selected as COPC for aquatic organisms in groundwater (which was evaluated using surface water screening levels). Table 6-4 and 6-5 includes EEQs for chemicals detected in groundwater, with a range of assumed reasonable dilution-factors applied. When a dilution factor of 25-fold is applied, only dissolved barium and iron exceed surface water criteria for RECs #9 and #10; no chemicals exceed surface water criteria at a dilution factor of 50-fold. No screening levels were available for the tertiary-butyl alcohol detected in groundwater from RECs #9 and #10; therefore, tertiary-butyl alcohol cannot be evaluated for ecological risk.

When a dilution factor of 25-fold is applied to REC #11 chemical concentrations, only dissolved barium, iron, and nickel exceed surface water criteria. Maximum concentrations of dissolved iron exceed surface water criteria at a dilution factor of 50-fold for REC #11, using the 300 µg/L freshwater value (USEPA, 2006a) as the screening level. The average concentrations of dissolved iron from REC #11 do not exceed the Region 3 BTAG screening level (300 µg/L) if a dilution of 50-fold is applied. The BTAG screening level is based on a Canadian Water Quality Guideline, however, the chronic USEPA National Recommended Water Quality Criteria for iron is 1,000 µg/L (USEPA, 2009b). If the National Recommended Water Quality criterion for iron is used as the screening level, assuming a 25-fold dilution factor, the maximum concentrations of dissolved iron for REC #11 do not exceed the criterion. As stated earlier, iron concentrations in soil are not believed to be site-related.

No screening levels were available for caprolactam detected in groundwater from REC #11; therefore, caprolactam cannot be evaluated for ecological risk. However, because groundwater discharging into Stansbury Creek or Frog Mortar Creek would be diluted many times at the groundwater/surface-water interface, potential risks to aquatic biota from this and other analytes with exceedances are likely minimal; therefore, no chemicals are retained as COPC for risks to this receptor group.

6.7.3 Calculated Risks from Surface Soil to Terrestrial Wildlife via Food-Chain Modeling

As discussed earlier in Section 6.6.6, dietary EEQs calculated using terrestrial food-chain modeling are greater than 1.0 for several chemicals, if maximum chemical concentrations and conservative exposure-assumptions are used. Therefore, as part of the Step 3a refinement, risks were recalculated using average chemical concentrations and the (Step 3a) exposure parameters presented in Table 6-1. The parameters used are summarized in the exposure-factors calculation table in Appendix K-2. Food-chain-model calculation-sheets are in Appendix K-3. The following decisions are based on the results of the food-chain model:

- if the EEQ (calculated using average contaminant concentrations, average exposure factors, and the NOAEL as the TRV) is less than 1.0, we concluded that the chemical is not causing a regulatorily unacceptable risk to wildlife, and the chemical was not evaluated further in Step 3a

- if the EEQ is greater than 1.0 (using average contaminant concentrations, average exposure factors, and the NOAEL as the TRV), the chemical is further evaluated in Step 3a to determine if the associated risks are sufficient to warrant additional evaluations

Using the conservative food-chain model for GSP, several PAHs and metals from RECs #9 and #10 and REC #11, and PCBs from REC #11, were selected as COPC for wildlife because the modeled EEQs were greater than 1.0 for at least one surrogate receptor under the conservative exposure scenario. Tables 6-8 and 6-9 present the results of the less conservative food-chain model for RECs #9 and #10 and REC #11, respectively.

The results of the less-conservative food-chain modeling for terrestrial receptors at RECs #9 and #10 are summarized in Table 6-8. A discussion of risks to mammals and birds, based on these results, follows:

- *soil herbivorous receptors:* All EEQs were less than 1.0 using the NOAEL as the TRV

- *soil invertivorous receptors:* Using the NOAEL as the TRV, calculated EEQs for the shrew for iron (12) and thallium (3.6) were greater than 1.0, as were the iron (11) and mercury (8.3) EEQs modeled for the robin. All LOAEL EEQs modeled for these receptors, except for iron, were less than 1.0. The iron EEQs for the shrew (1.2) and robin (1.1) were only slightly greater than 1.0 using the LOAEL as the TRV. Earthworm BAFs are not available for iron and thallium, so a default value of 1.0 was used to estimate chemical concentrations in earthworms for the invertivorous-receptor food-chain model. This likely overestimates the dose of soil that invertivorous receptors ingest through food.

Iron and thallium are not typically considered bioaccumulative, so the actual accumulation of iron and thallium in earthworms is likely much lower based on BAFs of less than 1.0 for most metals. The Maryland (2008) ATC for mercury (0.51 mg/kg) is greater than the maximum concentration (0.16 mg/kg) at RECs #9 and #10; if the ATC is used as the soil-mercury concentration, it would produce an EEQ >1.0. Maximum concentrations of iron, thallium, and mercury are less than Maryland (2008) ATCs; therefore, potential risks are not site-related. For these reasons, iron, thallium, and mercury were eliminated as COPC for soil invertivorous-receptors for RECs #9 and #10.

Table 6-9 summarizes the results of the less-conservative food-chain modeling for terrestrial receptors for REC #11. A discussion of risks to mammals and birds based on these results follows:

- *soil herbivorous receptors:* All EEQs were less than 1.0 using the NOAEL as the TRV

- *soil invertivorous receptors:* The EEQs for Aroclor-1260 (8.0), iron (15), mercury (1.2), and thallium (2.6) for the shrew were greater than 1.0 using the NOAEL as the TRV. The EEQs for Aroclor-1260 (5.1), iron (13), and mercury (9.8) for the robin were greater than 1.0 using the NOAEL as the TRV. All LOAEL EEQs for both receptors, except for iron, were less than 1.0.

  The iron EEQs for the shrew and robin (1.5 and 1.3, respectively) were slightly greater than 1.0 using the LOAEL as the TRV. Iron and thallium are not considered bioaccumulative, and, as described above, earthworm BAFs are not available. Therefore, the exposure dose for these metals is likely overestimated. The Maryland (2008) ATC for mercury (0.51 mg/kg) is greater than the maximum concentration (0.3 mg/kg) at REC #11; using the ATC as input into the model would produce an EEQ greater than 1.0. Maximum concentrations of iron, thallium, and mercury were less than or equal to Maryland ATCs (State of Maryland, 2008); therefore, risks are not due to site-related activities. For these reasons, iron, mercury, and thallium were eliminated as COPC for soil invertivorous-receptors for REC #11.

  Aroclor-1260 exceeds its screening value (1,300 µg/kg) in six of 33 samples. The EEQ of 8.0 for the shrew is based on comparisons of the calculated dose to the NOAEL; the EEQ based on the LOAEL was less than 1.0. The elevated Aroclor-1260 concentrations were in samples near Building 036, and along the northern boundary of REC #11. However, the extent of Aroclor-1260 contamination has not been determined to the southwest along the taxiway; whether contamination extends across the taxiway is unknown. For these reasons, Aroclor-1260 was retained as a COPC for invertivorous mammalian receptors and invertivorous avian receptors for REC #11.

6.8 ECOLOGICAL RISK UNCERTAINTY ANALYSIS

This section discusses some of the uncertainties associated with the GSP ERA.

6.8.1 Measurement and Assessment Endpoints

Measures of effects (i.e., measurement endpoints) were used to evaluate selected assessment endpoints. These measures evaluate the attainment of assessment endpoints such as protection of soil-associated invertebrates from adverse effects on their survival, growth, or reproduction. For example, risks to shrews based on toxicity thresholds or other similar data are assumed applicable to other small mammals. In this example, the shrew is used as a surrogate to assess a decrease in reproduction that can result in reduced small mammal populations. This approach may result in under- or over-protection of other unassessed small mammal species, due to differences in species' sensitivity to contaminants, ingestion rates, diet, home ranges, etc. Risks to reptiles and amphibians were not quantitatively evaluated in this ERA because toxicity data are mostly lacking for these organisms, and exposure factors have not been established for most species. Risks to carnivorous wildlife with larger foraging ranges were not determined, for the reasons discussed previously.

6.8.2 Exposure Characterization

Uncertainty exists in the chemical data collected at the site. Measured levels of chemicals are only estimates of the true chemical concentrations in site media. Sampling data for naphthalene was reported in both the VOC and SVOC fractions. To be conservative, all data for naphthalene are presented.

Direct contact—Highly bioavailable forms of chemicals are typically used in toxicity tests; the bioavailability of contaminants in environmental media is likely less. In addition, bioaccumulation of contaminants depends on characteristics of the abiotic media, such as pH, organic carbon, etc. Therefore, the actual toxicity of chemicals to which receptors (e.g., plants and invertebrates) are exposed by direct contact with contaminated media is likely overestimated.

Food-chain modeling—The average daily contaminant-dose for terrestrial wildlife is calculated using an equation that incorporates ingestion rates, body weights, BAFs, and other exposure factors. Bioaccumulation of contaminants into various biological media (e.g., plants, invertebrates, and small mammals) depends on characteristics of the abiotic media, such as pH, organic carbon, etc. Therefore, site-specific BAFs likely differ from those obtained from

literature and used to calculate risk in the ERA. For example, the BAF used for the earthworm for iron and thallium defaults to the value of 1.0. This likely overestimates the dose ingested in food eaten by soil invertivorous-receptors; the actual accumulation of iron and thallium in earthworms is probably much lower, since earthworm BAFs for most other metals are lower.

No avian TRVs for butyl benzyl phthalate, antimony, and thallium are available, so risks to birds from these chemicals could not be evaluated using the food-chain model. In addition, the PAH TRV for birds is based on 7,12-dimethylbenz(a)anthracene. Using this TRV as proxy for all PAH calculations introduces additional uncertainty. Furthermore, highly bioavailable forms of chemicals are typically used in dosing studies for wildlife; the bioavailability of contaminants in environmental media is likely less. Ingestion rates and body weights vary within and among species; this is especially true for species inhabiting different areas.

The exposure factors used in the food-chain model were obtained from studies in the scientific literature or were predicted using various equations, and thus may not be representative of on-site receptors. The actual exposure of ecological receptors to chemical contaminants is likely overestimated. In particular, wildlife with a large home range will typically roam over multiple sampling locations and would not be expected to obtain all of their food from the most contaminated areas at GSP.

6.8.3 Ecological Effects Data

Several alternative benchmark values were used to better understand the relationship between COPC concentrations and potential effects on ecological receptors. Some uncertainty is involved in using some of the conservative screening levels, because the toxicological basis of some of those numbers is not known. Alternative benchmarks, however, lessen these uncertainties because they are specific for the receptors being evaluated. Some uncertainty is also inherent in using background values.

6.8.4 Risk Characterization

Risks are deemed regulatorily unacceptable and adverse effects in exposed receptors are possible if a calculated EEQ is greater than or equal to 1.0, regardless of the magnitude of the EEQ. The magnitude of effects on ecological receptors cannot be inferred based on the magnitude of the EEQ. Rather, an EEQ greater than 1.0 simply indicates that the selected toxicity reference-value

was exceeded. Finally, uncertainty exists in whether or not adverse effects would occur at only the individual organism level or at the population or community level. Evaluating potential population-level effects are the focus of the ERA, unless protected (e.g., threatened and endangered) species are a site-specific concern.

6.9 ECOLOGICAL RISK SUMMARY AND CONCLUSIONS

A screening-level ecological risk assessment (SERA) was performed for GSP. The results of the initial screening for surface soil and groundwater (evaluated as surface water) resulted in several chemicals being selected as COPC for the site. These chemicals were evaluated further in the Step 3a refinement (the first step of the baseline ecological risk assessment [BERA]). The initial list of COPC was refined after a review of alternative toxicity information, the spatial distribution of contaminants, magnitude of criteria exceedances, background concentrations, and dilution factors (with respect to groundwater COPC). This section summarizes the conclusions of the ERA conducted for RECs #9 and #10 and REC #11 at GSP.

Manganese in surface soil was retained as a COPC for soil invertebrates and plants at RECs #9 and #10. The greatest detected concentration of manganese, which exceeds the screening values for soil invertebrates and plants, was not bounded; therefore, the size of habitat affected by elevated manganese concentrations is not known. Although the bioavailability of manganese in soil is not known, manganese in the environment is probably lower than the bioavailability of the manganese in soil at the site. Therefore, even though the extent of the manganese contamination is not bounded, its effect on plant and invertebrate communities at the site is probably not significant.

Aroclor-1260 in surface soil was retained as a COPC for birds and mammals at REC #11. Aroclor-1260 had NOAEL-based EEQs greater than 1 for birds and mammals, whereas the EEQs based on the LOAELs were less than 1.0. Therefore, whether birds and mammals will be affected is uncertain. Whether the Aroclor-1260 contamination extends across the taxiway is also unknown, so the size of habitat affected by elevated Aroclor-1260 concentrations cannot be determined. Probably only a few individual organisms would potentially be affected by Aroclor-1260, because of the relatively small size of the contaminated area.

Aquatic organisms are only exposed to surface water; therefore, chemical concentrations in groundwater were evaluated after the concentrations had been adjusted by a dilution factor to

account for groundwater discharge into surface water. Risks to aquatic organisms from exposure to groundwater are minimal because groundwater discharging to the surface water in Stansbury Creek or Frog Mortar Creek would be diluted many times at the groundwater/surface-water interface. Therefore, no chemicals were retained as COPC for risks to aquatic organisms.

Table 6-1

Exposure Parameters for the Terrestrial Wildlife Model
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Species/Exposure Inputs	Conservative Inputs		Average Inputs	
	Values	Units	Values	Units
Bobwhite Quail				
Body Weight = BW	1.540E-01	kg	1.751E-01	kg
Food Ingestion Rate = If	1.628E-02	kg/day	1.361E-02	kg/day
Soil Ingestion Rate = Is	2.263E-03	kg/day	8.304E-04	kg/day
Home Range = HR	Assume 100% on site		1.880E+01	acres
Meadow Vole				
Body Weight = BW	1.700E-02	kg	3.580E-02	kg
Food Ingestion Rate = If	1.878E-03	kg/day	1.744E-03	kg/day
Soil Ingestion Rate = Is	6.010E-05	kg/day	2.093E-05	kg/day
Home Range = HR	Assume 100% on site		6.590E-02	acres
American Robin				
Body Weight = BW	7.73E-02	kg	8.04E-02	kg
Food Ingestion Rate = If	1.25E-02	kg/day	1.19E-02	kg/day
Soil Ingestion Rate - Is	2.046E-03	kg/day	7.601E-04	kg/day
Home Range = HR	Assume 100% on site		6.095E-01	acres
Short-Tailed Shrew				
Body Weight = BW	1.500E-02	kg	1.610E-02	kg
Food Ingestion Rate = If	1.600E-03	kg/day	1.433E-03	kg/day
Soil Ingestion Rate - Is	4.801E-05	kg/day	1.289E-05	kg/day
Home Range = HR	Assume 100% on site		9.699E-01	acres

Notes:
The exposure factors were derived as presented in Appendix P-2.

The soil ingestion rates were calculated by multiplying the food ingestion rates by the following incidental soil ingestion rates:

Receptor	Conservative	Average	Source
Bobwhite quail	13.90%	6.10%	1, 2
Meadow Vole	3.20%	1.20%	1
American Robin	16.40%	6.40%	1,3
Short-tailed Shrew	3%	0.90%	1

1 - USEPA (U.S. Environmental Protection Agency), 2007. Ecological Soil Screening Level Guidance, Office of Emergency and Remedial Response. February.
2 - Based on the mourning dove.
3 - Based on the American woodcock

TABLE 6-2

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SURFACE SOIL
GREATER STRAWBERRY POINT - REC 9 AND 10
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Concentration	Minimum Non-Detect	Maximum Non-Detect	Average Positive Result[1]	Overall Average[2]	Background Concentration[3]	EEQs				Plant/Invertebrate		Further Evaluated in Terrestrial Food Chain Modeling (yes/no)?[4]
										Plants	Invertebrates	Avian	Mammals	COPC (yes/no)?	Rationale for COPC Selection	
VOLATILES (UG/KG)																
2-BUTANONE	9/33	1.7 J	10 J	GSP-SB-104-0-2	0.87	1.7	4.9	1.8	NA	**NA**	**NA**	**NA**	0.00011	**YES**	NSL	NO
ACETONE	9/33	5.9 J	2200 J	GSP-SB-64-0-2	3.9	34	387	109	NA	**NA**	**NA**	**NA**	0.88	**YES**	NSL	NO
CARBON DISULFIDE	2/33	0.8 J	3 J	GSP-SB-101-0-2	0.25	0.53	1.9	0.29	NA	**NA**	**NA**	**NA**	0.032	**YES**	NSL	NO
ETHYLBENZENE	1/33	0.21 J	0.21 J	GSP-SB-106-0-2	0.16	0.31	0.21	0.12	NA	0.0000038	0.0000038	0.00000023	0.00000023	NO	BSL	NO
METHYLENE CHLORIDE	4/33	1.7 J	3.6 J	GSP-SB-97-0-2	0.5	4	2.5	0.83	NA	0.012	0.012	0.012	0.00089	NO	BSL	NO
N-PROPYLBENZENE	1/33	0.24 J	0.24 J	GSP-SB-106-0-2	0.25	0.48	0.24	0.18	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL	NO
NAPHTHALENE	1/33	4 J	4 J	GSP-SB-102-0-2	0.11	1.3	4.0	0.24	NA	0.040	0.00014	0.040	0.000040	NO	BSL	NO
O-XYLENE	1/33	0.52 J	0.52 J	GSP-SB-110-0-2	0.2	0.42	0.52	0.16	NA	0.0052	0.0052	0.0052	0.0052	NO	BSL	NO
TOLUENE	7/33	0.27 J	0.66 J	GSP-SB-110-0-2	0.15	0.29	0.47	0.19	NA	0.0000088	0.0000088	0.00000047	0.00000047	NO	BSL	NO
SEMIVOLATILES (UG/KG)																
2-METHYLNAPHTHALENE	9/33	21	1700	GSP-SB-68-0-2	3.6	39	310	87.5	NA	**NA**	0.059	**NA**	0.017	**YES**	NSL	NO
ACENAPHTHENE	11/33	17	3300	GSP-SB-68-0-2	3.6	35	459	155	NA	0.17	0.11	**33.0**	0.033	NO	BSL	**YES**
ACENAPHTHYLENE	12/33	5.7 J	3100	GSP-SB-68-0-2	3.6	35	411	152	NA	**31.0**	0.11	**31.0**	0.031	**YES**	ASL	**YES**
ANTHRACENE	20/33	4.6 J	7600	GSP-SB-68-0-2	3.6	19	634	386	NA	**3.0**	0.26	**76.0**	0.076	**YES**	ASL	**YES**
BENZO(A)ANTHRACENE	27/33	11	17000	GSP-SB-68-0-2	3.6	19	1204	986	NA	**170**	0.94	**170**	**15.5**	**YES**	ASL	**YES**
BENZO(A)PYRENE	27/33	11	15000	GSP-SB-68-0-2	3.6	19	1207	988	NA	0.75	0.83	**150**	**13.6**	NO	BSL	**YES**
BENZO(B)FLUORANTHENE	28/33	14	17000	GSP-SB-68-0-2	3.6	3.8	1282	1088	NA	**170**	0.94	**170**	**15.5**	**YES**	ASL	**YES**
BENZO(G,H,I)PERYLENE	26/33	7.9	9400	GSP-SB-68-0-2	3.6	19	903	713	NA	**94.0**	0.52	**94.0**	**8.5**	**YES**	ASL	**YES**
BENZO(K)FLUORANTHENE	21/33	10	6800	GSP-SB-68-0-2	3.6	19	712	454	NA	**68.0**	0.38	**68.0**	**6.2**	**YES**	ASL	**YES**
BIS(2-ETHYLHEXYL)PHTHALATE	3/33	25 J	56 J	GSP-SB-64-0-2	20	620	36.7	47.5	NA	0.56	0.56	0.56	0.061	NO	BSL	NO
CARBAZOLE	2/33	700	2000	GSP-SB-68-0-2	28	320	1350	118	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL	NO
CHRYSENE	27/33	13	17000	GSP-SB-68-0-2	1.2	6.4	1289	1055	NA	**170**	0.94	**170**	**15.5**	**YES**	ASL	**YES**
DI-N-BUTYL PHTHALATE	3/33	16 J	20 J	GSP-SB-104-0-2	16	460	18.0	29.8	NA	0.00010	0.20	0.20	0.13	NO	BSL	NO
DIBENZO(A,H)ANTHRACENE	6/33	13	1400	GSP-SB-71-0-2	3.6	100	338	66.6	NA	**14.0**	0.078	**14.0**	**1.3**	**YES**	ASL	**YES**
DIBENZOFURAN	3/33	9.1 J	1200 J	GSP-SB-68-0-2	3.4	230	503	62.9	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL	NO
DIETHYL PHTHALATE	1/33	45 J	45 J	GSP-SB-104-0-2	17	490	45.0	32.0	NA	0.00045	0.45	0.45	0.0018	NO	BSL	NO
FLUORANTHENE	30/33	5.2 J	33000	GSP-SB-68-0-2	3.6	3.6	1987	1806	NA	0.66	**1.1**	**330**	0.33	**YES**	ASL	**YES**
FLUORENE	11/33	9.4	3600	GSP-SB-68-0-2	3.6	35	478	162	NA	**36.0**	0.12	**36.0**	0.036	**YES**	ASL	**YES**
INDENO(1,2,3-CD)PYRENE	24/33	8.7	7500	GSP-SB-68-0-2	3.6	19	754	549	NA	**75.0**	0.42	**75.0**	**6.8**	**YES**	ASL	**YES**
NAPHTHALENE	12/33	10	1900	GSP-SB-68-0-2	3.6	35	295	109	NA	**19.0**	0.066	**19.0**	0.019	**YES**	ASL	**YES**
PHENANTHRENE	27/33	7.6	27000	GSP-SB-68-0-2	3.6	19	1555	1273	NA	**270**	0.93	**270**	0.27	**YES**	ASL	**YES**
PYRENE	30/33	7.1 J	34000	GSP-SB-68-0-2	3.6	3.6	2201	2001	NA	**340**	**1.9**	**340**	**30.9**	**YES**	ASL	**YES**
PCBS (UG/KG)																
AROCLOR-1260	2/33	22 J	63 J	GSP-SB-96-0-2	18	22	42.5	11.6	NA	0.0019	0.0019	0.048	0.048	NO	BSL	NO
METALS (MG/KG)																
ANTIMONY	12/33	0.066 J	0.72 J	GSP-SB-102-0-2	0.033	0.44	0.18	0.17	6	0.14	0.0092	0.24	**2.7**	NO	BSL	**YES**
ARSENIC	33/33	0.71	5.6	GSP-SB-110-0-2	-	-	2.5	2.5	3.6	0.31	0.33	0.13	0.12	NO	BSL	NO
BARIUM	33/33	2.9 J	266 J	GSP-SB-71-0-2	-	-	47.1	47.1	73	0.53	0.81	0.60	0.13	NO	BSL	NO
BERYLLIUM	28/33	0.045 J	1.6 J	GSP-SB-71-0-2	0.03	0.046	0.32	0.28	0.66	0.16	0.040	**1.5**	0.076	NO	BSL	**YES**
CADMIUM	13/33	0.035 J	0.68	GSP-SB-68-0-2	0.0027	0.04	0.16	0.072	0.73	0.021	0.0049	0.9	**1.9**	NO	BSL	**YES**
CHROMIUM	33/33	2.1 J	24 K	GSP-SB-108-0-2	-	-	10.3	10.3	28	0.38	0.38	0.92	0.71	NO	BSL	NO
COBALT	33/33	0.26 J	7.1	GSP-SB-108-0-2	-	-	2.4	2.4	11	0.55	0.036	0.059	0.031	NO	BSL	NO
COPPER	33/33	1.1 J	38	GSP-SB-94-0-2	-	-	7.7	7.7	12	0.54	0.48	**1.4**	0.78	NO	BSL	**YES**
IRON	15/15	1860 J	12900	GSP-SB-63-0-2	-	-	6933	6933	15,000	**NA**	**65**	**1075**	**1075**	**YES**	ASL/NSL	**YES**

TABLE 6-2

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SURFACE SOIL
GREATER STRAWBERRY POINT - REC 9 AND 10
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Concentration	Minimum Non-Detect	Maximum Non-Detect	Average Positive Result[1]	Overall Average[2]	Background Concentration[3]	EEQs				Plant/Invertebrate		Further Evaluated in Terrestrial Food Chain Modeling (yes/no)?[4]
										Plants	Invertebrates	Avian	Mammals	COPC (yes/no)?	Rationale for COPC Selection	
LEAD	33/33	0.86 J	25.1 J	GSP-SB-62-0-2, GSP-SB-71-0-2	-	-	9.3	9.3	45	0.21	0.015	**2.3**	0.45	NO	BSL	**YES**
MANGANESE	15/15	4.6 J	2390 J	GSP-SB-71-0-2	-	-	398	398	480	**10.9**	**5.3**	0.56	0.60	**YES**	ASL	NO
MERCURY	24/33	0.013 J	0.16	GSP-SB-62-0-2	0.011	0.02	0.048	0.037	0.51	0.013	0.013	**2.8**	**101**	NO	BSL	**YES**
MOLYBDENUM	15/33	0.13 J	1	GSP-SB-63-0-2, GSP-SB-67-0-2	0.22	1.1	0.51	0.34	NA	0.50	0.0050	**1.7**	**1.7**	NO	BSL	**YES**
NICKEL	33/33	0.56	15	GSP-SB-108-0-2	-	-	4.5	4.5	13	0.39	0.054	0.071	0.12	NO	BSL	NO
SELENIUM	23/33	0.13 J	1.2 J	GSP-SB-71-0-2	0.08	0.51	0.59	0.47	2.2	**2.3**	0.29	1.0	**1.9**	**YES**	ASL	**YES**
SILVER	9/33	0.038 J	0.38 J	GSP-SB-99-0-2	0.0028	0.11	0.12	0.060	0.94	0.00068	**NA**	0.09	0.027	**YES**	NSL	NO
THALLIUM	3/33	0.7 J	2.3 K	GSP-SB-101-0-2	0.014	0.62	1.7	0.29	3.9	**1.6**	**1.6**	**2.3**	**40.4**	**YES**	ASL	**YES**
VANADIUM	33/33	3.5 J	65	GSP-SB-108-0-2	-	-	19.2	19.2	30	0.50	0.50	**8.3**	0.23	NO	BSL	**YES**
ZINC	30/33	5.2	63.4	GSP-SB-68-0-2	2.8	5	22.3	20.5	63	0.40	0.53	**1.4**	0.80	NO	BSL	**YES**
PETROLEUM HYDROCARBONS (MG/KG)																
DIESEL RANGE ORGANICS	24/33	3.6 J	1200 J	GSP-SB-68-0-2	3	72	205	152	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL	NO

Shaded cells indicate that the EEQ exceeds 1 or no screening level is available.
EEQ is calculated by dividing the chemical concentration by its screening level presented in Appendix P-1.
1 - Average of detected concentrations only.
2 - Average of all analytical results including one-half of the detection limit for non-detects.
3 - State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008. Appendix 2 - Attachment 2.
4 - Chemicals with EEQs for birds or mammals greater than 1.0 or important bioaccumulative chemicals without bird or mammal screening values are retained for food chain modeling.

Abbreviations:
COPC = Chemical of Potential Concern
EEQ = Ecological Effects Quotient
NA = Not available or not applicable

Rationale Codes for COPC Selection:
ASL = Above COPC Screening Level
BSL = Below COPC Screening Level
NSL = No Screening Level Available

TABLE 6-3

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SURFACE SOIL
GREATER STRAWBERRY POINT - REC 11
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Concentration	Minimum Non-Detect	Maximum Non-Detect	Average Positive Result[1]	Overall Average[2]	Background Concentration[3]	EEQs				Plant/Invertebrate		Further Evaluated in Terrestrial Food Chain Modeling (yes/no)?[4]
										Plants	Invertebrates	Avian	Mammals	COPC (yes/no)?	Rationale for COPC Selection	
VOLATILES (UG/KG)																
1,2,3-TRIMETHYLBENZENE	4/33	0.16	0.55 J	GSP-SB-77-1-3	0.13	0.2	0.33	0.11	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL	NO
1,2,4-TRICHLOROBENZENE	1/33	4.2 J	4.2 J	GSP-SB-119-0-2	0.2	0.31	4.2	0.25	NA	0.042	0.00021	0.042	0.00038	NO	BSL	NO
1,2,4-TRIMETHYLBENZENE	1/33	0.99 J	0.99 J	GSP-SB-77-1-3	0.47	0.76	0.99	0.32	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL	NO
1,2-DICHLOROBENZENE	1/33	0.35 J	0.35 J	GSP-SB-119-0-2	0.26	0.42	0.35	0.17	NA	0.0035	0.0035	0.0035	0.00012	NO	BSL	NO
1,3-DICHLOROBENZENE	1/33	6.6	6.6	GSP-SB-119-0-2	0.25	0.41	6.6	0.36	NA	0.22	0.22	0.22	0.00018	NO	BSL	NO
2-BUTANONE	2/33	4.3 J	7.9 J	GSP-SB-77-1-3	1	4.7	6.1	1.0	NA	**NA**	**NA**	**NA**	0.000088	**YES**	NSL	NO
4-METHYL-2-PENTANONE	1/33	0.58 J	0.58 J	GSP-SB-123-0-2	0.39	0.63	0.58	0.26	NA	**NA**	**NA**	0.0000058	0.0000013	**YES**	NSL	NO
ACETONE	9/33	25	750 J	GSP-SB-82-0-2	4.9	37	190	55.4	NA	**NA**	**NA**	**NA**	0.30	**YES**	NSL	NO
BENZENE	1/33	0.55 J	0.55 J	GSP-SB-77-1-3	0.17	0.27	0.55	0.12	NA	0.000018	0.000018	0.000022	0.000022	NO	BSL	NO
CARBON DISULFIDE	1/33	1.9 J	1.9 J	GSP-SB-121-0-3	0.32	0.51	1.9	0.25	NA	**NA**	**NA**	**NA**	0.020	**YES**	NSL	NO
CHLOROBENZENE	1/33	0.36 J	0.36 J	GSP-SB-119-0-2	0.24	0.38	0.36	0.16	NA	0.012	0.0000090	0.0036	0.000027	NO	BSL	NO
CIS-1,2-DICHLOROETHENE	1/33	0.96 J	0.96 J	GSP-SB-74-0-2	0.26	0.42	0.96	0.19	NA	0.0048	0.0048	0.0048	0.0048	NO	BSL	NO
ETHYLBENZENE	1/33	0.31 J	0.31 J	GSP-SB-121-0-3	0.19	0.3	0.31	0.13	NA	0.0000056	0.0000056	0.00000034	0.00000034	NO	BSL	NO
O-XYLENE	2/33	0.32 J	0.5 J	GSP-SB-121-0-3	0.25	0.41	0.41	0.18	NA	0.0050	0.0050	0.0050	0.0050	NO	BSL	NO
TERTIARY-BUTYL ALCOHOL	1/1	8.1 J	8.1 J	GSP-SB-82-0-2	-	-	-	-	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL	NO
TOLUENE	4/33	0.29 J	0.68 J	GSP-SB-77-1-3	0.2	0.31	0.42	0.16	NA	0.0000091	0.0000091	0.00000049	0.00000049	NO	BSL	NO
TOTAL XYLENES	2/33	0.56 J	0.88 J	GSP-SB-77-1-3	0.49	0.78	0.72	0.34	NA	0.000014	0.000014	0.00000024	0.00000024	NO	BSL	NO
TRICHLOROETHENE	1/33	4.1 J	4.1 J	GSP-SB-74-0-2	0.3	0.49	4.1	0.31	NA	0.0014	0.0014	0.041	0.00033	NO	BSL	NO
SEMIVOLATILES (UG/KG)																
2-METHYLNAPHTHALENE	27/33	8.5	500	GSP-SB-83-0-2	3.6	15	77.1	63.6	NA	**NA**	0.017	**NA**	0.0050	**YES**	NSL	NO
ACENAPHTHENE	27/33	13	520	GSP-SB-83-0-2	3.6	15	107	87.7	NA	0.026	0.018	**5.2**	0.0052	NO	BSL	**YES**
ACENAPHTHYLENE	26/33	11	300	GSP-SB-124-0-2	3.6	15	61.8	49.2	NA	**3.0**	0.010	**3.0**	0.0030	**YES**	ASL	**YES**
ANTHRACENE	32/33	10	1900	GSP-SB-83-0-2	4	4	292	283	NA	0.76	0.066	**19.0**	0.019	NO	BSL	**YES**
BENZO(A)ANTHRACENE	32/33	42	5800	GSP-SB-83-0-2	4	4	933	905	NA	**58**	0.32	**58.0**	**5.3**	**YES**	ASL	**YES**
BENZO(A)PYRENE	32/33	41	5200	GSP-SB-83-0-2	4	4	885	859	NA	0.26	0.29	**52.0**	**4.7**	NO	BSL	**YES**
BENZO(B)FLUORANTHENE	33/33	13	5100	GSP-SB-83-0-2	-	-	932	932	NA	**51**	0.28	**51.0**	**4.6**	**YES**	ASL	**YES**
BENZO(G,H,I)PERYLENE	32/33	26	3100	GSP-SB-83-0-2	4	4	557	541	NA	**31.0**	0.17	**31.0**	**2.8**	**YES**	ASL	**YES**
BENZO(K)FLUORANTHENE	32/33	26	1800	GSP-SB-83-0-2	4	4	418	406	NA	**18.0**	0.10	**18.0**	**1.6**	**YES**	ASL	**YES**
BIS(2-ETHYLHEXYL)PHTHALATE	6/32	23 J	100 J	GSP-SB-87-0-2	21	420	49.8	36.4	NA	1.0	1.0	1.0	0.11	NO	BSL	NO
BUTYL BENZYL PHTHALATE	1/32	250	250	GSP-SB-86-0-2	11	220	250	21.6	NA	**2.5**	**2.5**	**2.5**	**1.0**	**YES**	ASL	**YES**
CAPROLACTAM	1/32	50 J	50 J	GSP-SB-111-0-2	40	810	50.0	54.6	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL	NO
CARBAZOLE	14/32	30 J	260	GSP-SB-76-1-3	29	590	101	71.1	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL	NO
CHRYSENE	33/33	8.8	6200	GSP-SB-83-0-2	-	-	933	933	NA	**62.0**	0.34	**62.0**	**5.6**	**YES**	ASL	**YES**
DI-N-BUTYL PHTHALATE	1/33	17 J	17 J	GSP-SB-122-0-2	16	330	17.0	21.7	NA	0.00009	0.17	0.17	0.11	NO	BSL	NO
DIBENZO(A,H)ANTHRACENE	28/33	6.3 J	850	GSP-SB-83-0-2	3.6	4.3	176	149	NA	**8.5**	0.047	**8.5**	0.77	**YES**	ASL	**YES**
DIBENZOFURAN	10/33	5.2 J	170	GSP-SB-76-1-3	3.6	300	59.7	29.9	NA	**NA**	**NA**	**NA**	**YES**	**YES**	NSL	NO
FLUORANTHENE	33/33	18	8800	GSP-SB-83-0-2	-	-	1560	1560	NA	0.18	0.30	**88**	0.088	NO	BSL	**YES**
FLUORENE	27/33	12	910	GSP-SB-83-0-2	3.6	15	143	118	NA	**9.1**	0.031	**9.1**	0.0091	**YES**	ASL	**YES**
INDENO(1,2,3-CD)PYRENE	32/33	22	2400	GSP-SB-83-0-2	4	4	459	445	NA	**24.0**	0.13	**24.0**	**2.2**	**YES**	ASL	**YES**
N-NITROSO-DI-N-PROPYLAMINE	1/32	120	120	GSP-SB-72-0-2	29	590	120	42.5	NA	**NA**	**NA**	**NA**	0.22	**YES**	NSL	NO
NAPHTHALENE	25/33	12	560	GSP-SB-83-0-2	3.6	15	102	77.8	NA	**5.6**	0.019	**5.6**	0.0056	**YES**	ASL	**YES**
PHENANTHRENE	33/33	12	7900	GSP-SB-83-0-2	-	-	969	969	NA	**79.0**	0.27	**79.0**	0.079	**YES**	ASL	**YES**
PYRENE	33/33	15	13000	GSP-SB-83-0-2	-	-	1751	1751	NA	**130**	0.72	**130**	**11.8**	**YES**	ASL	**YES**

TABLE 6-3

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - SURFACE SOIL
GREATER STRAWBERRY POINT - REC 11
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Concentration	Minimum Non-Detect	Maximum Non-Detect	Average Positive Result[1]	Overall Average[2]	Background Concentration[3]	EEQs				Plant/Invertebrate		Further Evaluated in Terrestrial Food Chain Modeling (yes/no)?[4]
										Plants	Invertebrates	Avian	Mammals	COPC (yes/no)?	Rationale for COPC Selection	
PCBS (UG/KG)																
AROCLOR-1260	19/33	24 J	12000	GSP-SB-78-0-2	19	22	1592	921	NA	0.36	0.36	**9.2**	**9.2**	NO	BSL	**YES**
METALS (MG/KG)																
ANTIMONY	17/33	0.079 J	1.2 J	GSP-SB-121-0-3	0.026	1.2	0.41	0.30	6	0.24	0.015	0.40	**4.4**	NO	BSL	**YES**
ARSENIC	33/33	0.98	4.5	GSP-SB-126-0-2	-	-	3.1	3.1	3.6	0.25	0.26	0.10	0.10	NO	BSL	NO
BARIUM	33/33	3.9 J	73 K	GSP-SB-84-0-2	-	-	30.1	30.1	73	0.15	0.22	0.17	0.037	NO	BSL	NO
BERYLLIUM	32/33	0.046 J	0.87	GSP-SB-84-0-2	0.053	0.053	0.33	0.32	0.66	0.09	0.022	0.8	0.041	NO	BSL	NO
CADMIUM	13/33	0.049 J	1	GSP-SB-130-0-2	0.0031	0.046	0.23	0.100	0.73	0.031	0.0071	**1.3**	**2.8**	NO	BSL	**YES**
CHROMIUM	33/33	3.4 J	24.1 K	GSP-SB-82-0-2	-	-	13.2	13.2	28	0.38	0.38	0.93	0.71	NO	BSL	NO
COBALT	33/33	0.22 J	10.8 J	GSP-SB-87-0-2	-	-	3.0	3.0	11	0.83	0.054	0.090	0.047	NO	BSL	NO
COPPER	33/33	1.8 J	26	GSP-SB-121-0-3	-	-	11.1	11.1	12	0.37	0.33	0.93	0.53	NO	BSL	NO
IRON	13/13	866 J	15000	GSP-SB-82-0-2	-	-	8240	8240	15,000	**NA**	**75**	**1250**	**1250**	**YES**	ASL/NSL	**YES**
LEAD	33/33	1.1 J	41	GSP-SB-125-0-2	-	-	13.0	13.0	45	0.34	0.024	**3.7**	0.73	NO	BSL	**YES**
MANGANESE	13/13	2.5 J	1050	GSP-SB-84-0-2	-	-	175	175	480	**4.8**	**2.3**	0.24	0.26	**YES**	ASL	NO
MERCURY	24/33	0.028 J	0.3	GSP-SB-113-0-2	0.014	0.02	0.080	0.061	0.51	0.025	0.025	**5.2**	**190**	NO	BSL	**YES**
MOLYBDENUM	13/33	0.051 J	0.47	GSP-SB-77-1-3, GSP-SB-87-0-2	0.24	0.68	0.35	0.26	NA	0.24	0.0024	0.80	0.80	NO	BSL	NO
NICKEL	33/33	0.47	12.5 J	GSP-SB-87-0-2	-	-	5.5	5.5	13	0.33	0.045	0.060	0.10	NO	BSL	NO
SELENIUM	21/33	0.2 J	3.1 L	GSP-SB-82-0-2	0.45	0.56	0.65	0.50	2.2	**6.0**	0.76	**2.6**	**4.9**	**YES**	ASL	**YES**
SILVER	11/33	0.073 J	0.49	GSP-SB-86-0-2	0.0018	0.13	0.21	0.097	0.94	0.00088	**NA**	0.12	0.035	**YES**	NSL	NO
THALLIUM	1/33	0.92 J	0.92 J	GSP-SB-120-0-2	0.016	0.7	0.92	0.21	3.9	0.66	0.66	0.92	**16.2**	NO	BSL	**YES**
VANADIUM	33/33	5.6 J	54.2	GSP-SB-82-0-2	-	-	22.2	22.2	30	0.42	0.42	**6.9**	0.19	NO	BSL	**YES**
ZINC	32/33	4.6 J	51	GSP-SB-121-0-3	1.9	1.9	27.6	26.7	63	0.32	0.43	**1.1**	0.65	NO	BSL	**YES**
PETROLEUM HYDROCARBONS (MG/KG)																
DIESEL RANGE ORGANICS	27/33	3.6 J	1800 J	GSP-SB-83-0-2	3.4	22	274	225	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL	NO
PETROLEUM HYDROCARBONS (UG/KG)																
GASOLINE RANGE ORGANICS	5/33	33 J	89 J	GSP-SB-78-0-2	27	34	63.0	22.2	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL	NO

Shaded cells indicate that the EEQ exceeds 1 or no screening level is available.
EEQ is calculated by dividing the chemical concentration by its screening level presented in Appendix P-1.
1 - Average of detected concentrations only.
2 - Average of all analytical results including one-half of the detection limit for non-detects.
3 - State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008. Appendix 2 - Attachment 2.
4 - Chemicals with EEQs for birds or mammals greater than 1.0 or important bioaccumulative chemicals without bird or mammal screening values are retained for food chain modeling.

Abbreviations:
COPC = Chemical of Potential Concern
EEQ = Ecological Effects Quotient
NA = Not available or not applicable

Rationale Codes for COPC Selection:
ASL = Above COPC Screening Level
BSL = Below COPC Screening Level
NSL = No Screening Level Available

TABLE 6-4

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - GROUNDWATER AS SURFACE WATER
GREATER STRAWBERRY POINT - REC 9 and 10
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Concentration	Minimum Non-Detect	Maximum Non-Detect	Average of Positive Results[1]	Overall Average[2]	Background Concentration[3]	EEQ	EEQ (10X Dilution)	EEQ (25X Dilution)	EEQ (50X Dilution)	COPC (yes/no)?	Rationale for COPC Selection
VOLATILES (UG/L)															
2-BUTANONE	1/10	3.2 J	3.2 J	GSP-SB-WP-66-062311	0.57	9.5	3.2	1.0	NA	0.00023	0.00002	0.00001	0.000005	NO	BSL
ACETONE	3/10	1.9 J	2.6 J	GSP-MW-6-062011	1.4	22	2.2	4.1	NA	0.0017	0.0002	0.00007	0.00003	NO	BSL
BENZENE	1/10	3.1 J	3.1 J	GSP-MW-7-062211	0.13	0.13	3.1	0.37	NA	0.028	0.003	0.001	0.0006	NO	BSL
CARBON DISULFIDE	1/10	0.27 J	0.27 J	GSP-SB-WP-66-062311	0.13	2.2	0.27	0.19	NA	0.29	0.03	0.01	0.006	NO	BSL
CARBON TETRACHLORIDE	1/10	2.6	2.6	GSP-MW-5-062011	0.13	2.2	2.6	0.42	NA	0.20	0.02	0.008	0.004	NO	BSL
CHLOROFORM	1/10	0.92 J	0.92 J	GSP-MW-5-062011	0.16	2.7	0.92	0.29	NA	0.51	0.05	0.02	0.01	NO	BSL
CHLOROMETHANE	1/10	0.42 J	0.42 J	GSP-MW-8-062311	0.3	5	0.42	0.41	NA	0.00016	0.00002	0.00001	0.000003	NO	BSL
TERTIARY-BUTYL ALCOHOL	1/1	6.9 J	6.9 J	GSP-SB-WP-66-062311	-	-	-	-	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL
TOLUENE	2/10	0.28 J	22	GSP-SB-WP-66-062311	0.13	2.2	11.1	2.4	NA	**11.0**	**1.1**	0.44	0.22	**YES**	ASL
TRICHLOROETHENE	2/10	0.27 J	450	GSP-MW-7-062211	0.17	0.17	225	45.1	NA	**21.4**	**2.1**	0.86	0.43	**YES**	ASL
SEMIVOLATILES (UG/L)															
4-METHYLPHENOL	1/3	2.1	2.1 0	GSP-SB/WP-66-20100527	0.8	0.8	2.1	0.97	NA	0.004	0.0004	0.0002	0.0001	NO	BSL
BIS(2-ETHYLHEXYL)PHTHALATE	1/10	0.85 J	0.85 J	GSP-SB/WP-71-20100528	0.76	1.2	0.85	0.46	NA	0.053	0.005	0.002	0.001	NO	BSL
BUTYL BENZYL PHTHALATE	2/10	1.1	2.3	GSP-SB/WP-66-20100527	0.76	1.2	1.7	0.67	NA	0.12	0.01	0.005	0.002	NO	BSL
PHENOL	2/10	0.77 J	1.7	GSP-SB/WP-66-20100527	0.57	0.91	1.2	0.50	NA	0.43	0.04	0.02	0.009	NO	BSL
METALS (UG/L)															
ANTIMONY	2/10	0.43 J	0.53 J	GSP-SB-WP-66-062311	0.1	0.39	0.48	0.19	NA	0.018	0.002	0.001	0.0004	NO	BSL
ARSENIC	9/10	0.42 J	9.7 J	GSP-SB-WP-71-062111	0.48	0.48	3.0	2.7	NA	**1.9**	0.19	0.08	0.04	**YES**	ASL
BARIUM	10/10	30	110	GSP-MW-8-062311	-	-	55.6	55.6	NA	**27.5**	**2.8**	**1.1**	0.55	**YES**	ASL
BERYLLIUM	5/10	0.12 J	3.5	GSP-MW-5-062011	0.0059	0.12	0.98	0.51	NA	**5.3**	0.53	0.21	0.11	**YES**	ASL
CADMIUM	5/10	0.07 J	1.4	GSP-MW-5-062011	0.026	0.14	0.40	0.22	NA	**11.7**	**1.2**	0.47	0.23	**YES**	ASL
CHROMIUM	9/10	0.79 J	8.2	GSP-SB-WP-66-062311	0.67	0.67	4.8	4.4	NA	0.14	0.01	0.006	0.003	NO	BSL
COBALT	10/10	0.68 J	76	GSP-MW-5-062011	-	-	15.7	15.7	NA	**3.3**	0.33	0.13	0.07	**YES**	ASL
COPPER	8/10	1.9 J	39	GSP-SB-WP-61-062211	3.1	3.4	13.4	11.0	NA	**12.6**	**1.3**	0.50	0.25	**YES**	ASL
IRON	3/3	5040	13600	GSP-SB/WP-71-20100528	-	-	8240	8240	NA	**45.3**	**4.5**	**1.8**	0.91	**YES**	ASL
LEAD	8/10	0.58 J	8.5	GSP-SB-WP-66-062311	0.28	0.84	2.2	1.9	NA	**3.4**	0.34	0.14	0.07	**YES**	ASL
MANGANESE	3/3	212	756	GSP-SB/WP-71-20100528	-	-	488	488	NA	**6.3**	0.63	0.25	0.13	**YES**	ASL
MERCURY	1/10	0.19 J	0.19 J	GSP-MW-7-062211	0.066	0.1	0.19	0.054	NA	**19.0**	**1.9**	0.76	0.38	**YES**	ASL
MOLYBDENUM	6/10	0.47 J	5.9	GSP-MW-5-062011	0.33	2.6	2.4	1.8	NA	0.081	0.008	0.003	0.002	NO	BSL
NICKEL	9/10	1 J	53	GSP-MW-5-062011	0.63	0.63	13.2	11.9	NA	**6.5**	0.65	0.26	0.13	**YES**	ASL
SELENIUM	4/10	0.6 J	5.2	GSP-MW-8-062311	0.26	0.62	2.4	1.1	NA	**5.2**	0.52	0.21	0.10	**YES**	ASL
VANADIUM	10/10	0.55 J	23	GSP-SB-WP-66-062311	-	-	6.8	6.8	NA	**1.2**	0.12	0.05	0.02	**YES**	ASL
ZINC	7/10	6 J	79	GSP-MW-5-062011	10.2	44	29.7	24.0	NA	1.0	0.10	0.04	0.02	NO	BSL
DISSOLVED METALS (UG/L)															
ANTIMONY	2/10	0.23 J	0.49 J	GSP-SB-WP-66-062311	0.06	0.31	0.36	0.14	NA	0.016	0.002	0.001	0.0003	NO	BSL
ARSENIC	5/10	0.38 J	9.1 J	GSP-SB-WP-71-062111	0.092	0.66	4.2	2.2	NA	**1.8**	0.18	0.07	0.04	**YES**	ASL
BARIUM	10/10	28	110	GSP-MW-8-062311	-	-	51.5	51.5	NA	**27.5**	**2.8**	**1.1**	0.55	**YES**	ASL
BERYLLIUM	3/10	0.16 J	2.8	GSP-MW-5-062011	0.0059	0.092	1.1	0.36	NA	**4.2**	0.42	0.17	0.08	**YES**	ASL
CADMIUM	4/10	0.053 J	1.3	GSP-MW-5-062011	0.044	0.13	0.43	0.19	NA	**10.8**	**1.1**	0.43	0.22	**YES**	ASL
CHROMIUM	7/10	0.11 J	3.7	GSP-MW-5-062011	0.11	0.65	1.9	1.4	NA	0.06	0.01	0.003	0.001	NO	BSL
COBALT	10/10	0.42 J	70	GSP-MW-5-062011	-	-	15.8	15.8	NA	**3.0**	0.30	0.12	0.06	**YES**	ASL
COPPER	7/10	0.47 J	15	GSP-MW-5-062011	0.76	2.5	7.2	5.3	NA	**4.8**	0.48	0.19	0.10	**YES**	ASL
IRON	3/3	464	14200	GSP-SB/WP-71-20100528	-	-	7065	7065	NA	**47.3**	**4.7**	**1.9**	0.95	**YES**	ASL
LEAD	1/10	2.7	2.7	GSP-SB-WP-66-062311	0.071	0.5	2.7	0.40	NA	**1.1**	0.11	0.04	0.02	**YES**	ASL
MANGANESE	3/3	222	772	GSP-SB/WP-71-20100528	-	-	493	493	NA	**6.4**	0.64	0.26	0.13	**YES**	ASL
MERCURY	1/10	0.09 J	0.09 J	GSP-MW-7-062211	0.066	0.1	0.090	0.044	NA	**9.0**	0.90	0.36	0.18	**YES**	ASL
MOLYBDENUM	5/10	1 J	5.4	GSP-SB/WP-71-20100528	0.27	2.9	2.3	1.4	NA	0.074	0.01	0.003	0.001	NO	BSL
NICKEL	8/10	2.1	50	GSP-MW-5-062011	0.63	0.63	14.1	11.4	NA	**6.1**	0.61	0.24	0.12	**YES**	ASL
SELENIUM	4/10	0.53 J	5.2	GSP-MW-8-062311	0.32	0.44	1.8	0.82	NA	**5.2**	0.52	0.21	0.10	**YES**	ASL
VANADIUM	5/10	0.63 J	13 J	GSP-SB-WP-66-062311	0.3	0.43	4.4	2.3	NA	0.65	0.07	0.03	0.01	NO	BSL
ZINC	6/10	7.6 J	69	GSP-MW-5-062011	0.5	22.6	26.6	17.4	NA	0.9	0.09	0.03	0.02	NO	BSL
PETROLEUM HYDROCARBONS (UG/L)															
DIESEL RANGE ORGANICS	3/10	450	1600	GSP-MW-6-062011	30	380	1150	418	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL
GASOLINE RANGE ORGANICS	3/10	27 J	300	GSP-MW-7-062211	31	42	118	47.8	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL

Shaded cells indicate that the EEQ exceeds 1 or no screening level is available.
EEQ is calculated by dividing the chemical concentration by its surface water screening level presented in Appendix P-1.
1 - Average of detected concentrations only.
2 - Average of all analytical results including one-half of the detection limit for non-detects.
3 - No background data were available.

Abbreviations:
COPC = Chemical of Potential Concern
EEQ = Ecological Effects Quotient
NA = Not available or not applicable
J = estimated
µg/L = micrograms per liter

Rationale Codes for COPC Selection:
ASL = Above COPC Screening Level
BSL = Below COPC Screening Level
NSL = No Screening Level Available

TABLE 6-5

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN - GROUNDWATER AS SURFACE WATER
GREATER STRAWBERRY POINT - REC 11
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	Frequency of Detection	Minimum Concentration	Maximum Concentration	Sample of Maximum Concentration	Minimum Non-Detect	Maximum Non-Detect	Average of Positive Results[1]	Overall Average[2]	Background Concentration[3]	EEQ	EEQ (10X Dilution)	EEQ (25X Dilution)	EEQ (50X Dilution)	COPC (yes/no)?	Rationale for COPC Selection
VOLATILES (UG/L)															
1,1-DICHLOROETHENE	3/10	0.45 J	1.3	GSP-SB/WP-89-20100528	0.19	0.19	0.91	0.34	NA	0.052	0.005	0.002	0.001	NO	BSL
1,2,4-TRIMETHYLBENZENE	1/10	0.26 J	0.26 J	GSP-MW-1-061711	0.12	0.12	0.26	0.080	NA	0.014	0.001	0.0005	0.0003	NO	BSL
2-BUTANONE	1/10	0.62 J	0.62 J	GSP-MW-3-061711	0.57	0.57	0.62	0.32	NA	0.00004	0.000004	0.000002	0.0000009	NO	BSL
ACETONE	1/10	1.5 J	1.5 J	GSP-MW-4-062011	1.1	16	1.5	2.3	NA	0.0010	0.0001	0.00004	0.00002	NO	BSL
BENZENE	1/10	0.13 J	0.13 J	GSP-MW-4-062011	0.13	0.35	0.13	0.087	NA	0.001	0.0001	0.00005	0.00002	NO	BSL
CIS-1,2-DICHLOROETHENE	7/10	0.32 J	4.5	GSP-SB/WP-89-20100528	0.17	0.17	2.0	1.4	NA	0.0076	0.0008	0.0003	0.0002	NO	BSL
M+P-XYLENES	1/10	0.71 J	0.71 J	GSP-MW-1-061711	0.24	0.24	0.71	0.18	NA	0.055	0.005	0.002	0.001	NO	BSL
O-XYLENE	1/10	0.33 J	0.33 J	GSP-MW-1-061711	0.14	0.14	0.33	0.096	NA	0.025	0.003	0.001	0.001	NO	BSL
TOLUENE	1/10	0.13 J	0.13 J	GSP-MW-4-062011	0.13	1.1	0.13	0.13	NA	0.1	0.007	0.003	0.001	NO	BSL
TOTAL XYLENES	1/10	1 J	1 J	GSP-MW-1-061711	0.28	0.28	1.0	0.23	NA	0.077	0.008	0.003	0.002	NO	BSL
TRANS-1,2-DICHLOROETHENE	2/10	0.19 J	0.22 J	GSP-SB/WP-89-20100528	0.19	0.19	0.21	0.12	NA	0.00023	0.00002	0.000009	0.000005	NO	BSL
TRICHLOROETHENE	8/10	1.3	25	GSP-SB/WP-89-20100528, GSP-SB-WP-89-062311	0.17	0.17	10.1	8.1	NA	**1.2**	0.12	0.05	0.02	**YES**	ASL
VINYL CHLORIDE	2/10	0.28 J	0.66 J	GSP-MW-4-062011	0.22	0.22	0.47	0.18	NA	0.00071	0.00007	0.00003	0.00001	NO	BSL
SEMIVOLATILES (UG/L)							0	0.00							
4-METHYLPHENOL	1/3	8.4	8.4	GSP-SB/WP-83-20100528	0.8	0.8	8.4	3.1	NA	0.015	0.002	0.0006	0.0003	NO	BSL
BIS(2-ETHYLHEXYL)PHTHALATE	2/10	0.99 J	1.3 J	GSP-SB/WP-84-20100526	0.76	0.8	1.1	0.54	NA	0.081	0.008	0.003	0.002	NO	BSL
BUTYL BENZYL PHTHALATE	2/10	0.82 J	0.9 J	GSP-SB/WP-83-20100528	0.76	0.8	0.86	0.48	NA	0.05	0.005	0.002	0.0009	NO	BSL
CAPROLACTAM	1/10	0.77 J	0.77 J	GSP-MW-1-061711	0.76	0.8	0.77	0.43	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL
PHENOL	3/10	0.69 J	1.7	GSP-SB/WP-83-20100528	0.57	0.59	1.2	0.56	NA	0.43	0.04	0.02	0.01	NO	BSL
METALS (UG/L)															
ARSENIC	10/10	0.55 J	11 J	GSP-MW-3-061711, GSP-SB-WP-83-062211	-	-	5.6	5.6	NA	**2.2**	0.22	0.09	0.04	**YES**	ASL
BARIUM	10/10	16	120	GSP-MW-1-061711	-	-	53.7	53.7	NA	**30.0**	**3.0**	**1.2**	0.60	**YES**	ASL
BERYLLIUM	6/10	0.51 J	1.7	GSP-MW-1-061711	0.092	0.092	0.83	0.52	NA	**2.6**	0.26	0.10	0.05	**YES**	ASL
CADMIUM	5/10	0.1 J	1	GSP-SB-WP-84-062311	0.029	0.058	0.49	0.26	NA	**8.3**	0.83	0.33	0.17	**YES**	ASL
CHROMIUM	8/10	2.2	7.5	GSP-SB/WP-84-20100526	0.36	0.73	4.8	3.9	NA	0.13	0.01	0.005	0.003	NO	BSL
COBALT	10/10	4.5	210	GSP-SB-WP-84-062311	-	-	61.9	61.9	NA	**9.1**	0.91	0.37	0.18	**YES**	ASL
COPPER	7/10	0.93 J	35	GSP-MW-1-061711	0.65	5.6	9.4	7.1	NA	**11.3**	**1.1**	0.45	0.23	**YES**	ASL
IRON	3/3	7470	20800	GSP-SB/WP-83-20100528	-	-	12320	12320	NA	**69.3**	**6.9**	**2.8**	**1.4**	**YES**	ASL
LEAD	5/10	1.1 J	5 J	GSP-SB/WP-84-20100526	0.073	0.75	2.4	1.3	NA	**2.0**	0.20	0.08	0.04	**YES**	ASL
MANGANESE	3/3	29.8	215	GSP-SB/WP-83-20100528	-	-	122	122	NA	**1.8**	0.18	0.07	0.04	**YES**	ASL
MERCURY	1/10	0.073 J	0.073 J	GSP-SB-WP-84-062311	0.066	0.1	0.073	0.042	NA	**7.3**	0.73	0.29	0.15	**YES**	ASL
NICKEL	10/10	0.69 J	380	GSP-SB-WP-84-062311	-	-	100	100	NA	**46.3**	**4.6**	**1.9**	0.93	**YES**	ASL
SELENIUM	4/10	0.36 J	1.2 J	GSP-SB-WP-89-062311	0.32	0.9	0.85	0.47	NA	**1.2**	0.12	0.05	0.02	**YES**	ASL
THALLIUM	1/10	1.1 J	1.1 J	GSP-SB-WP-84-062311	0.13	1.1	1.1	0.28	NA	**1.4**	0.14	0.06	0.03	**YES**	ASL
VANADIUM	9/10	0.37 J	48	GSP-MW-3-061711	0.3	0.3	11.4	10.2	NA	**2.4**	0.24	0.10	0.05	**YES**	ASL
ZINC	8/10	6 J	1500 J	GSP-SB-WP-84-062311	3.5	98.1	413	335	NA	**18.5**	**1.9**	0.74	0.37	**YES**	ASL
DISSOLVED METALS (UG/L)															
ARSENIC	10/10	0.27 J	9.4 J	GSP-SB-WP-83-062211	-	-	3.9	3.9	NA	**1.9**	0.19	0.08	0.04	**YES**	ASL
BARIUM	10/10	10	120	GSP-MW-3-061711	-	-	51.1	51.1	NA	**30.0**	**3.0**	**1.2**	0.60	**YES**	ASL
BERYLLIUM	6/10	0.61 J	1.8	GSP-MW-3-061711	0.092	0.092	1.0	0.64	NA	**2.7**	0.27	0.11	0.05	**YES**	ASL
CADMIUM	5/10	0.074 J	1.1	GSP-SB-WP-84-062311	0.046	0.096	0.53	0.28	NA	**9.2**	0.92	0.37	0.18	**YES**	ASL
CHROMIUM	7/10	1.4 J	5.8	GSP-SB/WP-83-20100528	0.2	0.62	3.0	2.1	NA	0.10	0.01	0.004	0.002	NO	BSL
COBALT	10/10	4	220	GSP-SB-WP-84-062311	-	-	63.6	63.6	NA	**9.6**	0.96	0.38	0.19	**YES**	ASL
COPPER	7/10	0.39 J	36	GSP-MW-3-061711	0.42	3.3	7.5	5.5	NA	**11.6**	**1.2**	0.46	0.23	**YES**	ASL
IRON	3/3	5680	19800	GSP-SB/WP-83-20100528	-	-	10697	10697	NA	**66.0**	**6.6**	**2.6**	**1.3**	**YES**	ASL
LEAD	3/10	1.2 J	2.6	GSP-SB-WP-84-062311	0.078	0.34	2.0	0.68	NA	**1.0**	0.10	0.04	0.02	**YES**	ASL
MANGANESE	3/3	27.5	193	GSP-SB/WP-83-20100528	-	-	111	111	NA	**1.6**	0.16	0.06	0.03	**YES**	ASL
NICKEL	10/10	0.73 J	410	GSP-SB-WP-84-062311	-	-	104	104	NA	**50.0**	**5.0**	**2.0**	1.0	**YES**	ASL
SELENIUM	3/10	0.35 J	0.96 J	GSP-SB-WP-89-062311	0.15	0.87	0.67	0.34	NA	0.96	0.10	0.04	0.02	NO	BSL
THALLIUM	1/10	1.1 J	1.1 J	GSP-SB-WP-84-062311	0.13	1	1.1	0.27	NA	**1.4**	0.14	0.06	0.03	**YES**	ASL
VANADIUM	7/10	0.45 J	13 J	GSP-SB-WP-84-062311	0.3	0.3	4.1	2.9	NA	0.65	0.07	0.03	0.01	NO	BSL
ZINC	9/10	4.9 J	1600 J	GSP-SB-WP-84-062311	6.1	6.1	390	351	NA	**19.8**	**2.0**	0.79	0.40	**YES**	ASL
PETROLEUM HYDROCARBONS (UG/L)															
DIESEL RANGE ORGANICS	6/10	42 J	360 J	GSP-MW-3-061711	230	740	211	211	NA	**NA**	**NA**	**NA**	**NA**	**YES**	NSL

Shaded cells indicate that the EEQ exceeds 1 or no screening level is available.
EEQ is calculated by dividing the chemical concentration by its surface water screening level presented in Appendix P-1.
µg/L = micrograms per liter
1 - Average of detected concentrations only.
2 - Average of all analytical results including one-half of the detection limit for non-detects.
3 - No background data were available.

Abbreviations:
COPC = Chemical of Potential Concern

EEQ = Ecological Effects Quotient
NA = Not available or not applicable

Rationale Codes for COPC Selection:
ASL = Above COPC Screening Level

BSL = Below COPC Screening Level
NSL = No Screening Level Available

Table 6-6

Terrestrial Food Chain Model - Conservative Scenario
Invertivorous and Herbivorous Receptors
Greater Strawberry Point - REC 9 and 10
Lockheed Martin, Martin State Airport
Middle River, Maryland

	Herbivorous Receptors EEQs				Invertivorous Receptors EEQs			
	Bobwhite Quail		Meadow Vole		American Robin		Short-Tailed Shrew	
Chemical	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Semivolatile Organics								
ACENAPHTHENE	2.4E-02	2.4E-03	1.8E-04	3.3E-05	4.4E-01	4.4E-02	8.1E-03	1.5E-03
ACENAPHTHYLENE	6.4E-02	6.4E-03	1.5E-03	2.7E-04	5.8E+00	5.8E-01	1.2E-01	2.1E-02
ANTHRACENE	1.5E-01	1.5E-02	3.4E-03	6.4E-04	1.6E+00	1.6E-01	3.0E-02	5.6E-03
BENZO(A)ANTHRACENE	1.4E-01	1.4E-02	1.6E-01	2.6E-03	2.4E+00	2.4E-01	4.8E+00	7.7E-02
BENZO(A)PYRENE	2.0E-01	2.0E-02	4.1E-01	6.5E-03	1.8E+00	1.8E-01	3.5E+00	5.7E-02
BENZO(B)FLUORANTHENE	4.0E-01	4.0E-02	1.0E+00	1.7E-02	3.8E+00	3.8E-01	7.8E+00	1.2E-01
BENZO(G,H,I)PERYLENE	3.6E-01	3.6E-02	1.1E+00	1.7E-02	2.4E+00	2.4E-01	4.8E+00	7.8E-02
BENZO(K)FLUORANTHENE	8.2E-02	8.2E-03	1.5E-01	2.4E-03	1.5E+00	1.5E-01	3.1E+00	5.0E-02
CHRYSENE	1.4E-01	1.4E-02	1.6E-01	2.6E-03	3.4E+00	3.4E-01	6.8E+00	1.1E-01
DIBENZO(A,H)ANTHRACENE	2.0E-02	2.0E-03	4.1E-02	6.5E-04	2.8E-01	2.8E-02	5.7E-01	9.1E-03
FLUORANTHENE	1.1E+00	1.1E-01	3.0E-02	5.4E-03	8.5E+00	8.5E-01	1.6E-01	3.0E-02
FLUORENE	2.7E-02	2.7E-03	2.0E-04	3.6E-05	2.8E+00	2.8E-01	5.6E-02	1.0E-02
INDENO(1,2,3-CD)PYRENE	9.9E-02	9.9E-03	1.9E-01	3.1E-03	1.8E+00	1.8E-01	3.8E+00	6.0E-02
NAPHTHALENE	1.2E+00	1.2E-01	3.9E-02	7.2E-03	7.0E-01	7.0E-02	1.4E-02	2.5E-03
PHENANTHRENE	5.4E-01	5.4E-02	1.2E-02	2.3E-03	4.1E+00	4.1E-01	7.7E-02	1.4E-02
PYRENE	1.5E+00	1.5E-01	4.6E+00	7.4E-02	5.3E+00	5.3E-01	1.0E+01	1.7E-01
Inorganics								
ANTIMONY	NV	NV	9.7E-02	2.1E-03	NV	NV	1.0E+01	2.2E-01
BERYLLIUM	NV	NV	1.8E-01	1.4E-01	NV	NV	2.4E-02	1.9E-02
CADMIUM	4.3E-02	1.0E-02	7.5E-02	8.4E-03	6.8E-01	1.6E-01	8.5E-01	9.5E-02
COPPER	1.5E-01	1.8E-02	3.6E-02	2.5E-03	1.0E+00	1.2E-01	3.9E-01	2.7E-02
IRON	2.0E+00	2.0E-01	1.2E+00	1.2E-01	2.4E+01	2.4E+00	2.8E+01	2.8E+00
LEAD	3.3E-01	1.2E-02	5.7E-02	1.4E-03	1.5E+00	5.4E-02	2.6E-01	6.6E-03
MERCURY	1.4E+01	1.4E+00	2.8E+00	5.6E-01	1.5E+01	1.5E+00	2.0E+00	3.9E-01
MOLYBDENUM	NV	NV	NV	NV	NV	NV	NV	NV
SELENIUM	2.9E-01	1.0E-01	5.1E-01	1.1E-01	7.0E-01	2.5E-01	8.2E-01	1.8E-01
THALLIUM	NV	NV	1.2E+00	1.2E-01	NV	NV	3.4E+01	3.4E+00
VANADIUM	2.9E+00	5.9E-01	6.4E-02	2.8E-02	6.3E+00	1.3E+00	1.2E-01	5.3E-02
ZINC	9.1E-02	3.5E-02	7.3E-02	1.9E-02	8.4E-01	3.2E-01	4.7E-01	1.2E-01

Cells are shaded if the value is greater than 1.0
NA - Not Applicable; Not Detected in Surface Soil
NV- Value Not Available/Not Able to be Calculated

NOAEL - No Observed Adverse Effects Level
LOAEL - Lowest Observed Adverse Effects Level
EEQ - Ecological Effects Quotient

Table 6-7

Terrestrial Food Chain Model - Conservative Scenario
Invertivorous and Herbivorous Receptors
Greater Strawberry Point - REC 11
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Herbivorous Receptors EEQs				Invertivorous Receptors EEQs			
	Bobwhite Quail		Meadow Vole		American Robin		Short-Tailed Shrew	
	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Semivolatile Organics								
ACENAPHTHENE	4.2E-03	4.2E-04	3.9E-05	7.2E-06	6.9E-02	6.9E-03	1.3E-03	2.3E-04
ACENAPHTHYLENE	8.7E-03	8.7E-04	2.2E-04	4.1E-05	5.6E-01	5.6E-02	1.1E-02	2.1E-03
ANTHRACENE	4.6E-02	4.6E-03	1.1E-03	2.1E-04	4.0E-01	4.0E-02	7.6E-03	1.4E-03
BENZO(A)ANTHRACENE	5.3E-02	5.3E-03	6.7E-02	1.1E-03	8.2E-01	8.2E-02	1.6E+00	2.6E-02
BENZO(A)PYRENE	7.2E-02	7.2E-03	1.4E-01	2.3E-03	6.3E-01	6.3E-02	1.2E+00	2.0E-02
BENZO(B)FLUORANTHENE	1.2E-01	1.2E-02	3.1E-01	5.0E-03	1.1E+00	1.1E-01	2.3E+00	3.7E-02
BENZO(G,H,I)PERYLENE	1.0E-01	1.0E-02	2.9E-01	4.6E-03	7.8E-01	7.8E-02	1.6E+00	2.6E-02
BENZO(K)FLUORANTHENE	2.3E-02	2.3E-03	4.5E-02	7.2E-04	4.0E-01	4.0E-02	8.2E-01	1.3E-02
BUTYL BENZYL PHTHALATE	NV	NV	1.8E-04	6.0E-05	NV	NV	1.7E-03	5.8E-04
CHRYSENE	5.6E-02	5.6E-03	7.1E-02	1.1E-03	1.2E+00	1.2E-01	2.5E+00	4.0E-02
DIBENZO(A,H)ANTHRACENE	1.2E-02	1.2E-03	2.5E-02	4.0E-04	1.7E-01	1.7E-02	3.5E-01	5.5E-03
FLUORANTHENE	3.0E-01	3.0E-02	7.9E-03	1.5E-03	2.3E+00	2.3E-01	4.4E-02	8.1E-03
FLUORENE	6.9E-03	6.9E-04	5.6E-05	1.0E-05	7.1E-01	7.1E-02	1.4E-02	2.6E-03
INDENO(1,2,3-CD)PYRENE	3.2E-02	3.2E-03	6.1E-02	9.8E-04	5.9E-01	5.9E-02	1.2E+00	1.9E-02
NAPHTHALENE	3.7E-01	3.7E-02	1.2E-02	2.1E-03	2.1E-01	2.1E-02	4.0E-03	7.4E-04
PHENANTHRENE	2.2E-01	2.2E-02	5.6E-03	1.0E-03	1.2E+00	1.2E-01	2.2E-02	4.1E-03
PYRENE	5.9E-01	5.9E-02	1.8E+00	2.8E-02	2.0E+00	2.0E-01	4.0E+00	6.4E-02
PCBs								
AROCLOR-1260	9.8E-01	9.8E-02	6.4E-01	6.4E-02	1.7E+02	1.7E+01	3.0E+02	3.0E+01
Inorganics								
ANTIMONY	NV	NV	1.6E-01	3.4E-03	NV	NV	8.2E+00	1.8E-01
CADMIUM	5.5E-02	1.3E-02	9.4E-02	1.0E-02	9.3E-01	2.1E-01	1.2E+00	1.3E-01
IRON	2.4E+00	2.4E-01	1.4E+00	1.4E-01	2.8E+01	2.8E+00	3.3E+01	3.3E+00
LEAD	5.1E-01	1.9E-02	8.1E-02	2.0E-03	2.3E+00	8.3E-02	3.9E-01	9.9E-03
MERCURY	2.5E+01	2.5E+00	5.2E+00	1.0E+00	1.9E+01	1.9E+00	2.4E+00	4.9E-01
SELENIUM	8.0E-01	2.8E-01	1.4E+00	3.1E-01	1.5E+00	5.2E-01	1.7E+00	3.6E-01
THALLIUM	NV	NV	4.9E-01	4.9E-02	NV	NV	1.4E+01	1.4E+00
VANADIUM	2.4E+00	4.9E-01	5.3E-02	2.3E-02	5.2E+00	1.1E+00	1.0E-01	4.4E-02
ZINC	8.0E-02	3.1E-02	6.5E-02	1.6E-02	7.8E-01	3.0E-01	4.4E-01	1.1E-01

Cells are shaded if the value is greater than 1.0
NV- Value Not Available/Not Able to be Calculated
NOAEL - No Observed Adverse Effects Level
LOAEL - Lowest Observed Adverse Effects Level
EEQ - Ecological Effects Quotient

Table 6-8

Terrestrial Food Chain Model - Average Scenario
Invertivorous and Herbivorous Receptors
Greater Strawberry Point - REC 9 and 10
Lockheed Martin, Martin State Airport
Middle River, Maryland

	Herbivorous Receptors EEQs				Invertivorous Receptors EEQs			
	Bobwhite Quail		Meadow Vole		American Robin		Short-Tailed Shrew	
Chemical	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Semivolatile Organics								
ACENAPHTHYLENE	1.2E-05	1.2E-06	2.3E-07	4.2E-08	2.6E-04	2.6E-05	4.7E-06	8.7E-07
ANTHRACENE	3.3E-05	3.3E-06	6.1E-07	1.1E-07	7.1E-05	7.1E-06	1.3E-06	2.3E-07
BENZO(A)ANTHRACENE	4.5E-05	4.5E-06	8.7E-05	1.4E-06	1.2E-04	1.2E-05	2.3E-04	3.7E-06
BENZO(A)PYRENE	8.2E-06	8.2E-07	1.3E-05	2.0E-07	1.0E-04	1.0E-05	1.9E-04	3.1E-06
BENZO(B)FLUORANTHENE	1.6E-05	1.6E-06	2.8E-05	4.4E-07	2.1E-04	2.1E-05	4.1E-04	6.6E-06
BENZO(G,H,I)PERYLENE	4.6E-06	4.6E-07	6.6E-06	1.1E-07	1.6E-04	1.6E-05	3.0E-04	4.9E-06
BENZO(K)FLUORANTHENE	7.1E-06	7.1E-07	1.3E-05	2.0E-07	8.9E-05	8.9E-06	1.7E-04	2.7E-06
CHRYSENE	4.7E-05	4.7E-06	9.1E-05	1.5E-06	1.8E-04	1.8E-05	3.5E-04	5.6E-06
FLUORANTHENE	3.9E-05	3.9E-06	6.9E-07	1.3E-07	4.1E-04	4.1E-05	7.5E-06	1.4E-06
FLUORENE	2.6E-01	2.6E-02	5.0E-03	9.2E-04	1.2E-04	1.2E-05	2.1E-06	3.9E-07
INDENO(1,2,3-CD)PYRENE	3.7E-06	3.7E-07	5.3E-06	8.5E-08	1.2E-04	1.2E-05	2.3E-04	3.7E-06
NAPHTHALENE	5.2E-05	5.2E-06	9.9E-07	1.8E-07	3.6E-05	3.6E-06	6.5E-07	1.2E-07
PHENANTHRENE	5.3E-04	5.3E-05	1.0E-05	1.9E-06	1.7E-04	1.7E-05	3.0E-06	5.5E-07
PYRENE	6.1E-05	6.1E-06	1.2E-04	1.9E-06	2.7E-04	2.7E-05	5.1E-04	8.2E-06
Inorganics								
ANTIMONY	NV	NV	7.7E-03	1.7E-04	NV	NV	2.5E-01	5.4E-03
IRON	3.8E-01	3.8E-02	1.5E-01	1.5E-02	1.1E+01	1.1E+00	1.2E+01	1.2E+00
LEAD	7.1E-02	2.6E-03	1.1E-02	2.7E-04	5.0E-01	1.8E-02	9.4E-02	2.4E-03
MERCURY	3.2E-01	3.2E-02	3.7E-02	7.5E-03	8.3E+00	8.3E-01	9.9E-01	2.0E-01
THALLIUM	NV	NV	3.1E-02	3.1E-03	NV	NV	3.6E+00	3.6E-01
VANADIUM	2.9E-01	5.8E-02	3.8E-03	1.7E-03	8.7E-01	1.8E-01	2.1E-02	9.2E-03

Cells are shaded if the value is greater than 1.0
Only chemicals with EEQs > 1.0 in the conservative food chain model are presented in this table.
NV- Value Not Available/Not Able to be Calculated
NOAEL - No Observed Adverse Effects Level
LOAEL - Lowest Observed Adverse Effects Level
EEQ - Ecological Effects Quotient

Table 6-9

Terrestrial Food Chain Model - Average Scenario
Invertivorous and Herbivorous Receptors
Greater Strawberry Point - REC 11
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Herbivorous Receptors EEQs				Invertivorous Receptors EEQs			
	Bobwhite Quail		Meadow Vole		American Robin		Short-Tailed Shrew	
	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL	NOAEL	LOAEL
Semivolatile Organics								
BENZO(A)ANTHRACENE	4.6E-03	4.6E-04	5.8E-03	9.4E-05	1.1E-01	1.1E-02	2.1E-01	3.4E-03
BENZO(A)PYRENE	6.3E-03	6.3E-04	9.5E-03	1.5E-04	8.8E-02	8.8E-03	1.7E-01	2.7E-03
BENZO(B)FLUORANTHENE	1.3E-02	1.3E-03	2.4E-02	3.8E-04	1.8E-01	1.8E-02	3.5E-01	5.6E-03
BENZO(G,H,I)PERYLENE	8.7E-03	8.7E-04	1.6E-02	2.5E-04	1.2E-01	1.2E-02	2.3E-01	3.7E-03
CHRYSENE	4.7E-03	4.7E-04	6.0E-03	9.5E-05	1.6E-01	1.6E-02	3.1E-01	5.0E-03
FLUORANTHENE	3.4E-02	3.4E-03	5.9E-04	1.1E-04	3.6E-01	3.6E-02	6.5E-03	1.2E-03
INDENO(1,2,3-CD)PYRENE	3.0E-03	3.0E-04	4.3E-03	6.9E-05	9.6E-02	9.6E-03	1.8E-01	3.0E-03
PHENANTHRENE	3.5E-02	3.5E-03	6.3E-04	1.2E-04	1.3E-01	1.3E-02	2.3E-03	4.2E-04
PYRENE	5.3E-02	5.3E-03	1.0E-01	1.6E-03	2.3E-01	2.3E-02	4.5E-01	7.1E-03
PCBs								
AROCLOR-1260	2.5E-02	2.5E-03	8.3E-03	8.3E-04	5.1E+00	5.1E-01	8.0E+00	8.0E-01
Inorganics								
ANTIMONY	NV	NV	1.4E-02	2.9E-04	NV	NV	4.6E-01	9.9E-03
CADMIUM	9.7E-03	2.2E-03	1.1E-02	1.3E-03	1.3E-01	3.1E-02	1.5E-01	1.7E-02
IRON	4.5E-01	4.5E-02	1.8E-01	1.8E-02	1.3E+01	1.3E+00	1.5E+01	1.5E+00
LEAD	9.1E-02	3.3E-03	1.3E-02	3.3E-04	6.5E-01	2.4E-02	1.2E-01	3.1E-03
MERCURY	5.3E-01	5.3E-02	6.1E-02	1.2E-02	9.8E+00	9.8E-01	1.2E+00	2.3E-01
SELENIUM	7.2E-02	2.5E-02	8.3E-02	1.8E-02	3.0E-01	1.1E-01	3.5E-01	7.6E-02
THALLIUM	NV	NV	2.2E-02	2.2E-03	NV	NV	2.6E+00	2.6E-01
VANADIUM	3.3E-01	6.7E-02	4.4E-03	1.9E-03	1.0E+00	2.1E-01	2.4E-02	1.1E-02

Cells are shaded if the value is greater than 1.0
Only chemicals with EEQs > 1.0 in the conservative food chain model are presented in this table.
NV- Value Not Available/Not Able to be Calculated
NOAEL - No Observed Adverse Effects Level
LOAEL - Lowest Observed Adverse Effects Level
EEQ - Ecological Effects Quotient

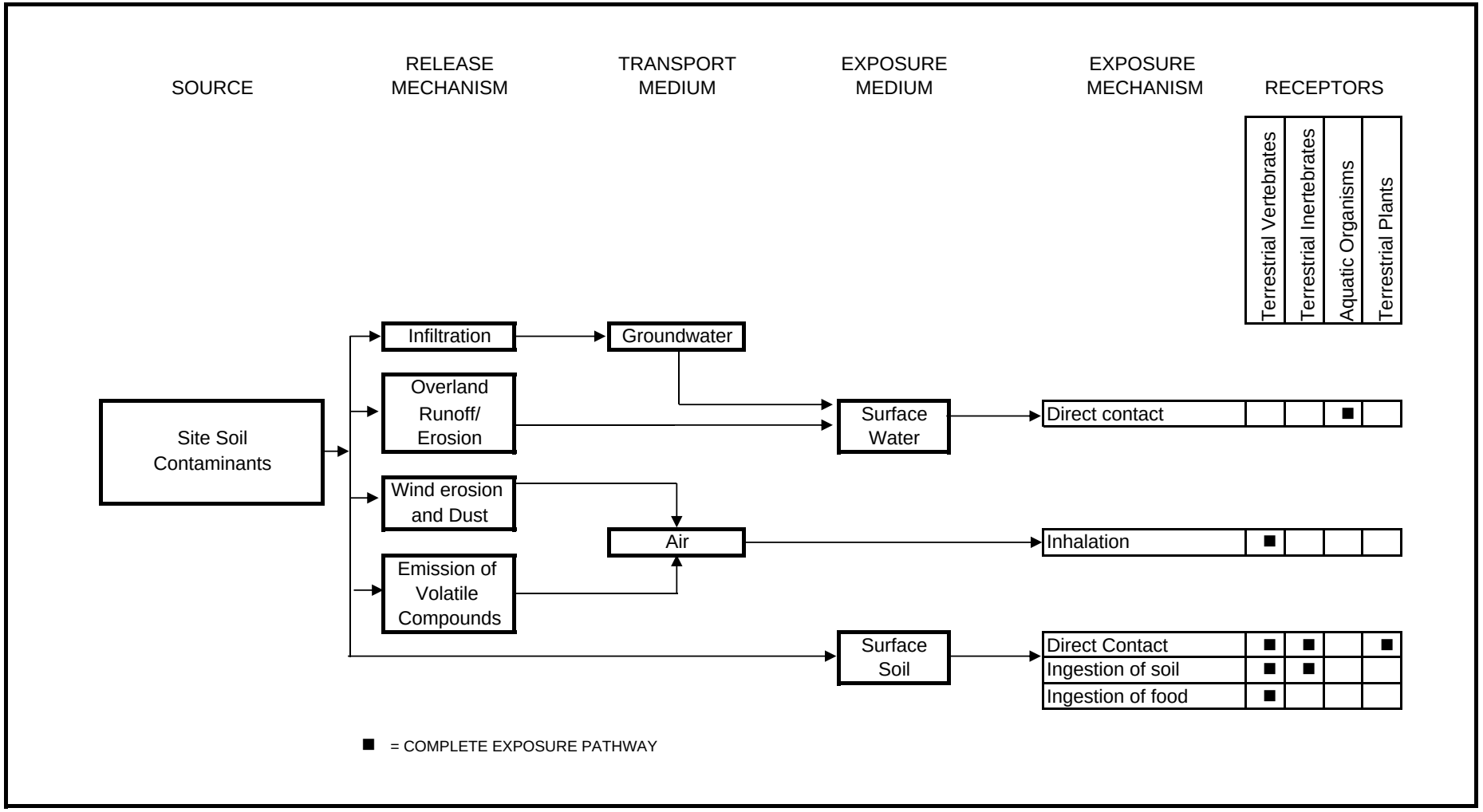


Figure 6-1

Ecological Conceptual Site Model
Greater Strawberry Point, Lockheed Martin, Martin State Airport
Middle River, Maryland

Section 7
Summary

Additional Phase II environmental investigations were conducted in the area of Greater Strawberry Point (GSP) extending north from the current Martin State Airport (MSA) maintenance facility. The area of follow-up investigations, approximately 10 acres in size, includes two main study areas where previous environmental sampling indicates subsurface impacts near Recognized Environmental Conditions (RECs). The first area is a clearing between the Strawberry Point wooded area and Taxiway F, the former Propellant and Acetylene Storage Sheds, the former Furnace Building, the former Coupon Test Shed, Engine Test Building, and the former Block House (Recognized Environmental Conditions #8, #9, and #10). The follow-up investigation also included the former maintenance storage, critical test and radioisotope buildings and the former transformer pad, an approximate 2.5-acres area immediately south of Taxiway J (Recognized Environmental Condition #11).

The additional Phase II activities characterized chemical constituents and their concentrations in soil and groundwater using fixed-laboratory analyses to provide definitive chemical data for these environmental media. Chemical analytical results were screened against State of Maryland human health soil and groundwater standards. Assessment of ecological and human health risks was completed using soil and groundwater data collected for Greater Strawberry Point.

The following field investigations were completed from May–July 2011 in the Greater Strawberry Point area of Martin State Airport:

- an access agreement and associated permits for intrusive investigations were obtained from Lockheed Martin, Martin State Airport, and the Maryland Aviation Administration (MAA) (as applicable) to conduct the planned field activities
- soil borings were advanced at 40 locations to a depth of 25 feet each to collect soil lithologic information, to screen soil in the field for volatile organic compounds using a portable photo-ionization detector, and to collect soil samples for fixed-laboratory chemical analyses. Subsurface borings consisted of 10 soil borings in the area of Recognized Environmental Condition #8 and #9, 10 soil borings in Recognized

Environmental Condition #10, and 20 soil borings in Recognized Environmental Condition #11.

- soil samples from each test pit and soil boring were submitted for laboratory analysis, including volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), metals, total petroleum hydrocarbon (TPH)-diesel-range organics (DRO) and -gasoline-range organics (GRO)

- Twelve test pits were excavated in Recognized Environmental Conditions #9 and #10 to assess possibly buried materials/debris corresponding to several subsurface anomalies identified by a geophysical survey in 2010

- eight two-inch-diameter groundwater monitoring wells were installed in the areas of three Recognized Environmental Condition areas using a low-profile Mini-Roto-Sonic drill rig to approximately 32 feet below ground surface (bgs). Groundwater samples were collected from these eight new wells and eight existing temporary wells and submitted to a fixed laboratory for analysis of volatile organic compounds, semi-volatile organic compounds, polychlorinated biphenyls, total and dissolved metals, total petroleum hydrocarbon-diesel-range and -gasoline-range organics.

- the locations of new soil borings, test-pit excavations, and monitoring wells were surveyed by a Maryland-licensed professional surveyor

- static groundwater levels were measured at the eight newly installed wells in July 2011. These water levels were used to develop a local groundwater-elevation contour map.

- investigation-derived waste was collected, stored, characterized, and then disposed of at an off-site Lockheed Martin-approved treatment and disposal facility

- environmental sampling data were compared to Maryland human health soil and groundwater standards to identify exceedances

- a baseline human health risk assessment was performed using available soil and groundwater data to evaluate whether detected concentrations of chemicals in the GSP study area pose a significant threat to potential human receptors under current and/or future land uses

- a streamlined ecological risk assessment was conducted to determine whether adverse effects may occur in ecological receptors as a result of exposure to chemicals present in the environment at Greater Strawberry Point

The results of the Phase II activities are summarized below:

- The lithology encountered in the soil borings varies across the Recognized Environmental Condition. In the Recognized Environmental Condition #9, gray and brown silty sand and sandy silt with occasional clay lenses is encountered to a depth of 25 feet. The Recognized Environmental Condition #10 subsurface lithology is similar to Recognized

Environmental Condition #9, except for a more prominent clay layer that ranges between two and 6.5 feet thick, found primarily 10–20 feet below grade. The Recognized Environmental Condition #11 subsurface lithology varies slightly and ranges from an area in the north comprised of gray and brown silty sand and sandy silt overlying a thick clay layer (SB-120 and SB-121) to nearly all silty sand to a depth of 25 feet farther south (SB-122 and SB-123).

- Subsurface observations during the subject investigation indicate that the water table in the area ranges from approximately four to eight feet below grade. Groundwater elevations indicate that groundwater beneath the Greater Strawberry Point generally flows in a southerly direction toward Stansbury Creek. Groundwater mounding appears to occur near Recognized Environmental Condition #11, likely as a result of recharge from the storm-drain outlets in the western portion of the site.

- Debris and chemical analytical results for soils (elevated semi-volatile organic compounds, petroleum hydrocarbon, and metals concentrations) in test pit GSP-TP-5, are evidence of contamination resulting from the observed fill material and/or historical operations at Recognized Environmental Condition #10.

- Trace to low concentrations of volatile organic compounds were detected in one or more soil samples collected at Recognized Environmental Conditions #8/9, #10, and #11. Most of the detected volatile organic compounds are common laboratory contaminants, and considered artifacts of the laboratory analysis, since they were detected in the laboratory-blank samples. Trichloroethene was detected at low concentrations in one or more deep-soil samples at Recognized Environmental Conditions #8/9 and #11. All but one of the detected trichloroethene concentrations is less than Maryland residential and non-residential soil standards, and many were trace concentrations. The maximum detected concentration of trichloroethene is 2,900 µg/kg, in a soil sample collected at 22-25 feet in boring GSP-SB-92, at the northern border of Recognized Environmental Condition #8, near Recognized Environmental Condition #9. This sample was collected below the water table.

- Semivolatile organic compounds were detected in soil at several Recognized Environmental Condition areas. Benzo(a)pyrene was detected at concentrations exceeding residential criteria in one or more soil samples in Recognized Environmental Conditions #9, #10, and #11. Benzo(a)pyrene equivalents (BaPEq) were calculated for each of the soil samples (based on positive detects only) as a cumulative measure of the detected polycyclic aromatic-hydrocarbons (PAHs). The calculated benzo(a)pyrene equivalent in 11 surface soil samples at Recognized Environmental Conditions #9 and #10, and in 28 of the Recognized Environmental Condition #11 surface soil samples is greater than the conservative residential-screening level. However, most individual semivolatile organic compound and polycyclic aromatic-hydrocarbon concentrations are less than residential and non-residential standards.

  The highest concentrations of semivolatile organic compounds and greatest number of residential and non-residential exceedances were identified in subsurface soil samples in two borings at Recognized Environmental Condition #10 (GSP-SB-102-6-8 and GSP-SB-109-6-8) and two borings at Recognized Environmental Condition #11

(GSP-SB-120-18-20 and GSP-SB-121-6-8). Some other exceedances of residential and/or non-residential standards were also found involving isolated semivolatile organic compound detections in surface and subsurface soil samples from all four Recognized Environmental Condition areas.

- Polychlorinated biphenyls, primarily Aroclor-1260, were detected in 16 soil boring samples at concentrations ranging from 19–3,400 µg/kg. Most polychlorinated biphenyl detections were in shallow soil samples in the Recognized Environmental Condition #11 area. Aroclor 1260 concentrations in four shallow-soil samples at Recognized Environmental Condition #11 exceed both the Maryland residential and non-residential soil standards of 320 and 1,400 µg/kg, respectively.

- Concentrations of arsenic and vanadium in soil exceed their residential standards in most soil samples. Although arsenic and vanadium frequently exceed their risk-based standards, most detected concentrations of these two metals are similar to the Maryland Department of the Environment's (MDE's) anticipated typical concentrations (ATCs) or "regional background" concentrations for the eastern region of Maryland. Therefore, concentrations of these metals are generally consistent with local background and in most cases do not indicate a release at Greater Strawberry Point. One notable exception is in soil sample GSP-SB-111-6-8 (southeast of Recognized Environmental Condition #11), in which the detected concentrations of arsenic at 52 mg/kg and vanadium at 300 mg/kg are an order of magnitude greater than the anticipated typical concentrations of 3.6 mg/kg and 30 mg/kg, respectively. Total chromium concentrations in six soil samples representing three Recognized Environmental Condition areas exceed the residential standard. Two of these detected chromium concentrations (GSP-SB-91-8-10 at the southern Recognized Environmental Condition #9 boundary, and GSP-SB-109-6-8 in the northwestern Recognized Environmental Condition #10) are also greater than its anticipated typical concentration.

- Concentrations of diesel-range organics exceed residential standards in four shallow soil samples at Recognized Environmental Condition #10 and five soil samples at Recognized Environmental Condition #11, and exceed both the residential and non-residential standards in two surface soil samples from Recognized Environmental Condition #11.

- Four groundwater samples had trichloroethene concentrations exceeding the Maryland Department of the Environment groundwater standard/federal maximum contaminant level, and three were collected in Recognized Environmental Condition #11 area wells (GSP-MW-01, GSP-MW-04, and GSP-SB/WP-89). In Recognized Environmental Condition #11 groundwater samples, trichloroethene concentrations range from 1.3 µg/L (GSP-SB/WP-83) to 25 µg/L (GSP-SB/WP-89). Trichloroethene was detected at a maximum concentration of 450 µg/L in the groundwater sample collected from GSP-MW-07, in the southeast portion of Recognized Environmental Condition #9.

  Other volatile organic compounds detected in groundwater samples do not exceed standards and were typically common laboratory contaminants and artifacts of the laboratory analyses. Concentrations of arsenic, nickel, and vanadium exceed groundwater standards in one or more groundwater samples. Several exceedances of metals appear to be the result of high turbidity in groundwater samples, and were not present in the filtered

samples. Total petroleum hydrocarbon diesel-range organics were detected at concentrations exceeding the Maryland Department of the Environment standard in five groundwater samples, and one exceedance of the standard for total petroleum hydrocarbon gasoline-range organics was detected at GSP-MW-07.

- The human health risk assessment identified regulatorily unacceptable risks to human receptors assuming typical direct-contact exposure scenarios, given the identified levels of contaminants in surface soil, subsurface soil, and groundwater at Recognized Environmental Conditions #9, #10, and #11. Regulatorily unacceptable risks include ingestion, dermal contact, and inhalation of polycyclic aromatic-hydrocarbons (as benzo[a]pyrene equivalents) in surface and subsurface soils at Recognized Environmental Conditions #9, #10 and #11 by hypothetical child trespassers, lifelong recreational users, lifelong residents, as well as potential exposure to manganese in surface and subsurface soil by future construction workers. However, the risk assessment concludes that potential risks based on manganese in soils may be overestimated. (Analysis of manganese was not performed on the 2011 additional Phase II investigation soil samples.)

- Trichloroethene was retained as a contaminant of concern posing risk to hypothetical future residents based on potential direct contact, ingestion, and inhalation exposure to groundwater at Recognized Environmental Conditions #9, #10, and #11. In addition, trichloroethene in groundwater at these three Recognized Environmental Condition areas poses a potential vapor-intrusion risk for a hypothetical future resident or worker based on qualitative risk-analysis results. Trichloroethene was retained as a chemical of concern for migration to groundwater from soils at Recognized Environmental Conditions #9, #10, and #11.

- It should be noted that the human health risk estimates presented in this report were calculated in a conservative manner to assist risk managers tasked with making risk management decisions for Recognized Environmental Conditions #9, #10, and #11. These sites are currently within active airport area which is not used for residential or recreational purposes, and the potential for trespass is very limited. The groundwater resource is not used as a domestic water supply source. Thus, to a large extent, the risk estimates presented herein are for *hypothetical* receptor exposure should the land use scenario change.

- The streamlined ecological risk assessment identified potential risks to invertebrates and plants based on exposure to manganese in surface soil at Recognized Environmental Conditions #9 and #10. Potential risks to birds and mammals were also identified, based on exposure to Aroclor-1260 in surface soil at Recognized Environmental Condition #11.

The collective findings of the Greater Strawberry Point investigations to date support the following future site activities. Additional delineation sampling may be required to help define the extent of:

- total petroleum hydrocarbons diesel-range organics exceedances in surface and subsurface soils in the western portion of Recognized Environmental Condition #10;

- Arsenic, vanadium, and/or chromium exceedances in surface and subsurface soils in the vicinity of boring GSP-SB-108, located in the western portion of Recognized Environmental Condition #10, and in subsurface soils at GSP-SB-91, at the eastern limits of Recognized Environmental Condition #9

- total petroleum hydrocarbon diesel-range organics and polychlorinated biphenyl exceedances in surface soils along the western extent of the Recognized Environmental Condition #11 investigation area (near borings GSP-SB-118 through GSP-SB-122)

- polychlorinated biphenyl and/or total petroleum hydrocarbon diesel-range organics exceedances in subsurface soil samples in borings GSP-SB-119 and GSP-SB-121 near the western extent of Recognized Environmental Condition #11

- Polycyclic aromatic-hydrocarbons (and related benzo[a]pyrene equivalents), particularly in subsurface soils around borings GSP-SB-102 and GSP-SB-110 at Recognized Environmental Condition #10 and borings GSP-SB-120 and GSP-SB-121 at Recognized Environmental Condition #11, and in surface soils at GSP-SB-124 at Recognized Environmental Condition #11.

Proposed additional investigative work includes membrane-interface-probe characterization and soil sampling at up to 25 locations to assess sources of trichloroethene in groundwater near well GSP-MW-07 and in the area of Recognized Environmental Condition #11. Modeling using the Johnson and Ettinger model should be considered to assess potential exposure to workers posed by potential vapor-intrusion in occupied buildings at Recognized Environmental Conditions #9, #10 and #11. This effort would include future soil-gas sampling at 25 locations near the maintenance building, and indoor-air sampling at 10 locations. It is recommended that up to 12 additional permanent groundwater monitoring wells be installed down to 30 feet below grade to provide for future sampling of shallow groundwater.

At least three wells should be installed in the area south (downgradient) of GSP-MW-07 (and into Recognized Environmental Condition #8), to assess the extent of trichloroethene in area groundwater. At least five wells should be installed near the maintenance building to provide for future groundwater monitoring of this area. Other wells (approximately four) should be installed in the downgradient portion of Recognized Environmental Condition #11, to help identify the downgradient extent of trichloroethene in groundwater. Modeling should be considered using existing soil and groundwater data to evaluate the migration, receptors, and fate and transport of contaminants at Greater Strawberry Point through the completion of a feasibility study.

Section 8
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APPENDIX A—DIG PERMITS AND UTILITY-CLEARANCE REPORTS

Maryland Aviation Administration

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor

Beverley K. Swaim-Staley
Secretary

Paul J. Wiedefeld, A.A.E.
Executive Director

April 20, 2011

VIA FACSIMILE: 301-528-3000
Mr. Anthony Apanavage
Tetra Tech
20251 Century Boulevard, Suite 200
Germantown MD 20874

Mr. Apanavage:

SUBJECT: Airport Zoning Permit No.'s 11-075 A, B, and C (Borings and Well Installations)
Building Permit No.'s 11-019, 11-020, and 11-021

Maryland Aviation Administration's (MAA) Office of Planning and Environmental Services (OPES) has received and reviewed the subject applications and determined that the proposed project lies within the Martin State Airport (MTN) Airport Zoning District. To ensure the safety of the traveling public, Code of Maryland Regulations (COMAR) authorizes MAA to review each project proposed within the Airport Zoning District, which is defined as the area within 3.3 miles of a fixed point on MTN.

The MAA has reviewed the applications to identify any hazards to the airspace surrounding MTN. Our analysis has revealed that some of the proposed activity may potentially create hazards to air navigation. However, it is possible to mitigate such hazards by conducting activity in these areas only when the adjacent runway, taxiway/taxilane is closed. Additionally, several other sites are positioned such that aircraft activity on adjacent taxiways and/or the runway can occur simultaneous to construction activity only when the appropriate safe guards are in effect. Before proceeding with any construction activity it is essential that the requirements outlined below and further in the attached matrices regarding lighting/marking and all other safety measures are in place as required.

The attached matrix labeled "Runway or Taxiway Closure Required" details the locations where taxiway/taxilane or runway closures are necessary and specifies pre-construction and operating requirements.

The attached matrix labeled "Runway 15 Localizer Impacts" details the locations where activity will be performed between Runway 15-33 and Taxiway T, and also within the Runway 15 Localizer Critical Area. Activity in this area can proceed simultaneous to activity on the adjacent runway and taxiway, but can not be pursued until the Runway 15 Localizer is protected by MTN Operations and pre-construction and operating requirements have been performed.

Finally, the attached matrix labeled "Restricted Activity" details the locations where activity will be performed between Runway 15-33 and a taxiway, but not within the Localizer Critical Area. Activity in this area can proceed simultaneous to activity on the adjacent runway and taxiway, but can not be pursued until pre-construction and operating requirements have been performed.

Airport Zoning Application No.'s 11-075 A, B, and C are hereby approved for a maximum equipment height of 44 feet Above Mean Sea Level (AMSL)/35 feet Above Ground Level contingent on satisfying the conditions established in this letter and attachments. In no way should the requirements specified in this letter or the attachments be construed as all encompassing. Before initiating activity in the vicinity of any sites at MTN, you must contact MTN Operations at 410-682-8831 for official Notice-To-Proceed and final direction.

Sincerely,

Shawn P. Ames, Manager
Division of Airport Facilities Planning

Enclosures

cc: Mr. Charles Baublitz, Chief Airport Operations, MTN
Mr. Alfred Pollard, A.A.E, Director, MTN
Ms. Karen Riddle, Permit Coordinator, Tenant Improvements, MAA

RUNWAY OR TAXIWAY CLOSURE REQUIRED				
AREA	SITE	TYPE OF CLOSURE	EQUIPMENT LIGHTING/MARKING	ADDITIONAL ACTION
Compass Rose & Runway	MIP-81	Runway 15-33	Required - Coordinate with MTN Operations	NOTAM - Runway Closed
Compass Rose & Runway	MIP-88	Runway 15-33	Required - Coordinate with MTN Operations	NOTAM - Runway Closed
Compass Rose & Runway	SB-34	Runway 15-33	Required - Coordinate with MTN Operations	NOTAM - Runway Closed
Compass Rose & Runway	MIP-91	Runway 15-33	Required - Coordinate with MTN Operations	NOTAM - Runway Closed
Compass Rose & Runway	MW-27S	Runway 15-33	Required - Coordinate with MTN Operations	NOTAM - Runway Closed
Compass Rose & Runway	SB-33	Runway 15-33	Required - Coordinate with MTN Operations	NOTAM - Runway Closed
Compass Rose & Runway	MIP-92	Runway 15-33	Required - Coordinate with MTN Operations	NOTAM - Runway Closed
Compass Rose & Runway	MIP-93	Runway 15-33	Required - Coordinate with MTN Operations	NOTAM - Runway Closed
Compass Rose & Runway	SB-32	Runway 15-33	Required - Coordinate with MTN Operations	NOTAM - Runway Closed
Compass Rose & Runway	MIP-94	Runway 15-33	Required - Coordinate with MTN Operations	NOTAM - Runway Closed
Compass Rose & Runway	SB-35	Runway 15-33	Required - Coordinate with MTN Operations	NOTAM - Runway Closed
Compass Rose & Runway	MIP-76	Taxiway T	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway T Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Compass Rose & Runway	SB-26	Taxiway T	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway T Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Compass Rose & Runway	MIP-77	Taxiway T	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway T Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Compass Rose & Runway	MIP-82	Taxiway T	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway T Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Compass Rose & Runway	SB-29	Taxiway T	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway T Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Compass Rose & Runway	SB-27	Taxiway T	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway T Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Compass Rose & Runway	MIP-79	Taxiway T	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway T Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-91	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-MW-7	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-93	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-95	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-97	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-104	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-TP-1	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-106	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-112	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-113	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-114	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-115	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-MW-1	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-MW-2	Taxiway F	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-117	Taxiway J	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway J Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-118	Taxiway J	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway J Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-119	Taxiway J	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway J Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-120	Taxiway J	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway J Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-121	Taxiway J	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway J Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-122	Taxiway J	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway J Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Greater Strawberry Point	GSP-SB-125	Taxiway J	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway J Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Main Terminal Area	MT-MIP-01	Northwest Ramp Area	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Main Terminal Area	MT-SG-01	Northwest Ramp Area	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Main Terminal Area	MT-SB-01	Northwest Ramp Area	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Main Terminal Area	MT-MW-01S	Northwest Ramp Area	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Main Terminal Area	MT-MIP-02	Northwest Ramp Area	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Main Terminal Area	MT-SG-02	Northwest Ramp Area	Required - Coordinate with MTN Operations	1) NOTAM - Taxiway F Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Main Terminal Area	MT-SG-25	Taxilane G	Required - Coordinate with MTN Operations	1) NOTAM - Taxilane G Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Main Terminal Area	MT-MIP-24	Taxilane G	Required - Coordinate with MTN Operations	1) NOTAM - Taxilane G Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Main Terminal Area	MT-MIP-25	Taxilane G	Required - Coordinate with MTN Operations	1) NOTAM - Taxilane G Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Main Terminal Area	MT-SG-24	Taxilane G	Required - Coordinate with MTN Operations	1) NOTAM - Taxilane G Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations
Main Terminal Area	MT-SB-16	Taxilane G	Required - Coordinate with MTN Operations	1) NOTAM - Taxilane G Closed; 2) Closed taxiway sections must be barricaded per direction of MTN Operations

RUNWAY 15 LOCALIZER IMPACTS				
AREA	SITE	IMPACT	EQUIPMENT LIGHTING/MARKING	ADDITIONAL ACTION
Compass Rose & Runway	SB-31	Between Construction Runway Safety Area and Taxiway Safety & in Localizer Critical Area - OK to operate with NOTAM	Required - Coordinate with MTN Operations	NOTAM - Runway 15 Localizer Out of Service, Activity Type, Equipment Height and Duration
Compass Rose & Runway	MIP-84	Between Construction Runway Safety Area and Taxiway Safety & in Localizer Critical Area - OK to operate with NOTAM	Required - Coordinate with MTN Operations	NOTAM - Runway 15 Localizer Out of Service, Activity Type, Equipment Height and Duration
Compass Rose & Runway	MIP-85	Between Construction Runway Safety Area and Taxiway Safety & in Localizer Critical Area - OK to operate with NOTAM	Required - Coordinate with MTN Operations	NOTAM - Runway 15 Localizer Out of Service, Activity Type, Equipment Height and Duration
Compass Rose & Runway	MIP-87	Between Construction Runway Safety Area and Taxiway Safety & in Localizer Critical Area - OK to operate with NOTAM	Required - Coordinate with MTN Operations	NOTAM - Runway 15 Localizer Out of Service, Activity Type, Equipment Height and Duration
Compass Rose & Runway	MIP-89	Between Construction Runway Safety Area and Taxiway Safety & in Localizer Critical Area - OK to operate with NOTAM	Required - Coordinate with MTN Operations	NOTAM - Runway 15 Localizer Out of Service, Activity Type, Equipment Height and Duration
Compass Rose & Runway	MIP-90	Between Construction Runway Safety Area and Taxiway Safety & in Localizer Critical Area - OK to operate with NOTAM	Required - Coordinate with MTN Operations	NOTAM - Runway 15 Localizer Out of Service, Activity Type, Equipment Height and Duration
Compass Rose & Runway	MW-301	Between Construction Runway Safety Area and Taxiway Safety & in Localizer Critical Area - OK to operate with NOTAM	Required - Coordinate with MTN Operations	NOTAM - Runway 15 Localizer Out of Service, Activity Type, Equipment Height and Duration

6 restricted

RESTRICTED ACTIVITY				
AREA	SITE	IMPACT	EQUIPMENT LIGHTING/MARKING	ADDITIONAL ACTION
Compass Rose & Runway	MIP-80	Between Construction Runway Safety Area and Taxiway Safety - OK to operate with NOTAM	Required - Coordinate with MTN Operations	NOTAM - Activity Type, Equipment Height and Duration
Compass Rose & Runway	MW-365	Between Construction Runway Safety Area and Taxiway Safety - OK to operate with	Required - Coordinate with MTN Operations	NOTAM - Activity Type, Equipment Height and Duration
Compass Rose & Runway	SB-30	Between Construction Runway Safety Area and Taxiway Safety - OK to operate with	Required - Coordinate with MTN Operations	NOTAM - Activity Type, Equipment Height and Duration
Compass Rose & Runway	MIP-82	Between Construction Runway Safety Area and Taxiway Safety - OK to operate with	Required - Coordinate with MTN Operations	NOTAM - Activity Type, Equipment Height and Duration
Compass Rose & Runway	MW-368	Between Construction Runway Safety Area and Taxiway Safety - OK to operate with	Required - Coordinate with MTN Operations	NOTAM - Activity Type, Equipment Height and Duration
Compass Rose & Runway	MIP-95	Between Construction Runway Safety Area and Taxiway Safety - OK to operate with	Required - Coordinate with MTN Operations	NOTAM - Activity Type, Equipment Height and Duration

Total
24 locations
Compass Rose

18 + 7 + 6 = 31 → compass Ros.

11 – Main terminal

21 – Greate Strawberry point

NOT APPLICABLE

8.) Size of Structure: Height _____, Length _____, Width _____

A site plan showing the property boundaries and the location of any existing/proposed structures is required with application.

Elevations

*MLS=Mean Sea Level. All height restrictions in the vicinity of the airport use MSL as a reference point. If you do not know the elevation of your site, you can obtain this information at the County Office of Planning & Code Enforcement, Map Room.

9.) Ground elevation of site: 9 ft MSL*

10.) Maximum elevation: (Height of structure + elevation of site) 9 ft (all permanent work will be finished at or below grade) _____ MSL*

For Cranes

11.) Ground elevation at crane location: Drill rig mast 9 ft MSL@ Martin State Airport

12.) Height of crane(s) 35 ft

13.) Maximum elevation: (ground elevation + height of crane) 44 ft MSL*

The applicant hereby certified and agrees as follows: 1) that he/she is authorized to make this application; 2) that the information is correct; 3) that he/she will comply with all regulations that are applicable hereto; and 4) that he/she will perform no work on the subject property not specifically described in this application.

APPLICANT (Please Print)			PROPERTY OWNER (Please Print)		
Tetra Tech on behalf of Lockheed Martin			Martin State Airport		
Address: 20251 Century Blvd, Suite 200			Address: 701 Wilson Point Road		
City: Germantown	State: MD	Zipcode: 20874	City: Baltimore	State: MD	Zipcode: 21220

Phone No.: 301-528-3021 office 301-233-8230 cell

Signature: [signature] on behalf of Lockheed Martin

Connection to Property: Environmental consultant to Lockheed Martin

Section III *Approvals*

Obstruction: ☒ Approved for maximum height of 44' MSL ☐ Denied ☐ N/A

By: [signature] Date: 4/20/11

Noise: ☐ Approved ☐ Denied ☒ N/A

By: [signature] Date: 4/20/11

Approval of this application, if granted, will terminate if construction does not begin within one year of approved date. Approval of this permit does not preclude disturbance of applicant or occupants from aircraft operations. Please return application to: Maryland Aviation Administration, Aircraft Noise & Abatement Office, P.O. Box 8766, BWI Airport, MD 21240. Please direct inquiries to 410-859-7070.

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

APPLICATION FOR AIRPORT ZONING PERMIT

Approval of this application is not a substitute for any other permits or approvals required by the State or Local Jurisdiction.

Section I: *Administrative Use Only*

PERMIT NO.

Application No.: 11-0752-P

MARYLAND AVIATION ADM.
AIRPORT ZONING PERMIT

Date Received: Date Issued:

Airport: ☐ BWI ☐ Martin State ☐ Other

County: ☐ Anne Arundel ☐ Howard ☐ Baltimore ☐ Other

Approval Required: ☐ Noise Zone ☐ Obstructions

Section II: ***Applicant Information*** COMPASS ROSE INVESTIGATION

1.) Application for (Check One)
(For the purposes of this form antenna, satellite dish, HVAC equipment, etc., should be considered "structures.")

☐ New Subdivision (Plat Approval) Subdivision No.: _____

☐ Structure Only ☐ Structure + Crane County Permit No.: _____

☒ ~~Crane Only~~ for construction or installation that will not add height to an existing structure.
DRILL RIG FOR ENVIRONMENTAL WORK

2.) Location: **Required:** ADC Map reference Martin State Airport

In addition, please complete at least one of the following types.

a) Tax Map. Grid _____. Parcel _____, Lot/block (if any) _____

b) Street Address 701 Wilson Point Road, Baltimore, MD 21220

c) N.S.E.W. side of _____, @ _____ ft. from intersection with _____

For Structures

3.) Type of improvement: ☐ New Building ☐ Addition ☐ Alteration ☐ Repair ☒ Other

4.) Contract price or estimated value of improvement: $150,000

5.) Proposed Use(s):

a) Residential: ☐ One family ☐ Two Family ☐ Multi-family (No. units ____) ☐ Other

b) Non-residential:

☐ Hospital, Nursing Home, Institution ☐ Office, Store, Theater, Restaurant

☐ School, Library, Church, Place of Assembly ☐ Agriculture, Industry: type: _____

☐ Hotel, Motel, Transient Lodging ☐ Tower, Tank: type: _____

☐ Outdoor Spectator Sports, Park, Playground ☒ Other Environmental Investigation

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MD AVIATION ADMIN
PLANNING & ENVIRONMENTAL SERVICES

6.) Describe proposed structures: No permanent structures will be installed above grade for this project

7.) Present use if different from proposed: _____

NOT APPLICABLE

8.) Size of Structure: Height _____, Length _____, Width _____

A site plan showing the property boundaries and the location of any existing/proposed structures is required with application.

Elevations

*MLS=Mean Sea Level. All height restrictions in the vicinity of the airport use MSL as a reference point. If you do not know the elevation of your site, you can obtain this information at the County Office of Planning & Code Enforcement, Map Room.

9.) Ground elevation of site: 9 ft MSL*

10.) Maximum elevation: (Height of structure + elevation of site) 9 ft (all permanent work will be finished at or below grade) _____ MSL*

For Cranes

11.) Ground elevation at crane location: Drill rig mast 9 ft MSL@ Martin State Airport

12.) Height of crane(s) 35 ft

13.) Maximum elevation: (ground elevation + height of crane) 44 ft MSL*

The applicant hereby certified and agrees as follows: 1) that he/she is authorized to make this application: 2) that the information is correct; 3) that he/she will comply with all regulations that are applicable hereto; and 4) that he/she will perform no work on the subject property not specifically described in this application.

APPLICANT (Please Print)

Tetra Tech on behalf of Lockheed Martin

Address: 20251 Century Blvd, Suite 200

City	State	Zipcode
Germantown	MD	20874

PROPERTY OWNER (Please Print)

Martin State Airport

Address: 701 Wilson Point Road

City	State	Zipcode
Baltimore	MD	21220

Phone No.: 301-528-3021 office 301-233-8230 cell

Signature: on behalf of Lockheed Martin

Connection to Property: Environmental consultant to Lockheed Martin

Section III *Approvals*

Obstruction: ☑ Approved for maximum height of 44' MSL ☐ Denied ☐ N/A

By: Shawn P. Ames Date: 4/20/11

Noise: ☐ Approved ☐ Denied ☑ N/A

By: Shawn P. Ames Date: 4/20/11

Approval of this application, if granted, will terminate if construction does not begin within one year of approved date. Approval of this permit does not preclude disturbance of applicant or occupants from aircraft operations. Please return application to: Maryland Aviation Administration, Aircraft Noise & Abatement Office, P.O. Box 8766, BWI Airport, MD 21240. Please direct inquiries to 410-859-7070.

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

APPLICATION FOR AIRPORT ZONING PERMIT

Approval of this application is not a substitute for any other permits or approvals required by the State or Local Jurisdiction.

Section I: *Administration Only*

PERMIT NO. 11-075-G
MARYLAND AVIATION ADM.
AIRPORT ZONING PERMIT

Application No:

Date Received:

Date Issued:

Airport: ☐ BWI ☐ Martin State ☐ Other

County: ☐ Howard ☐ Baltimore ☐ Other

Approval Required: ☐ Noise Zone ☐ Obstructions

Section II: *Applicant Information* GREATER STRAWBERRY POINT INVESTIGATION

1.) Application for (Check One)
(For the purposes of this form antenna, satellite dish, HVAC equipment, etc., should be considered "structures.")

☐ New Subdivision (Plat Approval) Subdivision No.: _____

☐ Structure Only ☐ Structure + Crane County Permit No.: _____

☒ ~~Crane Only~~, for construction or installation that will not add height to an existing structure. DRILL RIG FOR ENVIRONMENTAL WORK

2.) Location: **Required:** ADC Map reference Martin State Airport

In addition, please complete at least one of the following types.

a) Tax Map, Grid _____, Parcel _____, Lot/block (if any) _____

b) Street Address 701 Wilson Point Road, Baltimore, MD 21220

c) N.S.E.W. side of _____, @ _____ ft. from intersection with _____

For Structures

3.) Type of improvement: ☐ New Building ☐ Addition ☐ Alteration ☐ Repair ☒ Other

4.) Contract price or estimated value of improvement: $150,000

5.) Proposed Use(s):

a) Residential: ☐ One family ☐ Two Family ☐ Multi-family (No. units ____) ☐ Other

b) Non-residential:

☐ Hospital, Nursing Home, Institution

☐ School, Library, Church, Place of Assembly

☐ Hotel, Motel, Transient Lodging

☐ Outdoor Spectator Sports, Park, Playground

☐ Office, Store, Theater, Restaurant

☐ Agriculture, Industry: type: _____

☐ Tower, Tank: type: _____

☒ Other Environmental Investigation

6.) Describe proposed structures: No permanent structures will be installed above grade for this project

7.) Present use if different from proposed: _____

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PLANNING & ENVIRONMENTAL SERVICES

NOT APPLICABLE

8.) Size of Structure: Height _____, Length _____, Width _____

A site plan showing the property boundaries and the location of any existing/proposed structures is required with application.

Elevations

*MLS=Mean Sea Level. All height restrictions in the vicinity of the airport use MSL as a reference point. If you do not know the elevation of your site, you can obtain this information at the County Office of Planning & Code Enforcement, Map Room.

9.) Ground elevation of site: 9 ft _____ MSL*

10.) Maximum elevation: (Height of structure + elevation of site) 9 ft (all permanent work will be finished at or below grade) _____ MSL*

For Cranes

11.) Ground elevation at crane location: Drill rig mast 9 ft MSL@ Martin State Airport

12.) Height of crane(s) 35 ft

13.) Maximum elevation: (ground elevation + height of crane) 44 ft _____ MSL*

The applicant hereby certified and agrees as follows: 1) that he/she is authorized to make this application; 2) that the information is correct; 3) that he/she will comply with all regulations that are applicable hereto; and 4) that he/she will perform no work on the subject property not specifically described in this application.

APPLICANT (Please Print)

Tetra Tech on behalf of Lockheed Martin

Address: 20251 Century Blvd, Suite 200

City	State	Zipcode
Germantown	MD	20874

PROPERTY OWNER (Please Print)

Martin State Airport

Address: 701 Wilson Point Road

City	State	Zipcode
Baltimore	MD	21220

Phone No.: 301-528-3021 office 301-233-8230 cell

Signature: _____ on behalf of Lockheed Martin

Environmental consultant to

Connection to Property: Lockheed Martin

Section III *Approvals*

Obstruction: ☒ Approved for maximum height of 44' MSL ☐ Denied ☐ N/A

By: _____ Date: 4/20/11

Noise: ☐ Approved ☐ Denied ☒ N/A

By: _____ Date: 4/20/11

Approval of this application, if granted, will terminate if construction does not begin within one year of approved date. Approval of this permit does not preclude disturbance of applicant or occupants from aircraft operations. Please return application to: Maryland Aviation Administration, Aircraft Noise & Abatement Office. P.O. Box 8766. BWI Airport, MD 21240. Please direct inquiries to 410-859-7070.

MAA-010 R 3/03

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

APPLICATION FOR AIRPORT ZONING PERMIT

Approval of ~~this application is not a substitute~~ for any other permits or approvals required by the State or Local Jurisdiction.

PERMIT NO.
MARYLAND AVIATION ADM.
AIRPORT ZONING PERMIT

Section I: ***Administrative Use Only***

Application No.: 11 - 075-A Date Received: Date Issued:

Airport: ☒ MTN ☐ Martin State ☐ Other

County: ☐ ~~Anne Arundel~~ ☐ Howard ☐ Baltimore ☐ Other

Approval Required: ☐ Noise Zone ☐ Obstructions

Section II: ***Applicant Information*** MAIN TERMINAL INVESTIGATION

1.) Application for (Check One)
(For the purposes of this form antenna, satellite dish, HVAC equipment, etc., should be considered "structures.")

☐ New Subdivision (Plat Approval) Subdivision No.: _____

☐ Structure Only ☐ Structure + Crane County Permit No.: _____

☒ Crane Only, for construction or installation that will not add height to an existing structure.
DRILL RIG FOR ENVIRONMENTAL WORK

2.) Location: **Required:** ADC Map reference Martin State Airport

In addition, please complete at least one of the following types.

a) Tax Map, Grid _____, Parcel _____, Lot/block (if any) _____

b) Street Address 701 Wilson Point Road, Baltimore, MD 21220

c) N.S.E.W. side of _____, @ _____ ft. from intersection with _____

_____

For Structures

3.) Type of improvement: ☐ New Building ☐ Addition ☐ Alteration ☐ Repair ☒ Other

4.) Contract price or estimated value of improvement: $150,000

5.) Proposed Use(s):

a) Residential: ☐ One family ☐ Two Family ☐ Multi-family (No. units ____) ☐ Other

b) Non-residential:

☐ Hospital, Nursing Home, Institution
☐ School, Library, Church, Place of Assembly
☐ Hotel, Motel, Transient Lodging
☐ Outdoor Spectator Sports, Park, Playground
☐ Office, Store, Theater, Restaurant
☐ Agriculture, Industry: type: _____
☐ Tower, Tank: type: _____
☒ Other Environmental Investigation

_____

6.) Describe proposed structures: No permanent structures will be installed above grade for this project.

7.) Present use if different from proposed: _____

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MDA/AFCA/PLANNING & ENVIRONMENTAL SERVICES

Maryland Aviation Administration

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor

Beverley K. Swaim-Staley
Secretary

Paul J. Wiedefeld, A.A.E.
Executive Director

April 27, 2011

Mr. Anthony Apanavage
Tetra Tech
20251 Century Blvd Suite 200
Germantown, Maryland 20874

Dear Mr. Apanavage:

SUBJECT: Building Permit BP-11-019 Environmental Investigation at Martin State Airport Greater Strawberry Point

Please find enclosed the approved Permit for the above referenced project. Permit approval is subject to compliance with provisions and stipulations contained in the Permits Information Guide (September 2007 Edition) and Tenant Directive 007.01. The issuance or granting of this permit shall not be construed to be an approval of any violation of other Maryland Aviation Administration (MAA) or Code of Maryland (COMAR) regulations. MAA reserves the right to suspend or revoke the permit whenever it is deemed to be issued on the basis of incorrect, inaccurate or incomplete information provided by the applicant.

Please see the attached contact list of MAA departments and offices that need to be contacted prior to the start of work. Also, please refer to the Permits Information Guide to see if any other permit or authorization is required. The approved Permit, Permit Plan Set and Permit Comments shall be kept at the project location until the completion of the project. Revisions to design shall be submitted to and approved by MAA Division of Documents & Permits prior to construction. **As-Built drawings are to be submitted no later than 45 days from Final Inspection acceptance.**

This permit shall become invalid unless the work on the site authorized by this permit is commenced within 180 days after issuance, or if the work is suspended or abandoned for a period of 180 days after the work is commenced. The issuance of this permit shall not relieve the applicant from his/her responsibility to ensure proper design and construction of this project.

Sincerely,

Syed Shariq R.A., Manager
Division of Documents & Permits

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

CONSTRUCTION PERMIT

X	**Building Permit**
	Installation Permit
	Single Trade Permit
	Demolition Permit

Permit Information

Project Name: **MTN EA Greater Strawberry Point Investigation**	Airport:		BWI
		X	**MTN**
Project Location: Main Terminal Areas at Martin	Tenant Space No.		
Permit Issued to: **Tetra Tech**	Tel.: **301-233-8230**		
	E-mail: tony.apanavage@tetratech.com		
Contact Person: **Anthony Apanavage**	Tel.:		
	E-mail:		
Mailing Address: 20251 Century Blvd Suite 200 20874	Emergency Tel. Number:		

Contractor/ Installer

Construction Company/Organization: **Boart Longyear**	MD Const. License No:
	Expiration:
Address:	Tel.: **740-373-2190**
	E-mail: Jim.McCombs@boartlongyear.com
Contact Person: **Rodney Parr/ James McCombs**	Emergency Tel. Nr: **740-350-6611**
	E-mail:

Additional Permits/Authorizations Required Prior to Start of Work

Airport Zoning Permit		**Hot Work/Welding Permit/ Hydrant Use Permit**	
Contact MAA Fac. Planning: 410-859-7793		Contact BWI Fire & Rescue: 410-859-7511	
Utility Modification/Digging Authorization	X	**Department of Health Approval**	
Contact MAA Inspections: 410-859-7796		*Contact AA County DOH: 410-222-7238*	
Confined Space Entry Permit		**Liquor License**	
Contact MAA Inspections: 410-859-7796		*Contact AA County Liquor Board: 410-222-1148*	
State Highway Admin. Access Permit		**MAA Tenant Advisory**	X
Contact State Highway Administration		***Contact MAA Operations: 410-682-8805***	

Call MAA Division of Permits to schedule a Preconstruction Meeting Before Start of Work

Approval	Permit No. BP-11-019
Syed Shariq, R.A. Manager, Division of Documents & Permits	Date Issued: 4-27-11

THIS PERMIT IS ISSUED BY MARYLAND AVIATION ADMINISTRATION AS AUTHORIZATION TO PERFORM APPROVED CONSTRUCTION ACTIVITIES AS DESCRIBED AND SHOWN ON APPROVED PERMIT PLANS AND SPECIFICATIONS

Post in a Conspicuous Place at Job Site

Building Permit No. BP-11-019 is ***approved as noted*** and subject to compliance with the applicable codes, MAA Design Standards and the follow comments:

- **Work on or near runway and /or taxiways shall be accomplished during nighttime (10:00pm to 6:00 am). Coordinate digging/construction activity with Charles Baublitz, Tel. 410-682-8805.**
- **Test pits exceeding four feet in depth shall either have "shoulders" cut into the banks or a trench box shall be used.**

GENERAL COMMENTS

1. Applicable Codes & Regulations as per Tenant Directive 007.1 apply.

2. Display MAA Permit on site at all times

3. Secure all tools and equipment in public/sterile areas and ensure that all doors are locked when no one is present in the construction area. No tools are to be left unattended. Follow proper escort procedures in the SIDA.

4. All loose debris/trash, on or about AOA, shall be deposited in an acceptable, covered trash receptacle. No debris/trash shall be left about on roof, spaces open to the AOA, conveyance, or near open trash receptacles at any time.

5. Firestop penetrations through fire rated assemblies and seal all unused/abandoned openings using appropriate UL-listed firestopping systems.

6. Sleeves:
   - Sleeves shall be installed for cable and raceway penetrations of concrete slabs, masonry and fire rated gypsum walls and other floor and wall assemblies.
   - Sleeves will be installed during erection of concrete and masonry walls.
   - Sleeves shall be installed in concrete slabs supported by pan decking to ensure full sealing of the uneven lower surface around the pan.
   - New concrete slabs are acceptable to be poured with the concrete surrounding the new conduit without the use of sleeves.

7. Provide support to structural member for any mechanical, electrical or other building elements not scheduled for removal but attached to items being demolished.

8. Core drilling, concrete floor cutting or other removal methods (on-grade, elevated, and post tensioned) shall be preceded by NDT to show that no embedded conduits or structural reinforcing will be disturbed in the proposed locations. The MAA Design Standard DST 2007-01 Core Drilling of Concrete Floors shall be used as reference.

9. Electrical:
   - Electrical, communication, security or fire safety wiring/systems shall not be interrupted without notification and coordination with authority having jurisdiction and written approval by said authority.
   - MC/FMC ¾ inch minimum size, 6 foot maximum length; except as allowed to fish existing walls per MAA Design Standards. Cont'
   - Raceway size shall be ¾" minimum.
   - All conduit fittings shall be steel.
   - All wire/cable shall be plenum rated.
   - Only brushed stainless steel device covers allowed.
   - Exothermic weld required for electrical grounding to building steel per MAA-DST.
   - Install expansion joints at points required.
10. Mechanical/Plumbing:
   - Roof mounted equipment issues:
     -Gas pipe exposure on the roof shall be minimized.
     -Roof mounted equipment condensate drains shall be routed to the nearest roof drain.
     -Condensate drains shall not rest directly on the roof.
     -Existing roof warranties shall be maintained.

- High pressure stainless steel couplings shall be used on all sanitary waste and vent piping.

11. Hot Work & Welding:
    - Open flame welding and cutting shall not be allowed without burning permit as issued.
    - During flame welding and flame/mechanical cutting operations install protective weld screens and non-flammable fire protection blankets.

OFFICE of FACILITIES CONSTRUCTION

Division of Permits

RECEIPT of FIRE MARSHAL's CERTIFIED / STAMPED PROJECT PLANS

Permit # BP-11-019
MTN Strawberry Point Soil Samples

I /We: Tetra Tech
(Company Name)

Received this Date: 5/16/11

Signature of Authorized Recipient: Dev Mistal

Plans Certified by the MAA Fire Marshal's Office

Fire Marshal Stamp Date: March 16, 2011

Drawing List: **2 Copies**

Figure 1 Greater Strawberry Point Proposed Sample Locations 2011

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

FM

Tenant Improvement Section
P. O. Box 8766, BWI Airport
Maryland, 21240-0766
Tel. 410-859-7796
Fax: 410-859-5440

APPLICATION FOR BUILDING PERMIT

GENERAL INFORMATION (To be completed by the applicant, please print)

Project Name: Greater Strawberry Point Investigation	Airport: ☐ BWI ☒ MTN
Project Location (Bldg./Terminal, Level, Holdroom, Room No. etc.): Martin State Airport, Greater Strawberry Point Area	Tenant Space No.: Not Applicable
Name of Tenant: Lockheed Martin	Tel.:
	E-mail:
Applicant/Contact Person: Tony Apanavage (Tetra Tech) on behalf of Lockheed Martin	Tel.: 301-528-3021
Representing: Tetra Tech on behalf of Lockheed Martin	Cell No.: 301-233-8230
Mailing Address: 20251 Century Blvd Suite 200, Germantown, MD 20874	Fax: 301-528-3000
	E-mail: tony.apanavage@tetratech.com
Brief Description of Project: Environmental Investigation including the advancement of 40 soil borings, 12 test pits and installation of 8 groundwater monitoring wells to assess subsurface conditions in both soil and groundwater.	**Check Appropriate Box:** Existing Tenant? ☐ New Tenant? ☐
Name of Architect/Engineer: Tetra Tech	Tel.: 301-528-3021
Address: 20251 Century Blvd, Suite 200, Germantown, MD 20874	Fax: 301-528-3000
	E-mail: tony.apanavage@tetratech.com
Name of Contact: Tony Apanavage	
Name of Contractor: TBD	Tel.:
	Cell/Emergency No:
Name of Contact: TBD	E-mail:
Maryland Contractor's License Number: TBD	Expiration Date:
* Attach Photocopy of Current MD Contractors License and Insurance Certificate.	

Check Appropriate Box:

DRILL RIG WILL BE USED

	Yes	No		Yes	No
Will a crane be used during construction?	☐	☒	Will the work be done in a "Confined Space"?	☐	☒
Will the work involve "Hot Work/Welding"?	☐	☒	Will the work involve Trenching and Excavation? (TEST PITS)	☒	☐
Will rooftop equipment be provided?	☐	☒			

If the answer to any of these questions is Yes, additional permits or authorizations may be required. (See Permit Information & Guidelines for definitions and list of supplementary permits).

Applicant's Signature: [signature] on behalf of Lockheed Martin Date: 3/14/2011

FOR OFFICE USE ONLY

	Yes	No		Yes	No
Complete Application Form	☐	☐	Safety Plan	☐	☐
Insurance Certification	☐	☐	Commercial Management Authorization	☐	☐
Copy of Contractor's License	☐	☐	Check List	☐	☐
Dwgs. Stamped by Licensed Architect/Engineer	☐	☐	CD	☐	☐

Maryland Aviation Administration
AIRPORT FIRE & RESCUE DEPARTMENT
FIRE PREVENTION DIVISION
☐ REJECTED WITH NOTED COMMENTS
☐ REVISE AS NOTED AND RESUBMIT ☐ AS-BUILT'S
☐ APPROVED WITH RED LINED REVISION
☑ APPROVED AS SUBMITTED 3/16/2011
BY [signature] AF Mt-11

RECEIVED MAR 15 2011 FACILITIES CONSTRUCTION

Permit Coordinator:	Date:
Date Received:	BP Number: BP 11 019
Date of Meeting:	
Date of Release:	

MAA-179 R-9/06

GREATER STRAWBERRY POINT – 2011 SCOPE OF WORK

1. Advance 40 soil borings
2. Excavate 12 test pits
3. Install 8 groundwater monitoring wells

Soil Borings

Soil and groundwater samples will be collected from 40 proposed soil borings using DPT. The DPT locations will include 10 soil borings in REC #9, 10 soil borings in REC#10, and 20 soil borings in REC #11. Figure 1 shows the locations of the soil borings to be advanced. These locations are currently provisional and may be relocated based on discussions with MAA personnel, conditions stipulated in the permit, or field conditions.

Prior to any subsurface drilling, if the soil boring locations are located in concrete, they will be cored to allow access to the subsurface soils for the DPT soil-sampling. The soil borings will be advanced by a Maryland-licensed driller in the targeted areas using DPT to approximately 25 feet below ground surface (bgs). Continuous soil samples (DPT Macrocores) will be collected in each boring using a 1.5-inch diameter, 4-foot long stainless steel macrocore sampling fitted with a disposable acetate liner. The probe sampler will be advanced in 4 or 5 foot increments and the retrieved soil samples will be collected for soil screening, including lithologic characterization and visual observations. Soil samples will be screened with a photoionization detector (PID) using a consistent headspace screening methodology (e.g., foil sealed jar or zip top bag technique). Two or three soil samples from each of the proposed 40 soil borings will be collected for laboratory analyses. Depths of the subsurface soil samples (i.e., those at depths greater than 2 feet) may vary depending on indications of contamination such as elevated PID readings, stained soil, or odor. Lithologic logging will be performed by a qualified Tetra Tech field geologist.

Locations where penetrating existing concrete is required for sampling will be surface completed and restored with low shrinkage concrete upon completion of backfilling. Backfilling will consist of using granular bentonite up to a depth of approximately one foot bgs that will be hydrated to

provide a seal. The remainder of the borehole will be finished smooth and flush with the existing grade with patch material (concrete).

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Twelve test pits will be excavated to evaluate the presence of buried materials/debris at geophysical anomalies identified by a survey conducted at RECs #9 and #10 in 2010. Figure 1 presents the locations of the test pits to be excavated.

A rubber-tired backhoe will be mobilized to excavate the test pits. Test pits will be excavated in areas of anomalies to investigate the nature of the metallic responses, with emphasis on determining the presence of buried remains of remnant structures, tanks and metallic debris. Test pits will be excavated to the water table or until the bottom of any debris is encountered. If debris is found, a soil sample will be collected from the zone immediately below the material. Soil samples will also be collected from soil with observed staining or odors. Soil type and anthropogenic material encountered in the test pits will described, photographed, and a test pit log will be completed. Test pits are estimated to be approximately 30 feet long and no more than 12 feet deep. The actual pit dimensions will be dependent on observations in the field.

At all times during the excavating activities, the Tetra Tech field geologist accompanied by a Field Operations Leader will be present to visually monitor the excavation. The geologist will monitor for the presence of waste chemicals, liquids, and metallic objects and the Field Operations Leader will focus on field communications, health and safety monitoring and provide field directions to ensure safe operation of the equipment and personnel during excavation. At all times during test pit excavation a Tetra Tech unexploded ordnance (UXO) technician will be present to visually monitor the excavation. The geologist will monitor for the presence of waste chemicals, liquids, and metallic objects and the UXO technician will focus on visual observation of UXO during excavation. If UXO is discovered, field work will be terminated and the area will be marked and secured. MAA will be notified immediately. No further work will be performed in the UXO discovered locations. While there is no direct evidence that UXO was disposed at the site, test pit excavations completed in 1999 uncovered one 100 lb., two 1,000 lb., and one 2,000 lb. inactive (dummy) bombs. Therefore, UXO oversight is being performed as a precautionary step. Where debris is found and in areas where liquids containers (drums, buckets, etc,) or soil staining is observed, soil samples will be collected.

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The monitoring wells will be installed at eight locations using a low-profile mini-sonic rig to a maximum depth of 32 feet below grade by a licensed Maryland driller to characterize groundwater conditions in the areas of study. The drilling will be advanced using a rotasonic-drilling method. The rotasonic method involves having the four-inch by six-inch drill rod/over-ride-casing set-up (with temporary casing) to install the well to total depth. Figure 1 shows the locations of the wells.

In paved or high traffic areas such as taxiways, roads, lots, etc., the well casing will be cut below grade and protected by installing a steel, flush mounted well cover and a water-tight, expandable, sanitary seal at each well head. At these locations, concrete will be installed above the grout in the annular space between the borehole and outer well casing up to approximately 6-inches below grade to provide a surface seal for the well.

MARTIN STATE AIRPORT - GREATER STRAWBERRY POINT PROPOSED SAMPLE LOCATION DISTANCES

Well ID	Type	REC Location	Easting	Northing	Distance (ft)	To Feature*
GSP-MW-2	Proposed Monitoring Well	Rec 11	1478154.557	604049.443	104.1	Center Line Taxiway F
GSP-MW-1	Proposed Monitoring Well	Rec 11	1478211.898	604002.423	96.9	Center Line Taxiway F
GSP-MW-3	Proposed Monitoring Well	Rec 11	1478163.464	603921.869	188.2	Center Line Taxiway F
GSP-MW-4	Proposed Monitoring Well	Rec 11	1478025.865	603802.873	187.7	Center Line Taxiway J
GSP-TP-1	Proposed Test Pit	Rec 10	1478794.254	603421.651	97.3	Center Line Taxiway F
GSP-TP-2	Proposed Test Pit	Rec 10	1478749.456	603328.582	194.9	Center Line Taxiway F
GSP-TP-3	Proposed Test Pit	Rec 10	1478645.969	603382.062	230.0	Center Line Taxiway F
GSP-TP-4	Proposed Test Pit	Rec 10	1478618.187	603362.615	263.4	Center Line Taxiway F
GSP-TP-5	Proposed Test Pit	Rec 10	1478676.182	603314.692	256.4	Center Line Taxiway F
GSP-MW-5	Proposed Monitoring Well	Rec 10	1478746.166	603308.768	211.2	Center Line Taxiway F
GSP-MW-6	Proposed Monitoring Well	Rec 10	1478707.367	603358.404	203.5	Center Line Taxiway F
GSP-TP-6	Proposed Test Pit	Rec 9	1478762.815	603228.858	256.1	Center Line Taxiway F
GSP-TP-7	Proposed Test Pit	Rec 9	1478917.823	603087.942	246.5	Center Line Taxiway F
GSP-TP-8	Proposed Test Pit	Rec 9	1478941.980	603111.093	213.1	Center Line Taxiway F
GSP-MW-8	Proposed Monitoring Well	Rec 9	1479061.758	603089.955	143.6	Center Line Taxiway F
GSP-TP-9	Proposed Test Pit	Rec 9	1479158.387	602941.994	180.5	Center Line Taxiway F
GSP-MW-7	Proposed Monitoring Well	Rec 9	1479303.398	602923.697	91.3	Center Line Taxiway F
GSP-TP-10	Proposed Test Pit	Rec 8	1479206.701	602887.640	185.0	Center Line Taxiway F
GSP-TP-11	Proposed Test Pit	Rec 8	1479105.040	602705.456	386.0	Center Line Taxiway F
GSP-TP-12	Proposed Test Pit	Rec 8	1479051.693	602637.011	472.1	Center Line Taxiway F
GSP-SB-101	Proposed Soil Boring	Rec 10	1478782.566	603282.519	204.1	Center Line Taxiway F
GSP-SB-102	Proposed Soil Boring	Rec 10	1478717.887	603290.111	244.4	Center Line Taxiway F
GSP-SB-103	Proposed Soil Boring	Rec 10	1478732.791	603360.414	184.1	Center Line Taxiway F
GSP-SB-104	Proposed Soil Boring	Rec 10	1478825.310	603388.816	98.7	Center Line Taxiway F
GSP-SB-105	Proposed Soil Boring	Rec 10	1478775.535	603340.167	168.3	Center Line Taxiway F
GSP-SB-106	Proposed Soil Boring	Rec 10	1478757.819	603448.152	104.3	Center Line Taxiway F
GSP-SB-107	Proposed Soil Boring	Rec 10	1478692.297	603389.660	192.0	Center Line Taxiway F
GSP-SB-108	Proposed Soil Boring	Rec 10	1478604.278	603307.546	312.2	Center Line Taxiway F
GSP-SB-109	Proposed Soil Boring	Rec 10	1478621.994	603255.241	336.8	Center Line Taxiway F
GSP-SB-110	Proposed Soil Boring	Rec 10	1478672.050	603207.154	335.5	Center Line Taxiway F
GSP-SB-91	Proposed Soil Boring	Rec 8	1479344.439	602890.663	85.9	Center Line Taxiway F
GSP-SB-92	Proposed Soil Boring	Rec 8	1479250.057	602890.663	152.4	Center Line Taxiway F
GSP-SB-93	Proposed Soil Boring	Rec 9	1479262.874	602957.081	96.2	Center Line Taxiway F
GSP-SB-94	Proposed Soil Boring	Rec 9	1479096.248	602954.750	215.2	Center Line Taxiway F
GSP-SB-95	Proposed Soil Boring	Rec 9	1479142.857	603061.950	106.3	Center Line Taxiway F
GSP-SB-96	Proposed Soil Boring	Rec 9	1479029.831	603015.341	219.0	Center Line Taxiway F
GSP-SB-97	Proposed Soil Boring	Rec 9	1479017.303	603207.528	91.6	Center Line Taxiway F
GSP-SB-98	Proposed Soil Boring	Rec 9	1478838.952	603157.074	253.2	Center Line Taxiway F
GSP-SB-99	Proposed Soil Boring	Rec 9	1478880.020	603223.955	176.9	Center Line Taxiway F
GSP-SB-100	Proposed Soil Boring	Rec 9	1478868.286	603288.490	139.4	Center Line Taxiway F
GSP-SB-111	Proposed Soil Boring	Rec 11	1478229.919	603898.231	158.0	Center Line Taxiway F
GSP-SB-112	Proposed Soil Boring	Rec 11	1478268.725	603938.486	102.1	Center Line Taxiway F

GSP-SB-113	Proposed Soil Boring	Rec 11	1478246.136	604008.859	68.2	Center Line Taxiway F
GSP-SB-114	Proposed Soil Boring	Rec 11	1478205.013	604046.508	70.5	Center Line Taxiway F
GSP-SB-115	Proposed Soil Boring	Rec 11	1478168.812	604083.867	69.6	Center Line Taxiway F
GSP-SB-116	Proposed Soil Boring	Rec 11	1478175.763	603992.931	129.1	Center Line Taxiway F
GSP-SB-117	Proposed Soil Boring	Rec 11	1478109.443	604066.201	60.8	Center Line Taxiway J
GSP-SB-118	Proposed Soil Boring	Rec 11	1478068.899	604041.584	49.5	Center Line Taxiway J
GSP-SB-119	Proposed Soil Boring	Rec 11	1478072.085	604013.203	71.8	Center Line Taxiway J
GSP-SB-120	Proposed Soil Boring	Rec 11	1478036.753	604008.570	50.0	Center Line Taxiway J
GSP-SB-121	Proposed Soil Boring	Rec 11	1477995.340	603976.713	43.2	Center Line Taxiway J
GSP-SB-122	Proposed Soil Boring	Rec 11	1477965.800	603926.033	58.1	Center Line Taxiway J
GSP-SB-123	Proposed Soil Boring	Rec 11	1478048.916	603921.399	120.2	Center Line Taxiway J
GSP-SB-124	Proposed Soil Boring	Rec 11	1478116.973	603936.169	158.0	Center Line Taxiway J
GSP-SB-125	Proposed Soil Boring	Rec 11	1478160.993	603903.154	203.2	Center Line Taxiway F
GSP-SB-126	Proposed Soil Boring	Rec 11	1478092.067	603903.444	163.5	Center Line Taxiway J
GSP-SB-127	Proposed Soil Boring	Rec 11	1478103.651	603859.713	202.6	Center Line Taxiway J
GSP-SB-128	Proposed Soil Boring	Rec 11	1478021.694	603858.845	145.2	Center Line Taxiway J
GSP-SB-129	Proposed Soil Boring	Rec 11	1477955.954	603871.587	89.6	Center Line Taxiway J
GSP-SB-130	Proposed Soil Boring	Rec 11	1478019.666	603776.018	202.3	Center Line Taxiway J

Coordinate System:
NAD_1983_StatePlane_Maryland_FIPS_1900_Feet

Notes:
* = This is the feature that the well is closest to

MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION

FM

Tenant Improvement Section
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Maryland, 21240-0766
Tel. 410-859-7796
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APPLICATION FOR BUILDING PERMIT

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Project Name: Greater Strawberry Point Investigation	Airport: ☐ BWI ☒ MTN
Project Location (Bldg./Terminal, Level, Holdroom, Room No. etc.): Martin State Airport, Greater Strawberry Point Area	Tenant Space No.: Not Applicable
Name of Tenant: Lockheed Martin	Tel.: E-mail:
Applicant/Contact Person: Tony Apanavage (Tetra Tech) on behalf of Lockheed Martin Representing: Tetra Tech on behalf of Lockheed Martin Mailing Address: 20251 Century Blvd Suite 200, Germantown, MD 20874	Tel.: 301-528-3021 Cell No.: 301-233-8230 Fax: 301-528-3000 E-mail: tony.apanavage@tetratech.com
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Name of Architect/Engineer: Tetra Tech Address: 20251 Century Blvd, Suite 200, Germantown, MD 20874 Name of Contact: Tony Apanavage	Tel.: 301-528-3021 Fax: 301-528-3000 E-mail: tony.apanavage@tetratech.com
Name of Contractor: TBD Name of Contact: TBD	Tel.: Cell/Emergency No: E-mail:
Maryland Contractor's License Number: TBD * Attach Photocopy of Current MD Contractors License and Insurance Certificate.	Expiration Date:

Check Appropriate Box:

DRILL RIG WILL BE USED

	Yes	No		Yes	No
Will a crane be used during construction?	☐	☒	Will the work be done in a "Confined Space"?	☐	☒
Will the work involve "Hot Work/Welding"?	☐	☒	Will the work involve Trenching and Excavation? (TEST PITS)	☒	☐
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Applicant's Signature: on behalf of Lockheed Martin Date: 3/14/2011

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☐ REJECTED WITH NOTED COMMENTS
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☐ APPROVED WITH RED LINED REVISION
☒ APPROVED AS SUBMITTED 3/16/2011
BY:

RECEIVED
MAR 15 2011
FACILITIES CONSTRUCTION

	Yes	No		Yes	No
Complete Application Form	☐	☐	Safety Plan	☐	☐
Insurance Certification	☐	☐	Commercial Management Authorization	☐	☐
Copy of Contractor's License	☐	☐	Check List	☐	☐
Dwgs. Stamped by Licensed Architect/Engineer	☐	☐	CD	☐	☐

Permit Coordinator: Date:
Date Received:
Date of Meeting:
Date of Release:
BP Number: BP 11 019

GREATER STRAWBERRY POINT – 2011 SCOPE OF WORK

1. Advance 40 soil borings
2. Excavate 12 test pits
3. Install 8 groundwater monitoring wells

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GSP-SB-108	Proposed Soil Boring	Rec 10	1478604.278	603307.546	312.2	Center Line Taxiway F
GSP-SB-109	Proposed Soil Boring	Rec 10	1478621.994	603255.241	336.8	Center Line Taxiway F
GSP-SB-110	Proposed Soil Boring	Rec 10	1478672.050	603207.154	335.5	Center Line Taxiway F
GSP-SB-91	Proposed Soil Boring	Rec 8	1479344.439	602890.663	85.9	Center Line Taxiway F
GSP-SB-92	Proposed Soil Boring	Rec 8	1479250.057	602890.663	152.4	Center Line Taxiway F
GSP-SB-93	Proposed Soil Boring	Rec 9	1479262.874	602957.081	96.2	Center Line Taxiway F
GSP-SB-94	Proposed Soil Boring	Rec 9	1479096.248	602954.750	215.2	Center Line Taxiway F
GSP-SB-95	Proposed Soil Boring	Rec 9	1479142.857	603061.950	106.3	Center Line Taxiway F
GSP-SB-96	Proposed Soil Boring	Rec 9	1479029.831	603015.341	219.0	Center Line Taxiway F
GSP-SB-97	Proposed Soil Boring	Rec 9	1479017.303	603207.528	91.6	Center Line Taxiway F
GSP-SB-98	Proposed Soil Boring	Rec 9	1478838.952	603157.074	253.2	Center Line Taxiway F
GSP-SB-99	Proposed Soil Boring	Rec 9	1478880.020	603223.955	176.9	Center Line Taxiway F
GSP-SB-100	Proposed Soil Boring	Rec 9	1478868.286	603288.490	139.4	Center Line Taxiway F
GSP-SB-111	Proposed Soil Boring	Rec 11	1478229.919	603898.231	158.0	Center Line Taxiway F
GSP-SB-112	Proposed Soil Boring	Rec 11	1478268.725	603938.486	102.1	Center Line Taxiway F

GSP-SB-113	Proposed Soil Boring	Rec 11	1478246.136	604008.859	68.2	Center Line Taxiway F
GSP-SB-114	Proposed Soil Boring	Rec 11	1478205.013	604046.508	70.5	Center Line Taxiway F
GSP-SB-115	Proposed Soil Boring	Rec 11	1478168.812	604083.867	69.6	Center Line Taxiway F
GSP-SB-116	Proposed Soil Boring	Rec 11	1478175.763	603992.931	129.1	Center Line Taxiway F
GSP-SB-117	Proposed Soil Boring	Rec 11	1478109.443	604066.201	60.8	Center Line Taxiway J
GSP-SB-118	Proposed Soil Boring	Rec 11	1478068.899	604041.584	49.5	Center Line Taxiway J
GSP-SB-119	Proposed Soil Boring	Rec 11	1478072.085	604013.203	71.8	Center Line Taxiway J
GSP-SB-120	Proposed Soil Boring	Rec 11	1478036.753	604008.570	50.0	Center Line Taxiway J
GSP-SB-121	Proposed Soil Boring	Rec 11	1477995.340	603976.713	43.2	Center Line Taxiway J
GSP-SB-122	Proposed Soil Boring	Rec 11	1477965.800	603926.033	58.1	Center Line Taxiway J
GSP-SB-123	Proposed Soil Boring	Rec 11	1478048.916	603921.399	120.2	Center Line Taxiway J
GSP-SB-124	Proposed Soil Boring	Rec 11	1478116.973	603936.169	158.0	Center Line Taxiway J
GSP-SB-125	Proposed Soil Boring	Rec 11	1478160.993	603903.154	203.2	Center Line Taxiway F
GSP-SB-126	Proposed Soil Boring	Rec 11	1478092.067	603903.444	163.5	Center Line Taxiway J
GSP-SB-127	Proposed Soil Boring	Rec 11	1478103.651	603859.713	202.6	Center Line Taxiway J
GSP-SB-128	Proposed Soil Boring	Rec 11	1478021.694	603858.845	145.2	Center Line Taxiway J
GSP-SB-129	Proposed Soil Boring	Rec 11	1477955.954	603871.587	89.6	Center Line Taxiway J
GSP-SB-130	Proposed Soil Boring	Rec 11	1478019.666	603776.018	202.3	Center Line Taxiway J

Coordinate System:
NAD_1983_StatePlane_Maryland_FIPS_1900_Feet

Notes:
* = This is the feature that the well is closest to

Final Report
Geophysical Survey
Utility/Structure Clearance for 60 Proposed Boring Locations
Martin State Airport Greater Strawberry Point Area
Middle River, MD
Enviroscan Project Number 051102

Prepared for: Tetra Tech, Inc.
Prepared By: Enviroscan, Inc.
July 14, 2011

1051 Columbia Avenue ● Lancaster, PA 17603 ● 717.396.8922 ● Fax 717.396.8746 ● email@enviroscan.com ● www.enviroscan.com

ENVIROSCAN, INC.

July 14, 2011

Mr. Dev Murali
Tetra Tech NUS, Inc.
20251 Century Boulevard
Suite 200
Germantown, MD 20874-7114

RE: Geophysical Survey
Utility/Structure Clearance for 60 Proposed Boring Locations
Martin State Airport Greater Strawberry Point Area
Middle River, MD
Enviroscan Project Number 051102

Dear Mr. Murali:

Pursuant to the specifications of our proposal, dated May 1, 2011, Enviroscan, Inc. conducted a multi-technique geophysical survey at the above-referenced site from May 20 to May 26, 2011. The purpose of the survey was to perform utility clearance for 60 proposed soil borings.

Methods

The utility survey was completed using standard and/or routinely accepted practices of the geophysical industry and equipment representing the best available technology, including:

- a Radiodetection RD8000 Multi-Frequency pipe and cable tracer;
- a Radiodetection C.A.T. and Genny pipe and cable locator/tracer;
- a Fisher TW-6 electromagnetic (EM) pipe and cable locator/tracer;
- a GSSI SIR-2000 ground penetrating radar (GPR) system.

The principles of these techniques are detailed below.

RD8000

Utility tracing was conducted using a Radiodetection RD8000 digital cable and pipe tracer. The transmitter can be directly coupled to exposed portions of a metallic pipe, cable, or wire or indirectly (inductively) to a subsurface metallic utility of known location/orientation. The transmitter remains stationary and energizes the metallic utility at a frequency selected by the operator (512 Hz, 8 kHz, 33 kHz, or 65 kHz), which is received at the ground surface by the digital locator. When the transmitter is directly coupled to the metallic utility, the digital receiver can also calculate the depth of the utility to an accuracy of ±10% of the actual depth of the utility. Please note the close proximity to bends in the traced line or poor signal strength can result in erroneous depth estimations.

C.A.T. and Genny

The survey areas were also scanned with a Radiodetection C.A.T. and Genny pipe and cable locator and tracer. In Power mode, the C.A.T. detects the 50 to 60 Hertz (Hz) electromagnetic field generated by live power cables and other metallic utilities to which a live line is grounded. In Radio mode, the C.A.T. detects buried conductors (cables or metallic pipes) as they conduct and re-transmit commercial broadcast radio energy. In Genny mode, the C.A.T. detects signal generated by the Genny transmitter. The Genny transmitter can be coupled directly (conductively) to exposed portions of a metallic pipe, cable, or wire or inductively to a subsurface metallic utility with known location and orientation.

TW-6

In order to detect unknown utilities, Enviroscan employed a Fisher TW-6 pipe and cable locator and tracer. In pipe and cable search mode, the TW-6 is essentially a deep-sensing metal detector that detects any highly electrically conductive materials (e.g. metals) by creating an electromagnetic field with a transmitting coil. A receiving coil at a fixed separation from the transmitter measures the field strength. As the instrument is swept along the ground surface, subsurface metallic bodies distort the transmitted field. The change in field strength/orientation is sensed by the receiver, setting off an audible alarm and/or causing deflection of an analog meter. The TW-6 can nominally detect a 2-inch metal pipe to a depth of 8 feet and a 10-inch metal pipe to a depth of 14 feet.

In pipe and cable tracing mode, the TW-6 transmitter can be coupled directly (conductively) to exposed portions of a metallic pipe, cable, or wire or inductively to a subsurface metallic utility with known location and orientation. The transmitter remains stationary and energizes or excites the metallic utility to be traced with an 81.92-kilohertz signal that can be traced at the ground surface using the mobile TW-6 receiver wand or probe.

GPR

GPR systems produce cross-sectional images of subsurface features and layers by continuously emitting pulses of radar-frequency energy from a scanning antenna as it is towed along a survey profile. The radar pulses are reflected by interfaces between materials with differing dielectric properties. The reflections return to the antenna and are displayed on a video monitor as a continuous cross section in real time. Since the electrical properties of metal are distinctly different from soil and backfill materials, metallic pipes and other structures commonly produce dramatic and characteristic reflections. Fiberglass, plastic, concrete, and terra-cotta pipes and structures also produce recognizable, but less dramatic reflections. Scanning was performed using a GSSI SIR-2000 GPR controller with an internal hard drive and a color display, and both a high-frequency, high-resolution 500 megaHertz (MHz) antenna or transducer, and a lower frequency deep-penetrating 200 MHz transducer.

Results Summary

The utility clearance survey results are depicted in Figures 1 through 4. Several boring locations were moved (less than 20 feet) to avoid obstructions. These new locations are noted in Table 1. The proposed coordinates of boring locations that were moved appear in red. Please note that the new coordinates of boring locations moved during geoprobing (by others) to avoid marked utilities or obstructions to drilling do not appear on Table 1.

Limitations

The above-referenced geophysical survey was completed using standard and/or routinely accepted practices of the geophysical industry and equipment representing the best available technology. Enviroscan does not accept responsibility for survey limitations due to inherent technological limitations or unforeseen site-specific conditions. However, we make every effort to identify and notify the client of such limitations or conditions. In particular, please note the following specific limitations and recommendations:

- Enviroscan's field markings should be considered accurate to within approximately +/-18 inches for single lines. In contrast, since electromagnetic tracing of duct banks provides only a centerline, the bank itself may extend for 2 to 3 feet beyond the marked trace.

- The completion of this survey does not relieve any party of applicable legal obligations to notify the appropriate One-Call center prior to digging or drilling.

As always, we appreciate this opportunity to have worked with you. If you have any questions, please do not hesitate to contact me.

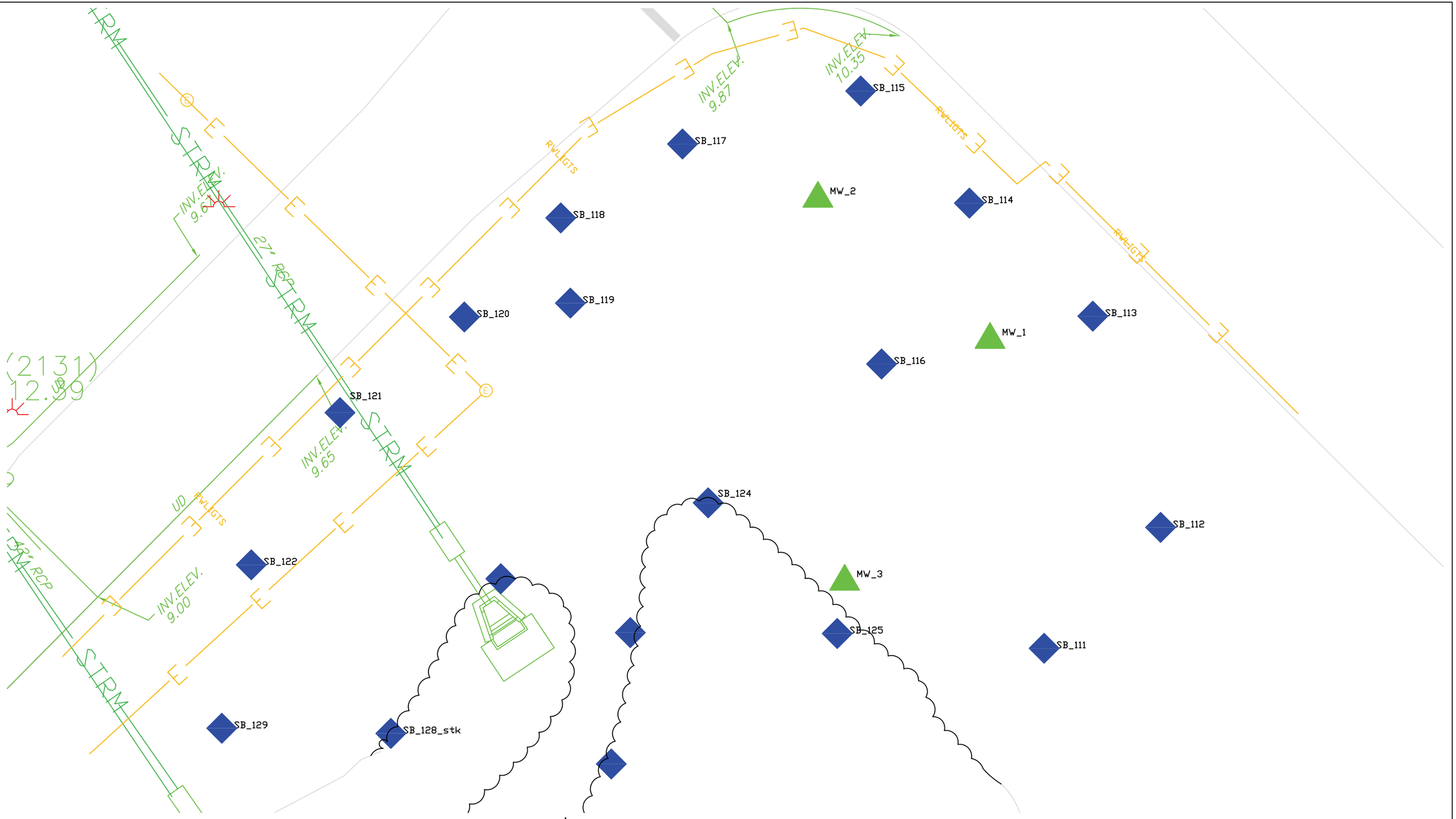
Sincerely,
Enviroscan, Inc.

William E. Steinhart III, M.Sc., P.G.
Principal Geophysicist

Technical Review By:
Enviroscan, Inc.

Felicia Kegel Bechtel, M.Sc., P.G.
President

enc.: Figure 1 Utility Survey Results REC 11
Figure 2 Utility Survey Results REC 10
Figure 3 Utility Survey Results REC 9
Figure 4 Utility Survey Results REC 8
Table 1 – Utility Clearance Results



The information depicted on this drawing represents survey results on the date surveyed and can only be considered to be indicative of the general conditions existing on that survey date.

Coordinates in Maryland State Plane (feet) NAD-83 Datum.

Prepared by:

ENVIROSCAN, INC.

Enviroscan, Inc.
1051 Columbia Avenue
Lancaster, PA
(717) 396-8922

Utility Survey Results Rec 11

Greater Strawberry Point
Utility Survey
Rec's 11, 10, 9, and 8
Martin State Airport
Middle River, MD

Figure **1**

Project Number	Survey Date	Drawn by:
051102	05/24/11	WES
Original Scale	Revision/Issue	Approved by:
1" = 30'	07/05/2011	FKB

SB_106

TP_1

SB_104

TP_3

SB_107

TP_4

MW_6

SB_103

SB_105

TP_2

TP_5

SB_108

MW_5

SB_102

SB_101

SB_100

SB_109

TP_6

SB_99

SB_110

SB_97

End of Trace

SB_98

- Electrical Line
- Telcom Line
- Storm Line
- Domestic Water Line
- Fire Protection Line
- Gas Line
- Unknown Utility (from utility trace)
- Proposed Soil Boring
- Proposed Monitoring Well
- Proposed MIP
- Proposed Test Pit

The information depicted on this drawing represents survey results on the date surveyed and can only be considered to be indicative of the general conditions existing on that survey date.

Coordinates in Maryland State Plane (feet) NAD-83 Datum.

0 40 80

Scale in Feet

N

Prepared by:

Enviroscan, Inc.
1051 Columbia Avenue
Lancaster, PA
(717) 396-8922

ENVIROSCAN, INC.

Utility Survey Results Rec 10

Greater Strawberry Point Utility Survey
Rec's 11, 10, 9, and 8
Martin State Airport
Middle River, MD

Figure 2

Project Number	Survey Date	Drawn by:
051102	05/24/11	WES
Original Scale	Revision/Issue	Approved by:
1" = 40'	07/05/2011	FKB

- Electrical Line
- Telcom Line
- Storm Line
- Domestic Water Line
- Fire Protection Line
- Gas Line
- Unknown Utility (from utility trace)
- Proposed Soil Boring
- Proposed Monitoring Well
- Proposed MIP
- Proposed Test Pit

SB_97
SB_95
SB_93
MW_7
SB_91
MW_8CB
STRM
STRM
STRM
STRM
SB_99
SB_92
TP_9
TP_10
TP_8
SB_96
SB_94
SB_98
TP_7
End of Trace
Inaccessible due to wall and debris

The information depicted on this drawing represents survey results on the date surveyed and can only be considered to be indicative of the general conditions existing on that survey date.

Coordinates in Maryland State Plane (feet) NAD-83 Datum.

0 40 80
Scale in Feet

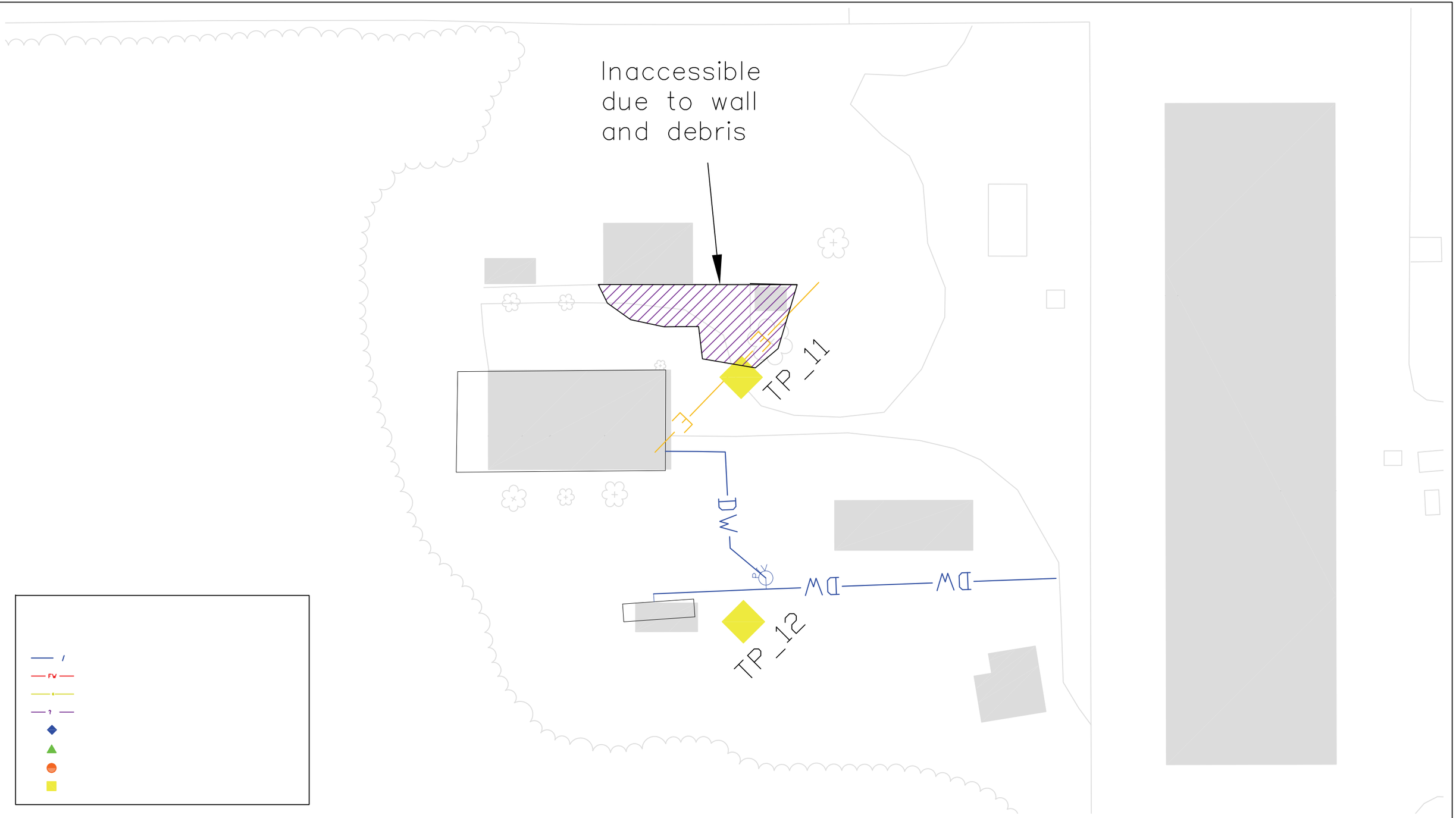
Prepared by:
ENVIROSCAN, INC.
Enviroscan, Inc.
1051 Columbia Avenue
Lancaster, PA
(717) 396-8922

Utility Survey Results Rec 9

Greater Strawberry Point Utility Survey
Rec's 11, 10, 9, and 8
Martin State Airport
Middle River, MD

Figure 3

Project Number	Survey Date	Drawn by:
051102	05/24/11	WES
Original Scale	Revision/Issue	Approved by:
1" = 40'	07/05/2011	FKB



/
FW
?

0 30 60
Scale in Feet

The information depicted on this drawing represents survey results on the date surveyed and can only be considered to be indicative of the general conditions existing on that survey date.

Coordinates in Maryland State Plane (feet) NAD-83 Datum.

Prepared by:

Enviroscan, Inc.
1051 Columbia Avenue
Lancaster, PA
(717) 396-8922

Utility Survey Results Rec 8

Greater Strawberry Point Utility Survey
Rec's 11, 10, 9, and 8
Martin State Airport
Middle River, MD

Figure 4

Project Number	Survey Date	Drawn by:
051102	05/24/11	WES
Original Scale	Revision/Issue	Approved by:
1" = 30'	07/05/2011	FKB

Table 1
Utility Clearance Results
Greater Strawberry Point Survey

Boring ID	Proposed Easting	Proposed Northing	Boring Moved due to Utility or Obstruction	Final Easting	Final Northing
MW_1	1478211.9	604002.4		1478211.9	604002.4
MW_2	1478154.6	604049.4		1478154.6	604049.4
MW_3	1478163.5	603921.9		1478163.5	603921.9
MW_4	1478025.9	603802.9		1478025.9	603802.9
MW_5	1478746.2	603308.8		1478746.2	603308.8
MW_6	1478707.367	603358.404	✓	1478712.0	603361.3
MW_7	1479303.4	602923.7		1479303.4	602923.7
MW_8	1479061.8	603090.0		1479061.8	603090.0
SB_91	1479344.4	602890.7		1479344.4	602890.7
SB_92	1479250.1	602890.7		1479250.1	602890.7
SB_93	1479262.9	602957.1		1479262.9	602957.1
SB_94	1479096.2	602954.8		1479096.2	602954.8
SB_95	1479142.9	603062.0		1479142.9	603062.0
SB_96	1479029.8	603015.3		1479029.8	603015.3
SB_98	1478839.0	603157.1		1478839.0	603157.1
SB_98	1478838.952	603157.074	✓	1478848.9	603160.1
SB_99	1478880.0	603224.0		1478880.0	603224.0
SB_100	1478868.3	603288.5		1478868.3	603288.5
SB_101	1478782.6	603282.5		1478782.6	603282.5
SB_102	1478717.9	603290.1		1478717.9	603290.1
SB_103	1478732.8	603360.4		1478732.8	603360.4
SB_104	1478825.3	603388.8		1478825.3	603388.8
SB_105	1478775.5	603340.2		1478775.5	603340.2
SB_106	1478757.8	603448.2		1478757.8	603448.2
SB_107	1478692.297	603389.660	✓	1478706.1	603378.0
SB_108	1478604.3	603307.5		1478604.3	603307.5
SB_109	1478622.0	603255.2		1478622.0	603255.2
SB_110	1478672.1	603207.2		1478672.1	603207.2
SB_111	1478229.9	603898.2		1478229.9	603898.2
SB_112	1478268.7	603938.5		1478268.7	603938.5
SB_113	1478246.1	604008.9		1478246.1	604008.9
SB_114	1478205.0	604046.5		1478205.0	604046.5
SB_115	1478168.8	604083.9		1478168.8	604083.9
SB_116	1478175.8	603992.9		1478175.8	603992.9
SB_117	1478109.4	604066.2		1478109.4	604066.2
SB_118	1478068.9	604041.6		1478068.9	604041.6
SB_119	1478072.1	604013.2		1478072.1	604013.2
SB_120	1478036.8	604008.6		1478036.8	604008.6
SB_121	1477991.0	603972.6		1477991.0	603972.6
SB_122	1477965.8	603926.0		1477965.8	603926.0
SB_123	1478048.9	603921.4		1478048.9	603921.4
SB_124	1478116.973	603936.169	✓	1478118.0	603946.7

Table 1
Utility Clearance Results
Greater Strawberry Point Survey

SB_125	1478161.0	603903.2		1478161.0	603903.2
SB_126	1478092.1	603903.4		1478092.1	603903.4
SB_127	1478103.651	603859.713	✓	1478085.7	603859.7
SB_128	1478021.694	603858.845	✓	1478012.3	603869.9
SB_129	1477956.0	603871.6		1477956.0	603871.6
SB_130	1478019.7	603776.0		1478019.7	603776.0
TP_1	1478794.3	603421.7		1478794.3	603421.7
TP_2	1478749.5	603328.6		1478749.5	603328.6
TP_3	1478646.0	603382.1		1478646.0	603382.1
TP_4	1478618.2	603362.6		1478618.2	603362.6
TP_5	1478676.2	603314.7		1478676.2	603314.7
TP_6	1478762.8	603228.9		1478762.8	603228.9
TP_7	1478917.8	603087.9		1478917.8	603087.9
TP_8	1478942.0	603111.1		1478942.0	603111.1
TP_9	1479158.4	602942.0		1479158.4	602942.0
TP_10	1479206.7	602887.6		1479206.7	602887.6
TP_11	1479108.6	602695.2		1479108.6	602695.2
TP_12	1479051.7	602637.0		1479051.7	602637.0

APPENDIX B—TEST PIT AND SAMPLE LOG SHEETS

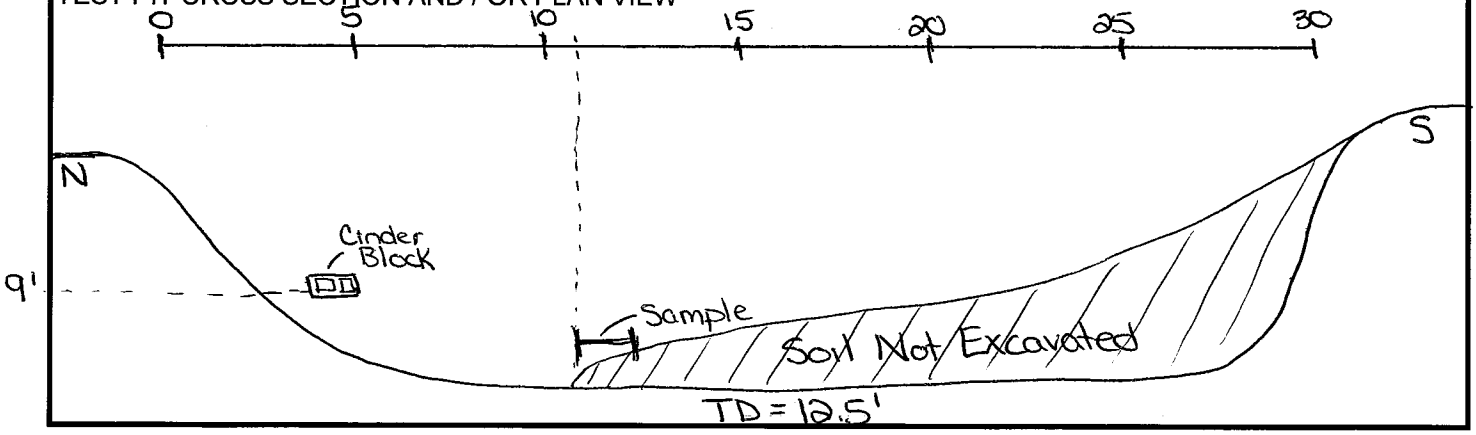
TEST PIT LOG

Tetra Tech NUS, Inc.

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
LOCATION: MSA - GSP
TEST PIT No.: GSP-TP- 1
DATE: 6/7/2011
GEOLOGIST: Dawn Markiewicz

Depth (Ft.)	Lithology Change (Depth/Ft.)	MATERIAL DESCRIPTION: Soil/Waste Characteristics (lithology, density, color, etc.)	USCS	Remarks	PID/FID READING: Source (ppm)	PID/FID READING: BZ (ppm)
1	0-1.0	Brn, SILTY SAND, c.-grained, w/gravel, dry			0.0	0.0
2	1.0-2.5	Brn, Blk, SILTY SAND, organics, moist			0.0	
3	2.5					
4		Gry, Yel-Brn, Brn, SILTY SAND, f.-grained, moist			0.0	
5	2.5-7.0					
6						
7						
8		Lt. Gry, Brn, SANDY SILT/SILTY SAND, f.-grained, moist			0.0	
9						
10	7.0-12.5					
11						
12						
13						
14		Total Depth = 12.5'				
15						
16						
17						
18						

TEST PIT CROSS SECTION AND / OR PLAN VIEW



REMARKS: Cinder Block @ 9.0'
WL = ~12.0'
Sample: 10-12' @ 1022 for VOC, SVOC, PCB, GRO/DRO, Metals + Hg (0.oppr

PHOTO LOG:

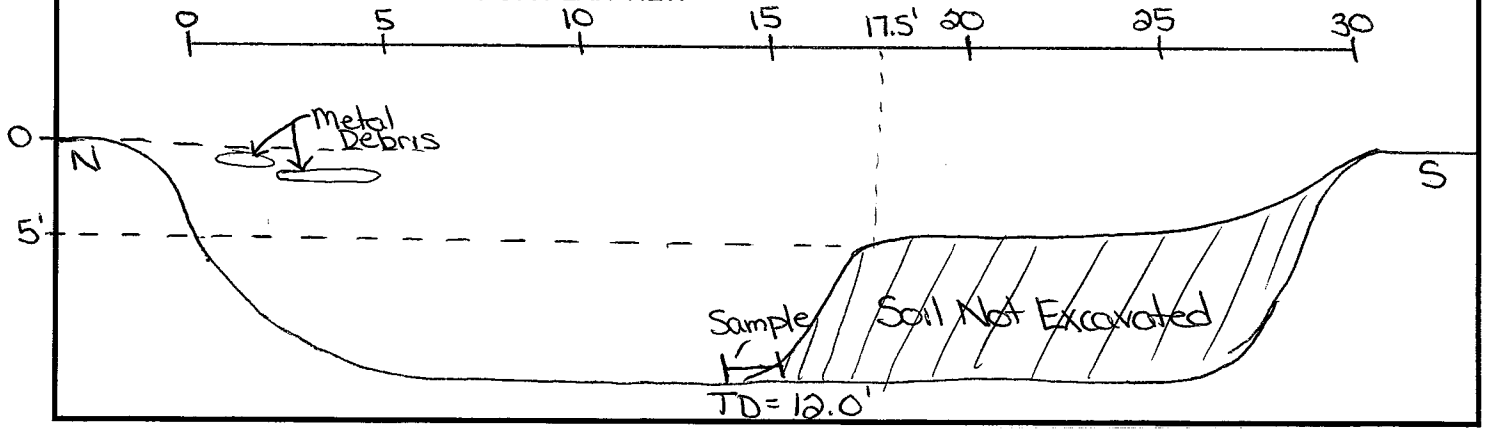
TEST PIT LOG

Tetra Tech NUS, Inc.

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
LOCATION: MSA - GSP
TEST PIT No.: GSP-TP- 2
DATE: 6/7/2011
GEOLOGIST: Dawn Markiewicz

Depth (Ft.)	Lithology Change (Depth/Ft.)	MATERIAL DESCRIPTION: Soil/Waste Characteristics (lithology, density, color, etc.)	USCS	Remarks	PID/FID READING: Source (ppm)	PID/FID READING: BZ (ppm)
1	0-1.0	DK. Brn, SANDY SILT, organics, m.-grained, moist			0.0	0.0
2		Tan, SILTY SAND, m. grained, compact, moist			0.0	
3	1.0-4.0					
4						
5	4.0-5.0	SAA except org-brn and Yel-Brn			0.0	
6	5.0-6.0	SAA except Lt. Gry			0.0	
7		DK. Gry, CLAY, trace SILT, stiff, no plast., slt. moist			0.0	
8						
9	6.0-12.0					
10						
11						
12						
13		TD = 12.0'				
14						
15						
16						
17						
18						

TEST PIT CROSS SECTION AND / OR PLAN VIEW



REMARKS: Metal Debris at surface
Sample: 10-12' @ 1513 for VOC, SVOC, PCB, GRO/DRO, Metals + Hg (0.0PP

PHOTO LOG: 1. overview of test pit 2. lithology 3. metal Debris

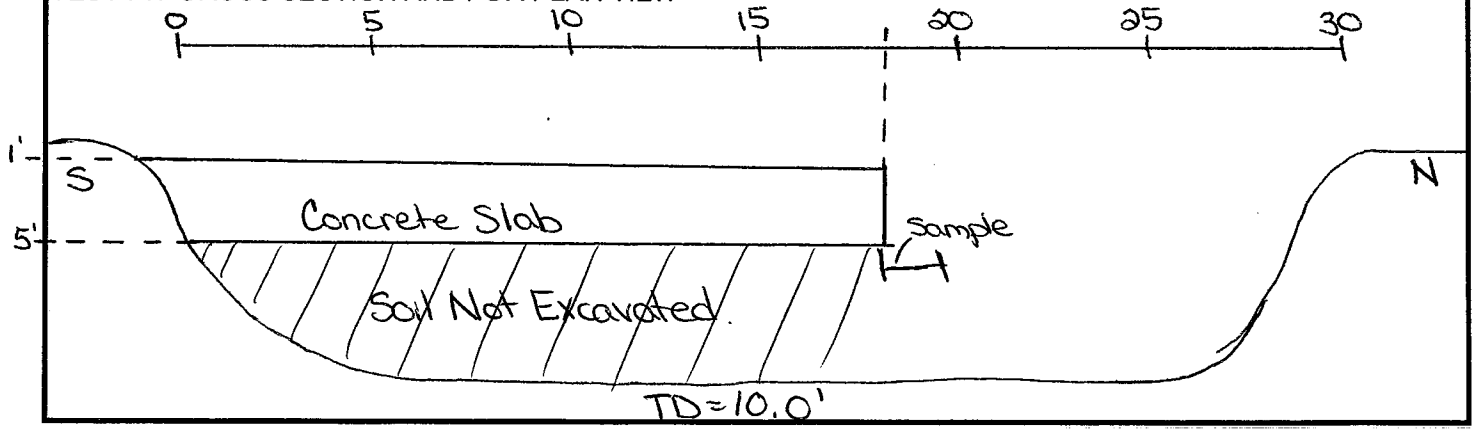
TEST PIT LOG

Tetra Tech NUS, Inc.

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
LOCATION: MSA - GSP
TEST PIT No.: GSP-TP-3
DATE: 6/7/2011
GEOLOGIST: Dawn Markiewicz

Depth (Ft.)	Lithology Change (Depth/Ft.)	MATERIAL DESCRIPTION: Soil/Waste Characteristics (lithology, density, color, etc.)	USCS	Remarks	PID/FID READING: Source (ppm)	PID/FID READING: BZ (ppm)
1	0-4.5	Brn, Yel-Brn, SILTY SAND w/ gravel, f.-grained, loose, dry			0.0	0.0
2						
3						
4						
5						
6	4.5-10.0'	Lt. Gry, CLAYEY SILTY SAND, m.-grained, compact, moist			0.0	
7						
8						
9						
10		TD = 10.0				
11						
12						
13						
14						
15						
16						
17						
18						

TEST PIT CROSS SECTION AND / OR PLAN VIEW



REMARKS: WL = ~9.0'
Sample: 5-7' @ 1030 for VOC, SVOC, PCB, GRO/DRO, Metals + Hg (0.0 ppm)

PHOTO LOG:

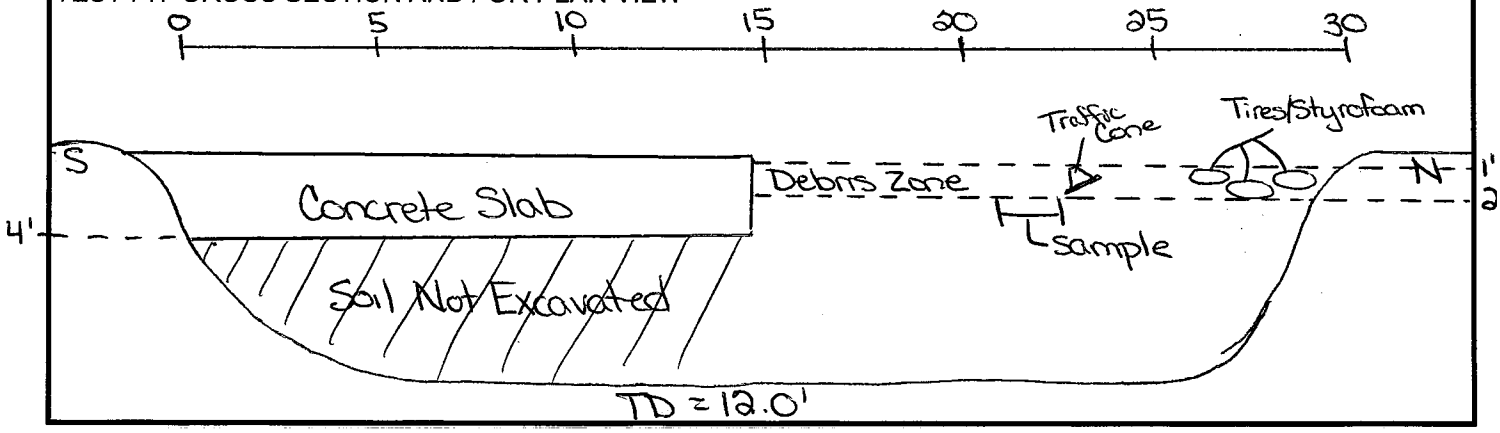
TEST PIT LOG

Tetra Tech NUS, Inc.

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
LOCATION: MSA - GSP
TEST PIT No.: GSP-TP-4
DATE: 6/8/2011
GEOLOGIST: Dawn Markiewicz

Depth (Ft.)	Lithology Change (Depth/Ft.)	MATERIAL DESCRIPTION: Soil/Waste Characteristics (lithology, density, color, etc.)	USCS	Remarks	PID/FID READING: Source (ppm)	PID/FID READING: BZ (ppm)
1	0-3.0	DK. Brn, GRAVELLY SILTY SAND, c.-grained, organics, loose, dry. Some asphalt @ ~0.5' deep			0.0	0.0
2						
3						
4	3.0-5.5	Yel-Brn, SILTY SAND, m.-grained, loose, moist.			0.0	
5						
6						
7	5.5-12.0	Lt. Gry, CLAYEY SILTY SAND, m.-grained, compact, moist			0.0	
8						
9						
10						
11						
12						
13		TD = 12.0'				
14						
15						
16						
17						
18						

TEST PIT CROSS SECTION AND / OR PLAN VIEW



REMARKS: Sample: 3-5' @ 0951 for VOC, SVOC, PCB, GRO/DRO, Metals + Hg (0.0 ppm)

PHOTO LOG: 1. Tire Debris 2. Overview of test pit 3. Footer

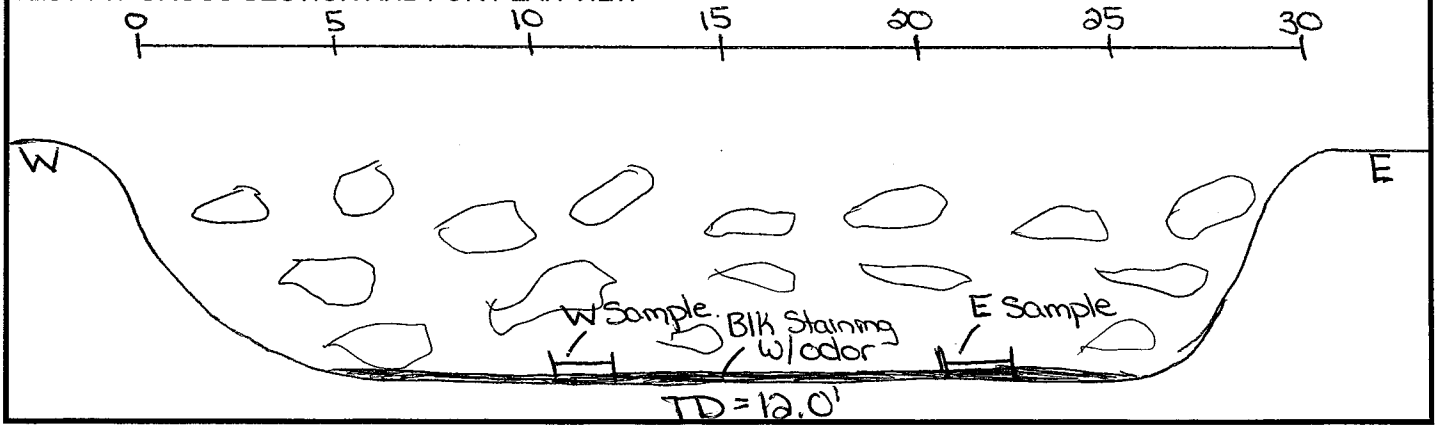
TEST PIT LOG

Tetra Tech NUS, Inc.

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
LOCATION: MSA - GSP
TEST PIT No.: GSP-TP-5
DATE: 6/8/2011
GEOLOGIST: Dawn Markiewicz

Depth (Ft.)	Lithology Change (Depth/Ft.)	MATERIAL DESCRIPTION: Soil/Waste Characteristics (lithology, density, color, etc.)	USCS	Remarks	PID/FID READING: Source (ppm)	PID/FID READING: BZ (ppm)
1	0-12.0	Brn, SILTY SAND, c.-grained, loose, dry, Blk Staining w/			0.0	0.0
2		odor @ 12'				
3						
4						
5		5.0': 1/2' Org-Brn, CLAY			0.0	
6						
7						
8						
9						
10						
11						
12				10.7-28.4		
13		TD=12.0				
14						
15						
16						
17						
18						

TEST PIT CROSS SECTION AND / OR PLAN VIEW



REMARKS: Concrete and metal debris throughout test pit, very abundant.
W Sample: 10-12' @ 1134 for VOC, SVOC, PCB, GRO/DRO, Metals + Hg (10.7
E Sample: 10-12' @ 1210 for VOC, SVOC, PCB, GRO/DRO, Metals + Hg (2

PHOTO LOG:

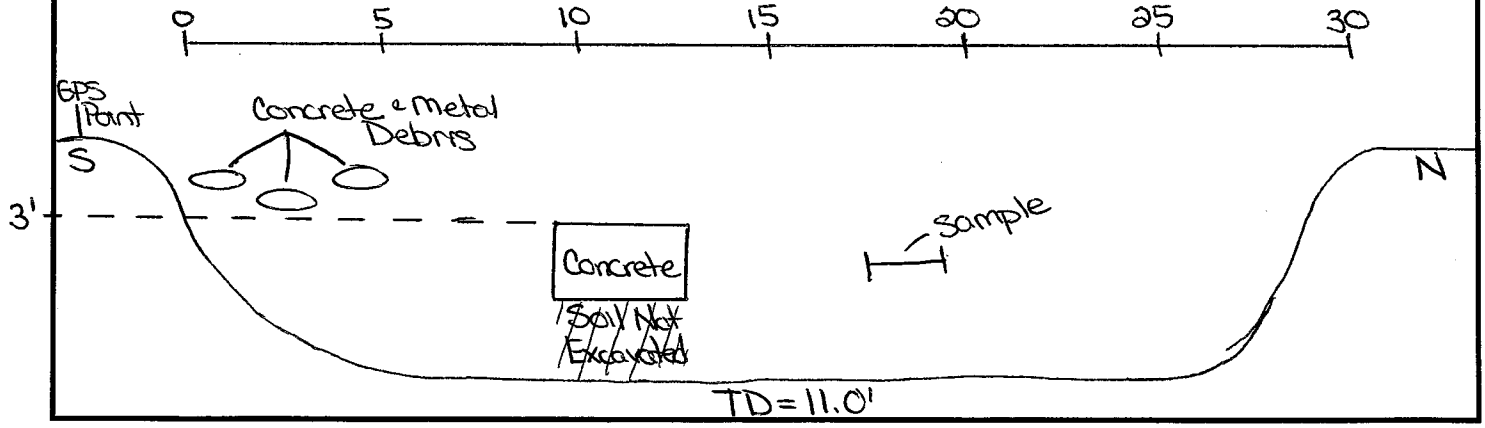
TEST PIT LOG

Tetra Tech NUS, Inc.

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
LOCATION: MSA - GSP
TEST PIT No.: GSP-TP-6
DATE: 6/9/2011
GEOLOGIST: Dawn Markiewicz

Depth (Ft.)	Lithology Change (Depth/Ft.)	MATERIAL DESCRIPTION: Soil/Waste Characteristics (lithology, density, color, etc.)	USCS	Remarks	PID/FID READING: Source (ppm)	PID/FID READING: BZ (ppm)
1	0-3.0	Brn, Yel-Brn, SANDY SILT w/ gravel, rocks, debris, loose, dry			0.0	0.0
2		G@2.0'				
3						
4	3.0-5.0	Blk, SILTY SAND, f-grained, loose, moist			0.0	
5						
6	5.0-7.0	Yel-Brn, SILTY SAND, some CLAY, f-grained, compact, moist			0.0	
7						
8	7.0-11.0	Lt. Gry, CLAYEY SILTY SAND, f-grained, compact, moist			0.0	
9						
10						
11						
12		TD=11.0				
13						
14						
15						
16						
17						
18						

TEST PIT CROSS SECTION AND / OR PLAN VIEW



REMARKS: Sample: 4-6'@0829 for VOC, SVOC, PCB, GRO/DRO, Metals+Hg (0.0ppm)

PHOTO LOG: 1. Overview 2. Lithology 3. Concrete 4. Metal Debris

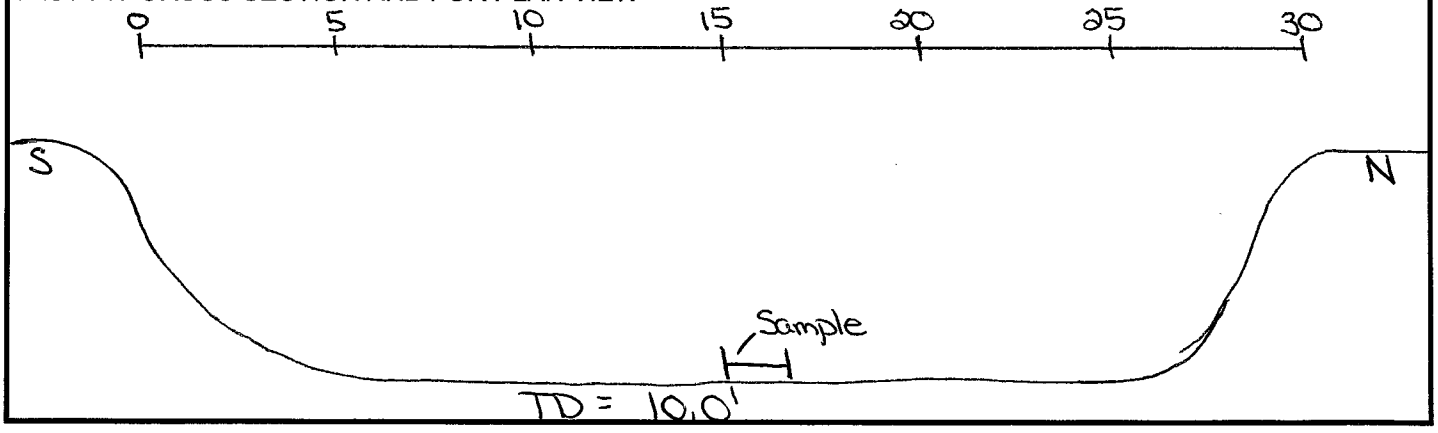
TEST PIT LOG

Tetra Tech NUS, Inc.

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
LOCATION: MSA - GSP
TEST PIT No.: GSP-TP-7
DATE: 6/7/2011
GEOLOGIST: Dawn Markiewicz

Depth (Ft.)	Lithology Change (Depth/Ft.)	MATERIAL DESCRIPTION: Soil/Waste Characteristics (lithology, density, color, etc.)	USCS	Remarks	PID/FID READING: Source (ppm)	PID/FID READING: BZ (ppm)
1	0-1.0	Brn, SANDY SILT, c.-grained, organics, loose, dry			0.0	0.0
2	1.0-3.0	Yel-Brn, Tan, SILTY SAND, c.-grained, w/ rocks, loose, moist			0.0	
3						
4	3.0-7.0	Yel-Brn, Lt. Gry, CLAYEY SILTY SAND, c.-grained, compact, moist			0.0	
5						
6						
7						
8	7.0-10.0	Lt. Gry, SILTY CLAY, stiff, no plast., slt. moist			0.0	
9						
10						
11		TD = 10.0'				
12						
13						
14						
15						
16						
17						
18						

TEST PIT CROSS SECTION AND / OR PLAN VIEW



REMARKS: Sample: 9-10' @ 1412 for VOC, SVOC, PCB, GRO/DRO, Metals + Hg (0.0ppm)

PHOTO LOG:

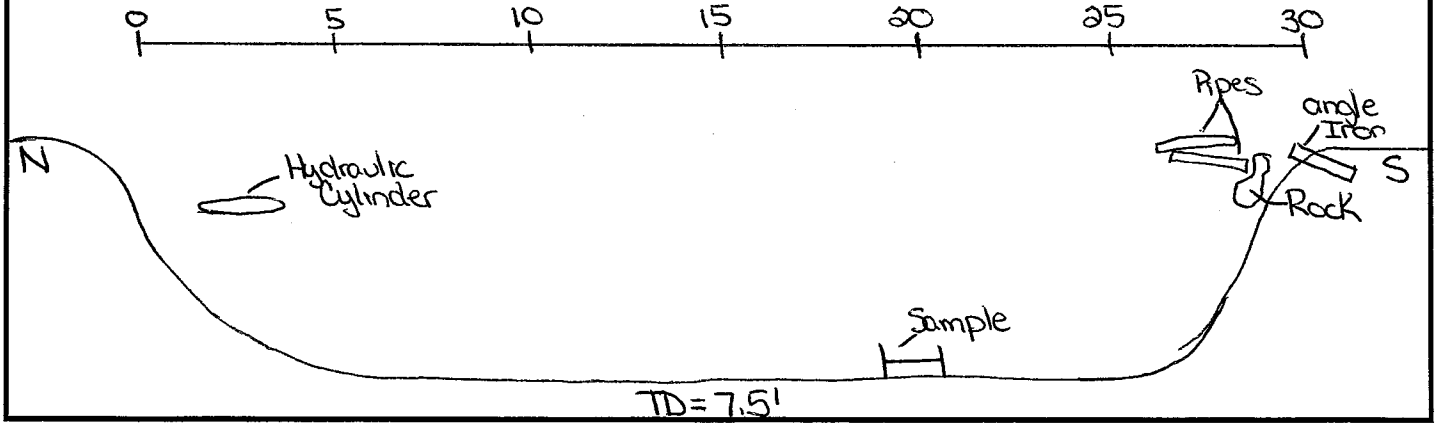
TEST PIT LOG

Tetra Tech NUS, Inc.

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
LOCATION: MSA - GSP
TEST PIT No.: GSP-TP-8
DATE: 6/8/2011
GEOLOGIST: Dawn Markiewicz

Depth (Ft.)	Lithology Change (Depth/Ft.)	MATERIAL DESCRIPTION: Soil/Waste Characteristics (lithology, density, color, etc.)	USCS	Remarks	PID/FID READING: Source (ppm)	PID/FID READING: BZ (ppm)
1	0-2.5'	Brn, SANDY SILT, w/ organics, m.-grained, loose, dry			0.0	0.0
2						
3						
4	2.5-5.5'	Yel-Brn, SAND, some SILT, f.-grained, loose, moist			0.0	
5						
6						
7	5.5-7.5'	Lt. Gry, SAND, some SILT, f.-grained, loose, moist			0.0	
8						
9		TD = 7.5'				
10						
11						
12						
13						
14						
15						
16						
17						
18						

TEST PIT CROSS SECTION AND / OR PLAN VIEW



REMARKS: WL = 7.5'
Sample: G-7' @ 1500 for VOC, SVOC, PCB, GRO/DRO, Metals + Hg (0.0ppm)

PHOTO LOG: 1. Hydraulic Cylinder 2. Pipes & Angle Iron 3. Overview of test pit

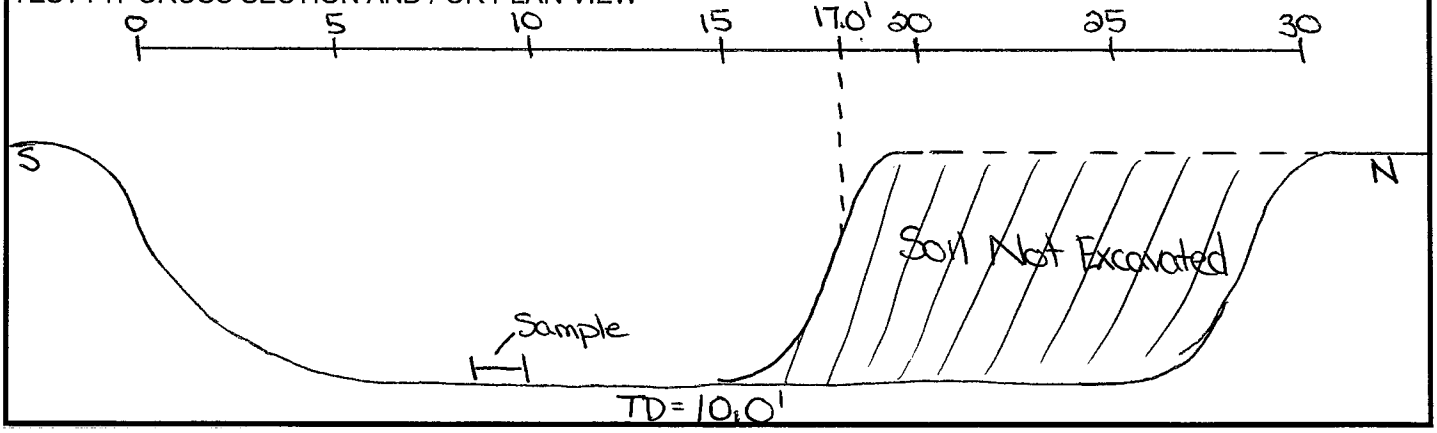
TEST PIT LOG

Tetra Tech NUS, Inc.

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
LOCATION: MSA - GSP
TEST PIT No.: GSP-TP-9
DATE: 6/7/2011
GEOLOGIST: Dawn Markiewicz

Depth (Ft.)	Lithology Change (Depth/Ft.)	MATERIAL DESCRIPTION: Soil/Waste Characteristics (lithology, density, color, etc.)	USCS	Remarks	PID/FID READING: Source (ppm)	PID/FID READING: BZ (ppm)
1	0-1.0	Brn, SILTY SAND, organics, gravel, C.-grained, loose, dry			0.0	0.0
2		Brn, Yel-Brn, SILTY SAND, m.-grained, compact, moist			0.0	
3						
4						
5	1.0-8.0'					
6						
7						
8						
9	8.0-10.0'	Lt. Gry, SILTY SAND, m.-grained, loose, moist			0.0	
10						
11		TD = 10.0'				
12						
13						
14						
15						
16						
17						
18						

TEST PIT CROSS SECTION AND / OR PLAN VIEW



REMARKS: WL = ~9.0'
Sample: 8-10' @ 1010 for VOC, SVOC, PCB, GRO/DRO, Metals + Hg (0.0 ppm)

PHOTO LOG: 1. Overview of test pit

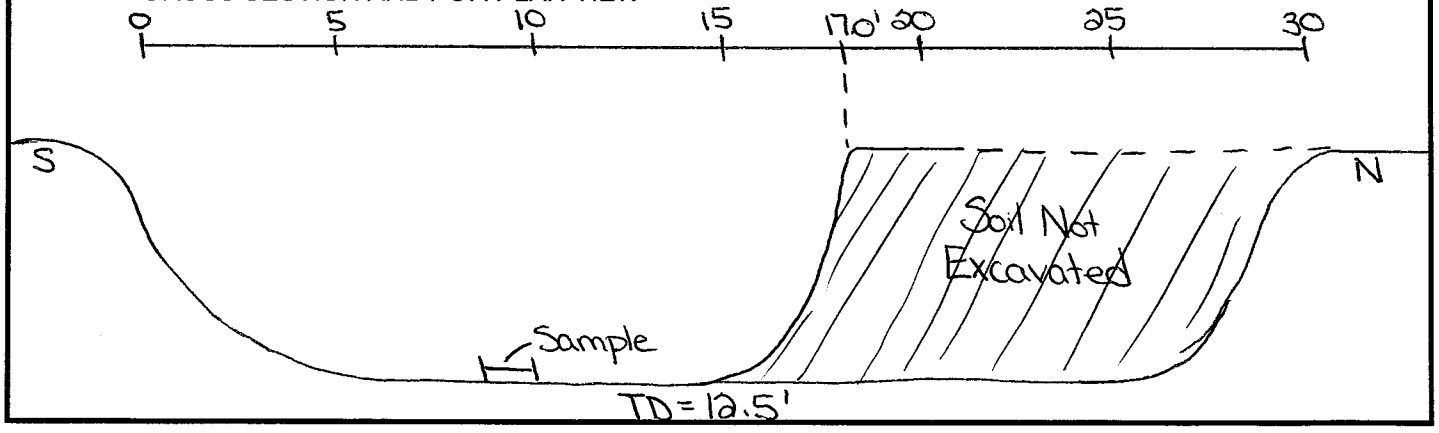
TEST PIT LOG

Tetra Tech NUS, Inc.

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
LOCATION: MSA - GSP
TEST PIT No.: GSP-TP-10
DATE: 6/9/2011
GEOLOGIST: Dawn Markiewicz

Depth (Ft.)	Lithology Change (Depth/Ft.)	MATERIAL DESCRIPTION: Soil/Waste Characteristics (lithology, density, color, etc.)	USCS	Remarks	PID/FID READING: Source (ppm)	PID/FID READING: BZ (ppm)
1	0-3.0'	Brn, SANDY SILT, organics, f.-grained, loose, dry			0.0	0.0
2						
3						
4	3.0-4.0	Yel-Brn, SILTY SAND, m.-grained, SH. Compact, moist			0.0	
5	4.0-6.0	SAA except Lt. Gry				
6						
7	6.0-12.5'	SAA except Lt. Gry and Yel-Brn			0.0	
8						
9						
10						
11						
12						
13						
14		TD = 12.5'				
15						
16						
17						
18						

TEST PIT CROSS SECTION AND / OR PLAN VIEW



REMARKS: WL = 12.0'
Sample: 10-12' @ 0947 for VOC, SVOC, PCB, GRO/DRO, Metals + Hg (0.0 ppm)

PHOTO LOG: 1. overview of test pit

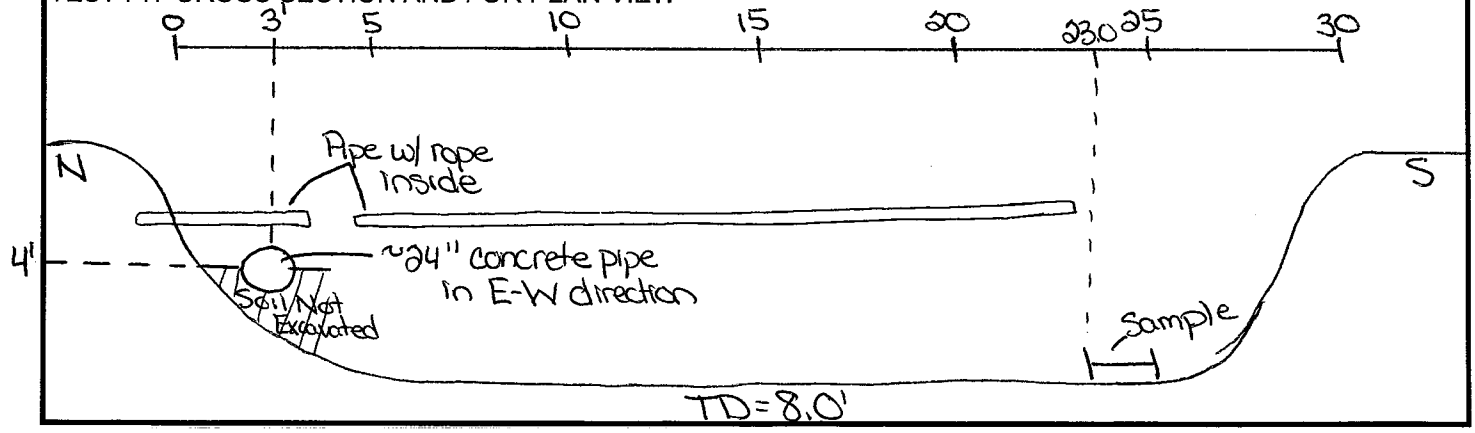
TEST PIT LOG

Tetra Tech NUS, Inc.

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
LOCATION: MSA - GSP
TEST PIT No.: GSP-TP-11
DATE: 6/7/2011
GEOLOGIST: Dawn Markiewicz

	Depth (Ft.)	Lithology Change (Depth/Ft.)	MATERIAL DESCRIPTION: Soil/Waste Characteristics (lithology, density, color, etc.)	USCS	Remarks	PID/FID READING: Source (ppm)	PID/FID READING: BZ (ppm)
1	0-1.0'		Brn, SILTY SAND, f-grained, loose, moist			0.0	0.0
2			SAA except Yel-Brn			0.0	
3							
4		1.0-5.0'					
5							
6							
7		5.0-8.0	SAA except Lt. Gry			0.0	
8							
9		8.0'	Lt. Gry, SILTY SAND, f-grained, compact, moist			0.0	
10			TD = 8.0'				
11							
12							
13							
14							
15							
16							
17							
18							

TEST PIT CROSS SECTION AND / OR PLAN VIEW



REMARKS: WL = 8.0'
Cave-In along trench so sample collected on Southern end.
Sample: 7-8' @1050 for VOC, SVOC, PCB, GRO/DRO, Metals + Hg (0.0 ppm)

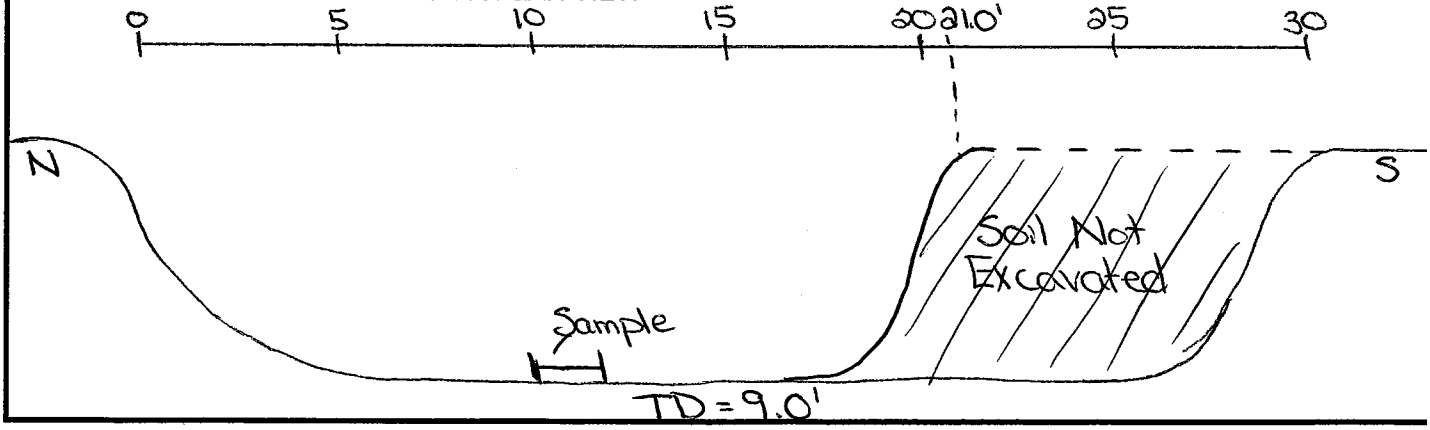
PHOTO LOG: 1. Overview of test pit 2. Debris

Tetra Tech NUS, Inc.

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
LOCATION: MSA - GSP
TEST PIT No.: GSP-TP-12
DATE: 6/7/2011
GEOLOGIST: Dawn Markiewicz

Depth (Ft.)	Lithology Change (Depth/Ft.)	MATERIAL DESCRIPTION: Soil/Waste Characteristics (lithology, density, color, etc.)	USCS	Remarks	PID/FID READING: Source (ppm)	PID/FID READING: BZ (ppm)
1	0.0-1.0'	Brn, SANDY SILT, organics, c-grained, loose, dry			0.0	0.0
2		Yel-Brn, CLAYEY SILTY SAND, m-grained, compact, moist			0.0	
3						
4	1.0-5.5'					
5						
6						
7	5.5-8.0'	Lt. Gry, SILTY SANDY CLAY, f-grained, stiff, slt. moist			0.0	
8						
9	8.0-9.0	SAA except Lt. Gry and Red-Brn				
10		TD = 9.0'				
11						
12						
13						
14						
15						
16						
17						
18						

TEST PIT CROSS SECTION AND / OR PLAN VIEW



REMARKS: Sample: 8-9' @ 1136 for VOC, SVOC, PCB, GRO/DRO, Metals+Hg (0.0 ppm

PHOTO LOG: 1. overview of test pit.

APPENDIX C—TEST PIT OBSERVATIONS AND PHOTOGRAPHS

Legend:
Dimensions: length x depth
ft. bgs: feet below ground surface
DTW: depth to water
NA: not recorded/not reached

Pit#: GSP-TP-1


Photo #1: TP-1 (debris)


Photo #2: TP-1 (lithology)


Photo #3: TP-1 (overview)

DTW: 12 feet below grade

Dimensions: 30x12.5 feet.

Description: Brown, course grained SILTY SAND with high organic from the ground surface to two and a half feet below grade where a fine grained, gray, yellow-brown, and brown fine grained moist SILTY SAND occurs down to seven feet below grade. From this depth to the bottom of the test pit at 12.5 feet below grade, the lithology consists of a light gray and brown fine grained and moist SANDY SILT/SILTY SAND.

Photo #1: Cinder block found at 9 feet below grade
Photo #2: Test pit lithology

Photo #3: Test pit overview

Pit#: GSP-TP-2



Photo #4: TP-2 (debris)



Photo #5: TP-2 (lithology)

DTW: NA

Dimensions: 30x12 feet.
Description: Dark brown, medium grained, moist SANDY SILT with high organic content from the ground surface to one foot below grade where lithology changes to tan compact, medium grained, moist SILTY SAND down to six feet below grade (color changes to orange-brown and yellow-brown at four feet, and to light gray at five feet. From six feet to the bottom of the test pit at 12 feet below grade, the lithology consists of dark gray, stiff, slightly moist, low plasticity CLAY with trace SILT.

Photo #4: Metal debris found near within 2 feet of the surface
Photo #5: Test-pit lithology

Pit#: GSP-TP-3



Photo #6: TP-3 (concrete slab)



Photo #7: TP-3 (overview)

DTW: 9 feet below grade

Dimensions: 30x10 feet.
Description: Brown, yellow-brown, course grained, loose, dry, SILTY SAND with

gravel is found from the ground surface to four and a half feet below grade where lithology changes to light gray, compact, medium grained, moist CLAYEY SILTY SAND down to the bottom of the test pit at 10 feet.

Photo #6: Approximately 4 foot thick concrete slab found from 1 to 5 feet below grade.
Photo #7: Test Pit overview

Pit#: GSP-TP-4



Photo #8: TP-4 (concrete slab)



Photo #9: TP-4 (debris)

DTW: NA

Dimensions: 30x12 feet.
Description: Dark brown, course grained, loose, dry, GRAVELLY SILTY SAND is found from the surface to three feet below grade with some asphalt at .5 feet. From three to five and a half feet below grade, yellow-brown, medium grained, loose, moist, SILTY SAND is encountered followed by light gray, medium grained, compact, moist, CLAYEY SILTY SAND to the bottom of the test pit at 12 feet.

Photo #8: Approximately 4 foot thick concrete slab found from the surface to 4 feet below grade.
Photo #9: Tires found about 2 feet below grade (a traffic cone was also found in the test pit at about 4 feet below grade)

Pit#: GSP-TP-5 Photograph #s: 10 and 11



Photo #10: TP-5 (debris)



Photo #11: TP-5 (overview)

DTW: NA

Dimensions: 30x12 feet.

Description: Brown, coarse grained, loose, dry, SILTY SAND is encountered from the ground surface to 12 feet below grade with some orange-brown CLAY lenses at one half and five feet. At 12 feet below grade, black staining with an odor was found with photoionization detector (PID) readings from 10.7 to 28.4.

Photo #10: Concrete and metal debris found abundantly throughout the test pit.
Photo #11: Test pit overview

Pit#: GSP-TP-6



Photo #12: TP-6 (concrete)



Photo #13: TP-6 (debris)


Photo #14: TP-6 (lithology)


Photo #15: TP-6 (overview)

DTW: NA

Dimensions: 30x11 feet.
Description: Brown, yellow-brown, loose, dry, SANDY SILT with gravel, rocks and debris from the surface to three feet below grade. From three to seven feet the lithology consists fine grained, moist SILTY SAND which is black and loose down to five feet and yellow-brown and compact down to seven feet below grade. The bottom depths of the test pit consisted of light gray, fine grained, compact, moist CLAYEY SILTY SAND from seven to 11 feet below grade.

Photo #14: Test pit lithology
Photo #15: Test pit overview

Pit#: GSP-TP-7


Photo #16: TP-7 (lithology)


Photo #17: TP-7 (overview)

DTW: NA

Dimensions: 30x10 feet.
Description: Brown, course grained, loose, dry SANDY SILT with organics was found from the ground surface to about one foot below grade where lithology changes to yellow-brown, tan, loose, moist SANDY SILT with rocks down to three feet below grade. Below three feet below grade the lithology consisted of yellow-brown, light gray, compact, moist, coarse grained CLAYEY SILTY SAND down to seven feet, followed by light gray, stiff, no plasticity, slightly moist SILTY CLAY to the bottom of the test pit.

Photo #16: Test pit lithology.
Photo #17: Test pit overview

Pit#: GSP-TP-8


Photo #18: TP-8 (angle iron and pipe)


Photo #19: TP-8 (hydraulic cylinder)


Photo #20: TP-8 (overview)

DTW: 7.5 feet below grade

Dimensions: 12x2x10 feet.
Description: Brown, medium grained, loose, dry, SANDY SILT organics were found from the surface to two and a half feet below grade, followed by yellow-brown, fine grained, loose, moist, SAND with some SILT down to five and a half feet. From five and a half feet to the bottom of the test pit at seven and a half feet, the lithology consisted of light gray, fine grained, loose, moist, SAND with some SILT.

Photo #18: Pipes and angle iron found near the surface
Photo #19: Hydraulic cylinder found about one foot below grade
Photo #20: Test pit overview

Pit#: GSP-TP-9



Photo #21: TP-9 (overview)

DTW: 9 feet below grade

Dimensions: 17x10 feet.

Description: Brown, loose, dry, course grained SILTY SAND with some organics and gravel were found from the surface to one foot below grade, followed by brown, yellow-brown, medium grained, compact, moist, SILTY SAND down to eight feet. From 8 feet to the bottom of the test pit at 10 feet below grade, the lithology consisted of light gray, medium grained, loose, moist, SILTY SAND.

Photo #21: Test pit overview

Pit#: GSP-TP-10



Photo #22: TP-10 (lithology)



Photo #23: TP-10 (overview)

DTW: 12 feet below grade

Dimensions: 17x12.5 feet.

Description: Brown, loose, coarse grained, dry SANDY SILT with organics was found

from the surface to three feet below grade. From three feet below grade to the bottom of the test pit at 12.5 feet, the lithology consisted of slightly compact, moist, medium grained SILTY SAND which was yellow-brown down to four feet, light gray down to six feet, and light gray and yellow-brown down to 12.5 feet.

Photo #22: Test pit lithology
Photo #23: Test pit overview

Pit#: GSP-TP-11


Photo #24: TP-11 (pipe)


Photo #25: TP-11 (overview)

DTW: 8 feet below grade

Dimensions: 30x8 feet.
Description: Loose, moist, fine grained SILTY SAND was found from the surface to the bottom of the test pit at eight feet below grade which was brown down to a foot, yellow-brown down to five feet, and light gray to eight feet. The lithology becomes compact at eight feet below grade.
Photo #4: Pipe found at about two feet below grade
Photo #5: Test pit overview

DTW: 8 feet below grade

Pit #: GSP-TP-12 (No Photos)

Dimensions: 30x8 feet.
Description: Brown, loose, dry, coarse grained SILTY SAND was found from the surface to one foot below grade followed by yellow-brown, medium grained, compact, moist CLAYEY SILTY SAND down to five and a half feet. From five and a half down to the bottom of the test pit at nine feet below grade, the lithology consisted of light gray, stiff, slightly moist, fine grained SILTY SANDY CLAY with some red-brown coloration from 8 to 9 feet.

APPENDIX D—SOIL-BORING AND SOIL-SAMPLE LOG SHEETS

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 112EC032 79
DRILLING COMPANY: ~~[illegible]~~ Grand Zero
DRILLING RIG: 6620 DT

BORING No.: GSP-SB-91
DATE: 6/1/11
GEOLOGIST: SBC
DRILLER: Corey

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-0.3					dark brn	Clayey silt, slightly moist & soft w/ trace organics, slightly moist						
	0.3-1					cream	Sandy Silt, slightly compact, fine grained, slightly moist.						
	1-5					light brn	Silty Sand. Slightly compact, slightly moist, fine grained.						8.8
2	5-7		0%				No Recovery						
	7-7.3		60%				Same as above						
	7.3-8						Med grained, wet, loose sand w/ trace silt. loose						8.5
	8-9.5				mottled purple	cream	Siltly low plasticity clay, soft, slightly moist.						
	9.5-10				mottled cream	purple	Med grained sand w/ trace silt. Loose, wet.						
3	10-15		100%				Same as above Saturated						7.3
4	15-19.5		100%				Same as above saturated						6.1
	19.5-20				mottled	cream orange	Silty clay. Hard & slightly moist						
5	20-24		100%		mottled	purple cream	Med grained sand w/ trace silt. loose, saturated.						0.0
	24-25					grey	Silty clay, low plasticity, Hard, slightly moist.						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampling 0-2@, 8-10@, & 22-24@

Drilling Area Background (ppm):

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112103279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-92
DATE: 6/1/11
GEOLOGIST: Dawn Markiewicz
DRILLER: Jorge Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-1.0			Brn, wht	SANDY SILT, loose, dry, some gravel						
			1.0-2.5			Org-Brn, Tan	SILTY SAND, med.-grained, loose, moist.						
			2.5-4.0				SAA except compact and trace CLAY.						
			4.0-5.0				No Recovery.						
			5.0-7.0			Org-Brn	SAND, med-grained, loose, moist.						
			7.0-9.0				SAA except Lt. Grn w/ trace clay and compact.						
			9.0-9.5			Lt. Grn	SILTY CLAY, stiff, high plast, moist.						
			9.5-10.0			Org-Brn, Tan	SAND, med-grained, some silt, loose, moist.						
			10.0-15.0				SAA except Tan						
			15.0-19.5				SAA, some CLAY content from 19.0-~~20.0~~		19.5				
			19.5-20.0			Pnk, Tan	SILTY CLAY, hard, moist						
			20.0-23.5			Tan	SAND, some silt, loose, med-grained, wet.						
			23.5-24.0				SAA except Prp						
			24.0-25.0			Tan	SILTY CLAY, high plast, moist						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1414
6-8 @ 1415
20-25 @ 1420

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = 0.0
2-4 = 0.0
4-6 = 0.0
6-8 = 0.0
8-10 = 0.0
10-12 = 0.0
12-14 = 0.0
14-16 = 0.0
16-18 = 0.0
18-20 = 0.0
20-22 = 0.0
22-24 = 0.0
24-25 = 14.7

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112103237
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-93
DATE: 6/1/11
GEOLOGIST: Dawn Markiewicz
DRILLER: Jorge Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ.	Borehole**	Driller BZ**
			0.0-3"				DK. Brn, SANDY SILT, slt. compact, w/organics, moist						
			3"-4.5				Org-Brn, SANDY SILT, compact, v.-fine.-grained, slt. moist						
							↳Grading to SILTY SAND						
			4.5-5.0				Lt. Gry, CLAY, some silt, hard, no plast., slt. moist						
			5.0-10.0				Brn, SAND, some SILT, med-grained, loose, wet grading to moist. (intermittent Lt. Gray SILTY CLAY layers						
			10.0-14.0				SAA w/ Red @ 13.0' for a few inches.						
			14.0-14.5				Lt. GRY, CLAY, some SILT, high plast, moist						
			14.5-15.0				Brn, SAND, some SILT, med-grained, loose, moist						
			15.0-19.5				SAA						
			19.5-20				Lt. Gry, SILTY CLAY, hard, high plast, moist.						
							Lt. Gry, SILTY SAND, v. fine-grained, loose, moist.						
			20.0-25.0				Brn, Red-Brn, SAND, f.-grained, loose, moist.						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1221
12-14 @ 1225
22-24 @ 1230

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = 0.0
2-4 = 0.0
4-6 = 0.0
6-8 = 0.0
8-10 = 0.0
10-12 = 0.0
12-14 = 15.9
14-16 = 0.2
16-18 = 0.0
18-20 = 5.7
20-22 = 0.0
22-24 = 0.8
24-25 = 1.7

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 112IC03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: 620DT

BORING No.: GSP-SB-94
DATE: 6-1-11
GEOLOGIST: SBC
DRILLER: Corey

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
1	0-2		70%		Loose	Brown	Sandy Silt, Slightly moist, slightly compact, fine grained.							0.0
							Organics to 0.3'.							
	2-3					brn	Clayey Silt w/ some sand. moist, fine grained							
	3-3.5					orange brn	Med grained, moist sand. loose.							
	3.5-5						No Recovery							
2	5-7		40%			light brn	Med grained, wet sand. loose. well sorted							0.0
	7-10						No Recovery							
3	10-15		10%			light brn/green	Wet, Medium grained sand, loose, well sorted							0.0
4	15-19.8		10%				Same as above							0.0
	19.8-20					grey	Clayey silt. Slightly moist & hard.							
5	20-24.8		10%			light brn	Separated Wet medium grained sand, loose, well sorted.							0.0
	24.8-25					grey/green	High plasticity, slightly moist, hard clay.							

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampling 0-2 @ 1420 Sampling 6 @ 1430, & Sampling

Drilling Area Background (ppm): [ ]

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 112FC03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: 6620 DT

BORING No.: GSP-SB-95
DATE: 6/1/11
GEOLOGIST: SBC
DRILLER: Corey

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-3.5		10%			dark brn	Sandy silt w/ organics (grass/roots), fine grained, SM moist,						
|	3.5-5					light brn/ cream	Sandy silt, slightly loose, dry, fine grained.						20.0
|													2
|													
|													
↓													
2	5-6.5		100%				Same as above.						
|	6.5-7					light brn	~~Sandy silt~~ Silty sand. fine grained, SM Moist, slightly						28.0
|	[illegible]						loose.						
|	7-7.5					cream	High plasticity, Hard, slightly moist clay.						
|	7.5-8					light brn	Med grained sand. Wet, loose.						
↓	8-10		100%			cream	High plasticity, Hard, slightly moist clay.						15.4
3	10-13						Same as above						
|	13-[illegible]					cream	Clayey silt. Slightly moist & hard. Sand layer @ 11.5' is						
|							2" thick.						
↓													
4	[illegible]		100%			light brn	Medium grained, Saturated sand w/ some silt, loose.						122
|	17-20					cream	High plasticity, Hard, slightly moist clay. Sand layers 6" thick						
|							@ 18 + 19' bgs.						
|													
↓													
5	20-21		100%			cream	Silty clay, Slightly moist & Hard.						8.3
|	21-25					light brn/ cream	Fine to medium grained wet to saturated sand w/ trace						
|						orange mottled @ 21'	silt.						
|													
↓													

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): _____

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 112EC03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: G620 DT

BORING No.: GSP-SB-96
DATE: 6-1-11
GEOLOGIST: SPC
DRILLER: Corey

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-1.5		20%			dark brn	Sandy Silt, slightly moist w/ trace organics.						
	1.5-2.5					brn	Med grained Sand w/ trace silt. Moist, well sorted.						0.0
2	5-5.3		100%				Same as above (1.5-2.5 description)						0.0
	5.3-10					cream	Silt w/ trace Sand. Fine grained, Dry, Slightly Compact.						
3	10-11.5		100%			brn	Med grained Sand w/ trace silt. Moist & loose. well sorted.						0.6
	11.5-15					cream	Med plasticity, slightly moist, mixed clay w/ trace sand & silt.						
4	15-15.3		100%				Same as above.						0.6
	15.3-20					cream	~~Mix Clayey~~ silt w/ trace sand & clay. Moist to wet.						
5	20-21		100%				Same as above						0.0
	21-24					cream	Sandy Silt. Moist to wet, soft, slightly compact.						
	24-25				mottled	cream orange	Med plasticity, Moist to wet, mixed clay w/ trace sand & silt.						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampling 0-2 @ 1515, 6-8 @ 1530, & 22-24 @ 1545

Drilling Area Background (ppm): [ ]

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

Page 1 of 1

PROJECT NAME: GSP
PROJECT NUMBER: 112C03079
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-97
DATE: 6/7/11
GEOLOGIST: Dawn Markley/KZ
DRILLER: Jorge Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-1.0				DK. Brn, SANDY SILT, Compact, moist, organics.						
			1.0-3.0				Brn, Tan, SILTY SAND, f grading to c-grained, loose, moist						
			3.0-5.0				No Recovery						
			5.0-8.0				Brn, SAND, some silt, med-grained, wet, loose						
			8.0-9.0				Lt. Gry, SILTY CLAY, stiff, no plast., moist.						
			9.0-9.5				Lt. Gry, SAND, some silt, m-grained, trace clay.						
			9.5-10.0				Lt. Gry, SILTY CLAY, stiff, no plast, moist.						
			10.0-15.0				Brn grading to Lt. Gray, SAND, some silt, med grading to fine-grained, loose, wet.						
			15.0-16.0				Brn, SAND, some SILT, med-grained, loose, wet.						
			16.0-16.5				Lt. Gray, SILTY CLAY, stiff, no plast, moist.						
			16.5-20.0				Brn grading to Lt. Gry, SAND, some silt, med-grained to fine grained, higher silt content from 19.0-20.0' (Intermittent Lt. Gry SILTY CLAY layers)						
			20.0-24.5				Brn, SAND, some SILT, med-grained, loose, wet						
			24.5-25.0				Lt. Gry, SILTY SAND, v. f-grained, moist, loose						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1117
2-8 @ 1120

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = 0.0
2-4 = 0.0
4-6 = 0.0
6-8 = 0.0
8-10 = 0.0
10-12 = 0.0
12-14 = 0.0
14-16 = 0.0
16-18 = 0.0
18-20 = 0.0
20-22 = 0.0
22-24 = 0.0
24-25 = 0.0

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112103279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-98
DATE: 6/1/11
GEOLOGIST: Dawn Mackiewicz
DRILLER: Jorge Soto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-0.5			DK. Brn	SILT, w/ organics, compact, moist						
			0.5-2.0			Brn,	SILTY SAND, f-grained, slt. compact, moist,						
			~~2.0-3.0~~				some CLAY increasing w/ depth, sulfurous odor						
			2.0-3.0			Brn,	SILTY SAND, m-grained, loose, moist.						
			3.0-5.0			No Recovery							
			5.0-7.0			SAA grading to compact & wet grading to moist							
			7.0-10.0			Lt. Grg,	SILTY CLAY, compact, no plast, slt. moist						
			10.0-12.0			Brn,	SAND, some silt w/ intermittent clay layers, med-grained						
			12.0-14.5			Lt. Grg,	SILTY CLAY, compact, no plast, slt. moist.						
			14.5-15.0			Brn & Lt. Grg,	SAND, fine-grained, loose, moist.						
			15.0-17.0			SAA,	wet						
			17.0-19.5			SAA	~~wet~~						
			19.5-20.0			Lt. Grg,	SILTY SAND, v. fine-grained, slt. compact, moist.						
			20.0-25.0			Lt. Grg,	SAND, some silt, intermittent Lt. grg Clay lages f-grained, loose, wet grading to moist.						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1519
6-8 @ 1525

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = 0.0
2-4 = 0.0
4-6 = 0.0
6-8 = 0.0
8-10 = 0.0

10-12 = 0.0
12-14 = 0.0
14-16 = 0.0
16-18 = 0.0
18-20 = 0.0

20-22 = 0.0
22-24 = 0.0
24-25 = 0.0

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112c03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620 DT

BORING No.: GSP-SB-[redacted]99
DATE: 6/2/11
GEOLOGIST: Dawn Markiewicz
DRILLER: Jorge Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-0.5				DK Brn to Brn, SILT, compact, moist.						
			0.5-2.5				Blk Tan, SILTY SAND, fine-grained, compact, moist.						
			2.5-3.5				DK. Brn, Brn, [redacted] Sand, some silt, med-grained, loose, m						
			3.5-5.0				No Recovery						
			5.0-6.0				SAA						
			6.0-6.5				SAA + Lt. Gry, SILT, compact, moist.						
			6.5-10.0				Lt. Gry, SILT, compact, moist.						
			10.0-12.5				Brn, SAND, trace silt, loose, c-grained, moist.						
			12.5-13.5				Lt-Gry, SILTY CLAY, stiff, med-plast., slt. moist.						
			13.5-15.0				Brn, Org-Brn, SAND, some silt, m-grained, loose, moist, w/ intermittent Lt. Gry SILTY CLAY layers.						
			15.0-20.0				Lt. Gry grading to Org-Brn, SAND, some silt, loose, wet grading to moist.						
			20.0-25.0				Brn, SAND, some silt, Med-grained, loose, wet to moist						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1148
6-8 @ 1153

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = 0.0
2-4 = 0.0
4-6 = 0.0
6-8 = 0.0
8-10 = 0.0

10-12 = 0.0
12-14 = 0.0
14-16 = 0.0
16-18 = 0.0
18-20 = 0.0

20-22 = 0.0
22-24 = 0.0
24-25 = 0.0

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112103279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-100
DATE: 6/2/11
GEOLOGIST: Dawn MacKenzie
DRILLER: Jorge Soto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-4.0				Brn, Lt Gry, SILT grading to Sandy SILT, compact, med-grained, dry to Slt. moist						
			4.0-5.0				No Recovery						
			5.0-8.5				Brn, Org-Brn, SILTY SAND, c-grained, compact, moist Lt grading to med.						
			8.5-10.0				Brn, SILTY CLAYEY SAND, compact, f-grained, moist						
			10.0-25.0				SAA except wet grading to moist						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: 2-4 @ 1415
6-8 @ 1420

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = 0.0
2-4 = 51.9
4-6 = 0.0
6-8 = 0.0
8-10 = 0.0
10-12 = 0.0
12-14 = 0.3
14-16 = 0.0
16-18 = 0.0
18-20 = 0.0
20-22 = 0.0
22-24 = 0.0
24-25 = 0.0

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112rc03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-101
DATE: 6/2/11
GEOLOGIST: Dawn Mackiewicz
DRILLER: Jorge Socks

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-0.5				Gry, BLK, SANDY SILTY GRAVEL, loose, c-grained, dry.						
			0.5-1.5				BLK, SILT, some sand, compact, weak cementation, dry.						
			1.5-3.0				Brn, SILTY SAND, f-grand, compact, weak cementation, moist. (some clay content from 2.5-3.0)						
			3.0-3.5				Brn, SILTY SAND, med-grained, loose, moist.						
			3.5-5.0				No Recovery.						
			5.0-6.5				SAA						
			6.5-7.0				SAA + some clay = Lt. Gry, Brn.						
			7.0-7.2				Lt. Gry, CLAY, some silt, hard, no plast, moist.						
			7.2-8.5				Red-Brn, SILTY SAND, fine-grained, trace clay content, slt compact, moist.						
			8.5-10.0				No Recovery.						
			10.0-12.0				Brn, SAND, some SILT, med-grained, loose, moist grading to wet						
			12.0-14.5				Brn, PnK, SILTY CLAYEY SAND, compact, f-grained, moist.						
			14.5-15.0				No Recovery						
			15.0-16.5				SAA						
			16.5-20.0				Lt. Gry grading to PnK-Gry grading to Gry, CLAY, trace silt, Stiff, mod. plast., moist						
							Lt. Brn						
			20.0-21.0				Lt. Brn, SANDY SILT, wet.						
			21.0-23.5				DK Gry, SILTY CLAY, mod plast., Stiff, moist.						
			23.5-25.0				No Recovery.						

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 10.5
2-8 @ 10.5

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = 0.0
2-4 = 0.0
4-6 = 0.0
6-8 = 0.0
8-10 = 0.0
10-12 = 0.0
12-14 = 0.0
14-16 = 0.0
16-18 = 0.0
18-20 = 0.0
20-22 = 0.0
22-24 = 1.7
24-25 = N/A

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 112C03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: 620 DJ

BORING No.: GSP SB 102
DATE: 6/2/11
GEOLOGIST: SBC
DRILLER: @ Corey

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-2		70%			brn	Gravelly, Sandy Silt, Dry, loose, poorly sorted						0.0
	2-3.5					light brn	Silty gravel. Dry, poorly sorted angular gravel.						
	3.5-5						No Recovery						
2	5-7		100%				Same as above (2-3.5 description)						
	7-9					Red brn	Med plasticity, silty, sandy clay w/ trace gravel, ~~Dry~~						0.0
	@						Slightly moist.						
	9-10					grey	Silty gravel. Dry. Poorly sorted angular gravel. Dry.						
3	10-12.5		100%				Same as above						0.0
	12.5-13					BLK	Silty poorly sorted med grained sand w/ trace gravel						
	13-15					brn	Silty Sand w/ rounded coarse grained gravel. Moist, loose						
4	15-15		100%				Same as above						0.0
	15.5-17					grey/brn	Silty Sandy poorly sorted angular grained gravel. Dry, Loose						
	17-19					dark brn	Gravelly, sandy silt, slightly moist, rounded, poorly sorted gravel						
							Compact,						
	19-20					cream	fine grained, moist, well sorted sand, Compact						
5	20-22.5		100%			cream	Same as above						0
	22.5-25					cream	High plasticity, slightly moist, Moderately hard.						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sample @ 0-2 @ 1110, & 6-8 @ 1230

Drilling Area Background (ppm): ____

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112103279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-103
DATE: 6/2/11
GEOLOGIST: Dawn Markiewicz
DRILLER: Jorge Soto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-3"				DK. Brn, SILTY CLAY, some med-grained sand and organics, soft, moist						
			3"-4.0				Tan, Org-Brn, SANDY SILT, compact, m-grained, moist. Some CLAY content @ 4.5'-5.0'						
	5		4.0-5.0				Red-Brn, SILTY SAND, slt. compact, f-grained, moist.						
			5.0-6.0				SAA + CLAY content.						
			6.0-10.0				Lt. Grn, SILTY CLAY grading to CLAYEY SILT, stiff/compact, slt. moist.						
	10		10.0-15.0				No Recovery (cave in material)						
			10.0-15.0				Lt. Grn, SILTY CLAY grading to CLAYEY SILT, stiff/compact, low plast, slt. moist.						
			15.0-30				Brn, Red-Brn, Lt. Grn, SILTY SAND, loose, f-grained, mor						
	15		13.0-14.0				Lt. Grn, Yel-Brn, CLAYEY SILTY SAND, compact, moist.						
			15.0-30				Tan, SAND, some SILT, intermittent Clay layers, Wet						
	20												
	25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2@0855
6-8@0859

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No X Well I.D. #: _____

0-2 = 0.0
2-4 = 0.0
4-6 = 0.0
6-8 = 0.0
8-10 = 0.0
10-12 = 0.0
12-14 = 0.0
14-16 = 0.0
16-18 = 0.0
18-20 = 0.0
20-22 = 0.0
22-24 = 0.0
24-25 = 0.0

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 112EC03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: 620 DT

BORING No.: GSP-SB-104
DATE: 6-1-11
GEOLOGIST: SBC
DRILLER: Corey

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
1	0-3		100%			Brn	Silt w/ trace fine grained sand. Dry, slightly loose.							10.2
	3-3.5				mottled	brn cream	Sandy, thin silt, fine grained, slightly moist & soft.							
	3.5-5					brn	Med grained, slightly moist sand. loose.							
2	5-8		100%				Same as above. Saturated							1.9
	8-8.5					light brn	Silty sand w/ trace clays. Slightly moist.							
	8.5-10					light brn	Med grained, slightly moist sand. loose							
3	10-15		0%				No Recovery due to saturated sand.							2.2
4	15-20		100%				Same as above (8.5-10' description) saturated.							3.1
5	20-25		100%				Same as above (8.5-10' description) saturated.							4.3

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 sampled @ 1000, 6-8 sampled @ 1015, 22-24 @ 1030

Drilling Area Background (ppm):

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112sc.03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-105
DATE: 6/2/11
GEOLOGIST: Dawn Markiewicz
DRILLER: Jorge Soto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-1.0				Brn, Blk, SILTY SANDY GRAVEL, coarse-grained, loose, dr						
			1.0-2.5				Brn, SANDY SILT, compact, slt. moist.						
			2.5-4.0				Brn, Red-Brn, SILTY SAND, trace CLAY, compact, fine-grained, mois						
			4.0-5.0				No Recovery						
			5.0-7.0				~~Brn, Blk~~ Lt. Gry, Yel-Brn, SILTY SAND, coarse-grained grading to SILT, compact, slt. moist.						
			7.0-9.0				Red, Lt. GRY, SILTY SAND, v. fine-grained w/ intermittent 1/2" Lt. Gry CLAY Layers.						
			9.0-10.0				No Recovery.						
			10.0-12.5				Brn, Red-Brn, CLAYEY SILTY SAND, f-grained, slt. loose, wet.						
			12.5-13.0				Lt. Gry, CLAY, some silt, high plast., slt. moist, stiff.						
			13.0-14.5				Brn, CLAY, some silt, high plast., slt. moist, stiff.						
			14.5-15.0				DK. Gry, CLAY, hard, no plast, slt. moist.						
			15.0-19.0				SAA						
			19.0-20.0				No Recovery						
			20.0-20.5				BLK, SILT, loose, some fine-grained sand, slt. moist.						
			20.5-21.0				SAA except GRN-Brn						
			21.0-22.5				Org-Brn, Blk, CLAYEY SILTY SAND, fine-grained, loose						
			22.5-24.0				DK. Gry, CLAY, hard, no plast., slt. moist.						
			24.0-25.0				No Recovery						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 0942
6-8 @ 0945

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = 0.0
2-4 = 0.0
4-6 = 0.0
6-8 = 0.0
8-10 = 0.0
10-12 = 0.0
12-14 = 0.0
14-16 = 0.0
16-18 = 0.0
18-20 = 0.0
20-22 = 0.0
22-24 = 0.0
24-25 = 0.0

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112rc03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-106
DATE: 5/1/11
GEOLOGIST: Dawn Mackiewicz
DRILLER: Jorge Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-0.5		Brn, SANDY SILT, organics, compact, moist week cementation								
			0.5-2.0		Brn, Yel-Brn, SILTY SAND, compact, moist, c-grained								
			2.0-3.0		Blk to Grn-Gry, SILT, some c.-grained sand, compact moist, organics								
			3.0-4.0		Brn, SILTY CLAY, stiff, no plast, moist, sand @ very en								
			4.0-5.0		No Recovery								
			5.0-5.5		Brn, SANDY SILT, compact, moist								
			5.5-8.5		Gry-Brn grading to ~~gr~~ org-brn, SAND, some silt, f-grained, loose, moist								
			~~8.5-9.0~~										
			8.5-9.0		Wht, ~~[illegible]~~, CLAYEY SILT, compact, moist.								
			9.0-10.0		No Recovery.								
			10.0-12.0		Brn, SAND, med-grained, loose, wet, w/ lt. gray CLAY nodules								
			12.0-13.0		Lt. Gry, CLAYEY SILTY SAND, compact, moist, f-grained								
			13.0-15.0		Brn, SAND, med-grained, loose, wet, w/ Lt. gray CLAY no nor								
			15.0-17.5		Brn, SAND, loose, f-grained, wet.								
			17.5-20		Lt. Gry, SANDY SILTY CLAY, stiff, high plast, moist								
			20-25.0		Brn grading to Lt. Gry, SAND, f-grained, loose, wet								

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1010
6-8 @ 1015
20-22 @ 1020

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2=0.0
2-4=0.0
4-6=0.5
6-8=0.0
8-10=0.0
10-12=0.0
12-14=0.0
14-16=0.0
16-18=0.0
18-20=0.0
20-22=0.0
22-24=0.0
24-25=2.4

Tetra Tech NUS, Inc.

BORING LOG

Page 1 of 1

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 112T00327.4
DRILLING COMPANY: Ground Zero
DRILLING RIG: 620 D1

BORING No.: GSP-SB-107
DATE: 6-2-11
GEOLOGIST: SBC
DRILLER: Corey

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-0.5		90%			dark brn	Sandy Silt w/ trace gravel & organics, moist		Soft.				
	0.5-2.5					brn	Sandy Silt, moist & hard becoming soft @ 2.75'.		Fine				0.0
	2.5-4						grained.						
	4-4.5					brn	Silty fine grained sand, moist, slightly loose.						
↓	4.5-5					mottled cream brn	Clayey silt w/ some sand + trace gravel. slightly moist & hard						
2	5-7.5		0%				No Recovery						0
	7.5-8					light brn	fine grained ~~moist~~ wet sand w/ some silt. slightly compact						0.0
	8-10					red/brn & cream mottled	Silty fine grained sand, moist, well sorted						
↓						light brn	Fine to medium grained sand w/ trace silt, moist loose						
3	10-14		100%				Same as above, wet						0.0
	14-15					cream	Silty fine grained sand, slightly moist & compact.						
↓													
4	15-20		100%			brn	Fine to medium grained sand w/ trace silt. Saturated, loose.						0.0
↓													
5	20-25		100%			light brn	Same as above						
↓													

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampling from 0-2 @ , & 6-8 @ .

Drilling Area Background (ppm): ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 116TCO279
DRILLING COMPANY: Ground Zero
DRILLING RIG: 6620 DT

BORING No.: GSP-SB-108
DATE: 6/2/11
GEOLOGIST: SBC
DRILLER: Carey

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-1.5		50%		mottled	red brn	Med plasticity, med hard clay w/ trace sand. Slightly moist.						
	1.5-2.5				mottled	red brn	Low plasticity silty, sandy clay w/ trace fine gravel/gravel, moist & soft						
	2.5-3						No Recovery						
2	5-10		100%				Same as above (1.5-2.5 description)						
3	10-15		100%			brn	Same as above (1.5-2.5 description). Very Soft & wet from 14.5-15', increased gravel & sand.						
4	15-16						Same as above						
	16-16.5				mottled	red cream	Silty sand w/ some gravel. Saturated, fine grained sand, loose, wet						
	16.5-17.5					brn	Sandy Silt w/ some gravel. Poorly sorted, slightly moist						
	17.5-18.5					gray brn	& slightly compact.						
	18.5-20					gray	Low Plasticity Silty clay w/ trace sand. Soft & moist.						
5	20-21.5				mottled	orange cream	Sandy silt, hard, slightly moist, fine grained, compact						
	21.5-22.5				mottled	cream brn	Low Plasticity Silty Clay, Slightly moist & soft						
	22.5-23					cream	fine grained sand w/ trace silt, wet, compact.						
	23-25				mottled	cream brn	Clayey Silt, slightly moist, compact.						
					mottled	brn gray	Very Soft, low plasticity, Silty clay w/ trace sand, Moist to wet.						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampled 0-2 @ , & Sampled 6-8@ .

Drilling Area Background (ppm): ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 112IC03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: 6620 DT

BORING No.: GSP-SB-109
DATE: 6-2-11
GEOLOGIST: SBC
DRILLER: Carey

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
	0-.5					grey	Silty, Poorly Sorted gravel, Dry loose.		(Fill)					0.0
	.5-5						No Recovery							
	5-6						Same as above (0-.5 description)							0.0
	6-7					red/brn	High plasticity, Moderately hard clay, slightly moist. (Fill)							
	7-10						No Recovery							
	10-11						Same as above (6-7 description) w/ trace gravel (Fill)							0.0
	11-11.2					grey	Silty poorly Sorted gravel, Dry, loose. (Fill)							
	11.2-12					Blk	Gravelly, Sandy silt. Moist, poorly sorted, loose (fill)							
	12-15						No Recovery.							
	15-15.5					red/brn	Med plasticity, soft clay w/ some sand + silt. Wet.							0.0
	15.5-16.5				mottled	cream brn	Silty med grained sand. Slightly compact + slightly moist							
	16.5-17					grey	Med grained wet sand w/ trace silt. Loose.							
	17-20						No Recovery							
	20-23				mottled	cream orange	Low plasticity, Soft clay w/ trace sand. Moist.							0.0
	23-23.5					grey	Fine grained silty sand. wet/saturated, loose							
	23.5-24.5				mottled	cream orange	Silty Clay w/ trace sand. Slightly moist, compact.							
	24.5-25				mottled	cream orange	Sandy silt w/ trace clay Moist, compact.							

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampling from 0-2 @ 0.5, 6-8 @ 0.0, ~~[illegible]~~

Drilling Area Background (ppm):

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 112IC 03479
DRILLING COMPANY: Grand 200
DRILLING RIG: 6620 DT

BORING No.: GSP-SB-110
DATE: 6/2/11
GEOLOGIST: SBC
DRILLER: Corey

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-2		60%			brn	Sandy Silt w/trace gravel. Slightly moist to dry, slightly compact						
	2-2.5					red/brn	Med/High plasticity clay w/ trace sand. Slightly moist & hard.						
	2.5-3					wht/grey	Silty gravel. Poorly sorted, angular grains. Dry, loose.						
	3-5						No Recovery						
↓													
2	5-8		65%				Same as above (2.5-3 description)						
	8-9					red/brn	Sandy Silt w/ trace gravel & clay. Moist & soft.						
	9-10						No Recovery						
↓													
3	10-12		80%			wht/grey	Silty gravel. Poorly sorted, angular grains, Dry, loose						
	12-12.5					red mottled brn	Red/high plast clay, slightly moist w/ trace sand, med hard						
	12.5-13.5					brn/blk	Gravelly, Sandy Silt, poorly sorted, slightly moist.						
	13.5-14					Blk	Sandy silt, Soft, wet w/ some organics.						
↓	14-15						No Recovery						
4	15-17		100%			brn/grey	Gravelly, Sandy Silt, Slightly moist to dry, loose						
	17-20					light brn	Med grained well sorted sand, Wet, compact.						
↓													
5			0%				No Recovery						
↓													

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampled from 0-2 @ 1100 & CY @ 1110

Drilling Area Background (ppm): ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

Page 1 of 1

PROJECT NAME: GSI Phase II
PROJECT NUMBER: 112-C032-79
DRILLING COMPANY: Ground Zero
DRILLING RIG: C620 DT

BORING No.: GSI-SB-111
DATE: 6-3-11
GEOLOGIST: SBC
DRILLER: George Sapp

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
	0-2.5				mottled	reddish brown / cream	Sandy silt w/ trace gravel, slightly moist							0.0
	2.5-5					grey	Sandy silt w/ trace clay, moist to soft, fine grained							
	5-7						Same as above, &							
	7-10					grey	Low plasticity, slightly moist clay w/ some silt							11.0
	10-15						Same as above. Sandy silt 6" thick @ 14', slightly moist, soft, cream							13.2
	"													
	15-20						Same as above. Sandy silt 1' thick @ 16.5', slightly moist, soft, cream.							15.4
	20-25						Same as above, 45° sand seam @ 22.5', fine gravel, Dry, orange brn.							18.0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampling 0-2 @ 0915, 6-8 @ 0930, 22-24 @ 0945.

Drilling Area Background (ppm): ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

Page 1 of 1

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 112IC 03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: 6620 DT

BORING No.: GSP-SB-112
DATE: 6-3-11
GEOLOGIST: SBC
DRILLER: George Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-2		100%			red/brn	Sandy Silt w/ trace gravel. Trace organics to 0.5'. Dry, slightly compact						0.0
	2.5-2.5					orange	Silty fine grained sand. Slightly moist + loose						
	2.5-5					brn	Sandy Silt w/ trace gravel. Moist + soft.						
2	5-10					gray	Med plasticity soft clay, moist. Becomes hard + slightly moist @ 12.5'.						0.0
3	10-15					gray	Same as above						0.0
4	15-20						Same as above. Black organic seams @ 17 + 19'.						0.0
5	20-20.5						Same as above.						0.0
	20.5-24.5					gray/brn	Fine grained saturated sand w/ trace silt, loose.						
	24.5-25					gray	Sandy silt. Slightly moist to moist, fine grained sand, compact.						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampling 0-2 @ 1020, 6-8 @ 1030,

Drilling Area Background (ppm):

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112ic03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-113
DATE: 6/1/11
GEOLOGIST: Dawn Markiewicz
DRILLER: Jorge Soto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-2.0				Lt. Brn SANDY SILT, compact, weak cementation, Slt. moist						
			2.0-4.0				Lt. Brn, SILTY SAND, med-grained, compact, moist						
			4.0				SAA + Gravel and Gry						
	5		4.0-5.0				DK. Brn, CLAYEY SANDY SILT, compact, m-grained, moist						
			5.0-6.0				SAA						
			6.0-8.0				Lt. GRY, SANDY SILT, compact, f-grained, Slt. moist. L>grading to SILTY SAND.						
			8.0-10.0				No Recovery						
	10		10.0-11.0				DK. Gry & Lt. Gry, SANDY SILTY CLAY, soft, Slt moist.						
			11.0-13.0				Lt. Gry, SILTY SAND, F.-grained, L>Grading to Red-Brn						
			13.0-14.0				DK. Gry, Yel-Brn, SILTY CLAY, compact,						
	15		14.0-15.0				Lt. Gry, Yel-Brn, SILTY SAND, loose, f.-grained, mo Lt. Gry SILTY CLAY @ very end.						
			15.0-19.5				Lt. Gry, SILTY SAND, wet, f-grained.						
			19.5-20.0				Lt. Gry, SILTY CLAY, high plast, stiff						
	20		20.0-24.5				Lt. Gry, SILTY SAND, F.-grained, wet, loose.						
			24.5-25.0				Lt. Gry, SILTY CLAY, high plast., stiff.						
	25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 0859
6-8 @ 0905
22-24 @ 0907

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = 0.6
2-4 = 0.8
4-6 = 2.1
6-8 = 5.9
8-10 = ~~0.5~~ N/A

10-12 = 0.5
12-14 = 0.0
14-16 = 0.0
16-18 = 0.0
18-20 = 0.0

20-22 = 0.0
22-24 = 0.2
24-25 = 0.8

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 112IC03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: 6620 DT

BORING No.: GSP-SB-114
DATE: 6/1/11
GEOLOGIST: SBC
DRILLER: Corey

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-2'		90%			red/brn	Sandy Silt, slightly moist, trace organics, + trace fine gravel.						16.9
	2-2.5					light brn	Silty Sand, Slightly moist, fine grained, w/ trace fine gravel.						
	2.5-3.5					dark grey/brn	Sandy Silt, slightly moist, w/ trace fine gravel						
	3.5-4.0					cream	blk/brn. High plasticity, Moist clay w/ trace sand. Black organic piece						22.2
	4.5		0%				found @ 3.8'.						
2	5-6.5		100%		brn mottled	dark blk.	Sandy Silt, slightly moist, w/ trace fine gravel.						31.9
	6.5-10				mottled	cream brn.	Silty, Low plasticity clay. Slightly moist. Med. hard.						
													31.1
3	10-14		80%				Same as above.						39.5
													40.1
	14-15		0%										38.9
4	15-15.5		100%				Same as above (6.5-10 description).						
	15.5-15.6				mottled	brn blk	Silty fine grained sand. Moist to wet. Some organics +						50.9
							Staining present.						
	15.6-20					grey	Med plasticity clay w/ trace silt. Slightly moist + hard.						34.8
5	20-21.5		100%				Same as above						44.9
	21.5-22.5					grey	Sand w/ some silt. Saturated, fine grained, soft.						
	22.5-25						Med plasticity clay w/ trace silt. Slightly moist to wet.						50.2

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampling 0-2, 6-8, + 22-24

Drilling Area Background (ppm):

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME:
PROJECT NUMBER:
DRILLING COMPANY:
DRILLING RIG:

BORING No.: GSP-SB-115
DATE: 8/31/11
GEOLOGIST:
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-5		32"	0.0-0.5			D. Brown Silty Clay, w/ med fine gravel content, dry.			0.0			
				0.5-2.0			Orange F-g sand w/ trace fine gravel, sl. moist		GSP-SB-115-0-2 @ 1505				
				2.0-~~5.5~~ 6.5			D. Brown to black sandy clay, clean sl. moist, stiff low plasticity			0.0			
2	5-10		16"	6.5-7.0			L. Brown sandy clay, saturated v. loose, low plasticity			0.0			
				7.0-10.0			NO Recovery		GSP-SB-115-10-12 @ 1510				
3	10-15		60"	10.0-10.5			Brown F-G sand, clean med. dense, saturated						
				10.5-11.0			Gray to Red Sandy clay soft, saturated, low plasticity			0.0			
				11.0-14.5			D. Brown / Red Silty Clay clean, very stiff, dry						
				14.5-15.0			Gray to Red Sandy Clay soft, wet, low plasticity			0.0			
4	15-20		60"	15.0-18.5			Tan F.G. Sand, clean saturated, med dense						
				18.5-19.0			SAA, dark brown			0.0			

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #:

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: _____
PROJECT NUMBER: _____
DRILLING COMPANY: _____
DRILLING RIG: _____

BORING No.: GSP-SB-115
DATE: 5/31/11
GEOLOGIST: _____
DRILLER: _____

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
				19.0-20			D. Brown to black			0.0			
							Silty clay, clay						
							V. Stiff, low						
							plasticity, moist			30.0			
S	20-25		20"	20-21.5			L. Brown F sand						
							Sandy, clay dense		GSP-SB-115-[illegible]				
							saturated		@ 1515	0.0			
				21.5-25			NO Recovery						
							25-EOB						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: _____

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GP Phase I
PROJECT NUMBER: 112TC03271
DRILLING COMPANY: Ground Zero
DRILLING RIG: 6620 DT

BORING No.: GP-SB-116
DATE: 6-3-11
GEOLOGIST: SBL
DRILLER: Geuse Soltz

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-4.5		80%		mottled	brn red/brn	Sandy Silt w/ trace gravel. Dry, compact, fine grained. Trace organics.						0.0
	4.5-7					brn	Silty Fine grained sand. Dry, loose.						
	7-9					grey	Sandy Silt. Slightly moist to dry. Compact. fine grained						
	9-5						No Recovery						
2	5-8		60%			grey	Clayey Silt w/ trace sand. Slightly moist & soft						0.0
							becoming hard @ 6".						
	8-10						No Recovery						
3	10-13		100%				Same as above (5-8 description). very soft & very wet.						0.0
	13-14					grey	Med grained sand w/ trace silt. Saturated, loose.						
	14-15				mottled	dk grey purple	High plasticity, hard clay w/ trace silt. Slightly moist.						
4			0%				Saturated sand probable						0.0
5			0%				Saturated sand probable						0.0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampled 0-2 @ 1115, & Sample 6-8 @ 1145.

Drilling Area Background (ppm): ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112C03279
DRILLING COMPANY:
DRILLING RIG:

BORING No.: GSP-SB-117-
DATE: 5/31/11
GEOLOGIST: JND
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-5		48"	0'-1'			L. Brown Sandy Clay			0.0			
							Loam, sl. moist						
				1-1.2			Fine-grained gravel						
							w/ trace sandy clay						
							Contact, dry		GSP-SB-117-0-2				
				1.2'-2.0			Brown Silty Clay		@ 1315				
							w/ trace fine grained						
							Contact, sl. moist						
							low plasticity						
				2.0-5.0			Black to D. Brown			0.0			
							silty clay; clean,						
							stiff, sl. moist						
			50"				low plasticity						
2	5-10		5-10	5.0-10.5			Yellowish orange silty			0.0			
							clay; clean med stiff						
							sl. moist to moist		GSP-SB-117-@ 1330	6-8			
							low plasticity						
3	10-15		60"	10.5-11.0			SAA; saturated			0.0			
				11.0-12.5			L. Brown silty clay;						
							clean; med. stiff						
							moist, low plasticity						
				12.5-13.0			Orange silty clay;						
							clean; med stiff;			0.0			
							wet, low plasticity						
				13.0-15.5			D. Brown Silty Clay; clean						

sl. moist to moist; low plasticity, med stiff

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes _____ No _____ Well I.D. #:

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME:
PROJECT NUMBER:
DRILLING COMPANY:
DRILLING RIG:

BORING No.: GSP-SB 117
DATE:
GEOLOGIST:
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
				14.5-			D. Brown Clay, clean			0.0			
							~~Mor~~ wet; saturated						
							Soft						
4	15-20		40"	15.0 -			Olive Gry to L. Brn						
				15.5			Sandy Clay, V. soft						
							saturated						
				15.5-			D. Brown Clay,			0.0			
				17.0			moist; v. ~~stiff~~ stiff						
							low - med, plasticity						
				17.0			L. Brn F.G						
				17.5			sand; saturated /			6.9			
							V. soft		GSP-SB-117 - 20-22				
5	20-25		42"	20-			Dark Brn Sandy Clay; med		@ 1345	0.0			
				23			stiff; saturated						
							low plasticity						
				23-			No Recov			0.0			
				25									
							25- EOB						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes _____ No _____ Well I.D. #:

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER:
DRILLING COMPANY:
DRILLING RIG:

BORING No.: GSP-SB-118
DATE: 5/31/11
GEOLOGIST:
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-5		36"	0-2			Light Brown Sandy Clay, sl. moist stiff		GSP-SB-118-0-2 @ 1130	0.0			
				2-4.5			Brown & D. Brown Sandy Clay, s.ft to v. soft; wet						
				4.5-5.5			Black, sandy clay w/ trace fine gravel; stiff wet			0.0			
2	5-10		60"	5.5-7.0			L. Brown to Gray Silty Clay Loam, sl. moist; stiff		GSP-SB-118-6-8 @ 1145	0.0			
				7.0-10.5			L. Brown / Gray Clay med. stiff, low plasticity, sl. moist to dry			0.0			
3	10-15		48"	10.5-11.5			D. Brown Sandy Clay w/ trace fine Gravel coated, v. soft, sl moist			36.3			
				11.5-14.5			Gray clay, clean, v. stiff sl. moist, low plasticity			30.0			
				14.5-15.5			Gray to L. orge Sandy Clay, clean, soft low plasticity, moist			40.0			
4	15-20		58"	15.5-16.0			Gray Fg sand, loose wet			23.0			

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes _____ No _____ Well I.D. #:

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: _____
PROJECT NUMBER: _____
DRILLING COMPANY: _____
DRILLING RIG: _____

BORING No.: GSP-SB-118
DATE: 5/31/11
GEOLOGIST: JND
DRILLER: _____

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
				16.0 - 18.0			Gray to Black sandy clay, wet med. stiff, low plasty						
				18.0 - 19.0			SAA, saturated, loose			20.0			
				19.0 - 20.			Tan~~f~~/Gray			30.0			
							Sandy Clay, stiff sl. moist, low plasty			20.0			
5				20.0 - 24.5			Gray f-g sand saturated, v. loose		GSP-SB-118 - 20-22 @1200				
				24.5 - 25.0			f-m grained sand sl. moist, dense			16.3			
					25	EOB							

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): [ ]

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: _____
PROJECT NUMBER: _____
DRILLING COMPANY: _____
DRILLING RIG: _____

BORING No.: GSP-SB-119
DATE: _____
GEOLOGIST: _____
DRILLER: _____

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-5		36"	0-1			L. Brown Silty			0.0			
							Clay Loam, clean						
							sl. moist						
				1-4.0			D. Brown Sandy Clay						
							clean, sl. moist		GSP-SB-119-0-2				
							med stiff, low		@ 1610				
							plasticity						
				4.0-			D. Brown to Black			0.0			
				6.0			sandy clay, med.						
							stiff, wet, low						
							plasticity			0.0			
2	5-10		60"	6.0-			L. Brown to Yellow						
				10.5			orange silty clay						
							clean; stiff						
							low plasticity, sl. moist			0.0			
3	10-15		60"	10.5-			D. Brown to Red		GSP-SB-119-10-12 @ 1620	0.0			
				15.5			silty clay, clean						
							v. stiff, sl. moist						
							sl. moist			0.0			
4	15-20		~~60~~ 36"	15.5			D. Brown to Black						
				~~12.0~~ 17.0			Clay, clean, soft			0.0			
				17.0			moist, med. plasticity						
				~~12.0~~ ~~14.0~~ 19.0			D. Brown to Maroon- silty clay, clean; v. stiff						
							low plasticity; sl moist						

* When rock coring, enter rock brokeness

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read

Remarks: _____

Drilling Area Background (ppm): _____

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: _____
PROJECT NUMBER: _____
DRILLING COMPANY: _____
DRILLING RIG: _____

BORING No.: GSP-SB-119
DATE: _____
GEOLOGIST: _____
DRILLER: _____

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
				19.0-20.0			No Recov			0.0			
S	20-25		60"	20.0			D. Brown to Red		GSP-SB-119-20-22				
				22.0			clay, soft, mod.		@ 1630				
							plastic, moist						
				22.0-			D. Brown to Red						
				25			S.lty Clay, clean			0.0			
							~~med st.~~ stiff,						
							low plastic						
							~~st. moist~~ moist						
							25' EOB						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): [ ]

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112102279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-120
DATE: 5/31/11
GEOLOGIST: Dawn Markiewicz
DRILLER: George Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-4.5				Brn grading to dk. brn, SANDY SILT, compact, weak cementation, dry grading to moist						
		100%											
			4.5-5.0				Gry, SANDY SILTY CLAY, no plast, some grave, moist, soft						
			5.0-6.0				Red-Brn, SANDY SILT, compact, weak cementation some organics, med.-grained, moist						
			6.0-8.0				SAA except Gry - wht w/ some gravel						
			8.0-9.7				Brn, SILTY Gravelly Sand, slt. compact, weak cementation, med.-grained, moist						
			9.7-10.0				SAA except Red						
			10.0-13.0				No Recovery.						
			13.0-16				SAA except Brn.						
			15.0-17.5				No Recovery.						
			17.5-20.0				Pnk-Brn, CLAY, high plast, soft, moist grading to gray & Yel-Brn.						
			20.0-23.0										
			23.0-24.5				Brn, Wht, SILTY SANDY GRAVEL, c-grained, loose.						
			24.5-25.0				Brn, CLAY, trace SILT, high plast.						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1405
6-8 @ 1408
13-20 @ 1410

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = 30.7
2-4 = 34.0
4-6 = 34.4

8-10 = 1.7
10-12 = 0
12-14 = 2.5
14-16 = 3.4
16-18 = —

18-20 = 0.0
20-22 = 0.0
22-24 = 0.0
24-25 = 0.2

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112G03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: DPT 6620DT

BORING No.: GSP-SB-121
DATE: 5/31/11
GEOLOGIST: Dawn Mackiewicz
DRILLER: George Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-2.0			Brn	SANDY SILT, w/ organics, moist,		compact, dry grading to				
			2.0-3.5			Brn, Blk	CLAYEY, SILTY SAND,		moist, compact				
			3.0-5.0				No Recovery						
			3.5-8.0			Blk, Brn	Gravelly Sand, loose, dry						
			5.0-6.0			Brn, Blk	SANDY, SILTY CLAY, soft, moist						
			6.0-8.0			Brn, Wht	SILTY SAND, compact dry to moist, med-grained						
			8.0-10.0				No Recovery						
			10.0-11.5			Brn	SILTY GRAVELLY, SANDY CLAY, med-grained, wet, Cmp						
			11.5-13.0			Brn	~~Compact~~ SANDY GRAVEL, Loose, coarse-grained						
			13.0-15.0				No Recovery						
			15.0-15.5				SAA						
			15.5-20.0			Pnk-Brn, Yel-Brn	CLAY, some silt, high plast, soft, mois						
			20.0-25.0				ALL LIQUID.						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-3 @ 1132
6-8 @ 1138
18-20 @ 1146

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2=0.0
2-4=0.0
4-6=0.0
6-8=0.0

8-10=0.0
10-12=0.0
12-14=0.0
14-16=0.0

16-18=0.0
18-20=0.0
20-22=0.0
22-24=0.0

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112c03879
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-122
DATE: 5/31/11
GEOLOGIST: Dawn Markiewicz
DRILLER: George Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-3.0			Brn,	SANDY SILT, some gravel, med-grained, slt. compact, slt. moist						
			3.0-5.0			SAA except no gravel and + BLK.							
			5.0-6.0			SAA							
			6.0-10.0			Lt. Brn,	SILTY SAND, f-grained, slt. compact, moist. Grading to tan.						
			10.0-18.0			SAA layers of Brn, Red-Brn, Grn							
			18.0-19			SAA + Wet							
			19.0-20.0			Tan, Yel-Brn,	CLAY, no plast., stiff, slt. moist.						
			20.0-24.5			Brn, tan, Grn,	SILTY SAND, slt. compact, f-grained, Wet to moist.						
			24.5-25.0			Brn, Yel-Brn,	SILTY CLAY, stiff, no plast, slt. moist						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: Sample: 0-2 @ 1523
6-8 @ 1526
20-22 @ 1530

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = 0.0
2-4 = 0.0
4-6 = 0.0
6-8 = 0.0
8-10 = 0.0

10-12 = 0.0
12-14 = 0.0
14-16 = 0.0
16-18 = 0.0
18-20 = 0.0

20-22 = 0.0
22-24 = 0.0
24-25 = 0.0

Tetra Tech NUS, Inc.

BORING LOG

Page 1 of 1

PROJECT NAME: GSP
PROJECT NUMBER: 112IC03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-123
DATE: 6/16/11
GEOLOGIST: Dawn Markiewicz
DRILLER: Jorge Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-2.0				DK Brn, SILT, w/ SAND & gravel, coarse-grained						
			2.0-3.0				Brn, SILT, trace clay, compact, slt. moist						
			3.0-4.0				Lt. Gry, Brn, SILTY SAND, compact, slt. moist						
	5		4.0-5.0				No Recovery						
			5.0-6.0				~~Lt. Gry, SILTY SAND, intermittent clay content, loose, moist~~ Lt. Gry, Brn, Yel-Brn, SILT, some sand, compact, slt. moist						
			6.0-8.0				Lt. Gry, SILTY SAND, f-grained, loose, moist						
			~~8.0-9.0~~				~~Lt. Gry, SILTY SAND, compact, moist~~						
	10		9.0-10.0				No Recovery						
			10.0-14.0				Lt. Gry, SILTY SAND, intermittent clay content, loose,						
			14.0-14.8				Lt. Gry, CLAYEY SILTY SAND, compact, moist						
	15		14.8-15.0				SAA except brn						
			15-20.				SAA						
	20		20.0-24.0				SAA						
			24.0-25.0				Brn, CLAY, some silt, high plast, moist						
	25												

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1155
6-8 @ 1158
~~20-22~~ @ 1203

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = ∅
2-4 = ∅
4-6 = ∅
6-8 = 2.3
8-10 = 4.0
10-12 = ∅
12-14 = 3.4
14-16 = 1.5
16-18 = ∅
18-20 = ∅
20-22 = ∅
22-24 = ∅
24-25 = ∅

Tetra Tech NUS, Inc.

BORING LOG

Page 1 of 1

PROJECT NAME: GSP
PROJECT NUMBER: 112G03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-124
DATE: 6/6/11
GEOLOGIST: Dawn Markiewicz
DRILLER: Jorge Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		0	0-1.5		DK.	Brn	SANDY SILT, w/ gravel, loose - compact, C-grained, dr						
		1.5	1.5-1.8			Blk	SILTY CLAY w/ organics, soft, no plast, slt. moist						
		1.8	1.8-2.0			Gry	Silt, some f-grained sand, compact, slt. moist						
		2.0	2.0-4.0			Lt. Gry, Yel-Brn	SILTY SAND, V. f-grained, compact, moist						
5		4.0	4.0-5.0				No Recovery.						
		6.0	6.0-6.5			Lt. Gry, Yel-Brn	SILTY SAND, V.f-grained, compact, moist.						
		6.5	6.5-8.0			Yel-Brn, Brn	SANDY SILTY CLAY grading to SILTY CLAY, stiff, no plast, slt. moist.						
10		8.0	8.0-10.0				No Recovery						
		10.0	10.0-14.0			Lt. Brn	SILTY SAND, trace clay, interbedded CLAY layers, V. soft, wet.						
		14.0	14.0-15.0		DK.	Brn	CLAY, some silt, stiff, high plast., moist.						
15													
		16.0	16.0-19.8			Lt. Gry, Lt. Brn, ~~Brn~~	CLAYEY SILTY SAND, loose, wet, fine-grained.						
20		19.8	19.8-20.0		DK.	Brn	SILTY CLAY, stiff, high plast, moist						
		20.0	20.0-24.5			Brn, Gry	SILTY CLAY, soft, high plast., moist						
		24.5	24.5-25.0			Gry	SILTY CLAY, stiff, high plast., moist.						
25													

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1305
~~2-8 @ 1308~~
~~20-22 @ 1311~~

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = ∅
2-4 = ∅
4-6 = ∅
6-8 = .9
8-10 = N/A
10-12 = ∅
12-14 = ∅
14-16 = ∅
16-18 = ∅
18-20 = ∅
20-22 = ∅
22-24 = ∅
24-25 =

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP Phase II
PROJECT NUMBER: 112G03279
DRILLING COMPANY: Grant Zeco
DRILLING RIG: 6620 DT

BORING No.: GSP SB-12S
DATE: 6 3-11
GEOLOGIST: SBL
DRILLER: George Sapp

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
1	0-0.5		100%			dark brn	Sandy silt w/ some organics, no sr						
	0.5-3				organics	brn	Med grained sandy silt w/ trace fine grained gravel. Slightly moist & soft.						
	3-5					grey	Clayey silt w/ some fine grained sand. Slightly moist & med hard,						
2	5-6		100%				Same as above. trace sand.						
	6-7					cream	High plasticity, hard, ~~dry~~ slightly moist clay,						
	7-10					mottled grey orange	Low plasticity silty clay. Hard & slightly moist.						
3	10-12		100%				Same as above						
	12-13.5					cream	High plasticity, hard, slightly moist clay, orange sand seam @ 13.5'.						
	13.5-15					grey	Low plasticity silty clay. Slightly moist, hard,						
4	15-19		80%				Same as above wood chips 1" thick @ 18'						
	19-20						No Recovery						
5	20-21		100%				Same as above						
	21-25						Silty clay, hard, slightly moist, compact,						
							1" med grained sand w/ trace silt @ 22.5, 23, 24						
							& 24.5' bgs. Cream mottled lt brn						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Sampling 0-2 @ 1200, & Sampling 6-8 @ 1215,

Drilling Area Background (ppm): [ ]

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112W03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-126
DATE: 12/6/11
GEOLOGIST: Dawn Markiewicz
DRILLER: Jorge Soto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-1.0				Lt. Gry, SANDY SILT, compact, some med.-coarsed gravel, dry, w/organics.						
			1.0-4.0				Lt. Gry, Org-Brn, Silty SAND, compact, f-grained, moist.						
			3.0-4.0				No Recovery						
			5.0-8.5				Brn, Lt. Gry, SAND, some silt, fine-grained, loose, moist.						
			8.5-10.0				No Recovery						
			10.0-14.0				SAA w/ intermittant clay layers						
			14.0-15.0				Brn, Lt-Brn, SILTY CLAY, v. Stiff, mod. plast., moist						
			15.0-19.5				Brn, SAND, some silt, f-grained, some intermittant CLAY, wet.						
			19.5-20.0				Brn, SILTY CLAY, stiff, high plast., moist.						
			20.0-25.0				Brn, SAND, some SILT, fine-grained, intermittant CLAY layers, loose, wet.						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1505
8-10 @ 1513
20-22 @ 1516

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = ∅
2-4 = ∅
4-6 = ∅
6-8 = ∅
8-10 = 1.7
10-12 = 1.5
12-14 = 1.5
14-16 = ∅
16-18 = ∅
18-20 = ∅
20-22 = ∅
22-24 = ∅
24-25 = ∅

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112IC03079
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe (6620DT)

BORING No.: GSP-SB-127
DATE: 6/16/11
GEOLOGIST: Dawn Markiewicz
DRILLER: Jorge Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-0.5				DK. Brn, SILT, trace Sand, organics, slt. compact, dry						
			0.5-3.5				Lt. Grey, Yel-Brn, SANDY SILT grading to SILTY SAND compact, f-grained, slt. moist, some intermittent clay layers.						
5			3.5-5.0				No Recovery						
			5.0-9.0				SAA w/o clay layers.						
10			9.0-10.0				No Recovery						
			10.0-15.0				SAA w/o clay layers						
15			15.0-19.0				SAA w/o clay layers.						
20			19.0-20.0				SAA w/o clay layers but w/ clay content.						
			20.0-23.0				Lt. Grey, SAND, some SILT, f-grained, loose, wet, w/ intermittent sand layers.						
			23.0-25.0				SAA + clay content (SILTY SAND)						
25													

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1555
2-6 @ 1558
20-22 @ 1601

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = ∅
2-4 = ∅
4-6 = ∅
6-8 = ∅
8-10 = ∅

10-12 = ∅
12-14 = ∅
14-16 = ∅
16-18 = ∅
18-20 = ∅

20-22 = ∅
22-24 = ∅
24-25 = ∅

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112C0329
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-128
DATE: 6/6/11
GEOLOGIST: Dawn Markiewicz
DRILLER: Jorge Soto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-0.5				Brn, SILT, some SAND, Organics, slt. compact, slt. moist						
			0.5-4.0				Lt. Brn, SILTY SAND, slt. compact, fine-grained, moist						
6			4.0-5.0				No Recovery						
			5.0-9.0				SAA except wet						
10			9.0-10.0				No Recovery						
			10.0-14.0				SAA except moist.						
15			14.0-15.0				Lt. Gry, CLAY, some silt, slt. stiff, high plast., moist						
			15.0-19.0				Lt. Brn, SAND, some silt, med-grained, loose, moist to wet						
20			19.0-20.0				Brn, SILTY CLAY, slt. stiff, high plast., moist						
			20.0-23.5				Lt. Brn, SAND, some silt, f.-grained, loose, wet						
			23.5-25.0				DK. Brn, SILTY CLAY, slt. stiff, high plast., moist						
25													

* When rock coring, enter rock brokeness,
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1047
6-8 @ 1050
18-20 @ 1053

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No: X Well I.D. #: ____

0-2 = Ø
2-4 = Ø
4-6 = Ø
6-8 = Ø
8-10 = Ø

10-12 = Ø
12-14 = Ø
14-16 = Ø
16-18 = Ø
18-20 = Ø

20-22 = Ø
22-24 = Ø
24-25 = Ø

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112C03279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-129
DATE: 5/31/11
GEOLOGIST: Dawn MacKenzie
DRILLER: George Serio

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-0.5				Brn, SANDY SILT, w/organics, compact, slt. moist.						
			0.5-1.0				Wht, Crushed Stone.						
			1.0-2.0				Org-Brn, SAND, with SILT, Med to fine-grained, loose, mo						
			2.0-3.5				DK Brn, BH, SILT, compact, slt. moist (last few inches are tan.						
			3.5-5.0				No Recovery.						
			5.0-8.5				Tan, SANDY SILT grading to SILTY SAND, f-grained, compact to loo moist.						
			8.5-10.0				No Recovery.						
			10.0-15.0				Tan, SAND, some silt, f-grained, loose, wet.						
			15.0-18.0				SAA						
			18.0-20.0				No Recovery						
			20.0-22.5				SAA						
			22.5-23.0				Brn, Yel-Brn, SILTY CLAY, soft, high plast, moist.						
			23.0-25.0				Tan, SAND, some silt, f-grained, loose, wet.						

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 16:24 ; 6-8 @ 16:30 ; 20-22 @ 16:35

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = 0.0
2-4 = 0.0
4-6 = 0.0
6-8 = 0.0
8-10 = 0.0
10-12 = 0.0
12-14 = 0.0
14-16 = 0.0
16-18 = 0.0
18-20 = 0.0
20-22 = 0.0
22-24 = 0.0
24-25 = 0.0

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GSP
PROJECT NUMBER: 112103279
DRILLING COMPANY: Ground Zero
DRILLING RIG: Geoprobe 6620DT

BORING No.: GSP-SB-130
DATE: 6/6/11
GEOLOGIST: David Mathewson
DRILLER: Jorge Sorto

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
			0.0-3.0				Brn, SANDY SILT, fine-grained, compact, dry, w/organics						
			3.0-4.0				Lt. Gry, Yel-Brn ~~SANDY~~ CLAYEY, SILTY SAND, compact, moist.						
	5		4.0-5.0				No Recovery						
			6.0-10.0				Lt. Brn, SAND, some SILT, loose, fine-grained, wet grading to moist						
	10		10.0-13.0				SAA						
			13.0-15.0				Lt. Brn, CLAYEY SAND, some SILT, compact, fine-grained, wet grading to moist						
	15		15.0-18.0				Lt. Brn, Lt. Gry, SAND, some SILT, loose, f-grained, moist						
			18.0-20.0				Lt. Grn, Org-Brn, CLAYEY SILTY SAND, compact, moist						
	20		20.0-24.0				SAA						
			24.0-25.0				SAA except SILTY SAND, Small layer of SAA						
	25												

* When rock coring, enter rock brokeness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 0-2 @ 1642
6-8 @ 1645
20-22 @ 1650

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

0-2 = ∅
2-4 = ∅
4-6 = ∅
6-8 = ∅
8-10 = ∅
10-12 = ∅
12-14 = ∅
14-16 = ∅
16-18 = ∅
18-20 = ∅
20-22 = ∅
22-24 = ∅
24-25 = ∅

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112IC03279

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-91
Sample Location: SB-91
Sampled By: SBC
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/1/11	1215	0-2	light brn.	Silty Sand. Slightly compact, slightly moist,
Method:				fine grained.
Grab	1230	8-10	Cream mottled	Silty low plasticity clay, soft, slightly moist,
Monitor Readings			purple	+ Med grained sand w/ trace silt, wet, loose.
(Range in ppm):	1245	22-24	purple mottled cream	Med grained sand w/ trace silt. loose, saturated
0.0-8.8				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3-40 mL vials	✓	
SVOCs, DRCs, PCBs, Metals, Mercury	1-8oz Jars	✓	
GRO	2-4oz Jars	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112103279

Sample ID No.: GSP-SB-92
Sample Location: GSP
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA

Date: / Time: / Method: / Monitor Reading (ppm):	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)

COMPOSITE SAMPLE DATA

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/1/11	1414	0.0-2.0	Brn, Wht, Org-Brn	SANDY SILT, SILTY SAND, ROOTS f.
Method: DPT	1415	6.0-8.0	Org-Brn, Lt Gry	SAND and CLAY, moist.
	1420	22.0-25.0	Tan, Pnk	SAND & SILTY CLAY moist.
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core		
GRO	1-4oz glass jar		
SVOC, PCB, DRO, Metals + Hg	2-8oz glass jars.	(0-2 and (6-8)	
SVOC, DRO	1-8oz glass jar.	(22-25)	

OBSERVATIONS / NOTES:

MAP:

Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Dennis L Markley

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112103279

Sample ID No.: GSP-SB-93
Sample Location: GSP
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 6/1/11	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: DPT	1221	0.0-2.0	Org-Brn	SANDY SILT v. fm, slt. moist
	1225	12.0-14.0	Brn	Sand, some silt, loose, wet
	1230	22.0-24.0	Brn, Red-Brn	SAND, f-grained, loose, moist
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core		
GRO	1-4oz glass jar		
SVOC, PCB, DRO, metals + Hg	2-8oz glass jar	(0-2 and 12-14)	
SVOC, DRO	1-8oz glass jar	(22-24)	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Daniel L Muller

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112COB279

Sample ID No.: GSP-SB-9L
Sample Location: SB-9L
Sampled By: SBC
C.O.C. No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/1/14	1420	0-2	Brn/light brn	Sandy Silt, slightly moist, slightly compact of fine grained. Trace organics
Method:				
Grab	1430	6-8		Med grained wet Sand. Loose, well sorted
Monitor Readings (Range in ppm):				
0.0-0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3-40ml vials	✓	
SVOCs, PCBs, Metal, + Mercury	1-8oz Jar	✓	
DRO	1-4oz Jar	✓	
GRO	1-4oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112ICO325

Sample ID No.: GSP-SB-95
Sample Location: SB-95
Sampled By: SBC
C.O.C. No.:

- [ ] Surface Soil
- [X] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/1/11	1105	0-2	brn, light brn, cream	Sandy Silt, Slight loose, dry, fine grained,
Method:				w/ trace organics
Grab	1115	6-8	light brn	Silt, High plasticity, hard clay, & med grained
Monitor Readings				Sand,
(Range in ppm):	1130	20-22	cream/light brn. w/	fine to med grained wet to saturated sand
8.3-28.0			orange mottles @ 21'	w/ trace silt.

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3-40mL vials	✓	
SVOCs, DRO, PCBs, Metals, Mercury	2-8oz Jars	✓	
GRO	1-4oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112TC03279

Sample ID No.: GSP-SB-96
Sample Location: SB-96
Sampled By: SBC
C.O.C. No.:

- [ ] Surface Soil
- [X] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/1/11	1515	0-2	dark brn	Sandy Silt, Slightly moist, w/ trace organics
Method:				
Grab	1530	6-8	Cream	Silt w/ trace sand, fine gravel, Dry, Slightly compact,
Monitor Readings				
(Range in ppm):	1545	22-24	Cream	Sandy Silt, Moist to wet, soft, slightly compact
0.0-0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3 x 40 ml vial	✓	
SVOCs, PCBs, Metals, Mercury	1-8oz Jar	✓	
GRO	1-4oz Jar	✓	
DRO	1-4oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112IC03279

Sample ID No.: GSP-SB-97
Sample Location: GSP
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/1/11	1117	0.0-2.0	DK.Brn, Brn	, SILTY SAND, SANDY SILT
Method: DPT	1120	6.0-8.0	Brn	SAND, some SILT, loose, wet
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3-40ml glass vials	(Term Core)	
GRO	1-4oz glass jar		
SVOC, PCB, DRO, Metals + Hg	2-8oz glass jars		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Dawn L Mucker

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112IC03279

Sample ID No.: GSP-SB-9R
Sample Location: GSP
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/1/11	1519	0.0-2.0	DK. Brn, Brn	SILTY SAND, SAND, organics.
Method: DPT	1525	6.0-8.0	Brn, Lt. Gry	SILTY SAND, SILTY CLAY.
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core		
GRO	1-4 oz glass jar		
SVOC, PCB, DRO, Metals+Hg	2-8oz glass jars		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112ic03279

Sample ID No.: GSP-SB-99
Sample Location: GSP
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/2/11	1148	0.0-2.0	Blk, Tan	SILTY SAND, F-grained, moist
Method: DPT	1153	6.0-8.0	Lt. Gry	SILT, compact, moist.
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core		
GRO	1-4oz glass jar		
SVOC, PCB, DRO, Metals + Hg	2-8oz glass jars.		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: ~~112103279~~ GSP
Project No.: 112103279

Sample ID No.: GSP-SB-100
Sample Location: GSP
Sampled By: D M
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/2/11	1415	2-4'	Brown/LtGray	S.lt to Sandy S.lt
Method: DTP	1420	6-8'	Brown/O. Brown	S.lty Sand
Monitor Readings (Range in ppm): 0.0 - 51.9				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core		
GRO	1-4oz glass jar		
SVOC, PCB, DRO, Metals + Hg	2-8oz glass jars		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112c03279

Sample ID No.: GSP-SB-101
Sample Location: GSP
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 6/2/11	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1051	0.0-2.0	Blk	SILT, some sand, dry.
Method: DPT	1055	6.0-8.0	Lt-Gry, Red-Brn	SILTY SAND, CLAY, moist -
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core		
DRO	1-4oz glass jar		
SVOC, PCB, DRO, Metals + Hg	2-8oz glass jars		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112FC02279

Sample ID No.: GSP-SB-102
Sample Location: 6/2/11
Sampled By: SBC
C.O.C. No.:

- [ ] Surface Soil
- [X] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/2/11	1210	0-2	brn	Gravelly, Sandy Silt, Dry, loose, poorly sorted
Method:				
Grab	1230	6-8	red mottled brn	Silty gravel, Dry, poorly Sorted angular gravel & fine plasticity, silty, sandy slightly moist clay.
Monitor Readings (Range in ppm):				
0.0-0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3-40mL vials	✓	
SVOCs, PCBs, Metals, Mercury	1-8oz Jar	✓	
GRO	1-4oz Jar	✓	
DRO	1-4oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112IC03279

Sample ID No.: GSP-SR-103
Sample Location: 6/2/11
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 6/2/11	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: DPT	0855	0.0-2.0	Tan, Org-Brn	SANDY SILT, Compact, moist
Monitor Readings (Range in ppm):	0859	6.0-8.0	Lt. Gry	SILTY CLAY & CLAYEY SILT, slt. moist.

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core		
GRO	1-4oz glass jar		
SVOC, PCB, DRO, Metals + Hg	1-8oz glass jar		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Dawn L Mucher

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112IC03279

Sample ID No.: GSP-SB-104
Sample Location: SB-104
Sampled By: SBC
C.O.C. No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/1/11	1006	0-2	Brn	Silt w/ trace fine grained Sand, Dry,
Method:				slightly loose,
Grab	1015	6-8	Brn	Med grained, slightly moist, sand, loose,
Monitor Readings				
(Range in ppm):	1030	22-24		Same as above.
1.9 - 4.3				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3-40mL vials	✓	
SVOCs, DRO, PCBs, Metals, Mercury.	2-8oz Jars	✓	
GRO	1-4oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112r03279

Sample ID No.: GSP-SB-105
Sample Location: GSP
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/2/11	0942	0.0-2.0	Brn, Blk	SANDY SILT, SILTY SAND, gravel
Method: DPT	0945	6.0-8.0	Red, Lt. Grey	SILTY SAND w/ CLAY, Slt. moist.
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core		
GRO	1-4oz glass jar.		
SVOC, PCB, DRO, Metals + Hg	2-8oz glass jar		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112G03279

Sample ID No.: GSP-SB-106
Sample Location: GSP
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/1/11	1010	0.0-2.0	Brn, Yel-Brn	SILTY SAND, c-grained, compact
Method: DPT	1015	6.0-8.0	Gry-Brn, Org-Brn	SAND, some Silt, f-grained, c
	1020	20.0-22.0	Brn to Lt-Gry	SAND, f-grained, loose, wet
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core		
GRO	1-4oz glass jar		
SVOC, PCB, DRO, Mtls + Hg	2-8oz glass jar	(0-2 and 6-8)	
SVOC, DRO	1-8oz glass jar	(20-22)	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Diane L Miller

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112IC03279

Sample ID No.: GSP-SB-107
Sample Location: SB-107
Sampled By: SBC
C.O.C. No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6-2-11	1420	0-2	brn/dark brn	Sandy silt, moist, med hard, fine grained sand
Method:				w/ trace organics + gravel.
Grab	1430	6-8	red/brn	Fine grained wet sand w/ silty fine grained
Monitor Readings				sand. Moist to wet.
(Range in ppm):				
0.0 - 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3-40mL vials	✓	
SVOCs, Metals, Mercury, PCBs	1-8oz Jar	✓	
DRO	1-4oz Jar	✓	
GRO	1-4oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112IC03279

Sample ID No.: GSP-SB-108
Sample Location: SB-108
Sampled By: SPC
C.O.C. No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/2/11	1005	0-2	red mottled brn	Med plasticity, med hard clay w/ trace sand.
Method:				Slightly moist.
GW	1015	6-8	red mottled brn	Low plasticity silty, sandy clay w/ trace
Monitor Readings (Range in ppm):				fine grained gravel. Moist + soft.
0.0 - 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3- 40 mL VOAs	✓	
SVOCs, PCBs, Metals, Mercury	1- 8oz Jar	✓	
DRO	1-4oz Jar	✓	
GRO	1-4oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112IC02279

Sample ID No.: GSP-SB-109
Sample Location: SB-09
Sampled By: SBC
C.O.C. No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/2/11	0915	0-2	grey/brn	Silty, poorly sorted gravel, Dry, loose, w/
Method:				Sandy Silt & organics.
grab	0930	6-8	red/brn	High plasticity, Moderately hard clay, slightly
Monitor Readings				moist. (Fill)
(Range in ppm):				
0.0 - 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3- 40ml VOA	✓	
SVOCs, Metals, PCBs, Mercury	1- 8oz Jar	✓	
IDW	1- 4oz Jar	✓	
GRO	1- 4oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP phase II
Project No.: 112COB279

Sample ID No.: GSP-SB110
Sample Location: GSP-SB110
Sampled By: SBC
C.O.C. No.:

- [ ] Surface Soil
- [X] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/2/11	1100	0-2	brn	Sandy Silt w/ trace gravel. Slightly
Method:				moist to dry. Slightly Compact.
Grab	1110	6-8	white/grey	Silty gravel. Poorly sorted, angular grains Dry,
Monitor Readings				loose.
(Range in ppm):				
0.0 - 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3-40mL VOA	✓	
SVOCs, PCBs, Metals, Mercury	1-8oz Jar	✓	
DRO	1-4oz Jar	✓	
GRO	1-4oz Jar		

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112EC03279

Sample ID No.: GSP-SB-111
Sample Location: SB-111
Sampled By: SBC
C.O.C. No.:

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 6-3-11	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Grab	0915	0-2	red/brn mottled Grey	Sandy silt w/ trace gravel slightly moist.
	0930	6-8		Same as above
Monitor Readings (Range in ppm): 0.0-0	0945	22-24	grey	Low plasticity, slightly moist clay w/ some silt.

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3-40 mL vials	✓	
SVOCs, Metals, Mercury, PCBs	1-8oz Jar	✓	
GRO	1-4oz Jar	✓	
DRO	1-4oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112IC03279

Sample ID No.: GSP-SB-112
Sample Location: SB-112
Sampled By: SBC
C.O.C. No.:

- [ ] Surface Soil
- [X] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 6-3-11	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method: Grab	1020	0-2	red/brn	Sandy Silt w/ trace gravel, Dry, trace organics,
	1030	6-8	grey	Med plasticity soft clay, Moist,
Monitor Readings (Range in ppm): 0.0-0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3-40 mL VOA	✓	
SVOCs, PCBs, Metals, Mercury	1-8oz Jar	✓	
DRO	1-4oz Jar	✓	
GRO	1-4oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 1121C03279

[X] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: GSP-SB-113
Sample Location: GSP
Sampled By: DLM
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/1/11	0859	0.0-2.0	Lt. Brn	SANDY SILT, compact, moist
Method: DPT	0905	6.0-8.0	Lt. Gry	SANDY SILT/SILTY SAND, moist
	0907	22.0-24.0	Lt. Gry	SILTY SAND, loose, wet.
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core		
GRO	1-4oz glass jar		
SVOC, PCB, DRO, Metals + Hg	2-8oz glass jars	(0.0-2.0 & 6.0-8.0)	
SVOC, DRO	1-8oz glass jar	(22.0-24.0)	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Dawn L [signature]

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112103279

Sample ID No.: GSP-SB-114
Sample Location: SB-114
Sampled By: SBC
C.O.C. No.:

- [ ] Surface Soil
- [X] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	0920	0-2	red/brn	Sandy Silt, Slightly moist, trace organics &
Method:	⊘			trace fine gravel
	0930	6-8	Cream mottled brn	Silty, low plasticity clay, slightly moist, medium,
Monitor Readings				
(Range in ppm):	~~0923~~	~~20.0-24.0~~	~~Cream mottled brn~~	~~Silty, low plasticity clay, Slightly moist, medium~~
	0923	22-24		Sandy/some silt, & med plasticity clay w/
				trace silt. Wet.

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3-40 mL vials	✓	
SVOCs, DRO, PCBs, Metals + mercury	1-8 oz Jar	✓	
GRO	1-4 oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.:

Sample ID No.: GSP-SB-115
Sample Location:
Sampled By:
C.O.C. No.:

- [x] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date: 5/31/11	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1505	0'-2'	D. Brown	Silty Clay
Method: DPT	1510	10'-12'	L. Brown	Sandy Clay
	1520	18'-20'	L. Brown	Fine-grained Sand
Monitor Readings (Range in ppm): 0.0-30.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP - Phase II
Project No.: 112G05227

Sample ID No.: GSP-SB-116
Sample Location: SB-116
Sampled By: SBC
C.O.C. No.:

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/3/11	1115	0-2	brn, Red/brn	Sandy Silt w/ trace gravel. Dry, Compact, fine grained. Trace organics
Method: Grab				
	1145	6-8	Grey	Clayey Silt w/ trace sand, Slightly moist & soft becoming hard.
Monitor Readings (Range in ppm):				
0.0 - 0.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOCs	3-40 mL vials	✓	
SVOCs, PCBs, Metals + Mercury	1-8oz Jar	✓	
GRO	1-4oz Jar	✓	
DRO	1-4oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112IC03279

Sample ID No.: GSP-SB-117
Sample Location:
Sampled By:
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
5/31/11	1315	0-2	L. Brown	Sandy Clay
Method:	1330	6-8	Yellowish orange	Silty Clay
DPT	1345	20-22	D. Brown	Sandy Clay
Monitor Readings (Range in ppm): 0.0 - 13.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: GSP
Project No.:

Sample ID No.:
Sample Location: GSP-SB-11[illegible]
Sampled By: RD
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
5/31/11	~~1130~~ 1415	0-2	L. Brown	Sandy Clay
Method: DPT	~~1145~~ 1430	6-8	Brown	~~Clay + Sandy Clay~~ S.Ly Clay
	~~1200~~ 1445	20-22	~~Brown~~ Gray	Fine grained sand
Monitor Readings (Range in ppm): 0 - 30.0				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: _____
Project No.: _____

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other: _____
[ ] QA Sample Type: _____

Sample ID No.: GSP-SB-119
Sample Location: _____
Sampled By: _____
C.O.C. No.: _____

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date: / Time: / Method: / Monitor Reading (ppm):	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
	1610	0-2	D. Brown	Sandy Clay
Method:	1620	6-8	D. Brown	Silty Clay
	1630	20-22	D. Brown	Clay
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112G03279

Sample ID No.: GSP-SB-120
Sample Location: SB-120
Sampled By: DLM
C.O.C. No.:

- [X] Surface Soil
- [X] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
5/31/11	1405	0.0-2.0	Brn to DK. Brn	SANDY SILT, compact, dry-moist
Method:	1408	6.0-8.0	Gry / Wht	SANDY SILT, gravel, med-grained, moist
DPT	1410	18.0-20.0	Pnk-Brn	CLAY, high plast, soft, moist
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core		
GRO	1-4oz glass jar		
SVOC, Metals, Hg, PCB, DRO	2-8oz glass jars	(0-2 and 6-8)	
SVOC, DRO	1-8oz glass jar	(18-20)	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112103279

Sample ID No.: GSP-SB-121
Sample Location: 5/31/11
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
5/31/11	1132	0.0-3.0	Brn	
Method:	1138	6.0-8.0	Brn, Wht	SILTY SAND
DPT	1146	18.0-20.0	Pnk-Brn, Red-Brn	CLAY, some SILT, soft, moist
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core		
GRO	1-4oz glass jar		
SVOC, DRO, PCB, Metals, Mercury	1-8oz glass jar	(18.0-20.0)	6.0-8.0
SVOC, DRO,	1-8oz glass jar	18.0-20.0	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: GSP
Project No.: 112IC03279

Sample ID No.: GSP-SB102
Sample Location: GSP
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
5/31/11	1523	0.0-2.0	Brn	Sandy Silt, some gravel, med.-grained
Method: DPT	1526	6.0-8.0	Lt. Brn	SILTY SAND, f-grained, moist
	1530	20.0-22.0	Brn, Tan, Crm	SILTY SAND, f-grained, moist
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core.		
GRO	1-4oz glass jar.		
SVOC, PCB, Metals, DRO	2-8oz glass jar.	(0-2 and 6-8)	
SVOC, DRO	1-8oz glass jar	(20-22)	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112C03279

Sample ID No.: GSP-SB-123
Sample Location: GSP
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/6/11	1155	0.0-2.0	Dark Brn	Silt. w/ sand, gravel, course
Method:	1158	6-8	Lt Gray	silty sand, intermittent clay
DPT	1203	20-22	Lt. Gray	silty sand, intermittent clay
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1- Terra Core		
GRO	1- 4oz glass jar		
SVOC, PCB, DRO, Metals + Hg	2- 8oz glass jars	(0-2 and 6-8)	
SVOC, PCB	1- 8oz glass jars	(20-22)	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: GSP
Project No.: 112-IC03279

Sample ID No.: GSP-SB-124
Sample Location: GSP
Sampled By: DLM
C.O.C. No.: ____

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other: ____
[ ] QA Sample Type: ____

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/6/11		0.0-2.0	Grey	Silt, sand
Method:		6-8	Yellow/Brn	Silty clay, moist
DPT		20-22	Dark Brn	Silty clay, moist
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1- Terra Core		
GRO	1-4oz glass jar		
SVOC, PCB, DRO, Metals + Hg	2- 8oz glass jars	(0-2 and 6-8)	
SVOC, PCB	1- 8oz glass jars	(20-22)	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP Phase II
Project No.: 112TC03279

Sample ID No.: GSP-SB-12S
Sample Location: SB-12S
Sampled By: SBL
C.O.C. No.:

- [ ] Surface Soil
- [X] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/3/11	1200	0-2	brn/orange brn.	Sandy Silt w/ trace organics &
Method:				trace fine grained gravel. Slightly moist & soft.
grab	1215	6-8	cream + grey/orange	Med plasticity clay. Slightly moist & soft.
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3-40 mL vials	✓	
SVOCs, PCBs, Metals, Mercury	1-8oz Jar	✓	
DRO	1-4oz Jar	✓	
GRO	1-4oz Jar	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112-IC 03279

Sample ID No.: GSP-SB-12B
Sample Location: GSP
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/6/11	1505	0.0-2.0	lt. Grey org	Sand some silt, moist
Method:	1513	8-10	Lt Grey orange	Sand, silty, moist
DPT	1516	20-22	Brn	some silt/clay lenses
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terr. Core		
GRO	1-4 oz glass jar		
SVOC, PCB, DRO, Metals + Hg	2-8oz glass jar	(0-2 and 8-10)	
SVOC, PCB	1-8oz glass Jar	(20-22)	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112-IC 03279

Sample ID No.: GSP-SB-127
Sample Location: GSP
Sampled By: DLW
C.O.C. No.:

[] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/6/11	1555	0.0 - 2.0	Dark Brown	Silt, organics, dry
Method:	1558	6-8	Dark Brown	Silt, organic, dry
DPT	1601	20-22	Dark Brown	Silt, organic, dry
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1- Terra Core		
GRO	1- 4oz glass jar		
SVOC, PCB, DRO, Metals + Hg	2- 8oz glass jars	(0-2 and (6-8)	
SVOC, PCB	1- 8oz glass jars	(20-22)	

OBSERVATIONS / NOTES:

MAP:

Circle If Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

T= [signature]

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112-IC 03279

Sample ID No.: GSP-SB-128
Sample Location: GSP
Sampled By: DLW
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/6/11	1047	0.0-2.0	Brn/Lt Brn	silt, sand, organics, fine moist
Method:	1050	6-8	Lt. Brn	Sand wet
DPT	1053	18-21	Lt Brn/Brn	silty clay, stiff, moist loose, wet
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	4-Terra Core		
GRO	1-4oz glass jar		
SVOC, PCB, DRO, Metals + Hg	2-8oz glass jar	(0-2 and 6-8)	
SVOC, PCB	1-8oz glass jar	(18-21)	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSD
Project No.: 112103279

Sample ID No.: GSD-SB-129
Sample Location: SB-129
Sampled By: DLM
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
5/31/11	1624	0.0-2.0	Org-Brn	SAND w/ SILT, loose, moist.
Method:	1630	6.0-8.0	Tan	SANDY SILT, SILTY SAND, moist
DPT	1635	20.0-22.0	Tan	SAND, f.-grained, loose, wet.
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1-Terra Core.		
GRO	1-4oz glass jar		
SVOC, PCB, DRO, Metals	2-8oz glass jars	(0-2' and	6-8)
SVOC, DRO	1-8oz glass jar	(20-22)	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: GSP
Project No.: 112-IC 03279

Sample ID No.: GSP-SB-130
Sample Location: GSP
Sampled By: DLW
C.O.C. No.:

[X] Surface Soil
[X] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[ ] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date:	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time:			
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
6/6/11	1642	0.0 - 2.0	Brn	Sandy, silt, compact
Method:	1645	6-8	Brn	Sandy, silt, compact
PPT	1650	20-22	Lt. Grn	Org Brn, silt, moist
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	1 - Terra Core		
GRO	1 - 4oz glass jar		
SVOC, PCB, DRO, Metals + Hg	2 - 8oz glass jar	(0-2 and 6-8)	
SVOC, PCB	1 - 8oz glass jar	(20-22)	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

APPENDIX E—MONITORING WELL CONSTRUCTION LOGS

Tetra Tech NUS, Inc.

BORING LOG

Page 1 of 1

PROJECT NAME: GREATER STRAWBERRY POINT
PROJECT NUMBER:
DRILLING COMPANY: BOART LONGYEAR
DRILLING RIG: SPIDER Roto SONIC

BORING No.: GSP-MW-1
DATE: 6/1/11
GEOLOGIST: W. ONeil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0					brown	Soil				0.6		
						gray brown	silty clay stiff, dry						
						lt brown	sand & gravel S. moist				0.1		

	5					gray	clay stiff, dry				0.2		
						red brown	sandy clay, plastic, v. slightly moist				0.0		
						gray					0.0		
	10					red	silty clay						
						orange	stiff, dry				0.2		
						red orange	sandy clay, stiff, dry				0.5		
						red orange	clayey sandy slightly moist						
	15					red orange	sandy clay stiff, wet				0.6		
						red							
						brown	clay, stiff, dry				0.1		
						red	clay, stiff, dry				0.0		
	20					gray							
											0.5		
						gray	clay, stiff, dry						
											0.0		
	25										0.1		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks:

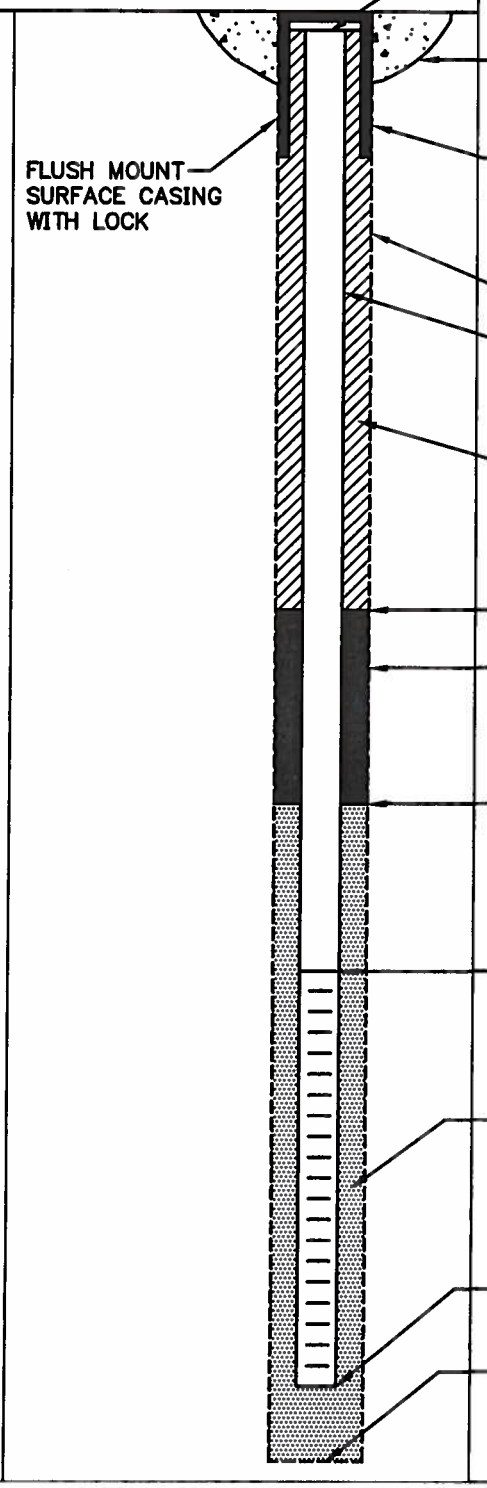
Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-1

WELL NO.: GSP-MW-1

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT Greater Strawberry Point	LOCATION Middle River, MD	DRILLER Larry Hunsberger
PROJECT NO.	BORING	DRILLING METHOD vuto Sonic
DATE BEGUN 6/1/11	DATE COMPLETED 6/2/11 (pm)	DEVELOPMENT METHOD
FIELD GEOLOGIST W. ONeil		
GROUND ELEVATION N/A	DATUM NM	



ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: High strength concrete ~~Portland~~

TYPE OF PROTECTIVE CASING: steel

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: portland cement/gel

ELEVATION/DEPTH TOP OF SEAL: /15

TYPE OF SEAL: Bentonite chips

ELEVATION/DEPTH TOP OF SAND: /3

ELEVATION/DEPTH TOP OF SCREEN: /5

TYPE OF SCREEN: 2" PVC

SLOT SIZE x LENGTH: #10 10'

TYPE OF SAND PACK: #5 silica sand & gravel

DIAMETER OF HOLE IN BEDROCK: 6"

ELEVATION / DEPTH BOTTOM OF SCREEN: /15

ELEVATION / DEPTH BOTTOM OF SAND: /17'

ELEVATION/DEPTH BOTTOM OF HOLE: /25'

BACKFILL MATERIAL BELOW SAND: to 17'

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Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GREATER STRAWBERRY POINT
PROJECT NUMBER:
DRILLING COMPANY: BOART LONGYEAR
DRILLING RIG: SPIDER roto sonic

BORING No.: GSP-MW-2
DATE: 6/1/11
GEOLOGIST: W. ONTELL
DRILLER: LARRY Hausberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0					brown	soil, dry			2.0			
						"	silty gravel at base						
						red brown	silty clay, dry				0.0		
						lt. brown	sandy silt w/ gravel dry						
	5					gray	silty clay, dry				1.0		
						lt. brown to tan	silty clay, stiff, dry				1.0		
											0.6		
	10												
						lt. brown to tan	silty clay w/ some sand, dry				0.6		
											0.5		
	15					Brown/gray	sandy clay, dry				0.5		
						Brown	sandy clay, dry						
						Dark gray	silty clay, stiff dry				0.5		
											0.5		
	20					gray to red brown	silty clay, stiff, dry				1.1		
											0.4		
						dark gray	silty clay, stiff, dry				0.7		
	25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No Well I.D. #: GSP-MW-2

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GREATER STRAWBERRY POINT
PROJECT NUMBER:
DRILLING COMPANY: BoArt Longyear
DRILLING RIG: Spider rotosonic

BORING No.: GSP-MW-2
DATE: 6/1/11
GEOLOGIST: W. O'Neill
DRILLER: Larry Hershberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25						Alternating clay w/ lenses of wet sand			0.7			
						gray					0.6		
												0.9	
	30					gray	sand to sandy clay, wet						
											0.6		
						gray	clay w/ some sand						
											0.6		
	35					dark gray	clay, stiff, dry				0.4		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 6.0

Remarks: set well @ 30'

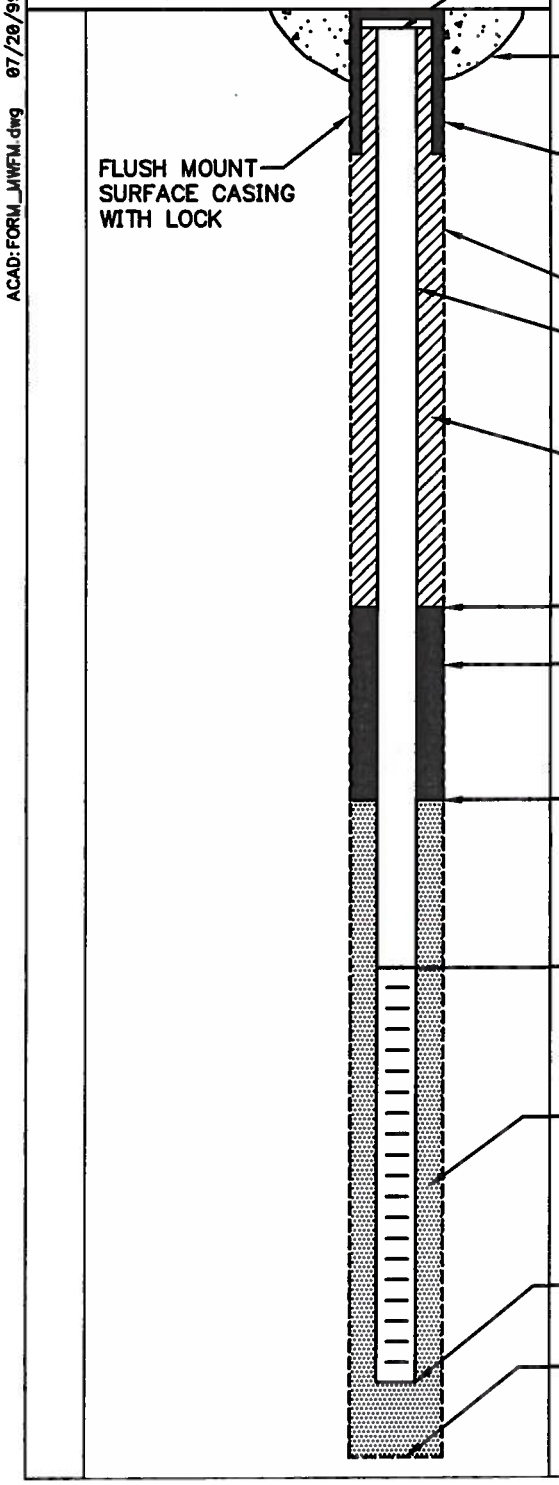
Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-2

WELL NO.: GSP-MW-2

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT Greater Strawberry Pt.	LOCATION Middle River, MD	DRILLER Larry Hershberger
PROJECT NO.	BORING GSP-MW-2	DRILLING METHOD rotosonic
DATE BEGUN 6/1/11	DATE COMPLETED 6/2/11	DEVELOPMENT METHOD
FIELD GEOLOGIST W. O'Neill		
GROUND ELEVATION N/A	DATUM N/A	



ELEVATION TOP OF RISER: N/A

TYPE OF SURFACE SEAL: HIGH STRENGTH CONCRETE

TYPE OF PROTECTIVE CASING: 8" steel

I.D. OF PROTECTIVE CASING: ~~8"~~ 7"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2" PVC

TYPE OF BACKFILL/SEAL: Portland w/ gel

ELEVATION/DEPTH TOP OF SEAL: /16

TYPE OF SEAL: Bentonite chips

ELEVATION/DEPTH TOP OF SAND: /19

ELEVATION/DEPTH TOP OF SCREEN: /21

TYPE OF SCREEN: 2" PVC

SLOT SIZE x LENGTH: #10 10'

TYPE OF SAND PACK: #5 global silica sand + gravel

DIAMETER OF HOLE ~~IN BEDROCK~~: 6

ELEVATION / DEPTH BOTTOM OF SCREEN: /31

ELEVATION / DEPTH BOTTOM OF SAND: /33

ELEVATION/DEPTH BOTTOM OF HOLE: /~~35~~ 35

BACKFILL MATERIAL BELOW SAND: 3' bentonite

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Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GREATER STRAWBERRY POINT
PROJECT NUMBER:
DRILLING COMPANY: DOART LONGYEAR
DRILLING RIG: Spider Ruto Sonic

BORING No.: GSP-MW-3
DATE: 6/1/11
GEOLOGIST: W. O'Neill
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0					Brown	soil, dry			0.1			
						red brown	sandy clay, dry						
						red	silty clay				0.1		
						orange	stiff, dry						
	5					red	clay				0	.1	
						pink	stiff, dry						
						gray					0	.3	
						red gray	sandy clay, dry		slightly plastic				
						red gray	silty clay, dry				0	.0	
	10												
											0	.3	
						gray	gray clay				0	.1	
							stiff, dense						
	15						dry				0	.0	
											0	.0	
											0	.0	
	20												
						red gray					0	.0	
						to							
						gray	silty clay, dry				0	.0	
	25										0	.0	

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks:

Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-3

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GREATER STRAWBERRY POINT
PROJECT NUMBER:
DRILLING COMPANY: Boyart Longyear
DRILLING RIG: Spider Roto Sonic

BORING No.: GSP-MW-3
DATE: 6/1/11
GEOLOGIST: W. O'Neil
DRILLER: Larry Hursberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25					gray	silty clay, stiff, dry				0.0		
						red brown	sand, interlayered w/ sandy clay, wet				0.0		
						tan	sandy clay, s. plastic				0.0		
	30					tan	interlayered						
						orange	tan to orange (ferruginous) sandy clay, clayey sand and wet sand				0.0		
	35						6' stiff red clay				0.0		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks:

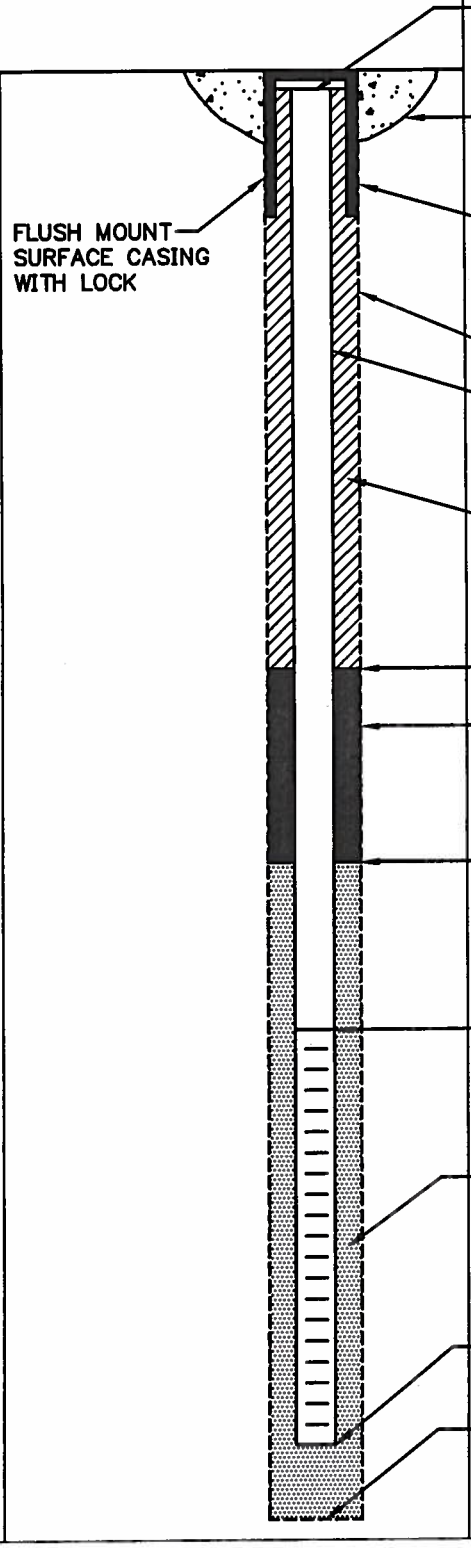
Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-3

WELL NO.: GSP-MW-3

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

Tetra Tech NUS, Inc.

PROJECT: Georgetown Strawberry Point	LOCATION: Middle River, MD	DRILLER: Larry Hovsborgen
PROJECT NO.:	BORING: GSP-MW-3	DRILLING METHOD: Roto Sonic
DATE BEGUN: ~~6/1/11~~ 6/1/11	DATE COMPLETED: 6/2/11	DEVELOPMENT METHOD:
FIELD GEOLOGIST: W. ONeil		
GROUND ELEVATION: N/A	DATUM: N/A	



ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: HIGH STRENGTH CONCRETE ~~Portland~~

TYPE OF PROTECTIVE CASING: ~~8"~~ steel

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland cement + gel

ELEVATION/DEPTH TOP OF SEAL: / 20'

TYPE OF SEAL: Bentonite Chips

ELEVATION/DEPTH TOP OF SAND: / ~~#~~ 23'

ELEVATION/DEPTH TOP OF SCREEN: / 25' ~~#~~

TYPE OF SCREEN: 2" ~~#~~ PVC

SLOT SIZE x LENGTH: #10 x 10'

TYPE OF SAND PACK: #5 silica

DIAMETER OF HOLE IN ~~BEDROCK~~: 6"

ELEVATION / DEPTH BOTTOM OF SCREEN: / 35'

ELEVATION / DEPTH BOTTOM OF SAND: / 35'

ELEVATION/DEPTH BOTTOM OF HOLE: / 35'

BACKFILL MATERIAL BELOW SAND: N/A

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Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GREATER STRAWBERRY POINT
PROJECT NUMBER:
DRILLING COMPANY: BOART LONGYEAR
DRILLING RIG: SPIDER ROTOSONIC

BORING No.: GSP-MW-4
DATE: 6/2/11
GEOLOGIST: W. O'NEIL
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0					Brown	Soil A horizon						
						Brown	Soil B horizon						
						Grey orange	SANDY clay plastic slightly moist						
						grey	Iron stained silty clay slightly moist						
	5					grey	SANDY silt (top) to silty SAND (base) moist						
				X			NO recovery						
				X			NO recovery						
	10					lt. brown to orange	silty SAND to SAND at base wet & wetter at base						
	15												
						lt. brown to tan	Interbedded SAND & clay lenses, SAND is wet						
	20												
						light brown to tan	silty clay, dry						
							SAND, wet						
						light brown to tan	clay to silty/ SANDY clay						
	25					"	SANDY clay						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: set well @ 20.5 tried to set @ 20', but casing dropped

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-4

WELL NO.: GSP-MW-4

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT: GREATER STRAWBERRY POINT	LOCATION: Middle River, MD	DRILLER: Larry Hansberger
PROJECT NO.:	BORING: GSP-MW-4	DRILLING METHOD: Roto Sonic
DATE BEGUN: 6/2/11	DATE COMPLETED:	
FIELD GEOLOGIST: D. O'Neill		DEVELOPMENT METHOD:
GROUND ELEVATION: N/A	DATUM: N/A	

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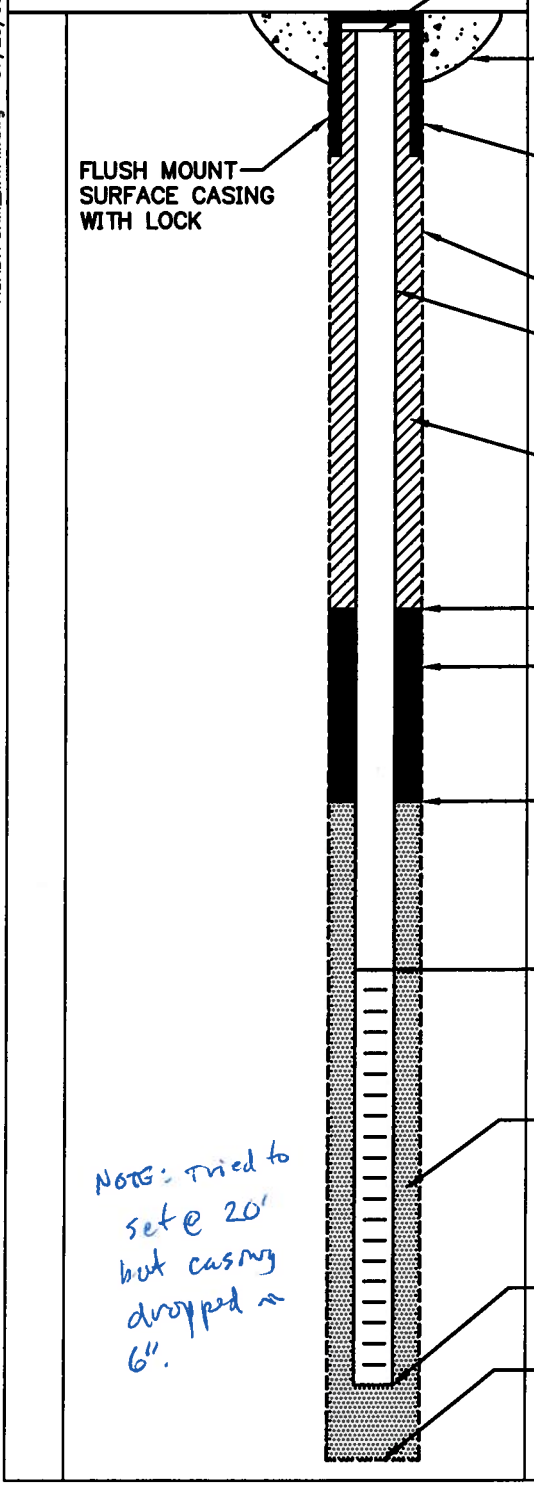


ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: ~~Portland~~ HIGH STRENGTH CONCRETE

TYPE OF PROTECTIVE CASING: steel

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland cement + gel

ELEVATION/DEPTH TOP OF SEAL: 5.5

TYPE OF SEAL: Bentonite chips

ELEVATION/DEPTH TOP OF SAND: 8.5

ELEVATION/DEPTH TOP OF SCREEN: 10.5

TYPE OF SCREEN: 2" PVC

SLOT SIZE x LENGTH: #10 10'

TYPE OF SAND PACK: #5 silica

DIAMETER OF HOLE ~~IN BEDROCK~~: 6"

ELEVATION / DEPTH BOTTOM OF SCREEN: 20.5

ELEVATION / DEPTH BOTTOM OF SAND: 21

ELEVATION/DEPTH BOTTOM OF HOLE: 25

BACKFILL MATERIAL BELOW SAND: Bentonite

NOTE: Tried to set @ 20' but casing dropped ~ 6".

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: GREATER STRAWBERRY POINT
PROJECT NUMBER:
DRILLING COMPANY: BOART LONGYEAR
DRILLING RIG: ~~SONIC~~ SPIDER SONIC
BORING No.: GSP-MW-5
DATE: 6/3/11
GEOLOGIST: W. ONeil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0					Brown	silt, dry				0.7		
						"	silty gravel, dry						
						brown/red	plastic sandy clay to clayey sand, moist				0.7		
						~~brown~~							
	5					red/brown	clay, stiff, dry				1.0		
											1.0		
						dark	clay, stiff, dry				0.2		
	10					gray							
											0.6		
											0.7		
	15					med. gray	clay, stiff, dry				0.7		
						gray	clay, stiff, dry						
											0.7		
						pink gray	clay, stiff, dry				0.8		
	20												
											0.4		
						lt. gray	clay w/ iron stain slightly plastic				0.5		
							silty clay, moist						
	25					gray	w/ iron stain				0.4		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes X No Well I.D. #: GSP-MW-5

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: Greater Strawberry Point
PROJECT NUMBER:
DRILLING COMPANY: Boart Longyear
DRILLING RIG: Spider Sonic

BORING No.: GSP-MW-5
DATE: 6/3/11
GEOLOGIST: W. O'Neill
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	25					lt. brown	SAND, wet		0.4				
									0.4				
									0.7				
	30												
									2.4				
						lt. gray	IRON STAINED SAND, wet						
									0.1				
	35					lt. gray	IRON STAINED SILTY SAND, wet						
									0.5				
						lt. gray							
	40					lt. gray	IRON STAINED CLAY STIFF, DRY						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: setting well @ 39' on top of clay

Drilling Area Background (ppm): 0.0

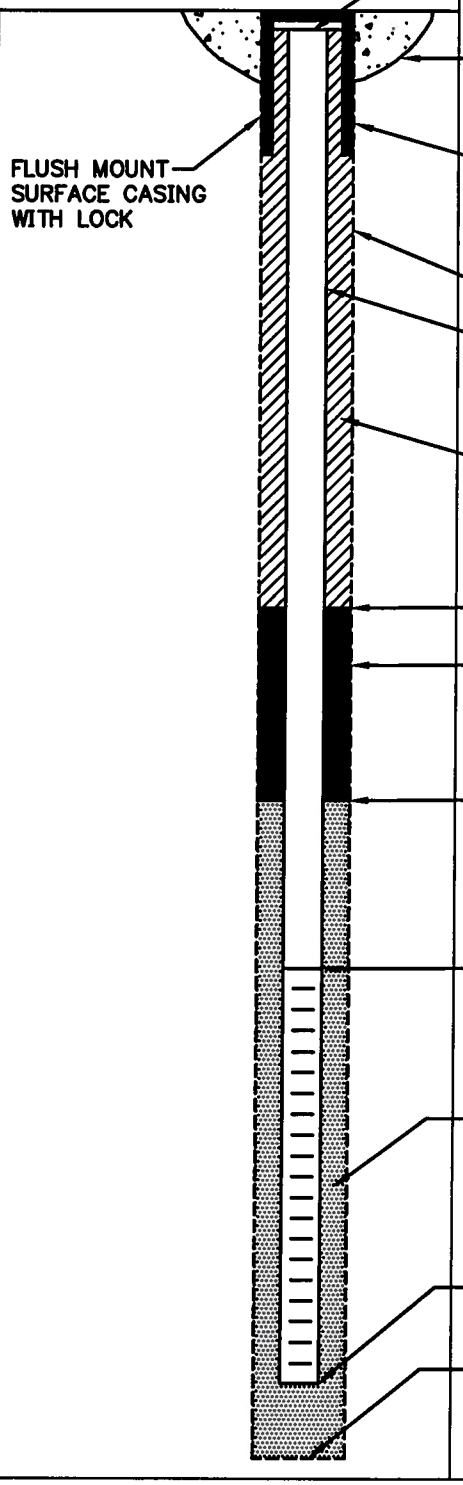
Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-5

WELL NO.: GSP-MW-5

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT: GREATER STRAWBERRY POINT	LOCATION: Middle River, MD	DRILLER: L. Hunsberger
PROJECT NO.:	BORING: GSP-MW-5	DRILLING METHOD: Roto Sonic
DATE BEGUN: 6/3/11	DATE COMPLETED:	
FIELD GEOLOGIST: W. ONeil		DEVELOPMENT METHOD:
GROUND ELEVATION: N/A	DATUM: N/A	



ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: HIGH STRENGTH CONCRETE ~~Portland cement~~

TYPE OF PROTECTIVE CASING: steel

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland cement w/ gel

ELEVATION/DEPTH TOP OF SEAL: 26 /

TYPE OF SEAL: Bentonite chips

ELEVATION/DEPTH TOP OF SAND: 28 /

ELEVATION/DEPTH TOP OF SCREEN: 30 /

TYPE OF SCREEN: 2" PVC

SLOT SIZE x LENGTH: #10 10'

TYPE OF SAND PACK: # 5 silica

DIAMETER OF HOLE ~~IN BEDROCK~~: 6"

ELEVATION / DEPTH BOTTOM OF SCREEN: 40 /

ELEVATION / DEPTH BOTTOM OF SAND: 40 /

ELEVATION/DEPTH BOTTOM OF HOLE: 40 /

BACKFILL MATERIAL BELOW SAND: N/A

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Tetra Tech NUS, Inc.

BORING LOG

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PROJECT NAME: GREATER STRAWBERRY POINT
PROJECT NUMBER:
DRILLING COMPANY: BOART LONGYEAR
DRILLING RIG: SPIDER SONIC

BORING No.: GSP-MW-6
DATE: 6/3/14
GEOLOGIST: W. ONEILL
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0					brown	SOIL						
						brown	SOIL GRAVEL MIX GRAVEL FROM ROAD MATERIAL						
						gray/tan	SANDY CLAY TO CLAYEY SAND SAND IS WET						
	5					gray/tan	SANDY CLAY						
						gray/tan	IRON STAINED SILTY SAND, WET						
	10												
	15						SAME AS ABOVE W/ CLAY LENSES						
						gray/tan	SAND, WET						
						gray/tan	SANDY CLAY MOIST						
	20						SANDY CLAY TO CLAYEY SAND SAND IS WET						
						gray/tan	IRON STAINED SILTY CLAY, DRY						
	25					orange	SAND MOIST						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): N.D.

Remarks:

Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-6

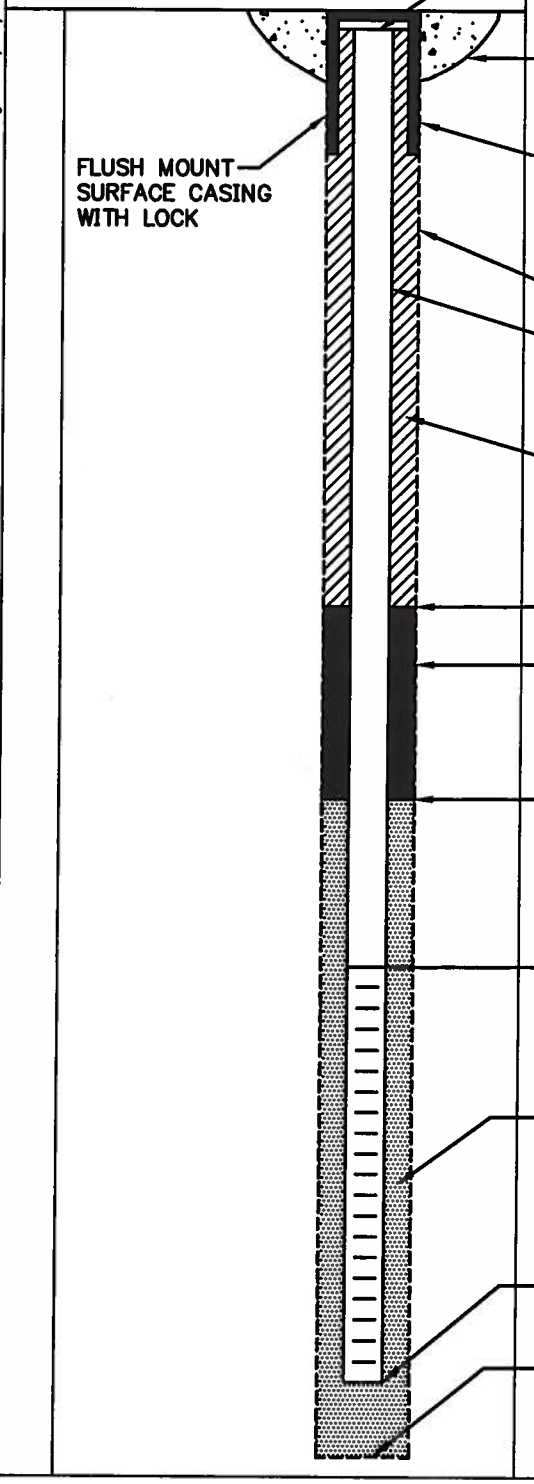
WELL NO.: GSP-MW-6

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT: GREATER STRAWBERRY POINT	LOCATION: Middle River, MD	DRILLER: Larry Hunsberger
PROJECT NO.:	BORING: GSP-MW-6	DRILLING METHOD: Roto Sonic
DATE BEGUN: 6/3/11	DATE COMPLETED:	
FIELD GEOLOGIST: W. ONeil		DEVELOPMENT METHOD:
GROUND ELEVATION: N/A	DATUM: N/A	

ACAD:FORM_MWFM.dwg 07/20/99 INL



ELEVATION TOP OF RISER: N/A

TYPE OF SURFACE SEAL: HIGH STRENGTH CONCRETE

TYPE OF PROTECTIVE CASING: steel

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland cement, gel

ELEVATION/DEPTH TOP OF SEAL: /8

TYPE OF SEAL: Bentonite chips

ELEVATION/DEPTH TOP OF SAND: /10'

ELEVATION/DEPTH TOP OF SCREEN: /12.5

TYPE OF SCREEN: 2" PVC

SLOT SIZE x LENGTH: #10, 10'

TYPE OF SAND PACK: #5 silica sand

DIAMETER OF HOLE ~~IN BEDROCK~~: 6"

ELEVATION / DEPTH BOTTOM OF SCREEN: /22.5

ELEVATION / DEPTH BOTTOM OF SAND: /24'

ELEVATION/DEPTH BOTTOM OF HOLE: /25'

BACKFILL MATERIAL BELOW SAND: Bentonite chips

Tetra Tech NUS, Inc.

BORING LOG

Page 1 of 1

PROJECT NAME: GREATER STRAWBERRY POINT
PROJECT NUMBER:
DRILLING COMPANY: BOART LONGYEAR
DRILLING RIG: SPIDER ROTO SONIC

BORING No.: GSP-MW-7
DATE: 6/
GEOLOGIST: O'Neil
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0					Brown	soil, dry						
							silty sand						
						red brown	dry (top) to slightly moist (base)						
						gray							
	5						sandy clay slightly moist						
							NO recovery						
						red brown	silty sand, dry						
	10												
						lt. gray	iron stained clay, stiff, dry						
	15					lt. brown	sand, wet						
						gray	iron stained clay, dry stiff						
						lt. brown	sand, wet						
	20					gray	clay, iron stained dry stiff						
						lt. brown	sand, wet						
						gray	clay w/ iron stain, dry, stiff						
	25												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Well set @ 22'

Drilling Area Background (ppm): 0.0

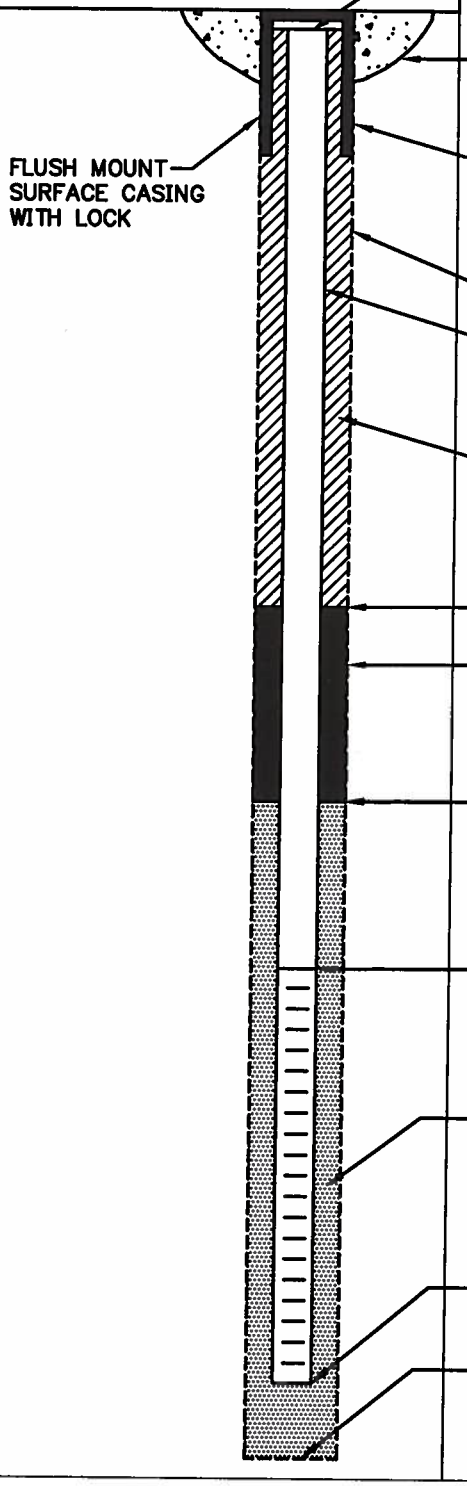
Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-7

WELL NO.: GSP-MW-7

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT: GREATER STRAWBERRY POINT	LOCATION: Middle River, MD	DRILLER: Larry Hunsberger
PROJECT NO.:	BORING: GSP-MW-7	DRILLING METHOD: Roto Sonic
DATE BEGUN: 6/2/11	DATE COMPLETED:	
FIELD GEOLOGIST: W. ONeill		DEVELOPMENT METHOD:
GROUND ELEVATION: N/A	DATUM: N/A	



ELEVATION TOP OF RISER: N/A

TYPE OF SURFACE SEAL: ~~Portland Cement~~ HIGH STRENGTH CONCRETE

TYPE OF PROTECTIVE CASING: steel

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland Cement w/ gel

ELEVATION/DEPTH TOP OF SEAL: 7 /

TYPE OF SEAL: Bentonite chips

ELEVATION/DEPTH TOP OF SAND: 10 /

ELEVATION/DEPTH TOP OF SCREEN: 12 /

TYPE OF SCREEN: PVC 2"

SLOT SIZE x LENGTH: #10 10'

TYPE OF SAND PACK: #5 silica sand

DIAMETER OF HOLE IN ~~BEDROCK~~: 6"

ELEVATION / DEPTH BOTTOM OF SCREEN: 22 /

ELEVATION / DEPTH BOTTOM OF SAND: 23 /

ELEVATION/DEPTH BOTTOM OF HOLE: 25 /

BACKFILL MATERIAL BELOW SAND: Bentonite chips

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Tetra Tech NUS, Inc.

BORING LOG

Page 1 of 1

PROJECT NAME: GREATER STRAWBERRY POINT
PROJECT NUMBER:
DRILLING COMPANY: BOART & LONGYEAR
DRILLING RIG: SPIDER ROTO SONIC

BORING No.: GSP-MW-8
DATE: 6/2/11
GEOLOGIST: W. ONIL
DRILLER: Larry Hunsberger

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0					Brown	soil, dry				0.1		
						lt. gray	iron stained sandy silt, dry						
						gray	silty clay, dry				0.6		
						red/ gray	sandy silt & clay dry						
	5					red/ orange	sandy silty clay, dry				0.6		
						orange	silty sand, slightly moist						
						lt. gray	clay w/ red/orange mottling, stiff, dry				1.9		
											0.8		
	10					lt. gray	clayey sand to sandy clay & plastic slightly moist				0.4		
											0.0		
	15					lt. gray brown	silty clay, stiff, slightly moist				0.2		
						lt. brown	silty sand, wet						
											0.4		
						lt. gray	mottled (red) silty clay, stiff dry				0.1		
	20												
											0.3		
											0.2		
						lt. gray	iron stained sandy silty clay moist in sandy sections						
	25										0.2		

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: set well @ 17'

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No _____ Well I.D. #: GSP-MW-8

WELL NO.: GSP-MW-8

Tetra Tech NUS, Inc.

OVERBURDEN
MONITORING WELL SHEET
FLUSH - MOUNT

PROJECT: GREATER STRAWBERRY POINT	LOCATION: Middle River, MD	DRILLER: Larry Hunsberger
PROJECT NO.:	BORING: GSP-MW-8	DRILLING METHOD: roto SONIC
DATE BEGUN: 6/2/11	DATE COMPLETED:	
FIELD GEOLOGIST: W. O'Neill		DEVELOPMENT METHOD:
GROUND ELEVATION: N/A	DATUM: N/A	

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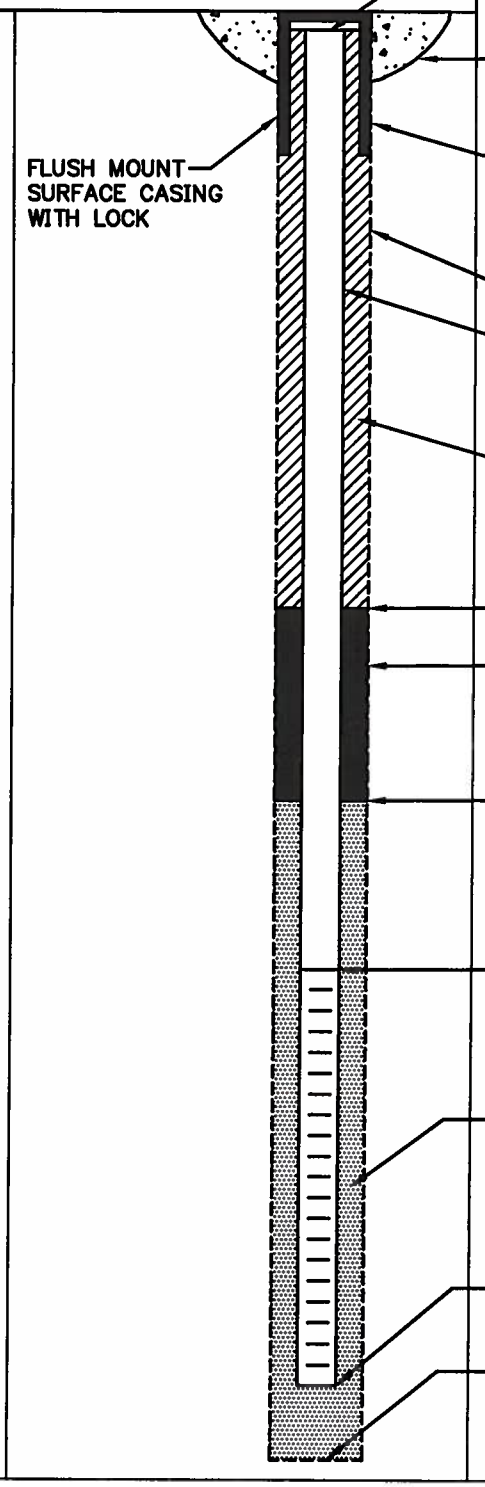

ELEVATION TOP OF RISER: _____

TYPE OF SURFACE SEAL: HIGH STRENGTH CONCRETE ~~Portland cement~~

TYPE OF PROTECTIVE CASING: steel

I.D. OF PROTECTIVE CASING: 8"

DIAMETER OF HOLE: 6"

TYPE OF RISER PIPE: PVC

RISER PIPE I.D.: 2"

TYPE OF BACKFILL/SEAL: Portland w/ gel

ELEVATION/DEPTH TOP OF SEAL: 3 /

TYPE OF SEAL: Bentonite chips

ELEVATION/DEPTH TOP OF SAND: 5 /

ELEVATION/DEPTH TOP OF SCREEN: 7 /

TYPE OF SCREEN: PVC

SLOT SIZE x LENGTH: #10 10'

TYPE OF SAND PACK: #5 silica

DIAMETER OF HOLE IN ~~BEDROCK~~: 6"

ELEVATION / DEPTH BOTTOM OF SCREEN: 17 /

ELEVATION / DEPTH BOTTOM OF SAND: 19 /

ELEVATION/DEPTH BOTTOM OF HOLE: 25 /

BACKFILL MATERIAL BELOW SAND: chips 19-25

APPENDIX F—GROUNDWATER SAMPLE LOGS AND LOW-FLOW-PURGE DATA SHEETS

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: GSP / MSA
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW1-061711
Sample Location: MW1
Sampled By: WP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-17-11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1100	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(‰)	ORP
Method: Peristaltic pump	Clear	5.10	0.427	17.08	9.3	3.04	NA	201

PURGE DATA:

Date: 6-17-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			See Low Flow Purge					
Total Well Depth (TD): 14.80								
Static Water Level (WL): 5.55			Data Sheet					
One Casing Volume(gal/L):								
Start Purge (hrs): 0934								
End Purge (hrs): 1056								
Total Purge Time (min): 82								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
SVOCs / 1,4 Dioxane	—	2 - 1L Ambers	✓
TPH Dsl	H2SO4	2 - 1L Ambers	✓
TPH Gas	HCl	2 - 40 ml VOA	✓
Perchlorate	—	1 - 250 ml Poly	✓
Hex Chrom	—	1 - 250 ml Poly	✓

OBSERVATIONS / NOTES:

Hex Chrom Collected @ 1524

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Walt Pe

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA / GSP
Project No.:

Sample ID No.: GSP-MW2-061711
Sample Location: MW2-O
Sampled By: MP
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6-17-11	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1320								
Method: Peristaltic pump	Slightly	4.70	0.038	18.04	42.2	1.82	NA	227

PURGE DATA:

Date: 6-17-11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC			SEE low flow purge					
Total Well Depth (TD): —								
Static Water Level (WL): 6.50			Data sheet					
One Casing Volume(gal/L): —								
Start Purge (hrs): 1144								
End Purge (hrs): 1315								
Total Purge Time (min): 91								
Total Vol. Purged (gal/L): 2.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
Diss metals	HNO3	1 - 500 ml Poly	✓
SVOCs / 1,4 Dioxane	—	2 - 1L Ambers	✓
TPH Dro	H2SO4	2 - 1L Ambers	✓
TPH Gro	HCl	2 - 40 ml VOA	✓
Perchlorate	—	1 - 250 ml Poly	✓
Hex Chrom	—	1 - 250 ml Poly	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MSA / GSP
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-mw3-061711
Sample Location: mw3
Sampled By: VP
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6-17-11								
Time: 1505								
Method: Peristaltic pump	Cloudy	5.21	0.058	16.65	571	1.78	NA	ORP 158

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 6-17-11								
Method: Peristaltic pump								
Monitor Reading (ppm): 0.0								
Well Casing Diameter & Material Type: 2" PVC		See low flow purge data sheet						
Total Well Depth (TD): —								
Static Water Level (WL): 3.72								
One Casing Volume(gal/L): —								
Start Purge (hrs): 1414								
End Purge (hrs): 1500								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 ml VOA	✓
Total metals	HNO3	1 - 500 ml Poly	✓
D.ss metals	HNO3	1 - 500 ml Poly	✓
SVOCs 1,4 Dioxane	—	2 - 1L Amber	✓
TPH DRO	H2SO4	2 - 1L Amber	✓
TPH GRO	HCl	2 - 40 ml VOA	✓
Perchlorate	—	1 - 250 ml Poly	✓
Hex Chrom	—	1 - 250 ml Poly	✓

OBSERVATIONS / NOTES:

Circle If Applicable:

MS/MSD —

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greater Strawberry Pt.
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW-4-062011
Sample Location: MW-4
Sampled By: SBC
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/20/11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1055	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow	Clear	5.49	1.07	16.63	7.43	0.47	-	65

PURGE DATA:

Date: 6/20/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow		See Low Flow Purge Data Sheet						
Monitor Reading (ppm): —								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 20.25								
Static Water Level (WL): 3.45								
One Casing Volume(gal/L):								
Start Purge (hrs): 0935								
End Purge (hrs): ~~1140~~ 1150								
Total Purge Time (min): 135								
Total Vol. Purged (gal/L): 5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
Total Metals	HNO_3	1-500 mL plastic	✓
Dissolved Metals	HNO_3	1-500 mL plastic	✓
SVOCs + 1,4-Dioxane	—	2-1L Ambers	✓
TPH-GRO	HCl	2-40mL vials	✓
TPH-DRO	H_2SO_4	2-1L Ambers	✓
Perchlorate	—	1-250 mL plastic	✓
Hexavalent Chromium	—	1-250 mL plastic	✓

OBSERVATIONS / NOTES:

Hex Chrom collected @ 14:20

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: GSP
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW-5-062011
Sample Location: MW-5
Sampled By: SBC
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/20/11	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1215								
Method: Low Flow	Clear	5.13	0.708	18.16	73.6	0.37	–	31

PURGE DATA:

Date: 6/20/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): –		See Low Flow Purge Data Sheet						
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 39.21								
Static Water Level (WL): 6.09								
One Casing Volume(gal/L):								
Start Purge (hrs): 1125								
End Purge (hrs): 1250								
Total Purge Time (min): 85								
Total Vol. Purged (gal/L): 5gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
Total Metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓
SVOCs, 1,4-Dioxane	–	2-1L Ambers	✓
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	H_2SO_4	2-1L Ambers	✓
Perchlorate	–	1-250 mL plastic	✓
Hexavalent Chromium	–	1-250 mL plastic	✓

OBSERVATIONS / NOTES:

Hex Chrom collected @ 1245

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: GSP
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW-6-062011
Sample Location: MW-6
Sampled By: SMS
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/20/11	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: ~~12:05~~ MS 13:55								
Method: Low Flow	clear	~~6.35~~ MS 6.02	1.05	19.19	21.6	4.31	–	140

PURGE DATA:

Date: 6/20/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 2" PVC	See Low Flow Purge Data Sheet							
Total Well Depth (TD): 22.14								
Static Water Level (WL): 4.69								
One Casing Volume(gal/L):								
Start Purge (hrs): 13:05								
End Purge (hrs): 13:50								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): 5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 mL vials	
Total Metals	HNO_3	1 - 500 mL plastic	
Dissolved Metals	HNO_3	1 - 500 mL plastic	
SVOCs 1,4 - Dioxane	–	2 - ~~1 mL~~ 1 mL Ambers	
TPH - GRO	HCl	2 - 40 mL vials	
TPH - DRO	H_2SO_4	2 - 1 L Ambers	
Perchlorate	–	1 - 250 mL plastic	
Hexavalent chromium	–	1 - 250 mL plastic	

OBSERVATIONS / NOTES:

Hex chrom collected at 14:~~50~~ 55

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: GSP
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-MW-7-062211
Sample Location: MW-7 ~~-062211~~
Sampled By: SMS
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/22/11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1320	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow		5.42	0.247	21.33	164	2.78		235

PURGE DATA:

Date: 6/22/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): -								
Well Casing Diameter & Material Type: 2" PVC								
Total Well Depth (TD): 21.53'								
Static Water Level (WL): 4.27'								
One Casing Volume(gal/L):								
Start Purge (hrs): 11:50								
End Purge (hrs): 12:35								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): 5gal.								

see Low Flow Purge Data Sheet

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	
Total Metals	HNO_3	1-500 mL plastic	
Diss. Metals	HNO_3	1-500 mL plastic	
SVOCs + 1,4-Dioxane	-	2-1L Ambers	
TPH-GRO	HCl	2-40 mL vials	
TPH-DRO	H_2SO_4	2-1L Ambers	
perchlorate	-	1-250 mL plastic	
Hex chrom.	-	1-250 mL plastic.	

OBSERVATIONS / NOTES:

Hex Chrom collected at 13:20

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: GSP
Project No.:

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: GSP-MW-8-062211
Sample Location: ~~MW8-062211~~ SMS
Sampled By:
C.O.C. No.:
Type of Sample:
[ ] Low Concentration
[ ] High Concentration

SAMPLING DATA:

Date: 6/22/11 ~~6/23/11~~	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: ~~10:50~~ 10:10								
Method: Low Flow		~~5.42~~	~~0.229~~	~~14.63~~	~~10.9~~	~~5.35~~	-	~~270~~

PURGE DATA:

Date: 6/22/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): -								
Well Casing Diameter & Material Type: 2" PVC		See Low Flow Purge Data Sheet						
Total Well Depth (TD): 16.75								
Static Water Level (WL): 4.40								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3 - 40 mL vials	✓
Total Metals	HNO_3	1 - 500 mL plastic	✓
Diss. Metals	HNO_3	1 - 500 mL plastic	✓
SVOCs + 1,4-Dioxane	-	2 - 1L Ambers	✓
TPH-GRO	HCl	2 - 40mL vials	✓
TPH-DRO	H_2SO_4	1 - 1L Amber	✓
~~perchlorate~~	-	~~1 - 250 mL plastic~~	-
~~Hex chrom.~~	-	~~1 - 250 mL plastic.~~	only item collected.
~~TPH-DRO~~	~~H_2SO_4~~	~~1 - 1L Amber~~	

OBSERVATIONS / NOTES:

Hex chrom collected at 15:00. SBC Returned to Sample @ 1010 on 6/23/11.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Greater Strawberry Point
Project No.: 112IC03279

Sample ID No.: GSP-SB-WP-SO-062211
Sample Location: WP-SO
Sampled By: SBC
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/22/11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1310	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow	Cloudy	6.50	0.632	20.5	538.0	1.03	0.0	-70

PURGE DATA:

Date: 6/22/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow		See Low Flow Purge						
Monitor Reading (ppm): -								
Well Casing Diameter & Material Type: 1" PVC		Depth Sheet						
Total Well Depth (TD): 15.16								
Static Water Level (WL): 6.02								
One Casing Volume(gal/L):								
Start Purge (hrs): 1225								
End Purge (hrs): 1405								
Total Purge Time (min): 100								
Total Vol. Purged (gal/L): 2 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
Total metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓
SVOCs + 1,4-Dioxane	—	2-1 L Amber	✓
TPH-DRO	H_2SO_4	2-1 L Amber	✓
TPH-GRO	HCl	2-40 mL vials	✓
Perchlorate	—	1-250 mL plastic	✓
Hexavalent Chromium	—	1-250 mL plastic	✓

OBSERVATIONS / NOTES:

Hex Chrom Collected @ 1406.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: GSP
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-SB-WP-54-062111 MS
Sample Location: SB-WP-54
Sampled By: SMS
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/21/11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 11:30	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow	-	6.63	0.390	18.17	62.9	0.96	-	231

PURGE DATA:

Date: 6/21/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): -								
Well Casing Diameter & Material		See Low Flow						
Type: 1" PVC								
Total Well Depth (TD): not known			Purge Data Sheet					
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs): 10:05								
End Purge (hrs): 10:50								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): 5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	
Total Metals	HNO_3	1-500 mL plastic	
Dissolved Metals	HNO_3	1-500 mL plastic	
SVOCs + 1,4-Dioxane	-	2-1L Ambers	
TPH-GRO	HCl	2-40 mL vials	
TPH-DRO	H_2SO_4	2-1L Ambers	
Perchlorate	-	1-250 mL plastic	
Hexavalent chromium	-	1-250 mL plastic	

OBSERVATIONS / NOTES:

Hex chrom collected @ 15:10

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: GSP
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-SB-WP-61-062211
Sample Location: SB-WP-61
Sampled By: STMS / JDZ
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: / Time: / Method:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other

PURGE DATA:

Date: 6/21/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): -								
Well Casing Diameter & Material Type: 1" PVC	See Low Flow							
Total Well Depth (TD): 13.69								
Static Water Level (WL): 7.95	Purge Data Sheet							
One Casing Volume(gal/L):								
Start Purge (hrs): 15:00								
End Purge (hrs): 15:10								
Total Purge Time (min): 10 min								
Total Vol. Purged (gal/L): 1/2 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
Total Metals	HNO_3	1-500 mL plastic	✓
Dissolved metals	HNO_3	1-500 mL plastic	✓
TPH GRO	HCl	2-40 mL vials	✓
TPH DRO	H_2SO_4	1-1L Amber	✓
Perchlorate	—	1-250 mL plastic	✓
Hex chrom	—	1-250 mL plastic	✓
SVOCs & 1,4-Dioxane	—	1-1L Amber	✓

OBSERVATIONS / NOTES:

Hex Chrom collected @ 1420 on 6/22/11. VOCs, TPH-GRO, Total & Dissolved Metals were collected @ 1010 on 6/22/11. TPH-DRO was collected @ 1430 on 6/22/11. And SVOCs & 1,4 Dioxane was collected @ 0830 on 6/23/11

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: GSP GW Sampling
Project No.: 112IC03279

Sample ID No.: GSP-SB-MP-66-062211
Sample Location: MP-CC
Sampled By: SBC
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SAMPLING DATA:

Date: 6/23/11	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 0845								
Method: Low Flow								

PURGE DATA:

Date: 6/22/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow		See Low flow Purge						
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 10" PVC		Data Sheet						
Total Well Depth (TD): 13.36								
Static Water Level (WL): 5.87								
One Casing Volume(gal/L):								
Start Purge (hrs): 1105								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	✓
Total Metals	HNO3	1-500 mL plastic	✓
Dissolved Metals	HNO3	1-500 mL plastic	✓
SVOCs + 1,4-Dioxane	—	2 1-L Amber	
TPH-GRO	HCl	2-40 mL vials	✓
TPH-DRO	H2SO4	2 1-L Amber	
Perchlorate	—	1-250 mL plastic	✓
Hex Chrom	—	1-250 mL plastic	✓

OBSERVATIONS / NOTES:

Well Purged Dry @ 1118. Returned to Sample on 6/23/11. Collected VOCs, Total & Dissolved Metals, TPH-GRO & Perchlorate @ 0845 on 6/23/11. Hex Chrom Collected @ 1250 on 6/23/11.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: GSP
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-SB-WP-71-0621H
Sample Location: SB-WP-71
Sampled By: SMS
C.O.C. No.:
Type of Sample:
MS ~~[X] Low~~ Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/21/11	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Time: 1420								
Method: Low Flow		6.23	0.712	18.93	198	0.39	—	-24

PURGE DATA:

Date: 6/21/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): —								
Well Casing Diameter & Material	See Low Flow							
Type: 1" PVC								
Total Well Depth (TD): 15.21	Purge Data Sheet							
Static Water Level (WL): 6.74								
One Casing Volume(gal/L):								
Start Purge (hrs): 12:55								
End Purge (hrs): 13:40								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): 5 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	
Total Metals	HNO_3	1-500mL plastic	
Dissolved Metals	HNO_3	1-500 mL plastic	
SVOCs + 1,4-Dioxane	—	2-1L Ambers	
TPH-GRO	HCl	2-40 mL vials	
TPH-DRO	H_2SO_4	2-1L Ambers	
perchlorate	—	1-250 mL plastic	
Hexavalent chromium	—	1-250 mL plastic	

OBSERVATIONS / NOTES:

Hex chrom Collected @ 14:20

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	[signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: GSP
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-SB-WP-83-062211
Sample Location: SB-WP-83
Sampled By: SMS
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/22/11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 16:20	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow		6.05	0.566	22.57	147	6.01		73

PURGE DATA:

Date: 6/22/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm): -								
Well Casing Diameter & Material Type: 1" PVC		See Low Flow Purge Data Sheet						
Total Well Depth (TD): 9.70'								
Static Water Level (WL): 2.65'								
One Casing Volume(gal/L):								
Start Purge (hrs): 14:55								
End Purge (hrs): 15:50								
Total Purge Time (min): 55								
Total Vol. Purged (gal/L): 5gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40mL vials	
Total Metals	HNO3	1-500 mL plastic	
Diss Metals	HNO3	1-500 mL plastic	
SVOCs + 1,4-Dionne	-	1 ~~2~~-1L Ambers	
TPH-GRO	HCl	2-~~40~~mL vials	
TPH-DRO	H_2SO_4	1 ~~2~~-1L Ambers	
perchlorate	-	1-250 mL plastic	
Hex chrom.	-	1-250 mL plastic	

OBSERVATIONS / NOTES:

Hex chrom collected at 16:20

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: GSP
Project No.:

Sample ID No.: GSP-SB-WP-84-062311
Sample Location: SB-WP-84
Sampled By: SMS
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/23/11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 12:40	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	
Method: Low flow								

PURGE DATA:

Date: 6/23/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm):		See	Low	Flow				
Well Casing Diameter & Material Type: 1" PVC								
Total Well Depth (TD): 17.32'			Purge Data Sheet					
Static Water Level (WL): 4.42'								
One Casing Volume(gal/L):								
Start Purge (hrs): 11:20								
End Purge (hrs): 12:05								
Total Purge Time (min): 45								
Total Vol. Purged (gal/L): 3 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40 mL vials	
Total Metals	HNO_3	1-500 mL plastic	
Diss Metals	HNO_3	1-500 mL plastic	
SVOCs-1,4-Dioxane	-	2-1L Ambers.	
TPH-GRO	HCl	2-40 mL vials.	
TPH-DRO	H_2SO_4	2-1L Ambers	
perchlorate	-	1-250 mL plastic	
hex chrom	-	1-250 mL plastic	

OBSERVATIONS / NOTES:

Hex chrom collected at 12:40

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: GSP
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: GSP-SB-WP-89-062311
Sample Location: SMS SB-WP-89
Sampled By:
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/23/11	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 10:40	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: Low Flow	—	4.59	0.259	17.52	~~129~~ 129	0.41	—	188

PURGE DATA:

Date: 6/23/11	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type: 1" PVC		See Low Flow Purge Data Sheet						
Total Well Depth (TD): 19.0'								
Static Water Level (WL): 7.71'								
One Casing Volume(gal/L):								
Start Purge (hrs): 09:05								
End Purge (hrs): 9:55								
Total Purge Time (min): 50 min.								
Total Vol. Purged (gal/L): 3 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40mL vials	
Total Metals	HNO_3	1-500mL plastic	
Diss Metals	HNO_3	1-500mL plastic	
SVOCs + 1,4-Dioxane	—	2-1L Ambers	
TPH GRO	HCl	2-40mL vials	
TPH-DRO	H_2SO_4	2-1L Ambers	
perchlorate	—	1-250mL plastic	
Hex chrom.	—	1-250mL plastic	

OBSERVATIONS / NOTES:

Hex chrom collected at 13:25

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP / MSA
PROJECT NUMBER:

WELL ID.: GSP-MW1-061711
DATE: 6-17-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0934	5.55	—	—	—	—	—	—	—	—	Initial, no odor
0936	5.95	300	5.14	0.548	600	4.93	16.49	205	NM	cloudy water
0941	6.20	100	5.13	0.491	492	3.30	16.43	178	NM	
0946	6.45	100	4.93	0.493	96.1	3.13	16.42	186	NA	
0956	7.00	100	4.79	0.405	57.6	3.36	16.46	206	NA	
1006	7.70	100	4.81	0.397	39.2	3.52	16.32	221	NA	
1016	8.30	100	4.85	0.392	31.4	3.56	16.38	222	NA	
1026	8.80	100	5.04	0.397	25.3	3.41	16.66	213	NA	
1036	9.20	100	5.10	0.421	13.9	3.19	16.84	205	NA	
1046	9.75	100	5.11	0.423	9.3	3.12	17.02	203	NA	
1051	9.85	100	5.10	0.425	9.2	3.10	17.04	202	NA	Clean water
1056	9.95	100	5.10	0.427	9.3	3.09	17.08	201	NA	
			Well parameters Stabilized							
			Sampling Begins							

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA / GSP
PROJECT NUMBER:

WELL ID.: GSP-MW2-061711
DATE: 6-17-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1144	6.50	—	—	—	—	—	—	—	—	
1145	6.97	300	5.05	0.052	600	4.74	21.02	221	NA	Initial, NA added
1150	7.65	150	4.78	0.044	602	3.06	19.04	229	NA	Cloudy water
1155	8.10	100	4.76	0.041	452	2.79	18.69	223	NA	
1205	8.90	100	4.83	0.040	367	2.63	18.72	218	NA	
1215	9.60	100	4.84	0.040	305	2.50	19.16	217	NA	
1225	10.50	100	4.83	0.040	150	2.76	18.65	219	NA	
1235	11.00	100	4.82	0.039	100	2.74	18.45	222	NA	
1245	11.45	100	4.81	0.038	88.9	2.24	18.37	223	NA	Slightly cloudy
1255	11.70	100	4.55	0.038	82.5	2.38	18.04	238	NA	
1305	12.15	100	4.69	0.038	56.7	2.01	17.90	229	NA	
1310	12.40	100	4.72	0.038	53.9	1.84	18.08	228	NA	
1315	12.50	100	4.76	0.038	47.2	1.82	18.04	227	NA	

Well parameters did not stabilize after 90 min max purge
Sampling Begins

SIGNATURE(S): Walt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: MSA / GSP
PROJECT NUMBER:

WELL ID.: GSP-MW3-061711
DATE: 6-17-11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1414	3.72	—	—	—	—	—	—	—	—	
1415	4.20	300	5.17	0.055	900	4.07	17.23	219	NA	Initial, NO odor
1420	4.50	150	5.11	0.056	900	2.66	17.08	198	NA	cloudy water
1425	5.05	100	5.17	0.056	799	2.15	16.66	176	NA	
1435	5.45	100	5.17	0.056	600	1.98	16.60	170	NA	
1445	5.80	100	5.24	0.057	589	1.86	16.41	163	NA	
1450	5.87	100	5.22	0.058	570	1.79	16.65	160	NA	
1455	6.00	100	5.24	0.058	570	1.77	16.67	159	NA	
1500	6.02	100	5.21	0.058	571	1.78	16.65	158	NA	
			Well parameters Stabilize							
			Sampling Begins							

SIGNATURE(S): Matt R

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP GW Sampling
PROJECT NUMBER:

WELL ID.: GSP-MW-4-062011
DATE: 6/20/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
0935	3.45	—	—	—	—	—	—	—	—	
0940	3.62	300	5.51	1.00	800	3.05	18.29	154	—	
0945	3.81	250	5.52	1.00	661	1.12	16.62	95	—	
0950	3.85	250	5.52	1.07	748	0.83	16.16	83	—	
0955	3.86	250	5.51	1.07	752	0.68	15.78	77	—	
1000	3.86	250	5.51	1.08	709	0.61	15.68	72	—	
1005	3.87	250	5.50	1.08	650	0.56	15.67	70	—	
1010	3.88	250	5.51	1.07	561	0.49	15.62	68	—	
1015	3.89	250	5.51	1.07	519	0.50	15.60	67	—	
1020	3.89	250	5.50	1.06	435	0.54	15.64	67	—	
1025	3.90	250	5.49	1.05	327	0.54	15.71	66	—	
1030	3.92	250	5.49	1.06	226	0.52	15.86	67	—	
1035	3.93	250	5.49	1.06	156	0.48	15.91	67	—	
1040	3.93	250	5.47	1.06	121	0.64	16.13	66	—	
1045	3.94	250	5.45	1.07	97.7	0.86	16.43	65	—	
1050	3.94	250	5.49	1.07	90.8	0.81	16.50	65	—	
1055	3.95	250	5.49	1.07	763	0.47	16.63	65	—	
Sampling	Vocs, Total + Diss Metals, SVOCs + 1,4 Dioxane, GRO, DRO, Perchlorate + Hex chrom									
Hex Chrom collected @ 14:20										

SIGNATURE(S):

Tetra Tech NUS, Inc.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP GW Sampling
PROJECT NUMBER:

WELL ID.: GSP-MW-5-062011
DATE: 6/20/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
1125	6.09	—	—	—	—	—	—	—	
1130	6.46	300	5.23	0.730	101	2.63	21.77	93	
1135	6.48	300	5.21	0.725	87.6	0.91	20.42	57	
1140	6.50	200	5.29	0.732	83.2	0.50	14.44	43	
1145	6.50	200	5.29	0.733	84.8	0.47	19.37	41	
1150	6.51	200	5.29	0.728	84.6	0.58	14.21	42	
1155	6.52	200	5.29	0.724	84.3	0.71	19.06	41	
1200	6.52	200	5.14	0.713	77.6	0.36	18.70	38	
1205	6.62	200	5.09	0.711	69.9	0.36	18.35	38	
1210	6.95	300	5.14	0.709	75.4	0.36	18.24	33	
1215	6.65	300	5.13	0.708	73.6	0.37	18.16	31	
Sampling	VOCs, Total + Diss Metals, SVOCs + 1,4-Dioxane, DRO, GRO, Perchlorate,					+ Hex chrom.			
Hex Chrom collected @ 1245									

SIGNATURE(S):

Tetra Tech NUS, Inc.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Greater Strawberry Point
PROJECT NUMBER:
WELL ID.: GSP-MW-6-062011
DATE: 6/20/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
13:05	4.69	—	—	—	—	—	—	—	
13:10	5.41	200	5.89	0.937	23.9	6.03	22.21	137	
13:15	5.90	200	5.91	0.981	27.2	4.93	20.79	144	
13:20	6.38	180	5.92	0.989	40.9	4.74	19.77	150	
1325	6.31	180	5.92	0.995	41.5	4.59	19.88	155	
13:35	6.34	150	5.90	0.977	30.4	4.47	19.81	158	
13:40	6.34	150	5.94	0.989	26.3	4.39	19.77	154	
13:45	6.35	150	6.00	1.03	22.3	4.26	19.70	144	
1350	6.35	150	6.02	1.05	21.6	4.31	19.19	140	
Sampling VOCs, Total + Diss Metals, SVOCs + 1,4-Dioxane, DRO, GRO, perchlorate and hex Chrom.									
hex Chrome. collected @			14:55						
			55						

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP gw Sampling
PROJECT NUMBER:
WELL ID.: GSP-MW-7-062211
DATE: 6/22/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
11:35	4.27	—	—	—	—	—	—	—	—	
11:50	5.50	180	5.48	0.254	510	3.52	23.73	231		
11:55	5.91	220	5.45	0.266	460	3.42	21.44	232		
1200	6.37	200	5.44	0.271	416	3.09	21.65	232		
1210	6.71	200	5.45	0.272	331	3.31	21.72	233		
12:15	7.15	200	5.45	0.260	323	3.28	21.74	235		
12:20	7.55	200	5.43	0.254	292	3.00	21.30	236		
12:25	7.72	200	5.43	0.252	237	2.91	21.26	236		
12:30	7.98	200	5.43	0.249	200	2.86	21.33	235		
12:35	8.08	200	5.43	0.247	164	2.78	21.33	235		
Sampling VOCs, Total and dissolved metals, SVOCs + 1,4-dioxane, GRO, DRO, perchlorate, hex chrom. Hex chrom collected at 13:20										

SIGNATURE(S):

Tetra Tech NUS, Inc.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP GW Sampling
PROJECT NUMBER:
WELL ID.: GSP-MW-8-062211
DATE: 6/22/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
09:50	4.40	–	–	–	–	–	–	–	
10:05	2-0	260	5.01	0.252	177	5.93	21.25	283	Continue purge - went to collect water meter
10:30	7.42	260	5.12	0.225	21.3	5.49	21.93	267	
10:35	7.80	200	5.12	0.229	17.3	5.74	19.99	268	
10:40	8.15	180	5.11	0.230	14.5	5.60	19.31	268	
10:45	8.35	180	5.10	0.230	13.0	5.34	19.56	269	
10:50	8.61	180	5.10	0.229	10.9	5.35	19.83	270	Well appears dry soon after sampling begins
Sampling VOCs, Total + Diss metals, SVOCs + 1,4-Dioxane, DRO, GRO, perchlorate, + hex chrom. Hex chrom collected at 15:00									
Returned to sample @ 1010 on 6/23/11. All samples collected. WL @ 4.42.									

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP
PROJECT NUMBER: 112IC03279
WELL ID.: GSP-SB-MP-50-062211
DATE: 6/22/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
~~1225~~	6.02	—	—	—	—	—	—	—	—	
~~1230~~	7.25	100	6.24	0.362	Err	0.88	20.2	30	0.0	
1235	7.26	100	5.71	0.441	Err	0.00	20.2	84	0.0	
1240	7.27	100	5.82	0.579	Err	0.00	20.5	91	0.0	
1245	7.27	100	6.00	0.607	Err	0.00	20.8	76	0.0	
1250	7.28	100	6.09	0.632	964.0	0.00	20.7	76	0.0	
1255	7.29	100	6.18	0.631	Err	0.15	20.8	78	0.0	
1300	7.31	100	6.26	0.629	Err	0.82	20.7	61	0.0	
1305	7.31	100	6.38	0.631	Err	1.00	20.6	68	0.0	
1310	7.32	100	6.50	0.632	538.0	1.03	20.5	70	0.0	
Sampling VOCs, SVOCs + 1,4-Dioxane, Total + Dissolved metals, TPH-GRO, TPH-DRO, Perchlorate + Hex chrom										
Hex chrom collected @ 1400										

SIGNATURE(S):

Tetra Tech NUS, Inc.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP GW Sampling
PROJECT NUMBER:

WELL ID.: GSP-SB-WP-54-062111
DATE: 6/21/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
10:05	water level	120	6.24	0.385	668	1.84	19.68	238	
10:10	meter ~~[illegible]~~ did	120	6.44	0.378	542	1.08	18.62	233	
10:15	not fit into	No Flow							
10:25	PVC	120	6.50	0.383	158	1.06	19.06	240	
10:30	pipe	120	6.52	0.380	145	0.94	18.66	237	
10:35		120	6.51	0.383	86.4	1.02	18.37	234	
10:40		120	6.50	0.386	74.7	0.99	18.31	232	
10:45		120	6.49	0.387	62.5	1.03	18.26	232	
10:50		120	6.63	0.390	62.9	0.96	18.17	231	
Sampling VOCs, Total + Diss. Metals, SVOCs + 1,4-dioxane, DRO, GRO, perchlorate, + hexchrom.									
Hex chrom collected @ 15:10									

SIGNATURE(S): [signature]

PAGE___OF___

Tetra Tech NUS, Inc.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP GW Sampling
PROJECT NUMBER:

WELL ID.: GSP-SB-WP-61-062111
DATE: 6/21/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
13:00	7.95	-	-	-	-	-	-	-	
13:05	13.59	-	5.86	0.255	800	2.99	28.71	130	
13:10	13.62	-	5.84	0.270	800	3.98	27.89	147	Well appears dry

SIGNATURE(S): _____

PAGE___OF___

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP
PROJECT NUMBER: 112ICO6279
WELL ID.: GSP-SB-MP-66-062211
DATE: 6/22/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1105	5.87	—	—	—	—	—	—	—	—	
1110	9.47	100	6.14	0.269	Err	1.10	21.1	-144	0.0	Very Turbid
1115	12.73	100	5.35	0.258	Err	0.00	20.5	-116	0.0	Turbid
1118	13.36	—	—	—	—	—	—	—	—	Well Dry
Returned to sampler on 6/23/11. Collected VOCs, Total + Dissolved Metals, TPH-DRO/GRO, + Perchlorate.										
0845	5.91	—	—	—	—	—	—	—	—	
Next Chrom collected @ 1253 on 6/23/11										

SIGNATURE(S): _____

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP GW Sampling
PROJECT NUMBER:

WELL ID.: GSP-SB-WP-71-062711
DATE: 6/24/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
12:55	9.40	180	6.78	1.03	800	3.39	21.63	-24		
13:00	10.21	200	6.62	0.959	800	1.87	19.83	-29		
13:05	11.03	200	6.51	0.902	800	1.46	19.44	-27		
13:10	11.08	200	6.40	0.840	800	1.01	19.27	-25		
13:15	11.10	200	6.36	0.813	800	0.83	19.20	-24		
13:20	10.51	180	6.32	0.780	509	0.67	19.69	-23		
13:25	10.79	180	6.29	0.765	369	0.61	19.62	-24		
13:30	11.16	180	6.27	0.734	259	0.46	19.38	-23		
13:35	11.44	180	6.25	0.721	238	0.42	19.15	-23		
13:40	11.77	180	6.23	0.712	198	0.39	18.93	-24		
Sampling VOCs, Total + Diss ~~Solids~~ Metals, SVOCs + 1,4-Dioxane, DRO, GRO, perchlorate and hex chrom. Hex Chrom collected at 14:20 MS										
12:25	6.94	-	-	-	-	-	-	-	-	

SIGNATURE(S):

Tetra Tech NUS, Inc.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP gw sampling
PROJECT NUMBER:

WELL ID.: GSP-SB-WP-83-062211
DATE: 6/22/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
14:30	2.65'	—	—	—	—	—	—	—	• well top is broken
14:55	6.88'	260	6.50	0.650	800	2.20	29.06	-6	could be contaminated with ground-field material because ~~the~~ water
15:00	8.50'	260	6.43	0.630	800	1.53	26.79	-6	is very murky.
15:05	9.60'	260	6.52	0.604	800	1.93	26.04	-19	
15:10	9.80'?	200	6.43	0.600	800	3.65	24.84	2	• Bottom hit w/ water meter
15:15	9.80'?	200	6.34	0.602	800	4.39	23.47	20	yet there is still flow.
15:20	9.80'?	200	6.31	0.596	800	4.59	23.21	33	
15:25	9.80'?	200	6.29	0.585	571	5.99	23.47	40	
15:30	9.80'?	200	6.26	0.576	417	4.46	23.46	48	
15:35	9.80'?	200	6.14	0.571	253	7.57	23.42	56	
15:40	9.80'?	200	6.22	0.562	183	5.74	24.00	56	
15:45	9.80'?	200	6.10	0.566	172	6.04	22.88	67	
15:50	9.80'?	200	6.05	0.566	147	6.01	22.57	73	
Sampling for VOCs, Total and dissolved metals, SVOCs + 1,4-dioxane, GRO, DRO, perchlorate and hex chrom									
Hex chrom sampled @ 16:20									

SIGNATURE(S):

Tetra Tech NUS, Inc.

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP gw Sampling
PROJECT NUMBER:

WELL ID.: GSP-SB-WP-84-062311
DATE: 6/23/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celsius)	ORP (mV)	Comments
11:20	4.42'	—	—	—	—	—	—	—	
11:25	10.21	260	3.76	0.236	800	0.78	17.93	291	
11:30	11.41	160	3.82	0.223	800	0.66	18.03	300	
11:35	11.01	180	3.81	0.212	476	0.72	17.98	305	
11:40	11.09	180	3.76	0.207	360	0.68	17.80	309	
11:45	11.27	180	3.75	0.202	325	0.59	17.52	309	
11:50	11.33	180	3.74	0.201	287	0.55	17.39	310	
11:55	11.47	180	3.74	0.201	200	0.52	17.34	309	
12:00	11.61	180	3.74	0.200	233	0.51	17.47	309	
12:05	11.74	180	3.76	0.200	195	0.52	17.45	307	
Sampling for VOCs, Total and Diss metals SVOCs + 1,4-Dioxane, DRO, GRO, Perchlorate and Hex Chrom. Hex chrom collected at 12:40									

SIGNATURE(S):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: GSP gw Sampling
PROJECT NUMBER:

WELL ID.: GSP-SB-WP-89-062311
DATE: 6/23/11

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
~~0900~~	7.71	–	–	–	–	–	–	–	–	
0905	11.19	280	5.13	0.407	800	1.06	17.68	108		light tannish color to water flow.
9:10	12.17	200	5.09	0.360	800	0.65	17.90	113		
9:15	12.51	200	4.98	0.322	800	0.59	17.45	125		Flow is clearer.
9:20	12.54	200	4.88	0.305	800	0.58	17.20	137		
9:25	12.85	200	4.83	0.294	800	0.53	16.96	146		
9:30	12.83	200	4.76	0.283	800	0.51	17.24	156		
9:35	12.57	200	4.73	0.272	479	0.47	17.44	164		
9:40	12.49	200	4.71	0.269	360	0.45	17.48	169		
9:45	12.52	200	4.65	0.269	236	0.44	17.32	177		
9:50	12.53	200	4.63	0.262	187	0.41	17.28	182		
9:55	12.45	200	4.59	0.259	129	0.41	17.52	188		
Sampling for VOCs, Total + Diss metals, ~~DRO~~ SVOCs + 1,4-Dioxane, GRO, DRO, perchlorate, and hex chrom. Hex chrom collected at 13:25										

SIGNATURE(S):

APPENDIX G—WELL SURVEY REPORT

Table 4-3

Groundwater Levels and Elevations
Lockheed Martin Martin State Airport, Middle River, Maryland

Well ID	Date of Well Installation	Aquifer Level	Northing[1] NAD83 Feet	Easting[1] NAD83 Feet	Elevation[1] Ground NAVD88 Feet	Elevation[1] Top of Well Casing NAVD88 Feet	Well Casing Stickup/ Stickdown (-) Feet	Elevation[1] Screen Midpoint NAVD88 Feet	Well Casing and Screen Diameter Inches	Depth Top of Screen Below Grade Feet	Depth Bottom of Screen Below Grade Feet	Elevation[1] Top of Screen NAVD88 Feet
DMW-1A	5/1/2002	I	604398.60	1479498.32	10.37	12.05	1.68	-39.63	2	45.00	55.00	-34.63
DMW-1B	5/1/2002	D	604398.60	1479498.32	10.37	12.04	1.67	-75.13	2	83.00	88.00	-72.63
DMW-1S	7/28/2003	S	604458.58	1479310.48	11.41	11.08	-0.33	-2.25	2	8.66	18.66	2.75
DMW-2A	5/1/2002	I	604678.82	1479789.39	19.58	21.65	2.07	-35.42	2	50.00	60.00	-30.42
DMW-2B	5/1/2002	D	604678.82	1479789.39	19.58	21.66	2.08	-70.42	2	85.00	95.00	-65.42
DMW-2S	7/17/2003	S	604670.41	1479807.55	19.34	21.75	2.41	-6.26	2	20.60	30.60	-1.26
DMW-3D	7/10/2003	D	604810.48	1479731.13	16.47	16.46	-0.01	-63.79	2	75.26	85.26	-58.79
DMW-3I	7/11/2003	I	604810.48	1479731.13	16.47	16.45	-0.02	-36.79	2	48.26	58.26	-31.79
DMW-3S	7/11/2003	S	604804.87	1479733.91	16.53	16.52	-0.01	-5.43	2	16.96	26.96	-0.43
DMW-4D	7/16/2003	D	604566.00	1480031.48	17.52	20.44	2.92	-58.00	2	70.52	80.52	-53.00
DMW-4I	7/16/2003	I	604566.00	1480031.48	17.52	20.48	2.96	-34.11	2	46.63	56.63	-29.11
DMW-4S	7/17/2003	S	604563.04	1480036.27	17.61	20.52	2.91	-7.34	2	19.95	29.95	-2.34
DMW-5D	7/22/2003	D	604431.10	1480140.63	18.66	21.38	2.72	-57.39	2	71.05	81.05	-52.39
DMW-5I	7/22/2003	I	604431.10	1480140.50	18.66	21.39	2.73	-32.79	2	46.45	56.45	-27.79
DMW-5S	7/23/2003	S	604430.05	1480141.08	18.50	21.34	2.84	-6.95	2	20.45	30.45	-1.95
DMW-6D	7/24/2003	D	604193.59	1480266.19	15.61	18.51	2.90	-49.44	2	60.05	70.05	-44.44
DMW-6I	7/24/2003	I	604193.59	1480266.19	15.61	18.64	3.03	-30.67	2	41.28	51.28	-25.67
DMW-6S	7/25/2003	S	604190.48	1480255.05	15.95	18.62	2.67	-4.59	2	15.54	25.54	0.41
DMW-7D	7/29/2003	D	604287.20	1479924.19	19.22	21.94	2.72	-54.93	2	69.15	79.15	-49.93
DMW-7I	7/29/2003	I	604287.20	1479924.19	19.22	21.90	2.68	-29.89	2	44.11	54.11	-24.89
DMW-7S	7/30/2003	S	604291.49	1479921.81	19.21	21.84	2.63	-5.56	2	19.77	29.77	-0.56
DMW-8D	7/31/2003	D	604516.04	1479673.57	13.62	16.35	2.73	-51.08	2	59.70	69.70	-46.08
DMW-8I	7/31/2003	I	604516.04	1479673.57	13.62	16.30	2.68	-26.42	2	35.04	45.04	-21.42
DMW-8S	7/31/2003	S	604516.62	1479667.79	13.35	15.80	2.45	-1.60	2	9.95	19.95	3.40
DMW-9D	8/6/2003	D	604764.91	1479293.42	8.71	11.41	2.70	-56.49	2	60.20	70.20	-51.49
DMW-9I	8/6/2003	I	604764.91	1479293.42	8.71	11.40	2.69	-30.99	2	34.70	44.70	-25.99
DMW-9S	8/6/2003	S	604771.56	1479286.86	8.76	11.45	2.69	-5.69	2	9.45	19.45	-0.69
MW-1[2]	8/10/1994	I	604052.58	1479214.74	10.69	10.69	NA	-30.31	4	36.00	46.00	-25.31
MW-10I	8/13/2003	I	604630.69	1479217.34	10.43	10.27	-0.16	-29.53	2	34.96	44.96	-24.53
MW-10S	8/27/2003	S	604636.82	1479225.83	10.24	10.29	0.05	-5.44	2	10.68	20.68	-0.44
MW-11I	8/14/2003	I	604429.32	1478930.78	9.38	9.15	-0.23	-26.18	2	30.56	40.56	-21.18
MW-11S	8/27/2003	S	604424.24	1478934.92	9.35	9.20	-0.15	-5.66	2	10.01	20.01	-0.66
MW-14D	2/23/2007	DD	605129.85	1479550.68	11.95	11.56	-0.39	-101.05	2	108.00	118.00	-96.05
MW-14I	2/23/2007	I	605129.85	1479550.68	11.95	11.72	-0.23	-33.05	2	40.00	50.00	-28.05
MW-15D	11/7/2007	D	605010.96	1479028.29	6.29	8.77	2.48	-53.21	2	57.00	62.00	-50.71
MW-15I	11/8/2007	I	605010.96	1479028.29	6.29	8.79	2.50	-33.71	2	35.00	45.00	-28.71
MW-15S	11/8/2007	S	605010.96	1479028.29	6.29	8.60	2.31	-8.71	2	10.00	20.00	-3.71
MW-16D	10/12/2007	D	605086.42	1479248.84	7.81	10.22	2.41	-53.19	2	56.00	66.00	-48.19
MW-16I	10/12/2007	I	605086.42	1479248.84	7.81	10.06	2.25	-32.19	2	35.00	45.00	-27.19
MW-16S	10/12/2007	S	605086.42	1479248.84	7.81	10.20	2.39	-7.19	2	10.00	20.00	-2.19
MW-17D	10/10/2007	D	605112.67	1479358.32	8.03	7.56	-0.47	-56.97	2	60.00	70.00	-51.97
MW-17I	10/10/2007	I	605112.67	1479358.32	8.03	7.68	-0.35	-32.97	2	36.00	46.00	-27.97
MW-17S	10/10/2007	S	605112.67	1479358.32	8.03	7.61	-0.42	-5.97	2	9.00	19.00	-0.97
MW-18D	11/18/2007	D	604934.54	1479642.31	9.17	8.88	-0.29	-69.83	2	74.00	84.00	-64.83
MW-18I	10/16/2007	I	604930.77	1479645.06	9.14	8.91	-0.23	-35.86	2	40.00	50.00	-30.86
MW-18S	10/16/2007	S	604930.77	1479645.06	9.14	8.89	-0.25	-10.86	2	15.00	25.00	-5.86
MW-19D	10/22/2007	D	604152.70	1479701.18	8.45	7.94	-0.51	-66.55	2	70.00	80.00	-61.55
MW-19I	10/18/2007	I	604152.70	1479701.18	8.45	7.90	-0.55	-41.55	2	45.00	55.00	-36.55
MW-2	8/12/1994	I	604144.32	1479708.26	8.54	8.40	-0.14	-28.46	4	32.00	42.00	-23.46
MW-20D	11/6/2007	D	604630.96	1479397.95	9.91	12.40	2.49	-55.09	2	60.00	70.00	-50.09
MW-20I	11/6/2007	I	604630.96	1479397.95	9.91	12.39	2.48	-30.09	2	35.00	45.00	-25.09
MW-20S	11/6/2007	S	604630.96	1479397.95	9.91	12.44	2.53	-5.09	2	10.00	20.00	-0.09
MW-21D	10/26/2007	D	604467.75	1479303.22	11.31	10.78	-0.53	-63.69	2	70.00	80.00	-58.69
MW-21I	10/26/2007	I	604467.75	1479303.22	11.31	10.83	-0.48	-23.69	2	30.00	40.00	-18.69
MW-22D	10/30/2007	D	604442.07	1479112.84	11.49	11.02	-0.47	-63.51	2	70.00	80.00	-58.51
MW-22I	11/30/2007	I	604442.07	1479112.84	11.49	11.01	-0.48	-23.51	2	30.00	40.00	-18.51
MW-23D	11/1/2007	D	604237.13	1479295.12	10.34	10.03	-0.31	-70.66	2	76.00	86.00	-65.66
MW-23I	11/1/2007	I	604237.13	1479295.12	10.34	10.07	-0.27	-34.66	2	40.00	50.00	-29.66
MW-23S	11/1/2007	S	604237.13	1479295.12	10.34	10.01	-0.33	-11.66	2	17.00	27.00	-6.66
MW-24I	11/5/2007	I	603945.66	1479375.24	8.24	7.68	-0.56	-31.76	2	35.00	45.00	-26.76
MW-24S	11/5/2007	S	603945.66	1479375.24	8.24	7.72	-0.52	-11.76	2	15.00	25.00	-6.76
MW-25I	11/5/2007	I	604510.08	1478812.44	10.11	9.72	-0.39	-28.89	2	34.00	44.00	-23.89
MW-25S	11/5/2007	S	604510.08	1478812.44	10.11	9.69	-0.42	-4.89	2	10.00	20.00	0.11
MW-26D	10/25/2007	D	604726.41	1479035.39	12.04	11.66	-0.38	-50.96	2	58.00	68.00	-45.96
MW-26I	10/25/2007	I	604726.41	1479035.39	12.04	11.67	-0.37	-27.96	2	35.00	45.00	-22.96
MW-26S	10/25/2007	S	604726.41	1479035.39	12.04	11.72	-0.32	-2.96	2	10.00	20.00	2.04
MW-27D	7/10/2008	DD	605114.25	1479032.00	5.47	8.39	2.92	-174.53	2.5	175.00	185.00	-169.53
MW-28I	7/10/2008	I	605110.61	1479027.89	5.69	8.65	2.96	-39.64	2	40.33	50.33	-34.64
MW-29D	7/10/2008	DD	603774.77	1480488.41	11.66	11.43	-0.23	-143.34	2.5	150.00	160.00	-138.34
MW-3	8/12/1994	S	604448.84	1479107.23	11.49	11.19	-0.30	-13.51	4	20.00	30.00	-8.51
MW-30D	12/11/2008	DD	603825.46	1479645.71	8.39	8.26	-0.13	-194.61	2.5	198.00	208.00	-189.61
MW-30I												
MW-31D	12/11/2008	DD	603747.78	1480099.58	7.15	6.95	-0.20	-187.85	2.5	190.00	200.00	-182.85
MW-32I	8/23/2009	I	603917.70	1479926.52	7.45	7.28	-0.17	-52.55	2	55.00	65.00	-47.55
MW-32S	8/23/2009	S	603917.70	1479926.52	7.45	7.27	-0.18	-22.55	2	25.00	35.00	-17.55
MW-33I	8/23/2009	I	605115.62	1478762.02	10.23	10.02	-0.21	-54.77	2	60.00	70.00	-49.77
MW-33S	8/23/2009	S	605115.62	1478762.02	9.58	9.97	0.39	-29.92	2	34.50	44.50	-24.92
MW-34I	8/23/2009	I	605340.11	1478893.75	7.51	7.37	-0.14	-42.49	2	45.00	55.00	-37.49
MW-34S	8/23/2009	S	605340.11	1478893.75	7.51	7.44	-0.07	-24.49	2	27.00	37.00	-19.49
MW-35S												
MW-36S												
MW-37S												
MW-38S												
MW-39S												
MW-4	1/29/1996	S	604852.91	1479180.81	10.51	10.34	-0.17	-5.99	4	3.00	30.00	7.51
MW-5	1/30/1996	S	604294.68	1479901.86	19.41	22.65	3.24	-9.59	4	19.00	39.00	0.41
MW-6	1/31/1996	S	604009.26	1480184.72	13.69	15.72	2.03	-10.31	4	14.00	34.00	-0.31
MW-7	8/11/2003	S	604765.23	1478680.36	11.18	10.90	-0.28	-5.88	2	12.06	22.06	-0.88
OW1-I	10/18/2007	I	604638.04	1479781.43	18.32	18.05	-0.27	-36.68	2	50.00	60.00	-31.68
OW1-S	10/22/2007	S	604674.88	1479817.31	19.16	19.17	0.01	-5.84	2	20.00	30.00	-0.84
RW1-I	10/18/2007	I	604662.81	1479782.43	18.67	18.44	-0.23	-36.33	4	50.00	60.00	-31.33
RW1-S	10/22/2007	S	604677.60	1479813.40	19.30	19.09	-0.21	-5.70	4	20.00	30.00	-0.70
TT-11[2]	8/26/2003	S	604264.70	1479085.31	11.16	11.16	NA	-2.34	1.25	11.00	16.00	0.16
TT-12[2]	8/26/2003	S	604077.47	1479083.14	11.51	11.51	NA	-1.99	1.25	11.00	16.00	0.51
TT-13[2]	8/26/2003	S	603961.29	1479338.80	9.55	9.55	NA	-2.95	1.25	10.00	15.00	-0.45
TT-14[2]	8/26/2003	S	604062.23	1479385.80	10.31	10.31	NA	-2.19	1.25	10.00	15.00	0.31

1 Based on an October 2010 survey of all Dump Road Area wells
2 Well has been sealed and abandoned in accordance with state regulations and is no longer in use
NA - Not available or not measured
S - Upper surficial aquifer
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D - Lower surficial aquifer
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NAVD88 = North American Vertical Datum of 1988.
NAD83 - North American Datum of 1983

Table 4-3

Groundwater Levels and Elevations
Lockheed Martin Martin State Airport, Middle River, Maryland

Well ID	Date of Well Installation	Aquifer Level	Northing[1] NAD83 Feet	Easting[1] NAD83 Feet	Elevation[1] Ground NAVD88 Feet	Elevation[1] Top of Well Casing NAVD88 Feet	Elevation[1] Bottom of Screen NAVD88 Feet	Well Screen Length Feet	Depth Top of Filterpack Below Grade Feet	Depth Bottom of Filterpack Below Grade Feet	Well Filterpack Thickness Feet	Well Borehole Diameter Inches
DMW-1A	5/1/2002	I	604398.60	1479498.32	10.37	12.05	-44.63	10	44.00	56.00	12.00	8
DMW-1B	5/1/2002	D	604398.60	1479498.32	10.37	12.04	-77.63	5	82.00	89.00	7.00	8
DMW-1S	7/28/2003	S	604458.58	1479310.48	11.41	11.08	-7.25	10	5.66	18.66	13.00	8.25
DMW-2A	5/1/2002	I	604678.82	1479789.39	19.58	21.65	-40.42	10	49.00	61.00	12.00	8
DMW-2B	5/1/2002	D	604678.82	1479789.39	19.58	21.66	-75.42	10	84.00	96.00	12.00	8
DMW-2S	7/17/2003	S	604670.41	1479807.55	19.34	21.75	-11.26	10	17.60	30.60	13.00	8.25
DMW-3D	7/10/2003	D	604810.48	1479731.13	16.47	16.46	-68.79	10	68.80	88.00	19.20	8.25
DMW-3I	7/11/2003	I	604810.48	1479731.13	16.47	16.45	-41.79	10	41.00	62.00	21.00	8.25
DMW-3S	7/11/2003	S	604804.87	1479733.91	16.53	16.52	-10.43	10	14.10	26.96	12.86	8.25
DMW-4D	7/16/2003	D	604566.00	1480031.48	17.52	20.44	-63.00	10	67.00	90.00	23.00	8.25
DMW-4I	7/16/2003	I	604566.00	1480031.48	17.52	20.48	-39.11	10	39.00	62.00	23.00	8.25
DMW-4S	7/17/2003	S	604563.04	1480036.27	17.61	20.52	-12.34	10	17.00	30.00	13.00	8.25
DMW-5D	7/22/2003	D	604431.10	1480140.63	18.66	21.38	-62.39	10	67.00	100.00	33.00	8.25
DMW-5I	7/22/2003	I	604431.10	1480140.50	18.66	21.39	-37.79	10	39.00	62.00	23.00	8.25
DMW-5S	7/23/2003	S	604430.05	1480141.08	18.50	21.34	-11.95	10	17.00	35.00	18.00	8.25
DMW-6D	7/24/2003	D	604193.59	1480266.19	15.61	18.51	-54.44	10	57.50	85.00	27.50	8.25
DMW-6I	7/24/2003	I	604193.59	1480266.19	15.61	18.64	-35.67	10	35.00	54.50	19.50	8.25
DMW-6S	7/25/2003	S	604190.48	1480255.05	15.95	18.62	-9.59	10	14.00	27.00	13.00	8.25
DMW-7D	7/29/2003	D	604287.20	1479924.19	19.22	21.94	-59.93	10	63.00	82.00	19.00	8.25
DMW-7I	7/29/2003	I	604287.20	1479924.19	19.22	21.90	-34.89	10	39.00	57.50	18.50	8.25
DMW-7S	7/30/2003	S	604291.49	1479921.81	19.21	21.84	-10.56	10	16.00	29.77	13.77	8.25
DMW-8D	7/31/2003	D	604516.04	1479673.57	13.62	16.35	-56.08	10	54.00	85.00	31.00	8.25
DMW-8I	7/31/2003	I	604516.04	1479673.57	13.62	16.30	-31.42	10	29.00	49.00	20.00	8.25
DMW-8S	7/31/2003	S	604516.62	1479667.79	13.35	15.80	-6.60	10	7.00	19.95	12.95	8.25
DMW-9D	8/6/2003	D	604764.91	1479293.42	8.71	11.41	-61.49	10	54.00	85.00	31.00	8.25
DMW-9I	8/6/2003	I	604764.91	1479293.42	8.71	11.40	-35.99	10	29.00	49.00	20.00	8.25
DMW-9S	8/6/2003	S	604771.56	1479286.86	8.76	11.45	-10.69	10	6.00	20.00	14.00	8.25
MW-1[2]	8/10/1994	I	604052.58	1479214.74	10.69	10.69	-35.31	10	34.00	46.00	12.00	10
MW-10I	8/13/2003	I	604630.69	1479217.34	10.43	10.27	-34.53	10	32.00	44.96	12.96	8.25
MW-10S	8/27/2003	S	604636.82	1479225.83	10.24	10.29	-10.44	10	7.00	20.68	13.68	8.25
MW-11I	8/14/2003	I	604429.32	1478930.78	9.38	9.15	-31.18	10	27.56	40.56	13.00	8.25
MW-11S	8/27/2003	S	604424.24	1478934.92	9.35	9.20	-10.66	10	8.00	20.01	12.01	8.25
MW-14D	2/23/2007	DD	605129.85	1479550.68	11.95	11.56	-106.05	10	106.0	118.0	12.0	10
MW-14I	2/23/2007	I	605129.85	1479550.68	11.95	11.72	-38.05	10	37.00	55.00	18.00	10
MW-15D	11/7/2007	D	605010.96	1479028.29	6.29	8.77	-55.71	5	54.00	68.00	14.00	10
MW-15I	11/8/2007	I	605010.96	1479028.29	6.29	8.79	-38.71	10	33.00	46.50	13.50	10
MW-15S	11/8/2007	S	605010.96	1479028.29	6.29	8.60	-13.71	10	8.00	22.00	14.00	10
MW-16D	10/12/2007	D	605086.42	1479248.84	7.81	10.22	-58.19	10	53.00	68.00	15.00	10
MW-16I	10/12/2007	I	605086.42	1479248.84	7.81	10.06	-37.19	10	33.00	47.00	14.00	10
MW-16S	10/12/2007	S	605086.42	1479248.84	7.81	10.20	-12.19	10	8.00	21.00	13.00	10
MW-17D	10/10/2007	D	605112.67	1479358.32	8.03	7.56	-61.97	10	58.00	71.00	13.00	10
MW-17I	10/10/2007	I	605112.67	1479358.32	8.03	7.68	-37.97	10	33.00	47.00	14.00	10
MW-17S	10/10/2007	S	605112.67	1479358.32	8.03	7.61	-10.97	10	7.00	20.00	13.00	10
MW-18D	11/18/2007	D	604934.54	1479642.31	9.17	8.88	-74.83	10	71.50	84.50	13.00	10
MW-18I	10/16/2007	I	604930.77	1479645.06	9.14	8.91	-40.86	10	38.00	51.00	13.00	10
MW-18S	10/16/2007	S	604930.77	1479645.06	9.14	8.89	-15.86	10	13.00	26.00	13.00	10
MW-19D	10/22/2007	D	604152.70	1479701.18	8.45	7.94	-71.55	10	68.00	82.00	14.00	10
MW-19I	10/18/2007	I	604152.70	1479701.18	8.45	7.90	-46.55	10	43.00	63.00	20.00	10
MW-2	8/12/1994	I	604144.32	1479708.26	8.54	8.40	-33.46	10	31.50	42.00	10.50	10
MW-20D	11/6/2007	D	604630.96	1479397.95	9.91	12.40	-60.09	10	58.00	71.00	13.00	10
MW-20I	11/6/2007	I	604630.96	1479397.95	9.91	12.39	-35.09	10	33.00	46.00	13.00	10
MW-20S	11/6/2007	S	604630.96	1479397.95	9.91	12.44	-10.09	10	8.00	21.00	13.00	10
MW-21D	10/26/2007	D	604467.75	1479303.22	11.31	10.78	-68.69	10	68.00	83.00	15.00	10
MW-21I	10/26/2007	I	604467.75	1479303.22	11.31	10.83	-28.69	10	28.00	41.00	13.00	10
MW-22D	10/30/2007	D	604442.07	1479112.84	11.49	11.02	-68.51	10	68.00	83.00	15.00	10
MW-22I	11/30/2007	I	604442.07	1479112.84	11.49	11.01	-28.51	10	27.50	42.00	14.50	10
MW-23D	11/1/2007	D	604237.13	1479295.12	10.34	10.03	-75.66	10	73.00	88.00	15.00	10
MW-23I	11/1/2007	I	604237.13	1479295.12	10.34	10.07	-39.66	10	38.00	50.00	12.00	10
MW-23S	11/1/2007	S	604237.13	1479295.12	10.34	10.01	-16.66	10	15.00	30.00	15.00	10
MW-24I	11/5/2007	I	603945.66	1479375.24	8.24	7.68	-36.76	10	33.00	48.00	15.00	10
MW-24S	11/5/2007	S	603945.66	1479375.24	8.24	7.72	-16.76	10	13.00	27.00	14.00	10
MW-25I	11/5/2007	I	604510.08	1478812.44	10.11	9.72	-33.89	10	32.00	48.00	16.00	10
MW-25S	11/5/2007	S	604510.08	1478812.44	10.11	9.69	-9.89	10	8.00	21.00	13.00	10
MW-26D	10/25/2007	D	604726.41	1479035.39	12.04	11.66	-55.96	10	56.00	68.00	12.00	10
MW-26I	10/25/2007	I	604726.41	1479035.39	12.04	11.67	-32.96	10	33.00	48.00	15.00	10
MW-26S	10/25/2007	S	604726.41	1479035.39	12.04	11.72	-7.96	10	8.00	23.00	15.00	10
MW-27D	7/10/2008	DD	605114.25	1479032.00	5.47	8.39	-179.53	10	170.00	186.00	16.00	7
MW-28I	7/10/2008	I	605110.61	1479027.89	5.69	8.65	-44.64	10	36.75	50.33	13.58	7
MW-29D	7/10/2008	DD	603774.77	1480488.41	11.66	11.43	-148.34	10	145.92	162.00	16.08	7
MW-3	8/12/1994	S	604448.84	1479107.23	11.49	11.19	-18.51	10	18.00	30.00	12.00	10
MW-30D	12/11/2008	DD	603825.46	1479645.71	8.39	8.26	-199.61	10	195.00	211.00	16.00	7
MW-30I												
MW-31D	12/11/2008	DD	603747.78	1480099.58	7.15	6.95	-192.85	10	186.00	200.00	14.00	7
MW-32I	8/23/2009	I	603917.70	1479926.52	7.45	7.28	-57.55	10	52.00	68.00	16.00	7
MW-32S	8/23/2009	S	603917.70	1479926.52	7.45	7.27	-27.55	10	22.00	38.00	16.00	7
MW-33I	8/23/2009	I	605115.62	1478762.02	10.23	10.02	-59.77	10	57.00	73.00	16.00	7
MW-33S	8/23/2009	S	605115.62	1478762.02	9.58	9.97	-34.92	10	31.50	41.50	10.00	7
MW-34I	8/23/2009	I	605340.11	1478893.75	7.51	7.37	-47.49	10	42.00	58.00	16.00	7
MW-34S	8/23/2009	S	605340.11	1478893.75	7.51	7.44	-29.49	10	24.00	40.00	16.00	7
MW-35S												
MW-36S												
MW-37S												
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MW-5	1/30/1996	S	604294.68	1479901.86	19.41	22.65	-19.59	20	17.00	39.00	22.00	6.25
MW-6	1/31/1996	S	604009.26	1480184.72	13.69	15.72	-20.31	20	12.00	34.00	22.00	6.25
MW-7	8/11/2003	S	604765.23	1478680.36	11.18	10.90	-10.88	10	9.00	22.06	13.06	8.25
OW1-I	10/18/2007	I	604638.04	1479781.43	18.32	18.05	-41.68	10	48.00	60.00	12.00	10
OW1-S	10/22/2007	S	604674.88	1479817.31	19.16	19.17	-10.84	10	17.60	30.00	12.40	10
RW1-I	10/18/2007	I	604662.81	1479782.43	18.67	18.44	-41.33	10	47.00	60.00	13.00	8
RW1-S	10/22/2007	S	604677.60	1479813.40	19.30	19.09	-10.70	10	16.00	30.00	14.00	8
TT-11[2]	8/26/2003	S	604264.70	1479085.31	11.16	11.16	-4.84	5	8.00	16.00	8.00	6.25
TT-12[2]	8/26/2003	S	604077.47	1479083.14	11.51	11.51	-4.49	5	8.00	16.00	8.00	6.25
TT-13[2]	8/26/2003	S	603961.29	1479338.80	9.55	9.55	-5.45	5	7.00	16.00	9.00	6.25
TT-14[2]	8/26/2003	S	604062.23	1479385.80	10.31	10.31	-4.69	5	7.00	16.00	9.00	6.25

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Groundwater Levels and Elevations
Lockheed Martin Martin State Airport, Middle River, Maryland

Well ID	Date of Well Installation	Aquifer Level	Northing[1] NAD83 Feet	Easting[1] NAD83 Feet	Elevation[1] Ground NAVD88 Feet	Elevation[1] Top of Well Casing NAVD88 Feet	Depth to Groundwater Top of Well Casing 10/14/2003 Feet	Groundwater Elevation[1] NAVD88 10/14/2003 Feet	Depth to Groundwater Top of Well Casing 12/1/2003 Feet	Groundwater Elevation[1] NAVD88 12/1/2003 Feet	Depth to Groundwater Top of Well Casing 9/30/2004 Feet	Groundwater Elevation[1] NAVD88 9/30/2004 Feet
DMW-1A	5/1/2002	I	604398.60	1479498.32	10.37	12.05	8.43	3.62	8.91	3.14	9.50	2.55
DMW-1B	5/1/2002	D	604398.60	1479498.32	10.37	12.04	8.81	3.23	9.54	2.50	9.65	2.39
DMW-1S	7/28/2003	S	604458.58	1479310.48	11.41	11.08	7.34	3.74	7.74	3.34	8.50	2.58
DMW-2A	5/1/2002	I	604678.82	1479789.39	19.58	21.65	19.37	2.28	20.92	0.73	20.13	1.52
DMW-2B	5/1/2002	D	604678.82	1479789.39	19.58	21.66	19.14	2.52	20.55	1.11	19.90	1.76
DMW-2S	7/17/2003	S	604670.41	1479807.55	19.34	21.75	19.31	2.44	20.53	1.22	20.60	1.15
DMW-3D	7/10/2003	D	604810.48	1479731.13	16.47	16.46	14.02	2.44	15.61	0.85	14.82	1.64
DMW-3I	7/11/2003	I	604810.48	1479731.13	16.47	16.45	14.03	2.42	15.53	0.92	14.85	1.60
DMW-3S	7/11/2003	S	604804.87	1479733.91	16.53	16.52	14.41	2.11	10.06	6.46	10.51	6.01
DMW-4D	7/16/2003	D	604566.00	1480031.48	17.52	20.44	18.32	2.12	20.11	0.33	19.00	1.44
DMW-4I	7/16/2003	I	604566.00	1480031.48	17.52	20.48	18.23	2.25	19.70	0.78	18.95	1.53
DMW-4S	7/17/2003	S	604563.04	1480036.27	17.61	20.52	18.55	1.97	20.15	0.37	19.25	1.27
DMW-5D	7/22/2003	D	604431.10	1480140.63	18.66	21.38	19.18	2.20	20.81	0.57	20.02	1.36
DMW-5I	7/22/2003	I	604431.10	1480140.50	18.66	21.39	19.13	2.26	20.68	0.71	19.95	1.44
DMW-5S	7/23/2003	S	604430.05	1480141.08	18.50	21.34	19.09	2.25	20.48	0.86	20.12	1.22
DMW-6D	7/24/2003	D	604193.59	1480266.19	15.61	18.51	16.29	2.22	17.76	0.75	17.25	1.26
DMW-6I	7/24/2003	I	604193.59	1480266.19	15.61	18.64	16.41	2.23	17.71	0.93	17.15	1.49
DMW-6S	7/25/2003	S	604190.48	1480255.05	15.95	18.62	16.20	2.42	17.72	0.90	17.09	1.53
DMW-7D	7/29/2003	D	604287.20	1479924.19	19.22	21.94	19.31	2.63	20.41	1.53	20.11	1.83
DMW-7I	7/29/2003	I	604287.20	1479924.19	19.22	21.90	19.28	2.62	20.49	1.41	20.20	1.70
DMW-7S	7/30/2003	S	604291.49	1479921.81	19.21	21.84	19.18	2.66	20.14	1.70	19.98	1.86
DMW-8D	7/31/2003	D	604516.04	1479673.57	13.62	16.35	13.64	2.71	14.65	1.70	14.31	2.04
DMW-8I	7/31/2003	I	604516.04	1479673.57	13.62	16.30	13.64	2.66	14.60	1.70	14.37	1.93
DMW-8S	7/31/2003	S	604516.62	1479667.79	13.35	15.80	12.38	3.42	11.86	3.94	14.20	1.60
DMW-9D	8/6/2003	D	604764.91	1479293.42	8.71	11.41	8.22	3.19	9.21	2.20	9.20	2.21
DMW-9I	8/6/2003	I	604764.91	1479293.42	8.71	11.40	7.95	3.45	9.18	2.22	9.16	2.24
DMW-9S	8/6/2003	S	604771.56	1479286.86	8.76	11.45	7.91	3.54	8.44	3.01	9.22	2.23
MW-1[2]	8/10/1994	I	604052.58	1479214.74	10.69	10.69	6.92	3.77	6.35	4.34	NA	NA
MW-10I	8/13/2003	I	604630.69	1479217.34	10.43	10.27	6.78	3.49	7.25	3.02	7.70	2.57
MW-10S	8/27/2003	S	604636.82	1479225.83	10.24	10.29	6.60	3.69	6.94	3.35	7.80	2.49
MW-11I	8/14/2003	I	604429.32	1478930.78	9.38	9.15	5.20	3.95	5.60	3.55	6.30	2.85
MW-11S	8/27/2003	S	604424.24	1478934.92	9.35	9.20	3.43	5.77	3.20	6.00	3.30	5.90
MW-14D	2/23/2007	DD	605129.85	1479550.68	11.95	11.56	NA	NA	NA	NA	NA	NA
MW-14I	2/23/2007	I	605129.85	1479550.68	11.95	11.72	NA	NA	NA	NA	NA	NA
MW-15D	11/7/2007	D	605010.96	1479028.29	6.29	8.77	NA	NA	NA	NA	NA	NA
MW-15I	11/8/2007	I	605010.96	1479028.29	6.29	8.79	NA	NA	NA	NA	NA	NA
MW-15S	11/8/2007	S	605010.96	1479028.29	6.29	8.60	NA	NA	NA	NA	NA	NA
MW-16D	10/12/2007	D	605086.42	1479248.84	7.81	10.22	NA	NA	NA	NA	NA	NA
MW-16I	10/12/2007	I	605086.42	1479248.84	7.81	10.06	NA	NA	NA	NA	NA	NA
MW-16S	10/12/2007	S	605086.42	1479248.84	7.81	10.20	NA	NA	NA	NA	NA	NA
MW-17D	10/10/2007	D	605112.67	1479358.32	8.03	7.56	NA	NA	NA	NA	NA	NA
MW-17I	10/10/2007	I	605112.67	1479358.32	8.03	7.68	NA	NA	NA	NA	NA	NA
MW-17S	10/10/2007	S	605112.67	1479358.32	8.03	7.61	NA	NA	NA	NA	NA	NA
MW-18D	11/18/2007	D	604934.54	1479642.31	9.17	8.88	NA	NA	NA	NA	NA	NA
MW-18I	10/16/2007	I	604930.77	1479645.06	9.14	8.91	NA	NA	NA	NA	NA	NA
MW-18S	10/16/2007	S	604930.77	1479645.06	9.14	8.89	NA	NA	NA	NA	NA	NA
MW-19D	10/22/2007	D	604152.70	1479701.18	8.45	7.94	NA	NA	NA	NA	NA	NA
MW-19I	10/18/2007	I	604152.70	1479701.18	8.45	7.90	NA	NA	NA	NA	NA	NA
MW-2	8/12/1994	I	604144.32	1479708.26	8.54	8.40	5.35	3.05	6.06	2.34	6.20	2.20
MW-20D	11/6/2007	D	604630.96	1479397.95	9.91	12.40	NA	NA	NA	NA	NA	NA
MW-20I	11/6/2007	I	604630.96	1479397.95	9.91	12.39	NA	NA	NA	NA	NA	NA
MW-20S	11/6/2007	S	604630.96	1479397.95	9.91	12.44	NA	NA	NA	NA	NA	NA
MW-21D	10/26/2007	D	604467.75	1479303.22	11.31	10.78	NA	NA	NA	NA	NA	NA
MW-21I	10/26/2007	I	604467.75	1479303.22	11.31	10.83	NA	NA	NA	NA	NA	NA
MW-22D	10/30/2007	D	604442.07	1479112.84	11.49	11.02	NA	NA	NA	NA	NA	NA
MW-22I	11/30/2007	I	604442.07	1479112.84	11.49	11.01	NA	NA	NA	NA	NA	NA
MW-23D	11/1/2007	D	604237.13	1479295.12	10.34	10.03	NA	NA	NA	NA	NA	NA
MW-23I	11/1/2007	I	604237.13	1479295.12	10.34	10.07	NA	NA	NA	NA	NA	NA
MW-23S	11/1/2007	S	604237.13	1479295.12	10.34	10.01	NA	NA	NA	NA	NA	NA
MW-24I	11/5/2007	I	603945.66	1479375.24	8.24	7.68	NA	NA	NA	NA	NA	NA
MW-24S	11/5/2007	S	603945.66	1479375.24	8.24	7.72	NA	NA	NA	NA	NA	NA
MW-25I	11/5/2007	I	604510.08	1478812.44	10.11	9.72	NA	NA	NA	NA	NA	NA
MW-25S	11/5/2007	S	604510.08	1478812.44	10.11	9.69	NA	NA	NA	NA	NA	NA
MW-26D	10/25/2007	D	604726.41	1479035.39	12.04	11.66	NA	NA	NA	NA	NA	NA
MW-26I	10/25/2007	I	604726.41	1479035.39	12.04	11.67	NA	NA	NA	NA	NA	NA
MW-26S	10/25/2007	S	604726.41	1479035.39	12.04	11.72	NA	NA	NA	NA	NA	NA
MW-27D	7/10/2008	DD	605114.25	1479032.00	5.47	8.39	NA	NA	NA	NA	NA	NA
MW-28I	7/10/2008	I	605110.61	1479027.89	5.69	8.65	NA	NA	NA	NA	NA	NA
MW-29D	7/10/2008	DD	603774.77	1480488.41	11.66	11.43	NA	NA	NA	NA	NA	NA
MW-3	8/12/1994	S	604448.84	1479107.23	11.49	11.19	7.23	3.96	7.25	3.94	8.65	2.54
MW-30D	12/11/2008	DD	603825.46	1479645.71	8.39	8.26	NA	NA	NA	NA	NA	NA
MW-30I												
MW-31D	12/11/2008	DD	603747.78	1480099.58	7.15	6.95	NA	NA	NA	NA	NA	NA
MW-32I	8/23/2009	I	603917.70	1479926.52	7.45	7.28	NA	NA	NA	NA	NA	NA
MW-32S	8/23/2009	S	603917.70	1479926.52	7.45	7.27	NA	NA	NA	NA	NA	NA
MW-33I	8/23/2009	I	605115.62	1478762.02	10.23	10.02	NA	NA	NA	NA	NA	NA
MW-33S	8/23/2009	S	605115.62	1478762.02	9.58	9.97	NA	NA	NA	NA	NA	NA
MW-34I	8/23/2009	I	605340.11	1478893.75	7.51	7.37	NA	NA	NA	NA	NA	NA
MW-34S	8/23/2009	S	605340.11	1478893.75	7.51	7.44	NA	NA	NA	NA	NA	NA
MW-35S												
MW-36S												
MW-37S												
MW-38S												
MW-39S												
MW-4	1/29/1996	S	604852.91	1479180.81	10.51	10.34	6.62	3.72	6.10	4.24	7.85	2.49
MW-5	1/30/1996	S	604294.68	1479901.86	19.41	22.65	19.99	2.66	21.10	1.55	20.96	1.69
MW-6	1/31/1996	S	604009.26	1480184.72	13.69	15.72	12.92	2.80	13.46	2.26	13.70	2.02
MW-7	8/11/2003	S	604765.23	1478680.36	11.18	10.90	5.78	5.12	6.86	4.04	7.36	3.54
OW1-I	10/18/2007	I	604638.04	1479781.43	18.32	18.05	NA	NA	NA	NA	NA	NA
OW1-S	10/22/2007	S	604674.88	1479817.31	19.16	19.17	NA	NA	NA	NA	NA	NA
RW1-I	10/18/2007	I	604662.81	1479782.43	18.67	18.44	NA	NA	NA	NA	NA	NA
RW1-S	10/22/2007	S	604677.60	1479813.40	19.30	19.09	NA	NA	NA	NA	NA	NA
TT-11[2]	8/26/2003	S	604264.70	1479085.31	11.16	11.16	6.45	4.71	5.60	5.56	NA	NA
TT-12[2]	8/26/2003	S	604077.47	1479083.14	11.51	11.51	6.39	5.12	5.79	5.72	NA	NA
TT-13[2]	8/26/2003	S	603961.29	1479338.80	9.55	9.55	4.31	5.24	4.23	5.32	NA	NA
TT-14[2]	8/26/2003	S	604062.23	1479385.80	10.31	10.31	4.81	5.50	3.96	6.35	NA	NA

1 Based on an October 2010 survey of all Dump Road Area wells
2 Well has been sealed and abandoned in accordance with state regulations and is no longer in use
NA - Not available or not measured
S - Upper surficial aquifer
I - Intermediate surficial aquifer
D - Lower surficial aquifer
DD - Deep confined aquifer or below the lower surficial aquifer
NAVD88 = North American Vertical Datum of 1988.
NAD83 - North American Datum of 1983

Table 4-3

Groundwater Levels and Elevations
Lockheed Martin Martin State Airport, Middle River, Maryland

Well ID	Date of Well Installation	Aquifer Level	Northing[1] NAD83 Feet	Easting[1] NAD83 Feet	Elevation[1] Ground NAVD88 Feet	Elevation[1] Top of Well Casing NAVD88 Feet	Depth to Groundwater Top of Well Casing 12/10/2004 Feet	Groundwater Elevation[1] NAVD88 12/10/2004 Feet	Depth to Groundwater Top of Well Casing 6/25/2004 Feet	Groundwater Elevation[1] NAVD88 6/25/2004 Feet	Depth to Groundwater Top of Well Casing 1/14/2008 Feet	Groundwater Elevation[1] NAVD88 1/14/2008 Feet
DMW-1A	5/1/2002	I	604398.60	1479498.32	10.37	12.05	8.75	3.30	9.35	2.70	9.70	2.35
DMW-1B	5/1/2002	D	604398.60	1479498.32	10.37	12.04	9.11	2.93	9.57	2.47	9.90	2.14
DMW-1S	7/28/2003	S	604458.58	1479310.48	11.41	11.08	7.60	3.48	8.15	2.93	8.60	2.48
DMW-2A	5/1/2002	I	604678.82	1479789.39	19.58	21.65	20.20	1.45	2.75	18.90	20.50	1.15
DMW-2B	5/1/2002	D	604678.82	1479789.39	19.58	21.66	19.95	1.71	20.35	1.31	20.30	1.36
DMW-2S	7/17/2003	S	604670.41	1479807.55	19.34	21.75	20.43	1.32	20.49	1.26	21.00	0.75
DMW-3D	7/10/2003	D	604810.48	1479731.13	16.47	16.46	15.25	1.21	14.95	1.51	15.15	1.31
DMW-3I	7/11/2003	I	604810.48	1479731.13	16.47	16.45	15.23	1.22	14.90	1.55	15.20	1.25
DMW-3S	7/11/2003	S	604804.87	1479733.91	16.53	16.52	10.34	6.18	9.63	6.89	NA	NA
DMW-4D	7/16/2003	D	604566.00	1480031.48	17.52	20.44	19.45	0.99	19.50	0.94	19.40	1.04
DMW-4I	7/16/2003	I	604566.00	1480031.48	17.52	20.48	19.20	1.28	19.12	1.36	19.50	0.98
DMW-4S	7/17/2003	S	604563.04	1480036.27	17.61	20.52	19.70	0.82	19.60	0.92	19.95	0.57
DMW-5D	7/22/2003	D	604431.10	1480140.63	18.66	21.38	19.80	1.58	20.20	1.18	20.40	0.98
DMW-5I	7/22/2003	I	604431.10	1480140.50	18.66	21.39	19.75	1.64	20.15	1.24	20.40	0.99
DMW-5S	7/23/2003	S	604430.05	1480141.08	18.50	21.34	20.00	1.34	20.02	1.32	20.50	0.84
DMW-6D	7/24/2003	D	604193.59	1480266.19	15.61	18.51	17.15	1.36	17.70	0.81	17.60	0.91
DMW-6I	7/24/2003	I	604193.59	1480266.19	15.61	18.64	17.42	1.22	17.98	0.66	17.60	1.04
DMW-6S	7/25/2003	S	604190.48	1480255.05	15.95	18.62	17.35	1.27	17.75	0.87	17.45	1.17
DMW-7D	7/29/2003	D	604287.20	1479924.19	19.22	21.94	20.24	1.70	20.35	1.59	20.60	1.34
DMW-7I	7/29/2003	I	604287.20	1479924.19	19.22	21.90	20.42	1.48	20.47	1.43	20.70	1.20
DMW-7S	7/30/2003	S	604291.49	1479921.81	19.21	21.84	20.12	1.72	20.20	1.64	NA	NA
DMW-8D	7/31/2003	D	604516.04	1479673.57	13.62	16.35	14.60	1.75	14.36	1.99	14.80	1.55
DMW-8I	7/31/2003	I	604516.04	1479673.57	13.62	16.30	14.15	2.15	14.45	1.85	14.90	1.40
DMW-8S	7/31/2003	S	604516.62	1479667.79	13.35	15.80	12.50	3.30	13.05	2.75	13.90	1.90
DMW-9D	8/6/2003	D	604764.91	1479293.42	8.71	11.41	9.00	2.41	9.37	2.04	9.51	1.90
DMW-9I	8/6/2003	I	604764.91	1479293.42	8.71	11.40	8.82	2.58	9.11	2.29	9.35	2.05
DMW-9S	8/6/2003	S	604771.56	1479286.86	8.76	11.45	8.79	2.66	9.10	2.35	9.35	2.10
MW-1[2]	8/10/1994	I	604052.58	1479214.74	10.69	10.69	NA	NA	NA	NA	NA	NA
MW-10I	8/13/2003	I	604630.69	1479217.34	10.43	10.27	6.81	3.46	7.60	2.67	7.80	2.47
MW-10S	8/27/2003	S	604636.82	1479225.83	10.24	10.29	6.82	3.47	7.58	2.71	7.90	2.39
MW-11I	8/14/2003	I	604429.32	1478930.78	9.38	9.15	5.20	3.95	6.20	2.95	33.20	-24.05
MW-11S	8/27/2003	S	604424.24	1478934.92	9.35	9.20	3.40	5.80	4.32	4.88	4.00	5.20
MW-14D	2/23/2007	DD	605129.85	1479550.68	11.95	11.56	NA	NA	NA	NA	7.60	3.96
MW-14I	2/23/2007	I	605129.85	1479550.68	11.95	11.72	NA	NA	NA	NA	10.60	1.12
MW-15D	11/7/2007	D	605010.96	1479028.29	6.29	8.77	NA	NA	NA	NA	6.26	2.51
MW-15I	11/8/2007	I	605010.96	1479028.29	6.29	8.79	NA	NA	NA	NA	6.30	2.49
MW-15S	11/8/2007	S	605010.96	1479028.29	6.29	8.60	NA	NA	NA	NA	5.80	2.80
MW-16D	10/12/2007	D	605086.42	1479248.84	7.81	10.22	NA	NA	NA	NA	7.90	2.32
MW-16I	10/12/2007	I	605086.42	1479248.84	7.81	10.06	NA	NA	NA	NA	7.80	2.26
MW-16S	10/12/2007	S	605086.42	1479248.84	7.81	10.20	NA	NA	NA	NA	8.40	1.80
MW-17D	10/10/2007	D	605112.67	1479358.32	8.03	7.56	NA	NA	NA	NA	18.00	-10.44
MW-17I	10/10/2007	I	605112.67	1479358.32	8.03	7.68	NA	NA	NA	NA	5.60	2.08
MW-17S	10/10/2007	S	605112.67	1479358.32	8.03	7.61	NA	NA	NA	NA	6.00	1.61
MW-18D	11/18/2007	D	604934.54	1479642.31	9.17	8.88	NA	NA	NA	NA	7.85	1.03
MW-18I	10/16/2007	I	604930.77	1479645.06	9.14	8.91	NA	NA	NA	NA	7.80	1.11
MW-18S	10/16/2007	S	604930.77	1479645.06	9.14	8.89	NA	NA	NA	NA	7.80	1.09
MW-19D	10/22/2007	D	604152.70	1479701.18	8.45	7.94	NA	NA	NA	NA	6.35	1.59
MW-19I	10/18/2007	I	604152.70	1479701.18	8.45	7.90	NA	NA	NA	NA	6.80	1.10
MW-2	8/12/1994	I	604144.32	1479708.26	8.54	8.40	5.83	2.57	6.50	1.90	6.60	1.80
MW-20D	11/6/2007	D	604630.96	1479397.95	9.91	12.40	NA	NA	NA	NA	10.60	1.80
MW-20I	11/6/2007	I	604630.96	1479397.95	9.91	12.39	NA	NA	NA	NA	10.40	1.99
MW-20S	11/6/2007	S	604630.96	1479397.95	9.91	12.44	NA	NA	NA	NA	10.40	2.04
MW-21D	10/26/2007	D	604467.75	1479303.22	11.31	10.78	NA	NA	NA	NA	8.85	1.93
MW-21I	10/26/2007	I	604467.75	1479303.22	11.31	10.83	NA	NA	NA	NA	8.60	2.23
MW-22D	10/30/2007	D	604442.07	1479112.84	11.49	11.02	NA	NA	NA	NA	8.70	2.32
MW-22I	11/30/2007	I	604442.07	1479112.84	11.49	11.01	NA	NA	NA	NA	9.22	1.79
MW-23D	11/1/2007	D	604237.13	1479295.12	10.34	10.03	NA	NA	NA	NA	8.70	1.33
MW-23I	11/1/2007	I	604237.13	1479295.12	10.34	10.07	NA	NA	NA	NA	7.65	2.42
MW-23S	11/1/2007	S	604237.13	1479295.12	10.34	10.01	NA	NA	NA	NA	7.55	2.46
MW-24I	11/5/2007	I	603945.66	1479375.24	8.24	7.68	NA	NA	NA	NA	5.20	2.48
MW-24S	11/5/2007	S	603945.66	1479375.24	8.24	7.72	NA	NA	NA	NA	4.10	3.62
MW-25I	11/5/2007	I	604510.08	1478812.44	10.11	9.72	NA	NA	NA	NA	6.90	2.82
MW-25S	11/5/2007	S	604510.08	1478812.44	10.11	9.69	NA	NA	NA	NA	5.03	4.66
MW-26D	10/25/2007	D	604726.41	1479035.39	12.04	11.66	NA	NA	NA	NA	9.80	1.86
MW-26I	10/25/2007	I	604726.41	1479035.39	12.04	11.67	NA	NA	NA	NA	9.25	2.42
MW-26S	10/25/2007	S	604726.41	1479035.39	12.04	11.72	NA	NA	NA	NA	10.05	1.67
MW-27D	7/10/2008	DD	605114.25	1479032.00	5.47	8.39	NA	NA	NA	NA	NA	NA
MW-28I	7/10/2008	I	605110.61	1479027.89	5.69	8.65	NA	NA	NA	NA	NA	NA
MW-29D	7/10/2008	DD	603774.77	1480488.41	11.66	11.43	NA	NA	NA	NA	NA	NA
MW-3	8/12/1994	S	604448.84	1479107.23	11.49	11.19	7.40	3.79	8.27	2.92	8.65	2.54
MW-30D	12/11/2008	DD	603825.46	1479645.71	8.39	8.26	NA	NA	NA	NA	NA	NA
MW-30I												
MW-31D	12/11/2008	DD	603747.78	1480099.58	7.15	6.95	NA	NA	NA	NA	NA	NA
MW-32I	8/23/2009	I	603917.70	1479926.52	7.45	7.28	NA	NA	NA	NA	NA	NA
MW-32S	8/23/2009	S	603917.70	1479926.52	7.45	7.27	NA	NA	NA	NA	NA	NA
MW-33I	8/23/2009	I	605115.62	1478762.02	10.23	10.02	NA	NA	NA	NA	NA	NA
MW-33S	8/23/2009	S	605115.62	1478762.02	9.58	9.97	NA	NA	NA	NA	NA	NA
MW-34I	8/23/2009	I	605340.11	1478893.75	7.51	7.37	NA	NA	NA	NA	NA	NA
MW-34S	8/23/2009	S	605340.11	1478893.75	7.51	7.44	NA	NA	NA	NA	NA	NA
MW-35S												
MW-36S												
MW-37S												
MW-38S												
MW-39S												
MW-4	1/29/1996	S	604852.91	1479180.81	10.51	10.34	7.00	3.34	7.25	3.09	7.50	2.84
MW-5	1/30/1996	S	604294.68	1479901.86	19.41	22.65	21.00	1.65	21.05	1.60	21.15	1.50
MW-6	1/31/1996	S	604009.26	1480184.72	13.69	15.72	13.75	1.97	13.97	1.75	14.30	1.42
MW-7	8/11/2003	S	604765.23	1478680.36	11.18	10.90	5.73	5.17	6.70	4.20	NA	NA
OW1-I	10/18/2007	I	604638.04	1479781.43	18.32	18.05	NA	NA	NA	NA	17.00	1.05
OW1-S	10/22/2007	S	604674.88	1479817.31	19.16	19.17	NA	NA	NA	NA	18.50	0.67
RW1-I	10/18/2007	I	604662.81	1479782.43	18.67	18.44	NA	NA	NA	NA	17.50	0.94
RW1-S	10/22/2007	S	604677.60	1479813.40	19.30	19.09	NA	NA	NA	NA	18.20	0.89
TT-11[2]	8/26/2003	S	604264.70	1479085.31	11.16	11.16	NA	NA	NA	NA	NA	NA
TT-12[2]	8/26/2003	S	604077.47	1479083.14	11.51	11.51	NA	NA	NA	NA	NA	NA
TT-13[2]	8/26/2003	S	603961.29	1479338.80	9.55	9.55	NA	NA	NA	NA	NA	NA
TT-14[2]	8/26/2003	S	604062.23	1479385.80	10.31	10.31	NA	NA	NA	NA	NA	NA

1 Based on an October 2010 survey of all Dump Road Area wells
2 Well has been sealed and abandoned in accordance with state regulations and is no longer in use
NA - Not available or not measured
S - Upper surficial aquifer
I - Intermediate surficial aquifer
D - Lower surficial aquifer
DD - Deep confined aquifer or below the lower surficial aquifer
NAVD88 = North American Vertical Datum of 1988.
NAD83 - North American Datum of 1983

Table 4-3

Groundwater Levels and Elevations
Lockheed Martin Martin State Airport, Middle River, Maryland

Well ID	Date of Well Installation	Aquifer Level	Northing[(1)] NAD83 Feet	Easting[(1)] NAD83 Feet	Elevation[(1)] Ground NAVD88 Feet	Elevation[(1)] Top of Well Casing NAVD88 Feet	Depth to Groundwater Top of Well Casing 10/30/2008 Feet	Groundwater Elevation[(1)] NAVD88 10/30/2008 Feet	Depth to Groundwater Top of Well Casing 9/10/2009 Feet	Groundwater Elevation[(1)] NAVD88 9/10/2009 Feet	Depth to Groundwater Top of Well Casing 9/18/2009 Feet	Groundwater Elevation[(1)] NAVD88 9/18/2009 Feet
DMW-1A	5/1/2002	I	604398.60	1479498.32	10.37	12.05	10.30	1.75	9.92	2.13	NA	NA
DMW-1B	5/1/2002	D	604398.60	1479498.32	10.37	12.04	10.50	1.54	10.11	1.93	NA	NA
DMW-1S	7/28/2003	S	604458.58	1479310.48	11.41	11.08	8.10	2.98	8.81	2.27	NA	NA
DMW-2A	5/1/2002	I	604678.82	1479789.39	19.58	21.65	21.15	0.50	20.54	1.11	NA	NA
DMW-2B	5/1/2002	D	604678.82	1479789.39	19.58	21.66	21.00	0.66	20.35	1.31	NA	NA
DMW-2S	7/17/2003	S	604670.41	1479807.55	19.34	21.75	21.30	0.45	20.85	0.90	NA	NA
DMW-3D	7/10/2003	D	604810.48	1479731.13	16.47	16.46	15.90	0.56	15.26	1.20	NA	NA
DMW-3I	7/11/2003	I	604810.48	1479731.13	16.47	16.45	15.85	0.60	15.31	1.14	NA	NA
DMW-3S	7/11/2003	S	604804.87	1479733.91	16.53	16.52	12.40	4.12	11.79	4.73	NA	NA
DMW-4D	7/16/2003	D	604566.00	1480031.48	17.52	20.44	20.20	0.24	19.32	1.12	NA	NA
DMW-4I	7/16/2003	I	604566.00	1480031.48	17.52	20.48	20.05	0.43	19.36	1.12	NA	NA
DMW-4S	7/17/2003	S	604563.04	1480036.27	17.61	20.52	20.50	0.02	19.69	0.83	NA	NA
DMW-5D	7/22/2003	D	604431.10	1480140.63	18.66	21.38	21.10	0.28	20.38	1.00	NA	NA
DMW-5I	7/22/2003	I	604431.10	1480140.50	18.66	21.39	21.10	0.29	20.36	1.03	NA	NA
DMW-5S	7/23/2003	S	604430.05	1480141.08	18.50	21.34	20.95	0.39	20.39	0.95	NA	NA
DMW-6D	7/24/2003	D	604193.59	1480266.19	15.61	18.51	18.30	0.21	17.52	0.99	NA	NA
DMW-6I	7/24/2003	I	604193.59	1480266.19	15.61	18.64	18.30	0.34	17.56	1.08	NA	NA
DMW-6S	7/25/2003	S	604190.48	1480255.05	15.95	18.62	18.30	0.32	18.78	-0.16	NA	NA
DMW-7D	7/29/2003	D	604287.20	1479924.19	19.22	21.94	21.20	0.74	20.57	1.37	NA	NA
DMW-7I	7/29/2003	I	604287.20	1479924.19	19.22	21.90	21.25	0.65	20.61	1.29	NA	NA
DMW-7S	7/30/2003	S	604291.49	1479921.81	19.21	21.84	NA	NA	NA	NA	NA	NA
DMW-8D	7/31/2003	D	604516.04	1479673.57	13.62	16.35	15.35	1.00	14.79	1.56	NA	NA
DMW-8I	7/31/2003	I	604516.04	1479673.57	13.62	16.30	15.40	0.90	14.84	1.46	NA	NA
DMW-8S	7/31/2003	S	604516.62	1479667.79	13.35	15.80	14.30	1.50	14.44	1.36	NA	NA
DMW-9D	8/6/2003	D	604764.91	1479293.42	8.71	11.41	10.15	1.26	9.68	1.73	NA	NA
DMW-9I	8/6/2003	I	604764.91	1479293.42	8.71	11.40	9.80	1.60	9.59	1.81	NA	NA
DMW-9S	8/6/2003	S	604771.56	1479286.86	8.76	11.45	9.75	1.70	9.49	1.96	NA	NA
MW-1[(2)]	8/10/1994	I	604052.58	1479214.74	10.69	10.69	NA	NA	NA	NA	NA	NA
MW-10I	8/13/2003	I	604630.69	1479217.34	10.43	10.27	8.45	1.82	8.87	1.40	NA	NA
MW-10S	8/27/2003	S	604636.82	1479225.83	10.24	10.29	8.30	1.99	8.06	2.23	NA	NA
MW-11I	8/14/2003	I	604429.32	1478930.78	9.38	9.15	7.15	2.00	6.78	2.37	NA	NA
MW-11S	8/27/2003	S	604424.24	1478934.92	9.35	9.20	5.00	4.20	4.45	4.75	NA	NA
MW-14D	2/23/2007	DD	605129.85	1479550.68	11.95	11.56	8.25	3.31	7.71	3.85	NA	NA
MW-14I	2/23/2007	I	605129.85	1479550.68	11.95	11.72	11.20	0.52	10.72	1.00	10.32	1.40
MW-15D	11/7/2007	D	605010.96	1479028.29	6.29	8.77	7.00	1.77	6.61	2.16	5.5	3.27
MW-15I	11/8/2007	I	605010.96	1479028.29	6.29	8.79	7.02	1.77	6.63	2.16	5.55	3.24
MW-15S	11/8/2007	S	605010.96	1479028.29	6.29	8.60	6.83	1.77	6.66	1.94	4.95	3.65
MW-16D	10/12/2007	D	605086.42	1479248.84	7.81	10.22	8.70	1.52	8.26	1.96	7.3	2.92
MW-16I	10/12/2007	I	605086.42	1479248.84	7.81	10.06	8.50	1.56	8.11	1.95	7.1	2.96
MW-16S	10/12/2007	S	605086.42	1479248.84	7.81	10.20	9.10	1.10	9.26	0.94	8.49	1.71
MW-17D	10/10/2007	D	605112.67	1479358.32	8.03	7.56	10.90	-3.34	5.88	1.68	4.90	2.66
MW-17I	10/10/2007	I	605112.67	1479358.32	8.03	7.68	6.30	1.38	6.12	1.56	5.65	2.03
MW-17S	10/10/2007	S	605112.67	1479358.32	8.03	7.61	9.35	-1.74	6.69	0.92	5.92	1.69
MW-18D	11/18/2007	D	604934.54	1479642.31	9.17	8.88	8.30	0.58	NA	NA	NA	NA
MW-18I	10/16/2007	I	604930.77	1479645.06	9.14	8.91	8.50	0.41	7.86	1.05	NA	NA
MW-18S	10/16/2007	S	604930.77	1479645.06	9.14	8.89	7.70	1.19	7.72	1.17	NA	NA
MW-19D	10/22/2007	D	604152.70	1479701.18	8.45	7.94	7.00	0.94	6.48	1.46	NA	NA
MW-19I	10/18/2007	I	604152.70	1479701.18	8.45	7.90	7.05	0.85	6.48	1.42	NA	NA
MW-2	8/12/1994	I	604144.32	1479708.26	8.54	8.40	7.25	1.15	7.74	0.66	NA	NA
MW-20D	11/6/2007	D	604630.96	1479397.95	9.91	12.40	11.30	1.10	10.74	1.66	NA	NA
MW-20I	11/6/2007	I	604630.96	1479397.95	9.91	12.39	10.75	1.64	10.42	1.97	NA	NA
MW-20S	11/6/2007	S	604630.96	1479397.95	9.91	12.44	10.80	1.64	10.51	1.93	NA	NA
MW-21D	10/26/2007	D	604467.75	1479303.22	11.31	10.78	9.20	1.58	9.10	1.68	NA	NA
MW-21I	10/26/2007	I	604467.75	1479303.22	11.31	10.83	8.90	1.93	8.75	2.08	NA	NA
MW-22D	10/30/2007	D	604442.07	1479112.84	11.49	11.02	9.30	1.72	9.02	2.00	NA	NA
MW-22I	11/30/2007	I	604442.07	1479112.84	11.49	11.01	9.45	1.56	8.61	2.40	NA	NA
MW-23D	11/1/2007	D	604237.13	1479295.12	10.34	10.03	8.62	1.41	8.16	1.87	NA	NA
MW-23I	11/1/2007	I	604237.13	1479295.12	10.34	10.07	7.95	2.12	7.84	2.23	NA	NA
MW-23S	11/1/2007	S	604237.13	1479295.12	10.34	10.01	7.95	2.06	7.76	2.25	NA	NA
MW-24I	11/5/2007	I	603945.66	1479375.24	8.24	7.68	5.80	1.88	5.42	2.26	NA	NA
MW-24S	11/5/2007	S	603945.66	1479375.24	8.24	7.72	4.50	3.22	4.32	3.40	NA	NA
MW-25I	11/5/2007	I	604510.08	1478812.44	10.11	9.72	7.30	2.42	7.31	2.41	NA	NA
MW-25S	11/5/2007	S	604510.08	1478812.44	10.11	9.69	5.66	4.03	5.32	4.37	NA	NA
MW-26D	10/25/2007	D	604726.41	1479035.39	12.04	11.66	9.10	2.56	9.42	2.24	NA	NA
MW-26I	10/25/2007	I	604726.41	1479035.39	12.04	11.67	9.60	2.07	9.44	2.23	NA	NA
MW-26S	10/25/2007	S	604726.41	1479035.39	12.04	11.72	9.55	2.17	9.41	2.31	NA	NA
MW-27D	7/10/2008	DD	605114.25	1479032.00	5.47	8.39	6.02	NA	5.65	2.74	NA	NA
MW-28I	7/10/2008	I	605110.61	1479027.89	5.69	8.65	6.81	NA	6.57	2.08	5.45	3.20
MW-29D	7/10/2008	DD	603774.77	1480488.41	11.66	11.43	12.25	NA	11.89	-0.46	NA	NA
MW-3	8/12/1994	S	604448.84	1479107.23	11.49	11.19	9.00	2.19	8.79	2.40	NA	NA
MW-30D	12/11/2008	DD	603825.46	1479645.71	8.39	8.26	NA	NA	8.00	0.26	NA	NA
MW-30I												
MW-31D	12/11/2008	DD	603747.78	1480099.58	7.15	6.95	NA	NA	7.47	-0.52	NA	NA
MW-32I	8/23/2009	I	603917.70	1479926.52	7.45	7.28	NA	NA	5.71	1.57	4.65	2.63
MW-32S	8/23/2009	S	603917.70	1479926.52	7.45	7.27	NA	NA	5.62	1.65	4.52	2.75
MW-33I	8/23/2009	I	605115.62	1478762.02	10.23	10.02	NA	NA	7.38	2.64	6.25	3.77
MW-33S	8/23/2009	S	605115.62	1478762.02	9.58	9.97	NA	NA	7.34	2.63	6.05	3.92
MW-34I	8/23/2009	I	605340.11	1478893.75	7.51	7.37	NA	NA	5.15	2.22	NA	NA
MW-34S	8/23/2009	S	605340.11	1478893.75	7.51	7.44	NA	NA	5.20	2.24	NA	NA
MW-35S												
MW-36S												
MW-37S												
MW-38S												
MW-39S												
MW-4	1/29/1996	S	604852.91	1479180.81	10.51	10.34	8.25	2.09	8.15	2.19	NA	NA
MW-5	1/30/1996	S	604294.68	1479901.86	19.41	22.65	21.55	1.10	21.35	1.30	NA	NA
MW-6	1/31/1996	S	604009.26	1480184.72	13.69	15.72	15.00	0.72	14.46	1.26	NA	NA
MW-7	8/11/2003	S	604765.23	1478680.36	11.18	10.90	NA	NA	7.27	3.63	NA	NA
OW1-I	10/18/2007	I	604638.04	1479781.43	18.32	18.05	NA	NA	17.02	1.03	NA	NA
OW1-S	10/22/2007	S	604674.88	1479817.31	19.16	19.17	NA	NA	NA	NA	NA	NA
RW1-I	10/18/2007	I	604662.81	1479782.43	18.67	18.44	NA	NA	17.40	1.04	NA	NA
RW1-S	10/22/2007	S	604677.60	1479813.40	19.30	19.09	NA	NA	NA	NA	NA	NA
TT-11[(2)]	8/26/2003	S	604264.70	1479085.31	11.16	11.16	NA	NA	NA	NA	NA	NA
TT-12[(2)]	8/26/2003	S	604077.47	1479083.14	11.51	11.51	NA	NA	NA	NA	NA	NA
TT-13[(2)]	8/26/2003	S	603961.29	1479338.80	9.55	9.55	NA	NA	NA	NA	NA	NA
TT-14[(2)]	8/26/2003	S	604062.23	1479385.80	10.31	10.31	NA	NA	NA	NA	NA	NA

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2 Well has been sealed and abandoned in accordance with state regulations and is no longer in use
NA - Not available or not measured
S - Upper surficial aquifer
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NAVD88 = North American Vertical Datum of 1988.
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Table 4-3

Groundwater Levels and Elevations
Lockheed Martin Martin State Airport, Middle River, Maryland

Well ID	Date of Well Installation	Aquifer Level	Northing[1] NAD83 Feet	Easting[1] NAD83 Feet	Elevation[1] Ground NAVD88 Feet	Elevation[1] Top of Well Casing NAVD88 Feet	Depth to Groundwater Top of Well Casing 1/19/2010 Feet	Groundwater Elevation[1] NAVD88 1/19/2010 Feet	Depth to Groundwater Top of Well Casing 7/2/2010 Feet	Groundwater Elevation[1] NAVD88 7/2/2010 Feet	Depth to Groundwater Top of Well Casing 7/14/2011 Feet
DMW-1A	5/1/2002	I	604398.60	1479498.32	10.37	12.05	8.70	3.35	10.45	1.60	10.07
DMW-1B	5/1/2002	D	604398.60	1479498.32	10.37	12.04	9.00	3.04	10.71	1.33	10.38
DMW-1S	7/28/2003	S	604458.58	1479310.48	11.41	11.08	7.65	3.43	9.22	1.86	9.91
DMW-2A	5/1/2002	I	604678.82	1479789.39	19.58	21.65	19.95	1.70	21.25	0.40	21.02
DMW-2B	5/1/2002	D	604678.82	1479789.39	19.58	21.66	19.60	2.06	21.04	0.62	20.72
DMW-2S	7/17/2003	S	604670.41	1479807.55	19.34	21.75	20.35	1.40	21.29	0.46	20.80
DMW-3D	7/10/2003	D	604810.48	1479731.13	16.47	16.46	14.65	1.81	15.96	0.50	15.53
DMW-3I	7/11/2003	I	604810.48	1479731.13	16.47	16.45	14.65	1.80	15.95	0.50	15.62
DMW-3S	7/11/2003	S	604804.87	1479733.91	16.53	16.52	8.45	8.07	10.86	5.66	11.08
DMW-4D	7/16/2003	D	604566.00	1480031.48	17.52	20.44	18.80	1.64	20.06	0.38	20.25
DMW-4I	7/16/2003	I	604566.00	1480031.48	17.52	20.48	18.70	1.78	20.03	0.45	20.01
DMW-4S	7/17/2003	S	604563.04	1480036.27	17.61	20.52	19.20	1.32	20.29	0.23	20.00
DMW-5D	7/22/2003	D	604431.10	1480140.63	18.66	21.38	19.70	1.68	21.00	0.38	21.13
DMW-5I	7/22/2003	I	604431.10	1480140.50	18.66	21.39	19.70	1.69	21.03	0.36	21.04
DMW-5S	7/23/2003	S	604430.05	1480141.08	18.50	21.34	19.80	1.54	20.99	0.35	20.89
DMW-6D	7/24/2003	D	604193.59	1480266.19	15.61	18.51	16.80	1.71	18.21	0.30	18.26
DMW-6I	7/24/2003	I	604193.59	1480266.19	15.61	18.64	16.80	1.84	18.26	0.38	18.24
DMW-6S	7/25/2003	S	604190.48	1480255.05	15.95	18.62	16.85	1.77	18.39	0.23	17.98
DMW-7D	7/29/2003	D	604287.20	1479924.19	19.22	21.94	19.70	2.24	21.23	0.71	21.00
DMW-7I	7/29/2003	I	604287.20	1479924.19	19.22	21.90	19.80	2.10	21.32	0.58	21.07
DMW-7S	7/30/2003	S	604291.49	1479921.81	19.21	21.84	NA	NA	NA	--	20.52
DMW-8D	7/31/2003	D	604516.04	1479673.57	13.62	16.35	14.00	2.35	15.46	0.89	15.17
DMW-8I	7/31/2003	I	604516.04	1479673.57	13.62	16.30	14.02	2.28	15.47	0.83	14.84
DMW-8S	7/31/2003	S	604516.62	1479667.79	13.35	15.80	12.23	3.57	12.60	3.20	14.29
DMW-9D	8/6/2003	D	604764.91	1479293.42	8.71	11.41	8.65	2.76	10.29	1.12	9.93
DMW-9I	8/6/2003	I	604764.91	1479293.42	8.71	11.40	8.25	3.15	9.92	1.48	9.60
DMW-9S	8/6/2003	S	604771.56	1479286.86	8.76	11.45	8.16	3.29	9.85	1.60	9.53
MW-1[2]	8/10/1994	I	604052.58	1479214.74	10.69	10.69	NA	NA	NA	--	NM
MW-10I	8/13/2003	I	604630.69	1479217.34	10.43	10.27	6.95	3.32	8.56	1.71	8.20
MW-10S	8/27/2003	S	604636.82	1479225.83	10.24	10.29	6.90	3.39	8.39	1.90	7.64
MW-11I	8/14/2003	I	604429.32	1478930.78	9.38	9.15	5.40	3.75	7.29	--	5.02
MW-11S	8/27/2003	S	604424.24	1478934.92	9.35	9.20	3.25	5.95	5.69	3.51	6.89
MW-14D	2/23/2007	DD	605129.85	1479550.68	11.95	11.56	7.00	4.56	7.97	3.59	NA
MW-14I	2/23/2007	I	605129.85	1479550.68	11.95	11.72	10.15	1.57	11.29	0.43	10.90
MW-15D	11/7/2007	D	605010.96	1479028.29	6.29	8.77	5.43	3.34	7.17	1.60	6.71
MW-15I	11/8/2007	I	605010.96	1479028.29	6.29	8.79	5.43	3.36	7.19	1.60	6.74
MW-15S	11/8/2007	S	605010.96	1479028.29	6.29	8.60	4.65	3.95	7.22	1.38	6.69
MW-16D	10/12/2007	D	605086.42	1479248.84	7.81	10.22	7.19	3.03	9.84	0.38	8.47
MW-16I	10/12/2007	I	605086.42	1479248.84	7.81	10.06	7.01	3.05	8.66	1.40	8.30
MW-16S	10/12/2007	S	605086.42	1479248.84	7.81	10.20	8.35	1.85	9.73	0.47	9.27
MW-17D	10/10/2007	D	605112.67	1479358.32	8.03	7.56	4.40	3.16	5.41	2.15	5.90
MW-17I	10/10/2007	I	605112.67	1479358.32	8.03	7.68	5.22	2.46	6.51	1.17	5.23
MW-17S	10/10/2007	S	605112.67	1479358.32	8.03	7.61	5.83	1.78	7.16	0.45	6.71
MW-18D	11/18/2007	D	604934.54	1479642.31	9.17	8.88	7.21	1.67	8.41	0.47	NM
MW-18I	10/16/2007	I	604930.77	1479645.06	9.14	8.91	7.21	1.70	8.62	0.29	NM
MW-18S	10/16/2007	S	604930.77	1479645.06	9.14	8.89	7.10	1.79	8.56	0.33	NM
MW-19D	10/22/2007	D	604152.70	1479701.18	8.45	7.94	5.49	2.45	7.16	0.78	6.83
MW-19I	10/18/2007	I	604152.70	1479701.18	8.45	7.90	5.50	2.40	7.17	0.73	6.84
MW-2	8/12/1994	I	604144.32	1479708.26	8.54	8.40	5.65	2.75	7.46	0.94	7.09
MW-20D	11/6/2007	D	604630.96	1479397.95	9.91	12.40	9.80	2.60	11.38	1.02	11.06
MW-20I	11/6/2007	I	604630.96	1479397.95	9.91	12.39	9.20	3.19	10.82	1.57	10.53
MW-20S	11/6/2007	S	604630.96	1479397.95	9.91	12.44	9.23	3.21	10.89	1.55	10.58
MW-21D	10/26/2007	D	604467.75	1479303.22	11.31	10.78	8.00	2.78	9.61	1.17	8.86
MW-21I	10/26/2007	I	604467.75	1479303.22	11.31	10.83	7.60	3.23	9.21	1.62	8.79
MW-22D	10/30/2007	D	604442.07	1479112.84	11.49	11.02	7.85	3.17	9.61	1.41	9.00
MW-22I	11/30/2007	I	604442.07	1479112.84	11.49	11.01	7.90	3.11	9.12	1.89	8.82
MW-23D	11/1/2007	D	604237.13	1479295.12	10.34	10.03	7.10	2.93	8.82	1.21	8.42
MW-23I	11/1/2007	I	604237.13	1479295.12	10.34	10.07	6.70	3.37	8.37	1.70	7.99
MW-23S	11/1/2007	S	604237.13	1479295.12	10.34	10.01	6.65	3.36	8.29	1.72	7.95
MW-24I	11/5/2007	I	603945.66	1479375.24	8.24	7.68	4.30	3.38	5.96	1.72	5.52
MW-24S	11/5/2007	S	603945.66	1479375.24	8.24	7.72	3.65	4.07	4.81	2.91	4.43
MW-25I	11/5/2007	I	604510.08	1478812.44	10.11	9.72	5.95	3.77	7.83	1.89	7.34
MW-25S	11/5/2007	S	604510.08	1478812.44	10.11	9.69	4.80	4.89	6.23	3.46	5.82
MW-26D	10/25/2007	D	604726.41	1479035.39	12.04	11.66	6.65	5.01	9.92	1.74	9.35
MW-26I	10/25/2007	I	604726.41	1479035.39	12.04	11.67	8.39	3.28	9.98	1.69	9.35
MW-26S	10/25/2007	S	604726.41	1479035.39	12.04	11.72	7.75	3.97	9.47	2.25	9.29
MW-27D	7/10/2008	DD	605114.25	1479032.00	5.47	8.39	4.00	4.39	5.02	3.37	3.81
MW-28I	7/10/2008	I	605110.61	1479027.89	5.69	8.65	5.40	3.25	7.18	1.47	6.71
MW-29D	7/10/2008	DD	603774.77	1480488.41	11.66	11.43	10.00	1.43	11.05	0.38	NA
MW-3	8/12/1994	S	604448.84	1479107.23	11.49	11.19	7.70	3.49	9.21	1.98	8.88
MW-30D	12/11/2008	DD	603825.46	1479645.71	8.39	8.26	6.20	2.06	7.37	0.89	5.26
MW-30I											5.26
MW-31D	12/11/2008	DD	603747.78	1480099.58	7.15	6.95	5.75	1.20	6.78	0.17	5.28
MW-32I	8/23/2009	I	603917.70	1479926.52	7.45	7.28	4.62	2.66	6.40	0.88	6.04
MW-32S	8/23/2009	S	603917.70	1479926.52	7.45	7.27	4.50	2.77	6.31	0.96	5.94
MW-33I	8/23/2009	I	605115.62	1478762.02	10.23	10.02	6.25	3.77	7.94	2.08	7.47
MW-33S	8/23/2009	S	605115.62	1478762.02	9.58	9.97	6.23	3.74	7.84	2.13	7.37
MW-34I	8/23/2009	I	605340.11	1478893.75	7.51	7.37	4.00	3.37	5.72	1.65	5.21
MW-34S	8/23/2009	S	605340.11	1478893.75	7.51	7.44	3.90	3.54	5.77	1.67	5.01
MW-35S											9.31
MW-36S											7.83
MW-37S											6.81
MW-38S											7.92
MW-39S											12.58
MW-4	1/29/1996	S	604852.91	1479180.81	10.51	10.34	5.45	4.89	8.59	1.75	8.07
MW-5	1/30/1996	S	604294.68	1479901.86	19.41	22.65	20.30	2.35	21.77	0.88	21.66
MW-6	1/31/1996	S	604009.26	1480184.72	13.69	15.72	13.15	2.57	15.14	0.58	14.73
MW-7	8/11/2003	S	604765.23	1478680.36	11.18	10.90	NA	NA	7.36	3.54	6.88
OW1-I	10/18/2007	I	604638.04	1479781.43	18.32	18.05	NA	NA	17.73	0.32	NM
OW1-S	10/22/2007	S	604674.88	1479817.31	19.16	19.17	NA	NA	18.57	0.60	NM
RW1-I	10/18/2007	I	604662.81	1479782.43	18.67	18.44	NA	NA	18.11	0.33	NM
RW1-S	10/22/2007	S	604677.60	1479813.40	19.30	19.09	NA	NA	18.45	0.64	NM
TT-11[2]	8/26/2003	S	604264.70	1479085.31	11.16	11.16	NA	NA	NA	NA	NM
TT-12[2]	8/26/2003	S	604077.47	1479083.14	11.51	11.51	NA	NA	NA	NA	NM
TT-13[2]	8/26/2003	S	603961.29	1479338.80	9.55	9.55	NA	NA	NA	NA	NM
TT-14[2]	8/26/2003	S	604062.23	1479385.80	10.31	10.31	NA	NA	NA	NA	NM

1 Based on an October 2010 survey of all Dump Road Area wells
2 Well has been sealed and abandoned in accordance with state regulations and is no longer in use
NA - Not available or not measured
S - Upper surficial aquifer
I - Intermediate surficial aquifer
D - Lower surficial aquifer
DD - Deep confined aquifer or below the lower surficial aquifer
NAVD88 = North American Vertical Datum of 1988.
NAD83 - North American Datum of 1983

Table 4-3

Groundwater Levels and Elevations
Lockheed Martin Martin State Airport, Middle River, Maryland

Well ID	Date of Well Installation	Aquifer Level	Northing[1] NAD83 Feet	Easting[1] NAD83 Feet	Elevation[1] Ground NAVD88 Feet	Elevation[1] Top of Well Casing NAVD88 Feet	Groundwater Elevation[1] NAVD88 7/14/2011 Feet
DMW-1A	5/1/2002	I	604398.60	1479498.32	10.37	12.05	1.98
DMW-1B	5/1/2002	D	604398.60	1479498.32	10.37	12.04	1.66
DMW-1S	7/28/2003	S	604458.58	1479310.48	11.41	11.08	1.17
DMW-2A	5/1/2002	I	604678.82	1479789.39	19.58	21.65	0.63
DMW-2B	5/1/2002	D	604678.82	1479789.39	19.58	21.66	0.94
DMW-2S	7/17/2003	S	604670.41	1479807.55	19.34	21.75	0.95
DMW-3D	7/10/2003	D	604810.48	1479731.13	16.47	16.46	0.93
DMW-3I	7/11/2003	I	604810.48	1479731.13	16.47	16.45	0.83
DMW-3S	7/11/2003	S	604804.87	1479733.91	16.53	16.52	5.44
DMW-4D	7/16/2003	D	604566.00	1480031.48	17.52	20.44	0.19
DMW-4I	7/16/2003	I	604566.00	1480031.48	17.52	20.48	0.47
DMW-4S	7/17/2003	S	604563.04	1480036.27	17.61	20.52	0.52
DMW-5D	7/22/2003	D	604431.10	1480140.63	18.66	21.38	0.25
DMW-5I	7/22/2003	I	604431.10	1480140.50	18.66	21.39	0.35
DMW-5S	7/23/2003	S	604430.05	1480141.08	18.50	21.34	0.45
DMW-6D	7/24/2003	D	604193.59	1480266.19	15.61	18.51	0.25
DMW-6I	7/24/2003	I	604193.59	1480266.19	15.61	18.64	0.40
DMW-6S	7/25/2003	S	604190.48	1480255.05	15.95	18.62	0.64
DMW-7D	7/29/2003	D	604287.20	1479924.19	19.22	21.94	0.94
DMW-7I	7/29/2003	I	604287.20	1479924.19	19.22	21.90	0.83
DMW-7S	7/30/2003	S	604291.49	1479921.81	19.21	21.84	1.32
DMW-8D	7/31/2003	D	604516.04	1479673.57	13.62	16.35	1.18
DMW-8I	7/31/2003	I	604516.04	1479673.57	13.62	16.30	1.46
DMW-8S	7/31/2003	S	604516.62	1479667.79	13.35	15.80	1.51
DMW-9D	8/6/2003	D	604764.91	1479293.42	8.71	11.41	1.48
DMW-9I	8/6/2003	I	604764.91	1479293.42	8.71	11.40	1.80
DMW-9S	8/6/2003	S	604771.56	1479286.86	8.76	11.45	1.92
MW-1[2]	8/10/1994	I	604052.58	1479214.74	10.69	10.69	--
MW-10I	8/13/2003	I	604630.69	1479217.34	10.43	10.27	2.07
MW-10S	8/27/2003	S	604636.82	1479225.83	10.24	10.29	2.65
MW-11I	8/14/2003	I	604429.32	1478930.78	9.38	9.15	4.13
MW-11S	8/27/2003	S	604424.24	1478934.92	9.35	9.20	2.31
MW-14D	2/23/2007	DD	605129.85	1479550.68	11.95	11.56	--
MW-14I	2/23/2007	I	605129.85	1479550.68	11.95	11.72	0.82
MW-15D	11/7/2007	D	605010.96	1479028.29	6.29	8.77	2.06
MW-15I	11/8/2007	I	605010.96	1479028.29	6.29	8.79	2.05
MW-15S	11/8/2007	S	605010.96	1479028.29	6.29	8.60	1.91
MW-16D	10/12/2007	D	605086.42	1479248.84	7.81	10.22	1.75
MW-16I	10/12/2007	I	605086.42	1479248.84	7.81	10.06	1.76
MW-16S	10/12/2007	S	605086.42	1479248.84	7.81	10.20	0.93
MW-17D	10/10/2007	D	605112.67	1479358.32	8.03	7.56	1.66
MW-17I	10/10/2007	I	605112.67	1479358.32	8.03	7.68	2.45
MW-17S	10/10/2007	S	605112.67	1479358.32	8.03	7.61	0.90
MW-18D	11/18/2007	D	604934.54	1479642.31	9.17	8.88	--
MW-18I	10/16/2007	I	604930.77	1479645.06	9.14	8.91	--
MW-18S	10/16/2007	S	604930.77	1479645.06	9.14	8.89	--
MW-19D	10/22/2007	D	604152.70	1479701.18	8.45	7.94	1.11
MW-19I	10/18/2007	I	604152.70	1479701.18	8.45	7.90	1.06
MW-2	8/12/1994	I	604144.32	1479708.26	8.54	8.40	1.31
MW-20D	11/6/2007	D	604630.96	1479397.95	9.91	12.40	1.34
MW-20I	11/6/2007	I	604630.96	1479397.95	9.91	12.39	1.86
MW-20S	11/6/2007	S	604630.96	1479397.95	9.91	12.44	1.86
MW-21D	10/26/2007	D	604467.75	1479303.22	11.31	10.78	1.92
MW-21I	10/26/2007	I	604467.75	1479303.22	11.31	10.83	2.04
MW-22D	10/30/2007	D	604442.07	1479112.84	11.49	11.02	2.02
MW-22I	11/30/2007	I	604442.07	1479112.84	11.49	11.01	2.19
MW-23D	11/1/2007	D	604237.13	1479295.12	10.34	10.03	1.61
MW-23I	11/1/2007	I	604237.13	1479295.12	10.34	10.07	2.08
MW-23S	11/1/2007	S	604237.13	1479295.12	10.34	10.01	2.06
MW-24I	11/5/2007	I	603945.66	1479375.24	8.24	7.68	2.16
MW-24S	11/5/2007	S	603945.66	1479375.24	8.24	7.72	3.29
MW-25I	11/5/2007	I	604510.08	1478812.44	10.11	9.72	2.38
MW-25S	11/5/2007	S	604510.08	1478812.44	10.11	9.69	3.87
MW-26D	10/25/2007	D	604726.41	1479035.39	12.04	11.66	2.31
MW-26I	10/25/2007	I	604726.41	1479035.39	12.04	11.67	2.32
MW-26S	10/25/2007	S	604726.41	1479035.39	12.04	11.72	2.43
MW-27D	7/10/2008	DD	605114.25	1479032.00	5.47	8.39	4.58
MW-28I	7/10/2008	I	605110.61	1479027.89	5.69	8.65	1.94
MW-29D	7/10/2008	DD	603774.77	1480488.41	11.66	11.43	--
MW-3	8/12/1994	S	604448.84	1479107.23	11.49	11.19	2.31
MW-30D	12/11/2008	DD	603825.46	1479645.71	8.39	8.26	3.00
MW-30I							--
MW-31D	12/11/2008	DD	603747.78	1480099.58	7.15	6.95	1.67
MW-32I	8/23/2009	I	603917.70	1479926.52	7.45	7.28	1.24
MW-32S	8/23/2009	S	603917.70	1479926.52	7.45	7.27	1.33
MW-33I	8/23/2009	I	605115.62	1478762.02	10.23	10.02	2.55
MW-33S	8/23/2009	S	605115.62	1478762.02	9.58	9.97	2.60
MW-34I	8/23/2009	I	605340.11	1478893.75	7.51	7.37	2.16
MW-34S	8/23/2009	S	605340.11	1478893.75	7.51	7.44	2.43
MW-35S							--
MW-36S							--
MW-37S							--
MW-38S							--
MW-39S							--
MW-4	1/29/1996	S	604852.91	1479180.81	10.51	10.34	2.27
MW-5	1/30/1996	S	604294.68	1479901.86	19.41	22.65	0.99
MW-6	1/31/1996	S	604009.26	1480184.72	13.69	15.72	0.99
MW-7	8/11/2003	S	604765.23	1478680.36	11.18	10.90	4.02
OW1-I	10/18/2007	I	604638.04	1479781.43	18.32	18.05	--
OW1-S	10/22/2007	S	604674.88	1479817.31	19.16	19.17	--
RW1-I	10/18/2007	I	604662.81	1479782.43	18.67	18.44	--
RW1-S	10/22/2007	S	604677.60	1479813.40	19.30	19.09	--
TT-11[2]	8/26/2003	S	604264.70	1479085.31	11.16	11.16	--
TT-12[2]	8/26/2003	S	604077.47	1479083.14	11.51	11.51	--
TT-13[2]	8/26/2003	S	603961.29	1479338.80	9.55	9.55	--
TT-14[2]	8/26/2003	S	604062.23	1479385.80	10.31	10.31	--

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NA - Not available or not measured
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D - Lower surficial aquifer
DD - Deep confined aquifer or below the lower surficial aquifer
NAVD88 = North American Vertical Datum of 1988.
NAD83 - North American Datum of 1983

APPENDIX H—CHEMICAL DATA TABLES

TABLE
ANALYTICAL RESULTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-MW1-061711	GSP-MW2-061711	GSP-MW3-061711	GSP-MW4-062011	GSP-MW5-062011	GSP-MW6-062011	GSP-MW7-062211	GSP-MW8-062311
LABORATORY ID:	240-1267-2	240-1267-3	240-1267-4	240-1287-2	240-1287-3	240-1287-4	240-1365-3	240-1443-5
SAMPLE DATE:	6/17/2011	6/17/2011	6/17/2011	6/20/2011	6/20/2011	6/20/2011	6/22/2011	6/23/2011
LOCATION:	GSP-MW1	GSP-MW2	GSP-MW3	GSP-MW4	GSP-MW5	GSP-MW6	GSP-MW7	GSP-MW8
VOLATILES (ug/L)								
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	3.8 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	3.7 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	3 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	4.7 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	2.5 U	0.15 U
1,1-DICHLOROETHENE	0.45 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	3.2 U	0.19 U
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	2.2 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	2.8 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	7.2 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	0.098 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	2.5 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.26 J	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	2 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	11 U	0.67 U
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	4 U	0.24 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	2.2 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	3.7 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	3 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	2.3 U	0.14 U
1,3-DICHLOROPROPANE	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	2.7 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	2.2 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	2.2 U	0.13 U
2-BUTANONE	0.57 U	0.57 U	0.62 J	0.57 U	0.57 U	0.57 U	9.5 U	0.57 U
2-CHLOROETHYL VINYL ETHER	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	17 U	0.99 U
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	1.8 U	0.11 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	6.8 U	0.41 U

TABLE
ANALYTICAL RESULTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-MW1-061711	GSP-MW2-061711	GSP-MW3-061711	GSP-MW4-062011	GSP-MW5-062011	GSP-MW6-062011	GSP-MW7-062211	GSP-MW8-062311
LABORATORY ID:	240-1267-2	240-1267-3	240-1267-4	240-1287-2	240-1287-3	240-1287-4	240-1365-3	240-1443-5
SAMPLE DATE:	6/17/2011	6/17/2011	6/17/2011	6/20/2011	6/20/2011	6/20/2011	6/22/2011	6/23/2011
LOCATION:	GSP-MW1	GSP-MW2	GSP-MW3	GSP-MW4	GSP-MW5	GSP-MW6	GSP-MW7	GSP-MW8
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	3 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	2 U	0.12 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	5.3 U	0.32 U
ACETONE	6.9 B	1.6 B	3.6 B	1.5 J	2 J	2.6 J	22 B	2.1 B
BENZENE	0.35 B	0.19 B	0.16 B	0.13 J	0.13 U	0.13 U	3.1 J	0.13 U
BROMOBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	2.2 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	4.8 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	2.5 U	0.15 U
BROMOFORM	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	11 U	0.64 U
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	6.8 U	0.41 U
CARBON DISULFIDE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	2.2 U	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U	2.6	0.13 U	2.2 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	2.5 U	0.15 U
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	3 U	0.18 U
CHLOROETHANE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	4.8 U	0.29 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.16 U	0.92 J	0.16 U	2.7 U	0.16 U
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	5 U	0.42 J
CIS-1,2-DICHLOROETHENE	2.1	0.17 U	0.17 U	1.6	0.17 U	0.17 U	2.8 U	0.17 U
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	2.3 U	0.14 U
DIBROMOMETHANE	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	4.7 U	0.28 U
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	5.2 U	0.31 U
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	25 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	1.8 U	0.11 U
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	2.8 U	0.17 U
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	5 U	0.3 U
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	2.2 U	0.13 U

TABLE
ANALYTICAL RESULTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-MW1-061711	GSP-MW2-061711	GSP-MW3-061711	GSP-MW4-062011	GSP-MW5-062011	GSP-MW6-062011	GSP-MW7-062211	GSP-MW8-062311
LABORATORY ID:	240-1267-2	240-1267-3	240-1267-4	240-1287-2	240-1287-3	240-1287-4	240-1365-3	240-1443-5
SAMPLE DATE:	6/17/2011	6/17/2011	6/17/2011	6/20/2011	6/20/2011	6/20/2011	6/22/2011	6/23/2011
LOCATION:	GSP-MW1	GSP-MW2	GSP-MW3	GSP-MW4	GSP-MW5	GSP-MW6	GSP-MW7	GSP-MW8
M+P-XYLENES	0.71 J	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	4 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	2.8 U	0.17 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	5.5 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	4 U	0.24 U
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	2 U	0.12 U
N-PROPYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	2.3 U	0.14 U
O-XYLENE	0.33 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	2.3 U	0.14 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	2.2 U	0.13 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	1.8 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	1.1 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	2.2 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR	3.9 UR	65 UR	3.9 UR
TETRACHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	4.8 U	0.29 U
TOLUENE	1.1 B	0.19 B	0.17 B	0.13 J	0.13 U	0.13 U	2.2 U	0.28 J
TOTAL XYLENES	1 J	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	4.7 U	0.28 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	3.2 U	0.19 U
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	3.2 U	0.19 U
TRICHLOROETHENE	12	0.17 U	0.17 U	6	0.17 U	0.17 U	450	0.27 J
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	3.5 U	0.21 UJ
VINYL ACETATE	0.19 UR	0.19 UR	0.19 UR	0.19 UR	0.19 UR	0.19 UR	3.2 UR	0.19 UR
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.66 J	0.22 U	0.22 U	3.7 U	0.22 U
SEMIVOLATILES (ug/L)								
1,1-BIPHENYL	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
1,4-DIOXANE	0.47 U	0.48 U	0.48 U	0.47 U	0.49 U	0.47 U	0.47 U	0.47 U
2,2'-OXYBIS(1-CHLOROPROPANE)	0.38 U	0.39 U	0.39 U	0.38 U	0.4 U	0.38 U	0.38 U	0.38 U
2,4,5-TRICHLOROPHENOL	0.29 U	0.29 U	0.29 U	0.29 U	0.3 U	0.29 U	0.29 U	0.29 U

TABLE
ANALYTICAL RESULTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-MW1-061711	GSP-MW2-061711	GSP-MW3-061711	GSP-MW4-062011	GSP-MW5-062011	GSP-MW6-062011	GSP-MW7-062211	GSP-MW8-062311
LABORATORY ID:	240-1267-2	240-1267-3	240-1267-4	240-1287-2	240-1287-3	240-1287-4	240-1365-3	240-1443-5
SAMPLE DATE:	6/17/2011	6/17/2011	6/17/2011	6/20/2011	6/20/2011	6/20/2011	6/22/2011	6/23/2011
LOCATION:	GSP-MW1	GSP-MW2	GSP-MW3	GSP-MW4	GSP-MW5	GSP-MW6	GSP-MW7	GSP-MW8
2,4,6-TRICHLOROPHENOL	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
2,4-DICHLOROPHENOL	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
2,4-DIMETHYLPHENOL	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
2,4-DINITROPHENOL	2.3 U	2.4 U	2.3 U	2.3 U	2.4 U	2.3 U	2.3 U	2.3 U
2,4-DINITROTOLUENE	0.26 U	0.26 U	0.26 U	0.26 U	0.27 U	0.26 U	0.26 U	0.26 U
2,6-DINITROTOLUENE	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
2-CHLORONAPHTHALENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
2-CHLOROPHENOL	0.28 U	0.28 U	0.28 U	0.28 U	0.29 U	0.28 U	0.28 U	0.28 U
2-METHYLNAPHTHALENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
2-METHYLPHENOL	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
2-NITROANILINE	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
2-NITROPHENOL	0.27 U	0.27 U	0.27 U	0.27 U	0.28 U	0.27 U	0.27 U	0.27 U
3&4-METHYLPHENOL	0.72 U	0.74 U	0.73 U	0.71 U	0.75 U	0.71 U	0.71 U	0.72 U
3,3'-DICHLOROBENZIDINE	0.36 U	0.36 U	0.36 U	0.35 U	0.37 U	0.35 U	0.35 U	0.36 U
3-NITROANILINE	0.27 U	0.27 U	0.27 U	0.27 U	0.28 U	0.27 U	0.27 U	0.27 U
4,6-DINITRO-2-METHYLPHENOL	2.3 U	2.4 U	2.3 U	2.3 U	2.4 U	2.3 U	2.3 U	2.3 U
4-BROMOPHENYL PHENYL ETHER	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
4-CHLORO-3-METHYLPHENOL	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
4-CHLOROANILINE	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
4-CHLOROPHENYL PHENYL ETHER	0.29 U	0.29 U	0.29 U	0.29 U	0.3 U	0.29 U	0.29 U	0.29 U
4-NITROANILINE	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
4-NITROPHENOL	2.3 U	2.4 U	2.3 U	2.3 U	2.4 U	2.3 U	2.3 U	2.3 U
ACENAPHTHENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
ACENAPHTHYLENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
ACETOPHENONE	0.33 U	0.33 U	0.33 U	0.32 U	0.34 U	0.32 U	0.32 U	0.33 U
ANTHRACENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U

TABLE
ANALYTICAL RESULTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-MW1-061711	GSP-MW2-061711	GSP-MW3-061711	GSP-MW4-062011	GSP-MW5-062011	GSP-MW6-062011	GSP-MW7-062211	GSP-MW8-062311
LABORATORY ID:	240-1267-2	240-1267-3	240-1267-4	240-1287-2	240-1287-3	240-1287-4	240-1365-3	240-1443-5
SAMPLE DATE:	6/17/2011	6/17/2011	6/17/2011	6/20/2011	6/20/2011	6/20/2011	6/22/2011	6/23/2011
LOCATION:	GSP-MW1	GSP-MW2	GSP-MW3	GSP-MW4	GSP-MW5	GSP-MW6	GSP-MW7	GSP-MW8
ATRAZINE	0.33 U	0.33 U	0.33 U	0.32 U	0.34 U	0.32 U	0.32 U	0.33 U
BENZALDEHYDE	0.37 U	0.38 U	0.38 U	0.37 U	0.39 U	0.37 U	0.37 U	0.37 U
BENZO(A)ANTHRACENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
BENZO(A)PYRENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
BENZO(B)FLUORANTHENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
BENZO(G,H,I)PERYLENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
BENZO(K)FLUORANTHENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
BIS(2-CHLOROETHOXY)METHANE	0.31 U	0.31 U	0.31 U	0.3 U	0.32 U	0.3 U	0.3 U	0.31 U
BIS(2-CHLOROETHYL)ETHER	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
BIS(2-ETHYLHEXYL)PHTHALATE	0.77 U	0.78 U	0.99 J	0.76 U	0.8 U	0.76 U	0.83 B	0.77 U
BUTYL BENZYL PHTHALATE	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
CAPROLACTAM	0.77 J	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
CARBAZOLE	0.27 U	0.27 U	0.27 U	0.27 U	0.28 U	0.27 U	0.27 U	0.27 U
CHRYSENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
DIBENZO(A,H)ANTHRACENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
DIBENZOFURAN	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
DIETHYL PHTHALATE	0.58 U	0.59 U	0.58 U	0.57 U	0.6 U	0.57 U	0.57 U	0.58 U
DIMETHYL PHTHALATE	0.28 U	0.28 U	0.28 U	0.28 U	0.29 U	0.28 U	0.28 U	0.28 U
DI-N-BUTYL PHTHALATE	0.64 U	0.66 U	0.65 U	0.64 U	0.67 U	0.64 U	0.64 U	0.64 U
DI-N-OCTYL PHTHALATE	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
FLUORANTHENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
FLUORENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
HEXACHLOROBENZENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
HEXACHLOROBUTADIENE	0.26 U	0.26 U	0.26 U	0.26 U	0.27 U	0.26 U	0.26 U	0.26 U
HEXACHLOROCYCLOPENTADIENE	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
HEXACHLOROETHANE	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U

TABLE
ANALYTICAL RESULTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-MW1-061711	GSP-MW2-061711	GSP-MW3-061711	GSP-MW4-062011	GSP-MW5-062011	GSP-MW6-062011	GSP-MW7-062211	GSP-MW8-062311
LABORATORY ID:	240-1267-2	240-1267-3	240-1267-4	240-1287-2	240-1287-3	240-1287-4	240-1365-3	240-1443-5
SAMPLE DATE:	6/17/2011	6/17/2011	6/17/2011	6/20/2011	6/20/2011	6/20/2011	6/22/2011	6/23/2011
LOCATION:	GSP-MW1	GSP-MW2	GSP-MW3	GSP-MW4	GSP-MW5	GSP-MW6	GSP-MW7	GSP-MW8
INDENO(1,2,3-CD)PYRENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
ISOPHORONE	0.26 U	0.26 U	0.26 U	0.26 U	0.27 U	0.26 U	0.26 U	0.26 U
NAPHTHALENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
NITROBENZENE	0.038 U	0.039 U	0.039 U	0.038 U	0.04 U	0.038 U	0.038 U	0.038 U
N-NITROSODIMETHYLAMINE	0.3 U	0.3 U	0.3 U	0.3 U	0.31 U	0.3 U	0.3 U	0.3 U
N-NITROSO-DI-N-PROPYLAMINE	0.77 U	0.78 U	0.78 U	0.76 U	0.8 U	0.76 U	0.76 U	0.77 U
N-NITROSODIPHENYLAMINE	0.3 U	0.3 U	0.3 U	0.3 U	0.31 U	0.3 U	0.3 U	0.3 U
PENTACHLOROPHENOL	2.3 U	2.4 U	2.3 U	2.3 U	2.4 U	2.3 U	2.3 U	2.3 U
PHENANTHRENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
PHENOL	0.58 U	0.59 U	0.58 U	0.57 U	0.6 U	0.57 U	0.57 U	0.58 U
PYRENE	0.096 U	0.098 U	0.097 U	0.095 U	0.1 U	0.095 U	0.095 U	0.096 U
INORGANICS (ug/L)								
ANTIMONY	0.17 B	0.14 B	0.28 B	0.16 B	0.21 B	0.19 B	0.1 B	0.43 J
ARSENIC	0.55 J	0.95 J	11	4.9 J	0.71 J	0.42 J	0.93 J	0.48 B
BARIUM	120	24	16	36	37	34	55	110
BERYLLIUM	1.7	0.092 U	0.092 U	0.092 U	3.5	0.092 U	0.17 J	0.18 J
CADMIUM	0.3 J	0.11 J	0.046 U	0.046 U	1.4	0.046 U	0.07 J	0.32 J
CHROMIUM	5.1	0.36 B	4.3	0.73 B	6.7	0.67 B	1.6 J	0.79 J
COBALT	52	16	11	11	76	1.5	3.5	15
COPPER	35	3	17	0.93 J	20	1.9 J	2.6	6.5
LEAD	1.1 J	0.33 B	1.9 J	0.3 B	0.84 B	0.28 B	1.9	1
MERCURY	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.19 J	0.066 U
MOLYBDENUM	0.56 B	0.42 U	0.48 B	0.42 U	5.9	0.72 J	2.6 B	0.47 J
NICKEL	77	17	11	0.69 J	53	0.63 U	7.9	23
SELENIUM	1.1 J	0.32 U	0.32 U	0.32 U	2.9 J	0.32 U	0.72 J	5.2
SILVER	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U

TABLE
ANALYTICAL RESULTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-MW1-061711	GSP-MW2-061711	GSP-MW3-061711	GSP-MW4-062011	GSP-MW5-062011	GSP-MW6-062011	GSP-MW7-062211	GSP-MW8-062311
LABORATORY ID:	240-1267-2	240-1267-3	240-1267-4	240-1287-2	240-1287-3	240-1287-4	240-1365-3	240-1443-5
SAMPLE DATE:	6/17/2011	6/17/2011	6/17/2011	6/20/2011	6/20/2011	6/20/2011	6/22/2011	6/23/2011
LOCATION:	GSP-MW1	GSP-MW2	GSP-MW3	GSP-MW4	GSP-MW5	GSP-MW6	GSP-MW7	GSP-MW8
THALLIUM	0.47 B	0.28 B	0.29 B	0.32 B	0.29 B	0.28 B	0.24 B	0.22 B
TUNGSTEN	0.25 B	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
VANADIUM	0.3 U	0.41 J	48	0.37 J	3.7 J	1.4 J	1.3 J	0.55 J
ZINC	210 J	29 J	45 J	3.5 B	79	6 J	18 J	37 J
INORGANICS FILTERED (ug/L)								
ANTIMONY	0.18 B	0.15 B	0.15 B	0.15 B	0.19 B	0.086 B	0.12 B	0.23 J
ARSENIC	0.3 J	0.87 J	0.27 J	4.1 J	0.092 U	0.56 B	0.66 B	0.37 B
BARIUM	10	23	120	36	39	32	45	110
BERYLLIUM	0.092 U	0.092 U	1.8	0.092 U	2.8	0.092 U	0.092 U	0.16 J
CADMIUM	0.046 U	0.1 J	0.36 J	0.046 U	1.3	0.053 J	0.046 U	0.31 J
CHROMIUM	0.3 B	0.62 B	4.7	0.2 B	3.7	0.11 U	0.58 J	0.11 J
COBALT	11	16	54	11	70	1.1	3	16
COPPER	7.2	3.9	36	0.39 J	15	1.5 J	1.3 J	6.1
LEAD	0.21 B	0.34 B	1.2 J	0.27 B	0.5 B	0.22 B	0.47 B	0.48 B
MERCURY	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.066 U	0.09 J	0.066 U
MOLYBDENUM	0.42 U	0.42 U	0.42 U	0.42 U	1.7 J	1 J	2.9 B	0.42 U
NICKEL	11	16	79	0.73 J	50	0.63 U	6.4	24
SELENIUM	0.32 U	0.32 U	0.35 J	0.32 U	0.32 U	0.53 J	0.81 J	5.2
SILVER	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
THALLIUM	0.25 B	0.25 B	0.39 B	0.31 B	0.29 B	0.25 B	0.23 B	0.22 B
TUNGSTEN	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.46 B	0.16 U	0.16 U
VANADIUM	0.67 J	0.3 U	0.3 U	0.3 U	0.3 U	0.63 J	0.3 U	0.3 U
ZINC	42 J	31 J	220 J	4.9 J	69	0.5 U	14 J	39 J
MISCELLANEOUS (ug/L)								
PERCHLORATE	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	1.8 U G	0.36 U	0.36 U
PETROLEUM HYDROCARBONS (ug/L)								

TABLE
ANALYTICAL RESULTS FOR GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-MW1-061711	GSP-MW2-061711	GSP-MW3-061711	GSP-MW4-062011	GSP-MW5-062011	GSP-MW6-062011	GSP-MW7-062211	GSP-MW8-062311
LABORATORY ID:	240-1267-2	240-1267-3	240-1267-4	240-1287-2	240-1287-3	240-1287-4	240-1365-3	240-1443-5
SAMPLE DATE:	6/17/2011	6/17/2011	6/17/2011	6/20/2011	6/20/2011	6/20/2011	6/22/2011	6/23/2011
LOCATION:	GSP-MW1	GSP-MW2	GSP-MW3	GSP-MW4	GSP-MW5	GSP-MW6	GSP-MW7	GSP-MW8
DIESEL RANGE ORGANICS	310 J	300 J	360 J	230 U	1400	1600	380 B	230 U
GASOLINE RANGE ORGANICS	51 B	40 B	41 B	36 B	37 B	32 B	300	39 B
TENTATIVELY IDENTIFIED VOLATILE (ug/l)								
1-PROPENE, 2-METHYL-					1.4 NJ			
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)				1.6 NJ				
SILANOL, TRIMETHYL-	1.6 NJ	1.5 NJ			1.1 NJ			
TERT-BUTYLDIMETHYLSILANOL						3 NJ		4.5 R

U - Not detected at listed detection limit.

B - Laboratory blank contamination.

J - Positive result is considered estimated as a result of technical noncompliance.

L - Positive result is considered to be biased low as a result of technical noncompliance.

K - Positive result is considered to be biased high as a result of technical noncompliance.

ug/l - micrograms per liter.

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-91-0-2	GSP-SB-91-8-10	GSP-SB-91-22-24	GSP-SB-92-0-2	GSP-SB-92-6-8	GSP-SB-92-22-25	GSP-SB-93-0-2
LABORATORY ID:	240-681-10	240-681-11	240-681-12	240-681-30	240-681-31	240-681-32	240-681-27
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-91	GSP-SB-91	GSP-SB-91	GSP-SB-92	GSP-SB-92	GSP-SB-92	GSP-SB-93
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.55 U	0.56 U	0.55 U	0.6 U	0.49 U	8.6 U	0.42 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.54 U	0.44 U	20 U	0.38 U
1,1,2,2-TETRACHLOROETHANE	0.3 U	0.31 U	0.3 U	0.33 U	0.27 U	8.4 U	0.23 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.2 U	1.2 U	1.2 U	1.3 U	1 U	37 U	0.88 U
1,1-DICHLOROETHANE	0.32 U	0.32 U	0.32 U	0.35 U	0.28 U	16 U	0.24 U
1,1-DICHLOROETHENE	0.46 U	0.47 U	0.46 U	0.51 U	0.41 U	17 U	0.35 U
1,1-DICHLOROPROPENE	0.27 U	0.27 U	0.27 U	0.29 U	0.24 U	9.5 U	0.2 U
1,2,3-TRICHLOROBENZENE	0.34 U	0.34 U	0.34 U	0.37 U	0.3 U	9.5 U	0.26 U
1,2,3-TRICHLOROPROPANE	0.8 U	0.81 U	0.8 U	0.87 U	0.71 U	20 U	0.61 U
1,2,3-TRIMETHYLBENZENE	0.15 U	0.15 U	0.15 U	0.17 U	0.13 U	0.16 U	0.12 U
1,2,4-TRICHLOROBENZENE	0.24 U	0.24 U	0.24 U	0.26 U	0.21 U	6.9 U	0.18 U
1,2,4-TRIMETHYLBENZENE	0.58 U	0.58 U	0.58 U	0.63 U	0.51 U	4.7 U	0.44 U
1,2-DIBROMO-3-CHLOROPROPANE	1.2 U	1.2 U	1.2 U	1.3 U	1 U	47 U *	0.88 U
1,2-DIBROMOETHANE	0.44 U	0.45 U	0.44 U	0.49 U	0.39 U	9.5 U	0.34 U
1,2-DICHLOROBENZENE	0.32 U	0.32 U	0.32 U	0.35 U	0.28 U	8.1 U	0.24 U
1,2-DICHLOROETHANE	0.3 U	0.31 U	0.3 U	0.33 U	0.27 U	9.5 U	0.23 U
1,2-DICHLOROPROPANE	0.61 U	0.62 U	0.61 U	0.67 U	0.54 U	7.8 U	0.47 U
1,3-DICHLOROBENZENE	0.31 U	0.31 U	0.31 U	0.34 U	0.28 U	4.5 U	0.24 U
1,3-DICHLOROPROPANE	0.3 U	0.31 U	0.3 U	0.33 U	0.27 U	21 U	0.23 U
1,4-DICHLOROBENZENE	0.59 U	0.59 U	0.58 U	0.64 U	0.52 U	7.6 U	0.45 U
2,2-DICHLOROPROPANE	0.83 U	0.85 U	0.83 U	0.91 U	0.74 U	22 U	0.64 U
2-BUTANONE	1.2 U	1.3 U	1.2 U	1.4 U	1.1 U	41 U	0.95 U
2-CHLOROETHYL VINYL ETHER	1.2 UR	1.3 UR	1.2 UR	1.4 U	1.1 U	41 UR	0.95 U
2-CHLOROTOLUENE	0.36 U	0.36 U	0.35 U	0.39 U	0.32 U	8.5 U	0.27 U
2-HEXANONE	0.56 U	0.57 U	0.56 U	0.61 U	0.5 U	19 U	0.43 U
4-CHLOROTOLUENE	0.36 U	0.37 U	0.36 U	0.4 U	0.32 U	9.4 U	0.28 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-91-0-2	GSP-SB-91-8-10	GSP-SB-91-22-24	GSP-SB-92-0-2	GSP-SB-92-6-8	GSP-SB-92-22-25	GSP-SB-93-0-2
LABORATORY ID:	240-681-10	240-681-11	240-681-12	240-681-30	240-681-31	240-681-32	240-681-27
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-91	GSP-SB-91	GSP-SB-91	GSP-SB-92	GSP-SB-92	GSP-SB-92	GSP-SB-93
4-ISOPROPYLTOLUENE	0.19 U	0.19 U	0.19 U	0.2 U	0.17 U	4.5 U	0.14 U
4-METHYL-2-PENTANONE	0.48 U	0.49 U	0.48 U	0.52 U	0.43 U	45 U	0.37 U
ACETONE	5.6 U	9.2 J	5.6 U	6.1 U	5 U	160 U	4.3 U
BENZENE	0.2 U	0.62 J	1.4 J	0.22 U	0.18 U	11 U	0.16 U
BROMOBENZENE	0.29 U	0.3 U	0.29 U	0.32 U	0.26 U	12 U	0.22 U
BROMOCHLOROMETHANE	0.63 U	0.64 U	0.63 U	0.69 U	0.56 U	12 U	0.48 U
BROMODICHLOROMETHANE	0.25 U	0.25 U	0.25 U	0.27 U	0.22 U	9.4 U	0.19 U
BROMOFORM	0.29 U	0.3 U	0.29 U	0.32 U	0.26 U	18 U	0.22 U
BROMOMETHANE	0.48 U	0.49 U	0.48 U	0.52 U	0.43 U	27 U	0.37 U
CARBON DISULFIDE	0.39 U	0.4 U	0.39 U	0.43 U	0.35 U	11 U	0.3 U
CARBON TETRACHLORIDE	0.33 U	0.33 U	0.33 U	0.36 U	0.29 U	6.1 U	0.25 U
CHLOROBENZENE	0.29 U	0.3 U	0.29 U	0.32 U	0.26 U	6.1 U	0.22 U
CHLORODIBROMOMETHANE	0.49 U	0.49 U	0.49 U	0.53 U	0.43 U	11 U	0.37 U
CHLOROETHANE	0.76 U	0.77 U	0.76 U	0.84 UJ	0.68 UJ	58 U *	0.58 UJ
CHLOROFORM	0.26 U	0.26 U	0.26 U	0.28 U	0.23 U	8.3 U	0.2 U
CHLOROMETHANE	0.36 U	0.37 U	0.36 U	0.4 U *	0.32 U *	13 U	0.28 U *
CIS-1,2-DICHLOROETHENE	0.32 U	0.32 U	0.32 U	0.35 U	0.28 U	6.5 U	0.24 U
CIS-1,3-DICHLOROPROPENE	0.3 U	0.31 U	0.3 U	0.33 U	0.27 U	7.5 U	0.23 U
DIBROMOMETHANE	0.56 U	0.57 U	0.56 U	0.61 U	0.5 U	13 U	0.43 U
DICHLORODIFLUOROMETHANE	0.44 U	0.45 U	0.44 U	0.49 U	0.39 U	15 U	0.34 U
DIISOPROPYL ETHER	1.3 U	1.3 U	1.3 U	1.5 U	1.2 U	47 U	1 U
ETHYL TERT-BUTYL ETHER	0.2 U	0.2 U	0.19 U	0.21 U	0.17 U	0.21 U	0.15 U
ETHYLBENZENE	0.23 U	0.23 U	0.23 U	0.25 U	0.21 U	5.1 U	0.18 U
HEXACHLOROBUTADIENE	1.1 U	1.1 U	1.1 U	1.2 U	0.95 U	13 U	0.81 U
ISOPROPYLBENZENE	0.14 U	0.14 U	0.14 U	0.16 U	0.13 U	6.2 U	0.11 U
M+P-XYLENES	1.1 U	1.1 U	1.1 U	1.2 U	0.95 U	5.9 U	0.81 U
METHYL TERT-BUTYL ETHER	0.38 U	0.39 U	0.38 U	0.42 U	0.34 U	6.7 U	0.29 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-91-0-2	GSP-SB-91-8-10	GSP-SB-91-22-24	GSP-SB-92-0-2	GSP-SB-92-6-8	GSP-SB-92-22-25	GSP-SB-93-0-2
LABORATORY ID:	240-681-10	240-681-11	240-681-12	240-681-30	240-681-31	240-681-32	240-681-27
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-91	GSP-SB-91	GSP-SB-91	GSP-SB-92	GSP-SB-92	GSP-SB-92	GSP-SB-93
METHYLENE CHLORIDE	0.59 U	0.6 U	0.59 U	3.4 J	2.8 J	73 U	2.4 J
NAPHTHALENE	0.17 U	0.17 U	0.17 U	0.18 U	0.15 U	6.3 U	0.13 U
N-BUTYLBENZENE	0.2 U	0.21 U	0.2 U	0.22 U	0.18 U	7.6 U	0.16 U
N-PROPYLBENZENE	0.36 U	0.36 U	0.35 U	0.39 U	0.32 U	13 U	0.27 U
O-XYLENE	0.31 U	0.31 U	0.31 U	0.34 U	0.28 U	8 U	0.24 U
SEC-BUTYLBENZENE	0.16 U	0.16 U	0.16 U	0.17 U	0.14 U	4.4 U	0.12 U
STYRENE	0.13 U	0.13 U	0.13 U	0.15 U	0.12 U	5.3 U	0.1 U
TERT-AMYL METHYL ETHER	0.33 U	0.33 U	0.33 U	0.36 U	0.29 U	0.35 U	0.25 U
TERT-BUTYLBENZENE	0.26 U	0.26 U	0.26 U	0.28 U	0.23 U	6.2 U	0.2 U
TERTIARY-BUTYL ALCOHOL	6.7 UR	6.8 UR	6.7 UR	7.4 UR	6 UR	230 UR	5.1 UR
TETRACHLOROETHENE	0.46 U	0.47 U	0.46 U	0.51 U	0.41 U	11 U	0.35 U
TOLUENE	0.24 U	0.24 U	0.24 U	0.26 U	0.21 U	16 U	0.18 U
TOTAL XYLENES	0.59 U	0.6 U	0.59 U	0.65 U	0.53 U	7.7 U	0.45 U
TRANS-1,2-DICHLOROETHENE	0.36 U	0.37 U	0.36 U	0.4 U	0.32 U	8.7 U	0.28 U
TRANS-1,3-DICHLOROPROPENE	0.48 U	0.49 U	0.48 U	0.52 U	0.43 U	19 U	0.37 U
TRICHLOROETHENE	0.37 U	0.38 U	0.37 U	0.41 U	0.33 U	2900	0.28 U
TRICHLOROFLUOROMETHANE	0.3 U	0.31 U	0.3 U	0.33 U	0.27 U	15 U	0.23 U
VINYL ACETATE	0.22 UR	0.22 UR	0.22 UR	0.24 UR	0.2 UR	22 UR	0.17 UR
VINYL CHLORIDE	0.35 U	0.35 U	0.35 U	0.38 U	0.31 U	17 U	0.26 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	30 U	32 U		28 U	31 U		30 U
1,4-DIOXANE	24 U	26 U		23 U	25 U		24 U
2,2'-OXYBIS(1-CHLOROPROPANE)	10 U	11 U		9.8 U	11 U		11 U
2,4,5-TRICHLOROPHENOL	27 U	29 U		26 U	29 U		28 U
2,4,6-TRICHLOROPHENOL	88 U	94 U		83 U	92 U		89 U
2,4-DICHLOROPHENOL	22 U	23 U		21 U	23 U		22 U
2,4-DIMETHYLPHENOL	22 U	23 U		21 U	23 U		22 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-91-0-2	GSP-SB-91-8-10	GSP-SB-91-22-24	GSP-SB-92-0-2	GSP-SB-92-6-8	GSP-SB-92-22-25	GSP-SB-93-0-2
LABORATORY ID:	240-681-10	240-681-11	240-681-12	240-681-30	240-681-31	240-681-32	240-681-27
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-91	GSP-SB-91	GSP-SB-91	GSP-SB-92	GSP-SB-92	GSP-SB-92	GSP-SB-93
2,4-DINITROPHENOL	88 U	94 U		83 U	92 U		89 U
2,4-DINITROTOLUENE	30 U	32 U		28 U	31 U		30 U
2,6-DINITROTOLUENE	23 U	25 U		22 U	24 U		23 U
2-CHLORONAPHTHALENE	3.6 U	3.9 U		3.4 U	3.8 U		3.7 U
2-CHLOROPHENOL	30 U	32 U		28 U	31 U		30 U
2-METHYLNAPHTHALENE	3.6 U	3.9 U		3.4 U	3.8 U		3.7 U
2-METHYLPHENOL	88 U	94 U		83 U	92 U		89 U
2-NITROANILINE	10 U	11 U		9.4 U	10 U		10 U
2-NITROPHENOL	30 U	32 U		28 U	31 U		30 U
3&4-METHYLPHENOL	22 U	23 U		21 U	23 U		22 U
3,3'-DICHLOROBENZIDINE	20 U	21 U		19 UL	21 UL		20 UL
3-NITROANILINE	18 U	19 U		17 U	18 U		18 U
4,6-DINITRO-2-METHYLPHENOL	88 U	94 U		83 U	92 U		89 U
4-BROMOPHENYL PHENYL ETHER	14 U	15 U		13 U	15 U		14 U
4-CHLORO-3-METHYLPHENOL	23 U	25 U		22 U	24 U		23 U
4-CHLOROANILINE	19 U	20 U		18 U	20 U		19 U
4-CHLOROPHENYL PHENYL ETHER	14 U	15 U		13 U	15 U		14 U
4-NITROANILINE	28 U	31 U		27 U	30 U		29 U
4-NITROPHENOL	88 U	94 U		83 U	92 U		89 U
ACENAPHTHENE	3.6 U	3.9 U		3.4 U	3.8 U		3.7 U
ACENAPHTHYLENE	3.6 U	3.9 U		3.4 U	3.8 U		3.7 U
ACETOPHENONE	10 U	11 U		9.5 U	11 U		10 U
ANTHRACENE	4.6 J	3.9 U		13	3.8 U		3.7 U
ATRAZINE	10 U	11 U		9.4 U	10 U		10 U
BENZALDEHYDE	13 U	14 U		12 U	14 U		13 U
BENZO(A)ANTHRACENE	21	3.9 U		88	3.8 U		15
BENZO(A)PYRENE	23	3.9 U		85	3.8 U		17

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-91-0-2	GSP-SB-91-8-10	GSP-SB-91-22-24	GSP-SB-92-0-2	GSP-SB-92-6-8	GSP-SB-92-22-25	GSP-SB-93-0-2
LABORATORY ID:	240-681-10	240-681-11	240-681-12	240-681-30	240-681-31	240-681-32	240-681-27
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-91	GSP-SB-91	GSP-SB-91	GSP-SB-92	GSP-SB-92	GSP-SB-92	GSP-SB-93
BENZO(B)FLUORANTHENE	25	3.9 U		110	3.8 U		19
BENZO(G,H,I)PERYLENE	15	3.9 U		56	3.8 U		13
BENZO(K)FLUORANTHENE	3.6 U	3.9 U		42	3.8 U		10
BIS(2-CHLOROETHOXY)METHANE	24 U	26 U		23 U	25 U		24 U
BIS(2-CHLOROETHYL)ETHER	2.2 U	2.3 U		2.1 U	2.3 U		2.2 U
BIS(2-ETHYLHEXYL)PHTHALATE	21 U	22 U		20 U	22 U		21 U
BUTYL BENZYL PHTHALATE	11 U	12 U		10 U	12 U		11 U
CAPROLACTAM	41 U	43 U		38 U	43 U		41 U
CARBAZOLE	30 U	32 U		28 U	31 U		30 U
CHRYSENE	25	1.3 U		96	1.3 U		18
DIBENZO(A,H)ANTHRACENE	3.6 U	3.9 U		16	3.8 U		3.7 U
DIBENZOFURAN	3.6 U	3.9 U		3.4 U	3.8 U		3.7 U
DIETHYL PHTHALATE	18 U	19 U		17 U	18 U		18 U
DIMETHYL PHTHALATE	19 U	20 U		18 U	20 U		19 U
DI-N-BUTYL PHTHALATE	16 U	18 U		15 U	17 U		18 J
DI-N-OCTYL PHTHALATE	30 U	32 U		28 U	31 U		30 U
FLUORANTHENE	36	3.9 U		190	3.8 U		27
FLUORENE	3.6 U	3.9 U		3.4 U	3.8 U		3.7 U
HEXACHLOROBENZENE	2.3 U	2.5 U		2.2 U	2.4 U		2.3 U
HEXACHLOROBUTADIENE	30 U	32 U		28 U	31 U		30 U
HEXACHLOROCYCLOPENTADIENE	30 U	32 U		28 U	31 U		30 U
HEXACHLOROETHANE	9.9 U	11 U		9.3 U	10 U		10 U
INDENO(1,2,3-CD)PYRENE	12	3.9 U		46	3.8 U		9.4
ISOPHORONE	14 U	15 U		13 U	15 U		14 U
NAPHTHALENE	3.6 U	3.9 U		3.4 U	3.8 U		3.7 U
NITROBENZENE	2.4 U	2.6 U		2.3 U	2.5 U		2.4 U
N-NITROSODIMETHYLAMINE	18 U	19 U		17 U	18 U		18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-91-0-2	GSP-SB-91-8-10	GSP-SB-91-22-24	GSP-SB-92-0-2	GSP-SB-92-6-8	GSP-SB-92-22-25	GSP-SB-93-0-2
LABORATORY ID:	240-681-10	240-681-11	240-681-12	240-681-30	240-681-31	240-681-32	240-681-27
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-91	GSP-SB-91	GSP-SB-91	GSP-SB-92	GSP-SB-92	GSP-SB-92	GSP-SB-93
N-NITROSO-DI-N-PROPYLAMINE	30 U	32 U		28 U	31 U		30 U
N-NITROSODIPHENYLAMINE	23 U	25 U		22 U	24 U		23 U
PENTACHLOROPHENOL	88 U	94 U		83 U	92 U		89 U
PHENANTHRENE	17	3.9 U		56	3.8 U		8.1
PHENOL	30 U	32 U		28 U	31 U		30 U
PYRENE	41	3.9 U		160	3.8 U		27
INORGANICS (mg/kg)							
ANTIMONY	0.4 UL	0.46 UL		0.37 UL	0.39 UL		0.36 UL
ARSENIC	2.3	6.8		1.6	1 J		2.8
BARIUM	11 J	3.7 J		8.3 J	5.6 J		11 J
BERYLLIUM	0.045 J	0.05 U		0.041 U	0.043 U		0.077 J
CADMIUM	0.037 U	0.042 U		0.034 U	0.036 U		0.033 U
CHROMIUM	7.1	39		3.6	4.6		7.2
COBALT	1	0.47 J		0.79 J	0.45 J		1.2
COPPER	4.4 K	3.6 K		6.6	1.9 J		6
LEAD	6.4	4.5		3.9	1.4 K		5.9
MERCURY	0.086 J	0.016 U		0.015 U	0.016 U		0.06 J
MOLYBDENUM	0.28 U	0.53 B		1 B	0.34 B		0.39 B
NICKEL	2 J	0.33 J		2.5 J	0.51 J		1.9 J
SELENIUM	0.46 U	0.53 U		0.43 U	0.45 U		0.42 U
SILVER	0.1 U	0.12 U		0.095 U	0.1 U		0.093 U
THALLIUM	0.57 U	0.64 U		0.52 U	0.56 U		0.51 U
VANADIUM	13	93		5.9	6.7		14
ZINC	11	2.4 B		10	2.4 J		13
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016	23 U	25 U		22 U	24 U		23 U
AROCLOR-1221	18 U	19 U		17 U	18 U		18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-91-0-2	GSP-SB-91-8-10	GSP-SB-91-22-24	GSP-SB-92-0-2	GSP-SB-92-6-8	GSP-SB-92-22-25	GSP-SB-93-0-2
LABORATORY ID:	240-681-10	240-681-11	240-681-12	240-681-30	240-681-31	240-681-32	240-681-27
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-91	GSP-SB-91	GSP-SB-91	GSP-SB-92	GSP-SB-92	GSP-SB-92	GSP-SB-93
AROCLOR-1232	15 U	16 U		14 U	16 U		15 U
AROCLOR-1242	14 U	15 U		13 U	15 U		14 U
AROCLOR-1248	19 U	20 U		18 U	20 U		19 U
AROCLOR-1254	19 U	20 U		18 U	20 U		19 U
AROCLOR-1260	19 U	20 U		18 U	20 U		19 U
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	52	11 U	12 U	24	14 J	14 J	10 U
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	27 U	29 U	31 U	26 U	29 U	30 U	28 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-6-8	GSP-SB-94-20-22	GSP-SB-95-0-2	GSP-SB-95-6-8
LABORATORY ID:	240-681-28	240-681-29	240-681-16	240-681-17	240-681-18	240-681-7	240-681-8
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-93	GSP-SB-93	GSP-SB-94	GSP-SB-94	GSP-SB-94	GSP-SB-95	GSP-SB-95
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	10 U	9.1 U	0.53 U	0.61 U	0.63 U	0.6 U	0.68 U
1,1,1-TRICHLOROETHANE	24 U	21 U	0.48 U	0.55 U	0.57 U	0.54 U	0.62 U
1,1,2,2-TETRACHLOROETHANE	10 U	8.9 U	0.29 U	0.33 U	0.34 U	0.33 U	0.37 U
1,1,2-TRICHLOROTRIFLUOROETHANE	44 U	39 U	1.1 U	1.3 U	1.3 U	1.3 U	1.4 U
1,1-DICHLOROETHANE	19 U	17 U	0.31 U	0.35 U	0.36 U	0.35 U	0.4 U
1,1-DICHLOROETHENE	20 U	18 U	0.44 U	0.51 U	0.52 U	0.5 U	0.57 U
1,1-DICHLOROPROPENE	11 U	10 U	0.26 U	0.29 U	0.3 U	0.29 U	0.33 U
1,2,3-TRICHLOROBENZENE	11 U	10 U	0.32 U	0.37 U	0.38 U	0.37 U	0.42 U
1,2,3-TRICHLOROPROPANE	24 U	21 U	0.77 U	0.88 U	0.91 U	0.87 U	0.99 U
1,2,3-TRIMETHYLBENZENE	0.19 U	0.17 U	0.14 U	0.17 U	0.17 U	0.16 U	0.19 U
1,2,4-TRICHLOROBENZENE	8.2 U	7.3 U	0.23 U	0.26 U	0.27 U	0.26 U	0.3 U
1,2,4-TRIMETHYLBENZENE	5.6 U	5 U	0.55 U	0.64 U	0.66 U	0.63 U	0.72 U
1,2-DIBROMO-3-CHLOROPROPANE	56 U *	50 U *	1.1 U	1.3 U	1.3 U	1.3 U	1.4 U
1,2-DIBROMOETHANE	11 U	10 U	0.43 U	0.49 U	0.5 U	0.48 U	0.55 U
1,2-DICHLOROBENZENE	9.7 U	8.6 U	0.31 U	0.35 U	0.36 U	0.35 U	0.4 U
1,2-DICHLOROETHANE	11 U	10 U	0.29 U	0.33 U	0.34 U	0.33 U	0.37 U
1,2-DICHLOROPROPANE	9.2 U	8.2 U	0.59 U	0.68 U	0.7 U	0.66 U	0.76 U
1,3-DICHLOROBENZENE	5.4 U	4.8 U	0.3 U	0.34 U	0.35 U	0.34 U	0.39 U
1,3-DICHLOROPROPANE	25 U	22 U	0.29 U	0.33 U	0.34 U	0.33 U	0.37 U
1,4-DICHLOROBENZENE	9 U	8 U	0.56 U	0.65 U	0.67 U	0.64 U	0.73 U
2,2-DICHLOROPROPANE	26 U	23 U	0.8 U	0.92 U	0.95 U	0.91 U	1 U
2-BUTANONE	48 U	43 U	1.2 U	1.4 U	4.1 J	1.3 U	1.5 U
2-CHLOROETHYL VINYL ETHER	48 U	43 U	1.2 UR	1.4 UR	1.4 UR	1.3 UR	1.5 UR
2-CHLOROTOLUENE	10 U	9 U	0.34 U	0.39 U	0.4 U	0.39 U	0.44 U
2-HEXANONE	22 U	20 U	0.54 U	0.62 U	0.64 U	0.61 U	0.69 U
4-CHLOROTOLUENE	11 U	9.9 U	0.35 U	0.4 U	0.41 U	0.39 U	0.45 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-6-8	GSP-SB-94-20-22	GSP-SB-95-0-2	GSP-SB-95-6-8
LABORATORY ID:	240-681-28	240-681-29	240-681-16	240-681-17	240-681-18	240-681-7	240-681-8
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-93	GSP-SB-93	GSP-SB-94	GSP-SB-94	GSP-SB-94	GSP-SB-95	GSP-SB-95
4-ISOPROPYLTOLUENE	5.4 U	4.8 U	0.18 U	0.21 U	0.21 U	0.2 U	0.23 U
4-METHYL-2-PENTANONE	54 U	48 U	0.46 U	0.53 U	0.55 U	0.52 U	0.59 U
ACETONE	220 J	170 J	5.4 U	6.2 U	19 J	6.1 U	6.9 U
BENZENE	13 U	12 U	0.2 U	0.23 U	0.23 U	0.22 U	0.25 U
BROMOBENZENE	15 U	13 U	0.28 U	0.32 U	0.33 U	0.32 U	0.36 U
BROMOCHLOROMETHANE	15 U	13 U	0.6 U	0.69 U	0.72 U	0.68 U	0.78 U
BROMODICHLOROMETHANE	11 U	9.9 U	0.24 U	0.27 U	0.28 U	0.27 U	0.31 U
BROMOFORM	21 U	19 U	0.28 U	0.32 U	0.33 U	0.32 U	0.36 U
BROMOMETHANE	33 U	29 U	0.46 U	0.53 U	0.55 U	0.52 U	0.59 U
CARBON DISULFIDE	13 U	12 U	0.37 U	0.43 U	0.44 U	0.42 U	0.48 U
CARBON TETRACHLORIDE	7.2 U	6.4 U	0.31 U	0.36 U	0.37 U	0.36 U	0.41 U
CHLOROBENZENE	7.2 U	6.4 U	0.28 U	0.32 U	0.33 U	0.32 U	0.36 U
CHLORODIBROMOMETHANE	13 U	12 U	0.47 U	0.54 U	0.56 U	0.53 U	0.61 U
CHLOROETHANE	69 UJ	61 UJ	0.73 U	0.84 U	0.87 U	0.83 U	0.95 U
CHLOROFORM	9.9 U	8.8 U	0.25 U	0.28 U	0.29 U	0.28 U	0.32 U
CHLOROMETHANE	16 U	14 U	0.35 U	0.4 U	0.41 U	0.39 U	0.45 U
CIS-1,2-DICHLOROETHENE	7.8 U	6.9 U	0.31 U	0.35 U	0.36 U	0.35 U	0.4 U
CIS-1,3-DICHLOROPROPENE	8.9 U	7.9 U	0.29 U	0.33 U	0.34 U	0.33 U	0.37 U
DIBROMOMETHANE	16 U	14 U	0.54 U	0.62 U	0.64 U	0.61 U	0.69 U
DICHLORODIFLUOROMETHANE	18 U	16 U	0.43 U	0.49 U	0.5 U	0.48 U	0.55 U
DIISOPROPYL ETHER	56 U	50 U	1.3 U	1.5 U	1.5 U	1.4 U	1.7 U
ETHYL TERT-BUTYL ETHER	0.25 U	0.22 U	0.19 U	0.22 U	0.22 U	0.21 U	0.24 U
ETHYLBENZENE	6.1 U	5.4 U	0.22 U	0.25 U	0.26 U	0.25 U	0.29 U
HEXACHLOROBUTADIENE	16 U	14 U	1 U	1.2 U	1.2 U	1.2 U	1.3 U
ISOPROPYLBENZENE	7.3 U	6.5 U	0.14 U	0.16 U	0.16 U	0.15 U	0.18 U
M+P-XYLENES	7 U	6.2 U	1 U	1.2 U	1.2 U	1.2 U	1.3 U
METHYL TERT-BUTYL ETHER	8 U	7.1 U	0.37 U	0.42 U	0.43 U	0.41 U	0.47 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-6-8	GSP-SB-94-20-22	GSP-SB-95-0-2	GSP-SB-95-6-8
LABORATORY ID:	240-681-28	240-681-29	240-681-16	240-681-17	240-681-18	240-681-7	240-681-8
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-93	GSP-SB-93	GSP-SB-94	GSP-SB-94	GSP-SB-94	GSP-SB-95	GSP-SB-95
METHYLENE CHLORIDE	820 B	570 B	0.57 U	0.66 U	0.68 U	0.65 U	0.74 U
NAPHTHALENE	25 B	6.7 U	0.16 U	0.19 U	0.19 U	0.18 U	0.21 U
N-BUTYLBENZENE	9 U	8 U	0.2 U	0.23 U	0.23 U	0.22 U	0.25 U
N-PROPYLBENZENE	16 U	14 U	0.34 U	0.39 U	0.4 U	0.39 U	0.44 U
O-XYLENE	9.5 U	8.5 U	0.3 U	0.34 U	0.35 U	0.34 U	0.39 U
SEC-BUTYLBENZENE	5.3 U	4.7 U	0.15 U	0.18 U	0.18 U	0.17 U	0.2 U
STYRENE	6.3 U	5.6 U	0.13 U	0.15 U	0.15 U	0.14 U	0.17 U
TERT-AMYL METHYL ETHER	0.42 U	0.37 U	0.31 U	0.36 U	0.37 U	0.36 U	0.41 U
TERT-BUTYLBENZENE	7.3 U	6.5 U	0.25 U	0.28 U	0.29 U	0.28 U	0.32 U
TERTIARY-BUTYL ALCOHOL	270 UR	240 UR	6.5 UR	7.4 UR	7.7 UR	7.3 UR	8.4 UR
TETRACHLOROETHENE	13 U	12 U	0.44 U	0.51 U	0.52 U	0.5 U	0.57 U
TOLUENE	19 U	17 U	0.23 U	0.26 U	0.27 U	0.26 U	0.3 U
TOTAL XYLENES	9.1 U	8.1 U	0.57 U	0.66 U	0.68 U	0.65 U	0.74 U
TRANS-1,2-DICHLOROETHENE	10 U	9.2 U	0.35 U	0.4 U	0.41 U	0.39 U	0.45 U
TRANS-1,3-DICHLOROPROPENE	22 U	20 U	0.46 U	0.53 U	0.55 U	0.52 U	0.59 U
TRICHLOROETHENE	360	300	0.36 U	0.41 U	0.42 U	0.4 U	0.46 U
TRICHLOROFLUOROMETHANE	18 U	16 U	0.29 U	0.33 U	0.34 U	0.33 U	0.37 U
VINYL ACETATE	26 UR	23 UR	0.21 UR	0.24 UR	0.25 UR	0.24 UR	0.28 UR
VINYL CHLORIDE	20 U	18 U	0.33 U	0.38 U	0.39 U	0.38 U	0.43 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	32 U		30 U	33 U		29 U	31 U
1,4-DIOXANE	26 U		24 U	27 U		24 U	25 U
2,2'-OXYBIS(1-CHLOROPROPANE)	11 U		11 U	12 U		10 U	11 U
2,4,5-TRICHLOROPHENOL	30 U		28 U	31 U		27 U	29 U
2,4,6-TRICHLOROPHENOL	95 U		89 U	98 U		87 U	92 U
2,4-DICHLOROPHENOL	24 U		22 U	25 U		22 U	23 U
2,4-DIMETHYLPHENOL	24 U		22 U	25 U		22 U	23 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-6-8	GSP-SB-94-20-22	GSP-SB-95-0-2	GSP-SB-95-6-8
LABORATORY ID:	240-681-28	240-681-29	240-681-16	240-681-17	240-681-18	240-681-7	240-681-8
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-93	GSP-SB-93	GSP-SB-94	GSP-SB-94	GSP-SB-94	GSP-SB-95	GSP-SB-95
2,4-DINITROPHENOL	95 U		89 U	98 U		87 U	92 U
2,4-DINITROTOLUENE	32 U		30 U	33 U		29 U	31 U
2,6-DINITROTOLUENE	25 U		23 U	26 U		23 U	24 U
2-CHLORONAPHTHALENE	3.9 U		3.7 U	4.1 U		3.6 U	3.8 U
2-CHLOROPHENOL	32 U		30 U	33 U		29 U	31 U
2-METHYLNAPHTHALENE	3.9 U		3.7 U	4.1 U		3.6 U	3.8 U
2-METHYLPHENOL	95 U		89 U	98 U		87 U	92 U
2-NITROANILINE	11 U		10 U	11 U		9.9 U	10 U
2-NITROPHENOL	32 U		30 U	33 U		29 U	31 U
3&4-METHYLPHENOL	24 U		22 U	25 U		22 U	23 U
3,3'-DICHLOROBENZIDINE	21 UL		20 U	22 U		20 U	21 U
3-NITROANILINE	19 U		18 U	20 U		17 U	18 U
4,6-DINITRO-2-METHYLPHENOL	95 U		89 U	98 U		87 U	92 U
4-BROMOPHENYL PHENYL ETHER	15 U		14 U	16 U		14 U	15 U
4-CHLORO-3-METHYLPHENOL	25 U		23 U	26 U		23 U	24 U
4-CHLOROANILINE	20 U		19 U	21 U		19 U	20 U
4-CHLOROPHENYL PHENYL ETHER	15 U		14 U	16 U		14 U	15 U
4-NITROANILINE	31 U		29 U	32 U		28 U	30 U
4-NITROPHENOL	95 U		89 U	98 U		87 U	92 U
ACENAPHTHENE	3.9 U		3.7 U	4.1 U		3.6 U	3.8 U
ACENAPHTHYLENE	3.9 U		3.7 U	4.1 U		3.6 U	3.8 U
ACETOPHENONE	11 U		10 U	11 U		10 U	11 U
ANTHRACENE	3.9 U		5.5 J	4.1 U		3.6 U	3.8 U
ATRAZINE	11 U		10 U	11 U		9.9 U	10 U
BENZALDEHYDE	14 U		13 U	15 U		13 U	14 U
BENZO(A)ANTHRACENE	3.9 U		30	4.1 U		3.6 U	3.8 U
BENZO(A)PYRENE	3.9 U		31	4.1 U		3.6 U	3.8 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-6-8	GSP-SB-94-20-22	GSP-SB-95-0-2	GSP-SB-95-6-8
LABORATORY ID:	240-681-28	240-681-29	240-681-16	240-681-17	240-681-18	240-681-7	240-681-8
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-93	GSP-SB-93	GSP-SB-94	GSP-SB-94	GSP-SB-94	GSP-SB-95	GSP-SB-95
BENZO(B)FLUORANTHENE	3.9 U		33	4.1 U		3.6 U	3.8 U
BENZO(G,H,I)PERYLENE	3.9 U		20	4.1 U		3.6 U	3.8 U
BENZO(K)FLUORANTHENE	3.9 U		31	4.1 U		3.6 U	3.8 U
BIS(2-CHLOROETHOXY)METHANE	26 U		24 U	27 U		24 U	25 U
BIS(2-CHLOROETHYL)ETHER	2.4 U		2.2 U	2.5 U		2.2 U	2.3 U
BIS(2-ETHYLHEXYL)PHTHALATE	23 U		29 B	42 B		24 B	39 B
BUTYL BENZYL PHTHALATE	12 U		11 U	12 U		11 U	11 U
CAPROLACTAM	44 U		41 U	45 U		40 U	43 U
CARBAZOLE	32 U		30 U	33 U		29 U	31 U
CHRYSENE	1.3 U		37	1.4 U		1.2 U	1.3 U
DIBENZO(A,H)ANTHRACENE	3.9 U		3.7 U	4.1 U		3.6 U	3.8 U
DIBENZOFURAN	3.9 U		3.7 U	4.1 U		3.6 U	3.8 U
DIETHYL PHTHALATE	19 U		18 U	20 U		17 U	18 U
DIMETHYL PHTHALATE	20 U		19 U	21 U		19 U	20 U
DI-N-BUTYL PHTHALATE	18 U		17 U	18 U		16 U	17 U
DI-N-OCTYL PHTHALATE	32 U		30 U	33 U		29 U	31 U
FLUORANTHENE	3.9 U		60	4.1 U		3.6 U	3.8 U
FLUORENE	3.9 U		3.7 U	4.1 U		3.6 U	3.8 U
HEXACHLOROBENZENE	2.5 U		2.3 U	2.6 U		2.3 U	2.4 U
HEXACHLOROBUTADIENE	32 U		30 U	33 U		29 U	31 U
HEXACHLOROCYCLOPENTADIENE	32 U		30 U	33 U		29 U	31 U
HEXACHLOROETHANE	11 U		10 U	11 U		9.8 U	10 U
INDENO(1,2,3-CD)PYRENE	3.9 U		15	4.1 U		3.6 U	3.8 U
ISOPHORONE	15 U		14 U	16 U		14 U	15 U
NAPHTHALENE	3.9 U		3.7 U	4.1 U		3.6 U	3.8 U
NITROBENZENE	2.6 U		2.4 U	2.7 U		2.4 U	2.5 U
N-NITROSODIMETHYLAMINE	19 U		18 U	20 U		17 U	18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-6-8	GSP-SB-94-20-22	GSP-SB-95-0-2	GSP-SB-95-6-8
LABORATORY ID:	240-681-28	240-681-29	240-681-16	240-681-17	240-681-18	240-681-7	240-681-8
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-93	GSP-SB-93	GSP-SB-94	GSP-SB-94	GSP-SB-94	GSP-SB-95	GSP-SB-95
N-NITROSO-DI-N-PROPYLAMINE	32 U		30 U	33 U		29 U	31 U
N-NITROSODIPHENYLAMINE	25 U		23 U	26 U		23 U	24 U
PENTACHLOROPHENOL	95 U		89 U	98 U		87 U	92 U
PHENANTHRENE	3.9 U		16	4.1 U		3.6 U	3.8 U
PHENOL	32 U		30 U	33 U		29 U	31 U
PYRENE	3.9 U		58	4.1 U		3.6 U	3.8 U
INORGANICS (mg/kg)							
ANTIMONY	0.38 UL		0.42 UL	0.44 UL		0.35 UL	0.44 UL
ARSENIC	0.85 J		2.1	0.34 U		1.2 J	6.4
BARIUM	1.1 J		22	1.7 J		6.9 J	4.5 J
BERYLLIUM	0.042 U		0.046 J	0.048 U		0.038 U	0.048 U
CADMIUM	0.035 U		0.039 U	0.04 U		0.032 U	0.041 U
CHROMIUM	5.9		7.2	1.4 K		3.3	18
COBALT	0.15 U		2	0.23 J		0.69 J	0.37 J
COPPER	0.73 J		38	0.83 U		2.3 K	4.3 K
LEAD	1.2 K		12	0.47 J		2.5	1.7 K
MERCURY	0.011 U		0.063 J	0.018 U		0.037 J	0.011 J
MOLYBDENUM	0.28 B		0.54 B	0.3 U		0.29 B	0.88 B
NICKEL	0.26 U		4 J	0.3 U		0.82 J	0.42 J
SELENIUM	0.43 U		0.49 J	0.5 U		0.4 U	0.51 U
SILVER	0.097 U		0.11 U	0.11 U		0.089 U	0.11 U
THALLIUM	0.53 U		0.59 U	0.62 U		0.49 U	0.62 U
VANADIUM	6.6		17	1.3		5.9	25
ZINC	0.97 U		41	1.5 B		5 B	2.8 B
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016	25 U		23 U	26 U		23 U	24 U
AROCLOR-1221	19 U		18 U	20 U		17 U	18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-93-12-14	GSP-SB-93-22-24	GSP-SB-94-0-2	GSP-SB-94-6-8	GSP-SB-94-20-22	GSP-SB-95-0-2	GSP-SB-95-6-8
LABORATORY ID:	240-681-28	240-681-29	240-681-16	240-681-17	240-681-18	240-681-7	240-681-8
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-93	GSP-SB-93	GSP-SB-94	GSP-SB-94	GSP-SB-94	GSP-SB-95	GSP-SB-95
AROCLOR-1232	17 U		15 U	17 U		15 U	16 U
AROCLOR-1242	15 U		14 U	16 U		14 U	15 U
AROCLOR-1248	20 U		19 U	21 U		19 U	20 U
AROCLOR-1254	20 U		19 U	21 U		19 U	20 U
AROCLOR-1260	20 U		19 U	21 U		19 U	20 U
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	16 J	11 J	21	11 U	12 U	120	17 J
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	30 U	30 U	28 U	31 U	31 U	27 U	29 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-95-20-22	GSP-SB-96-0-2	GSP-SB-96-6-8	GSP-SB-96-22-24	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2
LABORATORY ID:	240-681-9	240-681-19	240-681-20	240-681-21	240-681-25	240-681-26	240-681-33
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-95	GSP-SB-96	GSP-SB-96	GSP-SB-96	GSP-SB-97	GSP-SB-97	GSP-SB-98
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.75 U	0.54 U	0.56 U	0.56 U	0.61 U	0.57 U	0.38 U
1,1,1-TRICHLOROETHANE	0.68 U	0.49 U	0.5 U	0.51 U	0.55 U	0.51 U	0.35 U
1,1,2,2-TETRACHLOROETHANE	0.41 U	0.3 U	0.31 U	0.31 U	0.34 U	0.31 U	0.21 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.6 U	1.1 U	1.2 U	1.2 U	1.3 U	1.2 U	0.81 U
1,1-DICHLOROETHANE	0.44 U	0.31 U	0.32 U	0.33 U	0.36 U	0.33 U	0.22 U
1,1-DICHLOROETHENE	0.63 U	0.45 U	0.47 U	0.47 U	0.52 U	0.48 U	0.32 U
1,1-DICHLOROPROPENE	0.36 U	0.26 U	0.27 U	0.27 U	0.3 U	0.27 U	0.19 U
1,2,3-TRICHLOROBENZENE	0.46 U	0.33 U	0.34 U	0.34 U	0.38 U	0.35 U	0.24 U
1,2,3-TRICHLOROPROPANE	1.1 U	0.78 U	0.81 U	0.82 U	0.89 U	0.82 U	0.56 U
1,2,3-TRIMETHYLBENZENE	0.21 U	0.15 U	0.15 U	0.15 U	0.17 U	0.16 U	0.11 U
1,2,4-TRICHLOROBENZENE	0.33 U	0.23 U	0.24 U	0.24 U	0.27 U	0.25 U	0.17 U
1,2,4-TRIMETHYLBENZENE	0.79 U	0.57 U	0.59 U	0.59 U	0.64 U	0.59 U	0.4 U
1,2-DIBROMO-3-CHLOROPROPANE	1.6 U	1.1 U	1.2 U	1.2 U	1.3 U	1.2 U	0.81 U
1,2-DIBROMOETHANE	0.61 U	0.43 U	0.45 U	0.45 U	0.5 U	0.46 U	0.31 U
1,2-DICHLOROBENZENE	0.44 U	0.31 U	0.32 U	0.33 U	0.36 U	0.33 U	0.22 U
1,2-DICHLOROETHANE	0.41 U	0.3 U	0.31 U	0.31 U	0.34 U	0.31 U	0.21 U
1,2-DICHLOROPROPANE	0.84 U	0.6 U	0.62 U	0.62 U	0.68 U	0.63 U	0.43 U
1,3-DICHLOROBENZENE	0.43 U	0.3 U	0.32 U	0.32 U	0.35 U	0.32 U	0.22 U
1,3-DICHLOROPROPANE	0.41 U	0.3 U	0.31 U	0.31 U	0.34 U	0.31 U	0.21 U
1,4-DICHLOROBENZENE	0.8 U	0.57 U	0.6 U	0.6 U	0.65 U	0.6 U	0.41 U
2,2-DICHLOROPROPANE	1.1 U	0.82 U	0.85 U	0.85 U	0.93 U	0.86 U	0.58 U
2-BUTANONE	1.7 U	1.2 U	1.3 U	1.3 U	1.4 U	1.3 U	0.87 U
2-CHLOROETHYL VINYL ETHER	1.7 UR	1.2 U	1.3 UR	1.3 U	1.4 U	1.3 U	0.87 U
2-CHLOROTOLUENE	0.49 U	0.35 U	0.36 U	0.36 U	0.4 U	0.37 U	0.25 U
2-HEXANONE	0.77 U	0.55 U	0.57 U	0.57 U	0.62 U	0.58 U	0.39 U
4-CHLOROTOLUENE	0.5 U	0.36 U	0.37 U	0.37 U	0.41 U	0.38 U	0.25 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-95-20-22	GSP-SB-96-0-2	GSP-SB-96-6-8	GSP-SB-96-22-24	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2
LABORATORY ID:	240-681-9	240-681-19	240-681-20	240-681-21	240-681-25	240-681-26	240-681-33
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-95	GSP-SB-96	GSP-SB-96	GSP-SB-96	GSP-SB-97	GSP-SB-97	GSP-SB-98
4-ISOPROPYLTOLUENE	0.26 U	0.18 U	0.19 U	0.19 U	0.21 U	0.19 U	0.13 U
4-METHYL-2-PENTANONE	0.66 U	0.47 U	0.49 U	0.49 U	0.54 U	0.49 U	0.34 U
ACETONE	7.7 U	5.5 U	5.7 U	5.7 U	6.6 B	5.8 U	3.9 U
BENZENE	0.28 U	0.2 U	0.21 U	0.21 U	0.23 U	0.21 U	0.14 U
BROMOBENZENE	0.4 U	0.29 U	0.3 U	0.3 U	0.33 U	0.3 U	0.2 U
BROMOCHLOROMETHANE	0.86 U	0.62 U	0.64 U	0.64 U	0.7 U	0.65 U	0.44 U
BROMODICHLOROMETHANE	0.34 U	0.24 U	0.25 U	0.25 U	0.28 U	0.26 U	0.17 U
BROMOFORM	0.4 U	0.29 U	0.3 U	0.3 U	0.33 U	0.3 U	0.2 U
BROMOMETHANE	0.66 U	0.47 U	0.49 U	0.49 U	0.54 U	0.49 U	0.34 U
CARBON DISULFIDE	0.53 U	0.38 U	0.4 U	0.4 U	0.44 U	0.4 U	0.27 U
CARBON TETRACHLORIDE	0.45 U	0.32 U	0.33 U	0.34 U	0.37 U	0.34 U	0.23 U
CHLOROBENZENE	0.4 U	0.29 U	0.3 U	0.3 U	0.33 U	0.3 U	0.2 U
CHLORODIBROMOMETHANE	0.67 U	0.48 U	0.5 U	0.5 U	0.55 U	0.5 U	0.34 U
CHLOROETHANE	1 U	0.75 UJ	0.78 U	0.78 UJ	0.85 UJ	0.79 UJ	0.53 UJ
CHLOROFORM	0.35 U	0.25 U	0.26 U	0.26 U	0.29 U	0.27 U	0.18 U
CHLOROMETHANE	0.5 U	0.36 U *	0.37 U	0.37 U *	0.41 U *	0.38 U *	0.25 U *
CIS-1,2-DICHLOROETHENE	0.44 U	0.31 U	0.32 U	0.33 U	0.36 U	0.33 U	0.22 U
CIS-1,3-DICHLOROPROPENE	0.41 U	0.3 U	0.31 U	0.31 U	0.34 U	0.31 U	0.21 U
DIBROMOMETHANE	0.77 U	0.55 U	0.57 U	0.57 U	0.62 U	0.58 U	0.39 U
DICHLORODIFLUOROMETHANE	0.61 U	0.43 U	0.45 U	0.45 U	0.5 U	0.46 U	0.31 U
DIISOPROPYL ETHER	1.8 U	1.3 U	1.4 U	1.4 U	1.5 U	1.4 U	0.93 U
ETHYL TERT-BUTYL ETHER	0.27 U	0.19 U	0.2 U	0.2 U	0.22 U	0.2 U	0.14 U
ETHYLBENZENE	0.32 U	0.23 U	0.23 U	0.24 U	0.26 U	0.24 U	0.16 U
HEXACHLOROBUTADIENE	1.5 U	1 U	1.1 U	1.1 U	1.2 U	1.1 U	0.74 U
ISOPROPYLBENZENE	0.19 U	0.14 U	0.14 U	0.14 U	0.16 U	0.15 U	0.099 U
M+P-XYLENES	1.5 U	1 U	1.1 U	1.1 U	1.2 U	1.1 U	0.74 U
METHYL TERT-BUTYL ETHER	0.52 U	0.37 U	0.39 U	0.39 U	0.43 U	0.39 U	0.27 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-95-20-22	GSP-SB-96-0-2	GSP-SB-96-6-8	GSP-SB-96-22-24	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2
LABORATORY ID:	240-681-9	240-681-19	240-681-20	240-681-21	240-681-25	240-681-26	240-681-33
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-95	GSP-SB-96	GSP-SB-96	GSP-SB-96	GSP-SB-97	GSP-SB-97	GSP-SB-98
METHYLENE CHLORIDE	0.81 U	2.7 B	0.6 U	3.1 J	3.6 J	2.4 J	2.3 J
NAPHTHALENE	0.23 U	0.17 U	0.17 U	0.17 U	0.19 U	0.17 U	0.12 U
N-BUTYLBENZENE	0.28 U	0.2 U	0.21 U	0.21 U	0.23 U	0.21 U	0.14 U
N-PROPYLBENZENE	0.49 U	0.35 U	0.36 U	0.36 U	0.4 U	0.37 U	0.25 U
O-XYLENE	0.43 U	0.3 U	0.32 U	0.32 U	0.35 U	0.32 U	0.22 U
SEC-BUTYLBENZENE	0.22 U	0.16 U	0.16 U	0.16 U	0.18 U	0.16 U	0.11 U
STYRENE	0.18 U	0.13 U	0.14 U	0.14 U	0.15 U	0.14 U	0.093 U
TERT-AMYL METHYL ETHER	0.45 U	0.32 U	0.33 U	0.34 U	0.37 U	0.34 U	0.23 U
TERT-BUTYLBENZENE	0.35 U	0.25 U	0.26 U	0.26 U	0.29 U	0.27 U	0.18 U
TERTIARY-BUTYL ALCOHOL	9.2 UR	6.6 UR	6.9 UR	6.9 UR	7.5 UR	7 UR	4.7 UR
TETRACHLOROETHENE	0.63 U	0.45 U	0.47 U	0.47 U	0.52 U	0.48 U	0.32 U
TOLUENE	0.33 U	0.23 U	0.24 U	0.24 U	0.27 U	0.25 U	0.17 U
TOTAL XYLENES	0.81 U	0.58 U	0.6 U	0.61 U	0.66 U	0.61 U	0.42 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.36 U	0.37 U	0.37 U	0.41 U	0.38 U	0.25 U
TRANS-1,3-DICHLOROPROPENE	0.66 U	0.47 U	0.49 U	0.49 U	0.54 U	0.49 U	0.34 U
TRICHLOROETHENE	5.3 J	0.37 U	0.38 U	0.38 U	0.42 U	0.38 U	0.26 U
TRICHLOROFLUOROMETHANE	0.41 U	0.3 U	0.31 U	0.31 U	0.34 U	0.31 U	0.21 U
VINYL ACETATE	0.3 UR	0.22 UR	0.23 UR	0.23 UR	0.25 UR	0.23 UR	0.16 UR
VINYL CHLORIDE	0.47 U	0.34 U	0.35 U	0.35 U	0.39 U	0.36 U	0.24 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL		30 U	29 U		29 U	31 U	30 U
1,4-DIOXANE		25 U	24 U		24 U	25 U	24 U
2,2'-OXYBIS(1-CHLOROPROPANE)		11 U	10 U		10 U	11 U	11 U
2,4,5-TRICHLOROPHENOL		28 U	27 U		27 U	29 U	28 U
2,4,6-TRICHLOROPHENOL		90 U	87 U		87 U	92 U	89 U
2,4-DICHLOROPHENOL		23 U	22 U		22 U	23 U	22 U
2,4-DIMETHYLPHENOL		23 U	22 U		22 U	23 U	22 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-95-20-22	GSP-SB-96-0-2	GSP-SB-96-6-8	GSP-SB-96-22-24	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2
LABORATORY ID:	240-681-9	240-681-19	240-681-20	240-681-21	240-681-25	240-681-26	240-681-33
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-95	GSP-SB-96	GSP-SB-96	GSP-SB-96	GSP-SB-97	GSP-SB-97	GSP-SB-98
2,4-DINITROPHENOL		90 U	87 U		87 U	92 U	89 U
2,4-DINITROTOLUENE		30 U	29 U		29 U	31 U	30 U
2,6-DINITROTOLUENE		24 U	23 U		23 U	24 U	23 U
2-CHLORONAPHTHALENE		3.7 U	3.6 U		3.6 U	3.8 U	3.7 U
2-CHLOROPHENOL		30 U	29 U		29 U	31 U	30 U
2-METHYLNAPHTHALENE		3.7 U	3.6 U		3.6 U	3.8 U	3.7 U
2-METHYLPHENOL		90 U	87 U		87 U	92 U	89 U
2-NITROANILINE		10 U	9.9 U		9.9 U	10 U	10 U
2-NITROPHENOL		30 U	29 U		29 U	31 U	30 U
3&4-METHYLPHENOL		23 U	22 U		22 U	23 U	22 U
3,3'-DICHLOROBENZIDINE		20 U	20 U		20 UL	21 UL	20 UL
3-NITROANILINE		18 U	17 U		17 U	18 U	18 U
4,6-DINITRO-2-METHYLPHENOL		90 U	87 U		87 U	92 U	89 U
4-BROMOPHENYL PHENYL ETHER		15 U	14 U		14 U	15 U	14 U
4-CHLORO-3-METHYLPHENOL		24 U	23 U		23 U	24 U	23 U
4-CHLOROANILINE		19 U	18 U		19 U	20 U	19 U
4-CHLOROPHENYL PHENYL ETHER		15 U	14 U		14 U	15 U	14 U
4-NITROANILINE		29 U	28 U		28 U	30 U	29 U
4-NITROPHENOL		90 U	87 U		87 U	92 U	89 U
ACENAPHTHENE		3.7 U	3.6 U		3.6 U	3.8 U	3.7 U
ACENAPHTHYLENE		5.7 J	3.6 U		3.6 U	3.8 U	3.7 U
ACETOPHENONE		10 U	10 U		10 U	11 U	10 U
ANTHRACENE		12	3.6 U		12	3.8 U	3.7 U
ATRAZINE		10 U	9.9 U		9.9 U	10 U	10 U
BENZALDEHYDE		14 U	13 U		13 U	14 U	13 U
BENZO(A)ANTHRACENE		40	3.6 U		80	3.8 U	3.7 U
BENZO(A)PYRENE		42	3.6 U		81	3.8 U	3.7 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-95-20-22	GSP-SB-96-0-2	GSP-SB-96-6-8	GSP-SB-96-22-24	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2
LABORATORY ID:	240-681-9	240-681-19	240-681-20	240-681-21	240-681-25	240-681-26	240-681-33
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-95	GSP-SB-96	GSP-SB-96	GSP-SB-96	GSP-SB-97	GSP-SB-97	GSP-SB-98
BENZO(B)FLUORANTHENE		66	3.6 U		100	3.8 U	3.7 U
BENZO(G,H,I)PERYLENE		29	3.6 U		60	3.8 U	3.7 U
BENZO(K)FLUORANTHENE		23	3.6 U		32	3.8 U	3.7 U
BIS(2-CHLOROETHOXY)METHANE		25 U	24 U		24 U	25 U	24 U
BIS(2-CHLOROETHYL)ETHER		2.3 U	2.2 U		2.2 U	2.3 U	2.2 U
BIS(2-ETHYLHEXYL)PHTHALATE		88 B	33 B		34 B	22 U	21 U
BUTYL BENZYL PHTHALATE		11 U	11 U		11 U	12 U	11 U
CAPROLACTAM		42 U	40 U		40 U	43 U	41 U
CARBAZOLE		30 U	29 U		29 U	31 U	30 U
CHRYSENE		50	1.2 U		85	1.3 U	1.2 U
DIBENZO(A,H)ANTHRACENE		3.7 U	3.6 U		15	3.8 U	3.7 U
DIBENZOFURAN		3.7 U	3.6 U		3.6 U	3.8 U	3.7 U
DIETHYL PHTHALATE		18 U	17 U		17 U	18 U	18 U
DIMETHYL PHTHALATE		19 U	18 U		19 U	20 U	19 U
DI-N-BUTYL PHTHALATE		17 U	16 U		16 J	17 U	17 U
DI-N-OCTYL PHTHALATE		30 U	29 U		29 U	31 U	30 U
FLUORANTHENE		95	3.6 U		140	3.8 U	5.2 J
FLUORENE		3.7 U	3.6 U		3.6 U	3.8 U	3.7 U
HEXACHLOROBENZENE		2.4 U	2.3 U		2.3 U	2.4 U	2.3 U
HEXACHLOROBUTADIENE		30 U	29 U		29 U	31 U	30 U
HEXACHLOROCYCLOPENTADIENE		30 U	29 U		29 U	31 U	30 U
HEXACHLOROETHANE		10 U	9.8 U		9.8 U	10 U	10 U
INDENO(1,2,3-CD)PYRENE		26	3.6 U		46	3.8 U	3.7 U
ISOPHORONE		15 U	14 U		14 U	15 U	14 U
NAPHTHALENE		3.7 U	3.6 U		3.6 U	3.8 U	3.7 U
NITROBENZENE		2.5 U	2.4 U		2.4 U	2.5 U	2.4 U
N-NITROSODIMETHYLAMINE		18 U	17 U		17 U	18 U	18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-95-20-22	GSP-SB-96-0-2	GSP-SB-96-6-8	GSP-SB-96-22-24	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2
LABORATORY ID:	240-681-9	240-681-19	240-681-20	240-681-21	240-681-25	240-681-26	240-681-33
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-95	GSP-SB-96	GSP-SB-96	GSP-SB-96	GSP-SB-97	GSP-SB-97	GSP-SB-98
N-NITROSO-DI-N-PROPYLAMINE		30 U	29 U		29 U	31 U	30 U
N-NITROSODIPHENYLAMINE		24 U	23 U		23 U	24 U	23 U
PENTACHLOROPHENOL		90 U	87 U		87 U	92 U	89 U
PHENANTHRENE		25	3.6 U		40	3.8 U	3.7 U
PHENOL		30 U	29 U		29 U	31 U	30 U
PYRENE		75	3.6 U		140	3.8 U	7.7
INORGANICS (mg/kg)							
ANTIMONY		0.38 UL	0.4 UL		0.42 U	0.39 UL	0.32 UL
ARSENIC		1.6	1 J		1.8	3	2
BARIUM		41	3.5 J		5.1 J	6.3 J	30
BERYLLIUM		0.52	0.044 U		0.046 U	0.043 U	0.047 J
CADMIUM		0.035 U	0.037 U		0.039 U	0.036 U	0.03 U
CHROMIUM		5.3	2 K		3.1	5.1	8.1
COBALT		1.4	0.19 J		0.59 J	0.43 J	1.7
COPPER		15	0.76 J		2.2 J	6.3	4 K
LEAD		16	1.1 K		1.9 K	1.7 K	4.7
MERCURY		0.017 U	0.015 U		0.015 U	0.014 U	0.013 J
MOLYBDENUM		0.42 B	0.28 U		0.45 B	0.34 B	0.22 B
NICKEL		2.6 J	0.28 U		0.89 J	1.2 J	3.8
SELENIUM		0.46 J	0.46 U		0.48 U	0.45 U	0.37 U
SILVER		0.098 U	0.1 U		0.11 U	0.1 U	0.083 U
THALLIUM		0.54 U	0.56 U		0.59 U	0.55 U	0.46 U
VANADIUM		8.6	4.3		5.8	8.9	14
ZINC		22	1.5 B		4.6 B	3.2 B	12
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016		24 U	23 U		23 U	24 U	23 U
AROCLOR-1221		18 U	17 U		17 U	18 U	18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-95-20-22	GSP-SB-96-0-2	GSP-SB-96-6-8	GSP-SB-96-22-24	GSP-SB-97-0-2	GSP-SB-97-6-8	GSP-SB-98-0-2
LABORATORY ID:	240-681-9	240-681-19	240-681-20	240-681-21	240-681-25	240-681-26	240-681-33
SAMPLE DATE:	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-95	GSP-SB-96	GSP-SB-96	GSP-SB-96	GSP-SB-97	GSP-SB-97	GSP-SB-98
AROCLOR-1232		16 U	15 U		15 U	16 U	16 U
AROCLOR-1242		15 U	14 U		14 U	15 U	14 U
AROCLOR-1248		19 U	18 U		18 U	20 U	19 U
AROCLOR-1254		19 U	18 U		18 U	20 U	19 U
AROCLOR-1260		63 J	18 U		18 U	20 U	19 U
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	12 U	46	10 U	11 U	17 J	11 U	10 U
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	31 U	28 U	27 U	30 U	27 U	29 U	28 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4	GSP-SB-100-6-8	GSP-SB-101-0-2	GSP-SB-101-6-8
LABORATORY ID:	240-681-34	240-741-7	240-741-8	240-741-9	240-741-10	240-741-5	240-741-6
SAMPLE DATE:	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-98	GSP-SB-99	GSP-SB-99	GSP-SB-100	GSP-SB-100	GSP-SB-101	GSP-SB-101
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.35 U	0.6 U	0.6 U	0.54 U	0.54 U	0.6 U	0.59 U
1,1,1-TRICHLOROETHANE	0.32 U	0.54 U	0.55 U	0.49 U	0.48 U	0.54 U	0.53 U
1,1,2,2-TETRACHLOROETHANE	0.19 U	0.33 U	0.33 U	0.3 U	0.29 U	0.33 UJ	0.32 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.73 U	1.3 U	1.3 U	1.1 U	1.1 U	1.3 U	1.2 U
1,1-DICHLOROETHANE	0.2 U	0.35 U	0.35 U	0.32 U	0.31 U	0.35 U	0.34 U
1,1-DICHLOROETHENE	0.29 U	0.5 U	0.51 U	0.46 U	0.45 U	0.5 U	0.49 U
1,1-DICHLOROPROPENE	0.17 U	0.29 U	0.29 U	0.26 U	0.26 U	0.29 U	0.28 U
1,2,3-TRICHLOROBENZENE	0.21 U	0.37 U	0.37 U	0.33 U	0.33 U	0.37 U	0.36 U
1,2,3-TRICHLOROPROPANE	0.51 U	0.87 U	0.88 U	0.79 U	0.78 U	0.87 UJ	0.85 U
1,2,3-TRIMETHYLBENZENE	0.096 U	0.16 U	0.17 U	0.15 U	0.15 U	0.16 UJ	0.16 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.26 U	0.26 U	0.24 U	0.23 U	0.26 UJ	0.26 U
1,2,4-TRIMETHYLBENZENE	0.37 U	0.63 U	0.63 U	0.57 U	0.56 U	0.63 UJ	0.62 U
1,2-DIBROMO-3-CHLOROPROPANE	0.73 U	1.3 U	1.3 U	1.1 U	1.1 U	1.3 UJ	1.2 U
1,2-DIBROMOETHANE	0.28 U	0.48 U	0.49 U	0.44 U	0.43 U	0.49 U	0.47 U
1,2-DICHLOROBENZENE	0.2 U	0.35 U	0.35 U	0.32 U	0.31 U	0.35 UJ	0.34 U
1,2-DICHLOROETHANE	0.19 U	0.33 U	0.33 U	0.3 U	0.29 U	0.33 U	0.32 U
1,2-DICHLOROPROPANE	0.39 U	0.67 U	0.67 U	0.6 U	0.6 U	0.67 U	0.65 U
1,3-DICHLOROBENZENE	0.2 U	0.34 U	0.34 U	0.31 U	0.3 U	0.34 UJ	0.33 U
1,3-DICHLOROPROPANE	0.19 U	0.33 U	0.33 U	0.3 U	0.29 U	0.33 U	0.32 U
1,4-DICHLOROBENZENE	0.37 U	0.64 U	0.64 U	0.58 U	0.57 U	0.64 UJ	0.63 U
2,2-DICHLOROPROPANE	0.53 U	0.91 U	0.92 U	0.82 U	0.81 U	0.91 U	0.89 U
2-BUTANONE	0.79 U	1.3 U	1.4 U	1.2 U	1.2 U	1.8 J	1.3 U
2-CHLOROETHYL VINYL ETHER	0.79 U	1.3 U	1.4 U	1.2 U	1.2 U	1.4 UR	1.3 UR
2-CHLOROTOLUENE	0.23 U	0.39 U	0.39 U	0.35 U	0.35 U	0.39 U	0.38 U
2-HEXANONE	0.36 U	0.61 U	0.61 U	0.55 U	0.54 U	0.61 U	0.6 U
4-CHLOROTOLUENE	0.23 U	0.4 U	0.4 U	0.36 U	0.35 U	0.4 U	0.39 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4	GSP-SB-100-6-8	GSP-SB-101-0-2	GSP-SB-101-6-8
LABORATORY ID:	240-681-34	240-741-7	240-741-8	240-741-9	240-741-10	240-741-5	240-741-6
SAMPLE DATE:	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-98	GSP-SB-99	GSP-SB-99	GSP-SB-100	GSP-SB-100	GSP-SB-101	GSP-SB-101
4-ISOPROPYLTOLUENE	0.12 U	0.2 U	0.2 U	0.18 U	0.18 U	0.2 UJ	0.2 U
4-METHYL-2-PENTANONE	0.3 U	0.52 U	0.53 U	0.47 U	0.47 U	0.52 U	0.51 U
ACETONE	5.6 B	9.5 B	7.6 B	19 B	21 B	6.1 U	6 U
BENZENE	0.13 U	0.22 U	0.22 U	0.2 U	0.2 U	0.22 U	0.22 U
BROMOBENZENE	0.19 U	0.32 U	0.32 U	0.29 U	0.28 U	0.32 UJ	0.31 U
BROMOCHLOROMETHANE	0.4 U	0.68 U	0.69 U	0.62 U	0.61 U	0.69 U	0.67 U
BROMODICHLOROMETHANE	0.16 U	0.27 U	0.27 U	0.25 U	0.24 U	0.27 U	0.27 U
BROMOFORM	0.19 U	0.32 U	0.32 U	0.29 U	0.28 U	0.32 U	0.31 U
BROMOMETHANE	0.3 U	0.52 U	0.53 U	0.47 U	0.47 U	0.52 U	0.51 U
CARBON DISULFIDE	0.63 J	0.42 U	0.43 U	0.39 U	0.38 U	3 J	0.42 U
CARBON TETRACHLORIDE	0.21 U	0.36 U	0.36 U	0.32 U	0.32 U	0.36 U	0.35 U
CHLOROBENZENE	0.19 U	0.32 U	0.32 U	0.29 U	0.28 U	0.32 U	0.31 U
CHLORODIBROMOMETHANE	0.31 U	0.53 U	0.54 U	0.48 U	0.47 U	0.53 U	0.52 U
CHLOROETHANE	0.48 UJ	0.83 UJ	0.84 UJ	0.75 UJ	0.74 UJ	0.83 U	0.81 U
CHLOROFORM	0.16 U	0.28 U	0.28 U	0.25 U	0.25 U	0.28 U	0.27 U
CHLOROMETHANE	0.23 U *	0.4 U *	0.4 U *	0.36 U *	0.35 U	0.4 U	0.39 U
CIS-1,2-DICHLOROETHENE	0.2 U	0.35 U	0.35 U	0.32 U	0.31 U	0.35 U	0.34 U
CIS-1,3-DICHLOROPROPENE	0.19 U	0.33 U	0.33 U	0.3 U	0.29 U	0.33 U	0.32 U
DIBROMOMETHANE	0.36 U	0.61 U	0.61 U	0.55 U	0.54 U	0.61 U	0.6 U
DICHLORODIFLUOROMETHANE	0.28 U	0.48 U	0.49 U	0.44 U	0.43 U	0.49 U	0.47 U
DIISOPROPYL ETHER	0.85 U	1.4 U	1.5 U	1.3 U	1.3 U	1.5 U	1.4 U
ETHYL TERT-BUTYL ETHER	0.12 U	0.21 U	0.21 U	0.19 U	0.19 U	0.21 U	0.21 U
ETHYLBENZENE	0.15 U	0.25 U	0.25 U	0.23 U	0.22 U	0.25 U	0.25 U
HEXACHLOROBUTADIENE	0.68 U	1.2 U	1.2 U	1.1 U	1 U	1.2 UJ	1.1 U
ISOPROPYLBENZENE	0.09 U	0.15 U	0.16 U	0.14 U	0.14 U	0.16 U	0.15 U
M+P-XYLENES	0.68 U	1.2 U	1.2 U	1.1 U	1 U	1.2 U	1.1 U
METHYL TERT-BUTYL ETHER	0.24 U	0.41 U	0.42 U	0.38 U	0.37 U	0.42 U	0.41 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4	GSP-SB-100-6-8	GSP-SB-101-0-2	GSP-SB-101-6-8
LABORATORY ID:	240-681-34	240-741-7	240-741-8	240-741-9	240-741-10	240-741-5	240-741-6
SAMPLE DATE:	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-98	GSP-SB-99	GSP-SB-99	GSP-SB-100	GSP-SB-100	GSP-SB-101	GSP-SB-101
METHYLENE CHLORIDE	1.5 J	3 B	3.1 B	2.5 B	3.5 B	0.65 U	0.63 U
NAPHTHALENE	0.11 U	0.18 U	0.19 U	0.17 U	0.36 B	0.18 UJ	0.18 U
N-BUTYLBENZENE	0.13 U	0.22 U	0.22 U	0.2 U	0.2 U	0.22 UJ	0.22 U
N-PROPYLBENZENE	0.23 U	0.39 U	0.39 U	0.35 U	0.35 U	0.39 UJ	0.38 U
O-XYLENE	0.2 U	0.34 U	0.34 U	0.31 U	0.3 U	0.34 U	0.33 U
SEC-BUTYLBENZENE	0.1 U	0.17 U	0.18 U	0.16 U	0.16 U	0.17 UJ	0.17 U
STYRENE	0.085 U	0.14 U	0.15 U	0.13 U	0.13 U	0.15 U	0.14 U
TERT-AMYL METHYL ETHER	0.21 U	0.36 U	0.36 U	0.32 U	0.32 U	0.36 U	0.35 U
TERT-BUTYLBENZENE	0.16 U	0.28 U	0.28 U	0.25 U	0.25 U	0.28 UJ	0.27 U
TERTIARY-BUTYL ALCOHOL	4.3 UR	7.3 UR	7.4 UR	6.7 UR	6.6 UR	7.4 UR	7.2 UR
TETRACHLOROETHENE	0.29 U	0.5 U	0.51 U	0.46 U	0.45 U	0.5 U	0.49 U
TOLUENE	0.15 U	0.26 U	0.26 U	0.28 J	0.26 J	0.26 U	0.26 U
TOTAL XYLENES	0.38 U	0.65 U	0.65 U	0.59 U	0.58 U	0.65 U	0.63 U
TRANS-1,2-DICHLOROETHENE	0.23 U	0.4 U	0.4 U	0.36 U	0.35 U	0.4 U	0.39 U
TRANS-1,3-DICHLOROPROPENE	0.3 U	0.52 U	0.53 U	0.47 U	0.47 U	0.52 U	0.51 U
TRICHLOROETHENE	0.24 U	0.4 U	0.41 U	0.37 U	0.36 U	0.41 U	0.4 U
TRICHLOROFLUOROMETHANE	0.19 U	0.33 U	0.33 U	0.3 U	0.29 U	0.33 U	0.32 U
VINYL ACETATE	0.14 UR	0.24 UR	0.24 UR	0.22 UR	0.22 UR	0.24 UR	0.24 UR
VINYL CHLORIDE	0.22 U	0.38 U	0.38 U	0.34 U	0.34 U	0.38 U	0.37 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	31 U	31 U	34 U	31 U	30 U	140 U	31 U
1,4-DIOXANE	26 U	25 U	27 U	25 U	24 U	120 U	26 U
2,2'-OXYBIS(1-CHLOROPROPANE)	11 U	11 U	12 U	11 U	11 U	50 U	11 U
2,4,5-TRICHLOROPHENOL	29 U	29 U	31 U	28 U	28 U	130 U	29 U
2,4,6-TRICHLOROPHENOL	93 U	92 U	100 U	91 U	89 U	420 U	93 U
2,4-DICHLOROPHENOL	23 U	23 U	25 U	23 U	22 U	110 U	23 U
2,4-DIMETHYLPHENOL	23 U	23 U	25 U	23 U	22 U	110 U	23 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4	GSP-SB-100-6-8	GSP-SB-101-0-2	GSP-SB-101-6-8
LABORATORY ID:	240-681-34	240-741-7	240-741-8	240-741-9	240-741-10	240-741-5	240-741-6
SAMPLE DATE:	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-98	GSP-SB-99	GSP-SB-99	GSP-SB-100	GSP-SB-100	GSP-SB-101	GSP-SB-101
2,4-DINITROPHENOL	93 U	92 U	100 U	91 U	89 U	420 U	93 U
2,4-DINITROTOLUENE	31 U	31 U	34 U	31 U	30 U	140 U	31 U
2,6-DINITROTOLUENE	24 U	24 U	26 U	24 U	23 U	110 U	24 U
2-CHLORONAPHTHALENE	3.8 U	3.8 U	4.1 U	3.8 U	3.7 U	17 U	3.8 U
2-CHLOROPHENOL	31 U	31 U	34 U	31 U	30 U	140 U	31 U
2-METHYLNAPHTHALENE	3.8 U	3.8 U	4.1 U	3.8 U	3.7 U	17 U	3.8 U
2-METHYLPHENOL	93 U	92 U	100 U	91 U	89 U	420 U	93 U
2-NITROANILINE	11 U	10 U	11 U	10 U	10 U	48 U	11 U
2-NITROPHENOL	31 U	31 U	34 U	31 U	30 U	140 U	31 U
3&4-METHYLPHENOL	23 U	23 U	25 U	23 U	22 U	110 U	23 U
3,3'-DICHLOROBENZIDINE	21 UL	21 U	22 U	20 U	20 U	95 U	21 U
3-NITROANILINE	19 U	18 U	20 U	18 U	18 U	85 U	19 U
4,6-DINITRO-2-METHYLPHENOL	93 U	92 U	100 U	91 U	89 U	420 U	93 U
4-BROMOPHENYL PHENYL ETHER	15 U	15 U	16 U	15 U	14 U	69 U	15 U
4-CHLORO-3-METHYLPHENOL	24 U	24 U	26 U	24 U	23 U	110 U	24 U
4-CHLOROANILINE	20 U	19 U	21 U	19 U	19 U	90 U	20 U
4-CHLOROPHENYL PHENYL ETHER	15 U	15 U	16 U	15 U	14 U	69 U	15 U
4-NITROANILINE	30 U	30 U	32 U	30 U	29 U	140 U	30 U
4-NITROPHENOL	93 U	92 U	100 U	91 U	89 U	420 U	93 U
ACENAPHTHENE	3.8 U	17	4.1 U	3.8 U	3.7 U	17 U	3.8 U
ACENAPHTHYLENE	3.8 U	3.8 U	4.1 U	3.8 U	3.7 U	17 U	3.8 U
ACETOPHENONE	11 U	11 U	11 U	10 U	10 U	49 U	11 U
ANTHRACENE	3.8 U	35	4.1 U	3.8 U	3.7 U	44	3.8 U
ATRAZINE	11 U	10 U	11 U	10 U	10 U	48 U	11 U
BENZALDEHYDE	14 U	14 U	15 U	14 U	13 U	63 U	14 U
BENZO(A)ANTHRACENE	3.8 U	83	4.1 U	3.8 U	3.7 U	120	3.8 U
BENZO(A)PYRENE	3.8 U	85	4.1 U	3.8 U	3.7 U	160	3.8 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4	GSP-SB-100-6-8	GSP-SB-101-0-2	GSP-SB-101-6-8
LABORATORY ID:	240-681-34	240-741-7	240-741-8	240-741-9	240-741-10	240-741-5	240-741-6
SAMPLE DATE:	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-98	GSP-SB-99	GSP-SB-99	GSP-SB-100	GSP-SB-100	GSP-SB-101	GSP-SB-101
BENZO(B)FLUORANTHENE	3.8 U	110	4.1 U	3.8 U	3.7 U	190	3.8 U
BENZO(G,H,I)PERYLENE	3.8 U	60	4.1 U	3.8 U	3.7 U	130	3.8 U
BENZO(K)FLUORANTHENE	3.8 U	46	4.1 U	3.8 U	3.7 U	90	3.8 U
BIS(2-CHLOROETHOXY)METHANE	26 U	25 U	27 U	25 U	24 U	120 U	26 U
BIS(2-CHLOROETHYL)ETHER	2.3 U	2.3 U	2.5 U	2.3 U	2.2 U	11 U	2.3 U
BIS(2-ETHYLHEXYL)PHTHALATE	38 B	22 U	24 U	34 J	27 J	100 U	22 U
BUTYL BENZYL PHTHALATE	12 U	11 U	12 U	11 U	11 U	53 U	12 U
CAPROLACTAM	43 U	42 U	46 U	42 U	41 U	200 U	43 U
CARBAZOLE	31 U	31 U	34 U	31 U	30 U	140 U	31 U
CHRYSENE	1.3 U	90	1.4 U	1.3 U	1.2 U	150	1.3 U
DIBENZO(A,H)ANTHRACENE	3.8 U	13	4.1 U	3.8 U	3.7 U	17 U	3.8 U
DIBENZOFURAN	3.8 U	9.1 J	4.1 U	3.8 U	3.7 U	17 U	3.8 U
DIETHYL PHTHALATE	19 U	18 U	20 U	18 U	18 U	85 U	19 U
DIMETHYL PHTHALATE	20 U	19 U	21 U	19 U	19 U	90 U	20 U
DI-N-BUTYL PHTHALATE	26 J	17 U	19 U	17 U	17 U	79 U	17 U
DI-N-OCTYL PHTHALATE	31 U	31 U	34 U	31 U	30 U	140 U	31 U
FLUORANTHENE	3.8 U	210	4.1 U	3.8 U	3.7 U	230	3.8 U
FLUORENE	3.8 U	15	4.1 U	3.8 U	3.7 U	17 U	3.8 U
HEXACHLOROBENZENE	2.4 U	2.4 U	2.6 U	2.4 U	2.3 U	11 U	2.4 U
HEXACHLOROBUTADIENE	31 U	31 U	34 U	31 U	30 U	140 U	31 U
HEXACHLOROCYCLOPENTADIENE	31 U	31 U	34 U	31 U	30 U	140 U	31 U
HEXACHLOROETHANE	10 U	10 U	11 U	10 U	10 U	48 U	10 U
INDENO(1,2,3-CD)PYRENE	3.8 U	50	4.1 U	3.8 U	3.7 U	96	3.8 U
ISOPHORONE	15 U	15 U	16 U	15 U	14 U	69 U	15 U
NAPHTHALENE	3.8 U	10	4.1 U	3.8 U	3.7 U	17 U	3.8 U
NITROBENZENE	2.6 U	2.5 U	2.7 U	2.5 U	2.4 U	12 U	2.6 U
N-NITROSODIMETHYLAMINE	19 U	18 U	20 U	18 U	18 U	85 U	19 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4	GSP-SB-100-6-8	GSP-SB-101-0-2	GSP-SB-101-6-8
LABORATORY ID:	240-681-34	240-741-7	240-741-8	240-741-9	240-741-10	240-741-5	240-741-6
SAMPLE DATE:	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-98	GSP-SB-99	GSP-SB-99	GSP-SB-100	GSP-SB-100	GSP-SB-101	GSP-SB-101
N-NITROSO-DI-N-PROPYLAMINE	31 U	31 U	34 U	31 U	30 U	140 U	31 U
N-NITROSODIPHENYLAMINE	24 U	24 U	26 U	24 U	23 U	110 U	24 U
PENTACHLOROPHENOL	93 U	92 U	100 U	91 U	89 U	420 U	93 U
PHENANTHRENE	3.8 U	120	4.1 U	3.8 U	3.7 U	73	3.8 U
PHENOL	31 U	31 U	34 U	31 U	30 U	140 U	31 U
PYRENE	3.8 U	150	4.1 U	3.8 U	3.7 U	220	3.8 U
INORGANICS (mg/kg)							
ANTIMONY	0.43 UL	0.4 UL	0.46 UL	0.41 UL	0.41 UL	0.37 UL	0.32 UL
ARSENIC	1.7	2.4	2.2	1.7	1.7	1.8	1.2
BARIUM	5.8 J	23	6.1 J	5.4 J	2.6 J	190	5.2 J
BERYLLIUM	0.048 U	0.073 J	0.051 U	0.045 U	0.045 U	1.1	0.036 U
CADMIUM	0.04 U	0.037 U	0.043 U	0.038 U	0.037 U	0.078 J	0.03 U
CHROMIUM	5	7.4 K	3.8 K	7.2 K	3.3 K	11 K	4 K
COBALT	0.29 J	2	0.69 J	0.17 J	0.17 U	1.6	0.99
COPPER	2.8 K	6.7	2.1 J	2.1 J	1.1 J	9.4	1.7 J
LEAD	1.3 K	13	1.7 K	2.2 K	0.79 B	16	1.4 K
MERCURY	0.017 U	0.033 J	0.013 U	0.017 U	0.016 U	0.022 J	0.017 U
MOLYBDENUM	0.3 U	0.28 U	0.32 U	0.28 U	0.28 U	0.26 U	0.22 U
NICKEL	0.47 J	3.7 J	0.91 J	0.33 J	0.28 U	3.9	0.71 J
SELENIUM	0.5 U	0.68 J	0.53 U	0.47 U	0.47 U	0.55 J	0.37 U
SILVER	0.11 U	0.38 J	0.12 U	0.11 U	0.1 U	0.095 U	0.083 U
THALLIUM	0.61 U	0.56 U	0.65 U	0.58 U	0.57 U	2.3 K	0.46 U
VANADIUM	9.5	14	9.7	10	4.8	19	8.9
ZINC	1.8 J	22	4.4 J	3 J	1.4 J	28	3 J
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016	24 UL	24 U	26 U	24 U	23 U	22 U	24 U
AROCLOR-1221	19 UL	18 U	20 U	18 U	18 U	17 U	19 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-98-6-8	GSP-SB-99-0-2	GSP-SB-99-6-8	GSP-SB-100-2-4	GSP-SB-100-6-8	GSP-SB-101-0-2	GSP-SB-101-6-8
LABORATORY ID:	240-681-34	240-741-7	240-741-8	240-741-9	240-741-10	240-741-5	240-741-6
SAMPLE DATE:	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-98	GSP-SB-99	GSP-SB-99	GSP-SB-100	GSP-SB-100	GSP-SB-101	GSP-SB-101
AROCLOR-1232	16 UL	16 U	17 U	16 U	16 U	15 U	16 U
AROCLOR-1242	15 UL	15 U	16 U	15 U	14 U	14 U	15 U
AROCLOR-1248	20 UL	20 U	21 U	19 U	19 U	18 U	20 U
AROCLOR-1254	20 UL	20 U	21 U	19 U	19 U	18 U	20 U
AROCLOR-1260	20 UL	20 U	21 U	19 U	19 U	18 U	20 U
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	14 J	47 B	16 B	11 U	10 U	72 B	13 B
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	29 U	29 U	31 U	28 U	28 U	26 U	29 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-102-0-2	GSP-SB-102-6-8	GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-104-0-2	GSP-SB-104-6-8	GSP-SB-105-0-2
LABORATORY ID:	240-742-7	240-742-8	240-741-1	240-741-2	240-681-4	240-681-5	240-741-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/1/2011	6/1/2011	6/2/2011
LOCATION:	GSP-SB-102	GSP-SB-102	GSP-SB-103	GSP-SB-103	GSP-SB-104	GSP-SB-104	GSP-SB-105
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.75 U	0.58 U	0.47 U	0.58 U	0.66 U	0.59 U	0.6 U
1,1,1-TRICHLOROETHANE	0.67 U	0.53 U	0.43 U	0.52 U	0.59 U	0.53 U	0.54 U
1,1,2,2-TETRACHLOROETHANE	0.41 U	0.32 U	0.26 U	0.32 U	0.36 U	0.32 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.6 U	1.2 U	0.99 U	1.2 U	1.4 U	1.2 U	1.3 U
1,1-DICHLOROETHANE	0.43 U	0.34 U	0.27 U	0.34 U	0.38 U	0.34 U	0.35 U
1,1-DICHLOROETHENE	0.63 U	0.49 U	0.39 U	0.49 U	0.55 U	0.49 U	0.5 U
1,1-DICHLOROPROPENE	0.36 U	0.28 U	0.23 U	0.28 U	0.32 U	0.29 U	0.29 U
1,2,3-TRICHLOROBENZENE	0.46 U	0.36 U	0.29 U	0.36 U	0.4 U	0.36 U	0.37 U
1,2,3-TRICHLOROPROPANE	1.1 U	0.84 U	0.68 U	0.84 U	0.95 U	0.86 U	0.87 U
1,2,3-TRIMETHYLBENZENE	0.2 U	0.16 U	0.13 U	0.16 U	0.18 U	0.16 U	0.16 U
1,2,4-TRICHLOROBENZENE	0.32 U	0.25 U	0.2 U	0.25 U	0.29 U	0.26 U	0.26 U
1,2,4-TRIMETHYLBENZENE	0.78 U	0.61 U	0.49 U	0.61 U	0.69 U	0.62 U	0.63 U
1,2-DIBROMO-3-CHLOROPROPANE	1.6 U	1.2 U	0.99 U	1.2 U	1.4 U	1.2 U	1.3 U
1,2-DIBROMOETHANE	0.6 U	0.47 U	0.38 U	0.47 U	0.53 U	0.48 U	0.48 U
1,2-DICHLOROBENZENE	0.43 U	0.34 U	0.27 U	0.34 U	0.38 U	0.34 U	0.35 U
1,2-DICHLOROETHANE	0.41 U	0.32 U	0.26 U	0.32 U	0.36 U	0.32 U	0.33 U
1,2-DICHLOROPROPANE	0.83 U	0.65 U	0.52 U	0.65 U	0.73 U	0.66 U	0.66 U
1,3-DICHLOROBENZENE	0.42 U	0.33 U	0.27 U	0.33 U	0.37 U	0.33 U	0.34 U
1,3-DICHLOROPROPANE	0.41 U	0.32 U	0.26 U	0.32 U	0.36 U	0.32 U	0.33 U
1,4-DICHLOROBENZENE	0.79 U	0.62 U	0.5 U	0.62 U	0.7 U	0.63 U	0.64 U
2,2-DICHLOROPROPANE	1.1 U	0.88 U	0.71 U	0.88 U	1 U	0.89 U	0.9 U
2-BUTANONE	1.7 U	1.3 U	1.1 U	1.3 U	10 J	1.3 U	9.8 J
2-CHLOROETHYL VINYL ETHER	1.7 U	1.3 U	1.1 UR	1.3 UR	1.5 UR	1.3 UR	1.3 UR
2-CHLOROTOLUENE	0.48 U	0.38 U	0.3 U	0.37 U	0.42 U	0.38 U	0.38 U
2-HEXANONE	0.76 U	0.59 U	0.48 U	0.59 U	0.67 U	0.6 U	0.61 U
4-CHLOROTOLUENE	0.49 U	0.38 U	0.31 U	0.38 U	0.43 U	0.39 U	0.39 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-102-0-2	GSP-SB-102-6-8	GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-104-0-2	GSP-SB-104-6-8	GSP-SB-105-0-2
LABORATORY ID:	240-742-7	240-742-8	240-741-1	240-741-2	240-681-4	240-681-5	240-741-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/1/2011	6/1/2011	6/2/2011
LOCATION:	GSP-SB-102	GSP-SB-102	GSP-SB-103	GSP-SB-103	GSP-SB-104	GSP-SB-104	GSP-SB-105
4-ISOPROPYLTOLUENE	0.25 U	0.2 U	0.16 U	0.2 U	0.22 U	0.2 U	0.2 U
4-METHYL-2-PENTANONE	0.65 U	0.51 U	0.41 U	0.51 U	0.57 U	0.51 U	0.52 U
ACETONE	7.6 U	14 B	4.8 U	5.9 U	46	6 U	64
BENZENE	0.28 U	0.22 U	0.17 U	0.22 U	0.24 U	0.22 U	0.22 U
BROMOBENZENE	0.4 U	0.31 U	0.25 U	0.31 U	0.35 U	0.31 U	0.32 U
BROMOCHLOROMETHANE	0.85 U	0.67 U	0.54 U	0.67 U	0.75 U	0.68 U	0.68 U
BROMODICHLOROMETHANE	0.34 U	0.26 U	0.21 U	0.26 U	0.3 U	0.27 U	0.27 U *
BROMOFORM	0.4 U	0.31 U	0.25 U	0.31 U	0.35 U	0.31 U	0.32 U
BROMOMETHANE	0.65 U	0.51 U	0.41 U	0.51 U	0.57 U	0.51 U	0.52 U
CARBON DISULFIDE	0.53 U	0.41 U	0.33 U	0.41 U	0.8 J	0.42 U	0.42 U
CARBON TETRACHLORIDE	0.45 U	0.35 U	0.28 U	0.35 U	0.39 U	0.35 U	0.36 U
CHLOROBENZENE	0.4 U	0.31 U	0.25 U	0.31 U	0.35 U	0.31 U	0.32 U
CHLORODIBROMOMETHANE	0.66 U	0.52 U	0.42 U	0.52 U	0.58 U	0.52 U	0.53 U
CHLOROETHANE	1 UJ	0.81 UJ	0.65 U	0.81 U	0.91 U	0.82 U	0.83 U
CHLOROFORM	0.35 U	0.27 U	0.22 U	0.27 U	0.31 U	0.28 U	0.28 U
CHLOROMETHANE	0.49 U	0.38 U *	0.31 U	0.38 U	0.43 U	0.39 U	0.39 U
CIS-1,2-DICHLOROETHENE	0.43 U	0.34 U	0.27 U	0.34 U	0.38 U	0.34 U	0.35 U
CIS-1,3-DICHLOROPROPENE	0.41 U	0.32 U	0.26 U	0.32 U	0.36 U	0.32 U	0.33 U
DIBROMOMETHANE	0.76 U	0.59 U	0.48 U	0.59 U	0.67 U	0.6 U	0.61 U
DICHLORODIFLUOROMETHANE	0.6 U	0.47 U	0.38 U	0.47 U	0.53 U	0.48 U	0.48 U
DIISOPROPYL ETHER	1.8 U	1.4 U	1.1 U	1.4 U	1.6 U	1.4 U	1.4 U
ETHYL TERT-BUTYL ETHER	0.26 U	0.21 U	0.17 U	0.21 U	0.23 U	0.21 U	0.21 U
ETHYLBENZENE	0.31 U	0.24 U	0.2 U	0.24 U	0.28 U	0.25 U	0.25 U
HEXACHLOROBUTADIENE	1.4 U	1.1 U	0.91 U	1.1 U	1.3 U	1.1 U	1.2 U
ISOPROPYLBENZENE	0.19 U	0.15 U	0.12 U	0.15 U	0.17 U	0.15 U	0.15 U
M+P-XYLENES	1.4 U	1.1 U	0.91 U	1.1 U	1.3 U	1.1 U	1.2 U
METHYL TERT-BUTYL ETHER	0.52 U	0.4 U	0.33 U	0.4 U	0.46 U	0.41 U	0.41 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-102-0-2	GSP-SB-102-6-8	GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-104-0-2	GSP-SB-104-6-8	GSP-SB-105-0-2
LABORATORY ID:	240-742-7	240-742-8	240-741-1	240-741-2	240-681-4	240-681-5	240-741-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/1/2011	6/1/2011	6/2/2011
LOCATION:	GSP-SB-102	GSP-SB-102	GSP-SB-103	GSP-SB-103	GSP-SB-104	GSP-SB-104	GSP-SB-105
METHYLENE CHLORIDE	3.7 B	3.2 B	0.51 U	0.63 U	0.71 U	0.64 U	0.64 U
NAPHTHALENE	4 J	0.26 B	0.14 U	0.18 U	0.2 U	0.18 U	0.18 U
N-BUTYLBENZENE	0.28 U	0.22 U	0.17 U	0.22 U	0.24 U	0.22 U	0.22 U
N-PROPYLBENZENE	0.48 U	0.38 U	0.3 U	0.37 U	0.42 U	0.38 U	0.38 U
O-XYLENE	0.42 U	0.33 U	0.27 U	0.33 U	0.37 U	0.33 U	0.34 U
SEC-BUTYLBENZENE	0.22 U	0.17 U	0.14 U	0.17 U	0.19 U	0.17 U	0.17 U
STYRENE	0.18 U	0.14 U	0.11 U	0.14 U	0.16 U	0.14 U	0.14 U
TERT-AMYL METHYL ETHER	0.45 U	0.35 U	0.28 U	0.35 U	0.39 U	0.35 U	0.36 U
TERT-BUTYLBENZENE	0.35 U	0.27 U	0.22 U	0.27 U	0.31 U	0.28 U	0.28 U
TERTIARY-BUTYL ALCOHOL	9.1 UR	7.1 UR	5.8 UR	7.1 UR	8.1 UR	7.2 UR	7.3 UR
TETRACHLOROETHENE	0.63 U	0.49 U	0.39 U	0.49 U	0.55 U	0.49 U	0.5 U
TOLUENE	0.59 J	0.29 J	0.2 U	0.25 U	0.29 U	0.26 U	0.26 U
TOTAL XYLENES	0.81 U	0.63 U	0.51 U	0.63 U	0.71 U	0.64 U	0.64 U
TRANS-1,2-DICHLOROETHENE	0.49 U	0.38 U	0.31 U	0.38 U	0.43 U	0.39 U	0.39 U
TRANS-1,3-DICHLOROPROPENE	0.65 U	0.51 U	0.41 U	0.51 U	0.57 U	0.51 U	0.52 U
TRICHLOROETHENE	0.51 U	0.39 U	0.32 U	0.39 U	0.45 U	0.4 U	0.4 U
TRICHLOROFLUOROMETHANE	0.41 U	0.32 U	0.26 U	0.32 U	0.36 U	0.32 U	0.33 U
VINYL ACETATE	0.3 UR	0.23 UR	0.19 UR	0.23 UR	0.27 UR	0.24 UR	0.24 UR
VINYL CHLORIDE	0.47 U	0.37 U	0.3 U	0.37 U	0.41 U	0.37 U	0.38 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	28 U	150 U	32 U	30 U	31 U	34 U	160 U
1,4-DIOXANE	23 U	120 U	26 U	24 U	25 U	28 U	130 U
2,2'-OXYBIS(1-CHLOROPROPANE)	9.9 U	51 U	11 U	11 U	11 U	12 U	55 U
2,4,5-TRICHLOROPHENOL	26 U	130 U	29 U	28 U	29 U	32 U	140 U
2,4,6-TRICHLOROPHENOL	83 U	430 U	94 U	89 U	91 U	100 U	460 U
2,4-DICHLOROPHENOL	21 U	110 U	24 U	22 U	23 U	25 U	120 U
2,4-DIMETHYLPHENOL	21 U	110 U	24 U	22 U	23 U	25 U	120 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-102-0-2	GSP-SB-102-6-8	GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-104-0-2	GSP-SB-104-6-8	GSP-SB-105-0-2
LABORATORY ID:	240-742-7	240-742-8	240-741-1	240-741-2	240-681-4	240-681-5	240-741-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/1/2011	6/1/2011	6/2/2011
LOCATION:	GSP-SB-102	GSP-SB-102	GSP-SB-103	GSP-SB-103	GSP-SB-104	GSP-SB-104	GSP-SB-105
2,4-DINITROPHENOL	83 U	430 U	94 U	89 U	91 U	100 U	460 U
2,4-DINITROTOLUENE	28 U	150 U	32 U	30 U	31 U	34 U	160 U
2,6-DINITROTOLUENE	22 U	110 U	25 U	23 U	24 U	27 U	120 U
2-CHLORONAPHTHALENE	3.4 U	18 U	3.9 U	3.7 U	3.8 U	4.2 U	19 U
2-CHLOROPHENOL	28 U	150 U	32 U	30 U	31 U	34 U	160 U
2-METHYLNAPHTHALENE	71	770	3.9 U	3.7 U	3.8 U	4.2 U	19 U
2-METHYLPHENOL	83 U	430 U	94 U	89 U	91 U	100 U	460 U
2-NITROANILINE	9.4 U	49 U	11 U	10 U	10 U	12 U	53 U
2-NITROPHENOL	28 U	150 U	32 U	30 U	31 U	34 U	160 U
3&4-METHYLPHENOL	21 U	110 U	24 U	22 U	23 U	25 U	120 U
3,3'-DICHLOROBENZIDINE	19 U	97 U	21 U	20 U	21 U	23 U	100 U
3-NITROANILINE	17 U	86 U	19 U	18 U	18 U	20 U	93 U
4,6-DINITRO-2-METHYLPHENOL	83 U	430 U	94 U	89 U	91 U	100 U	460 U
4-BROMOPHENYL PHENYL ETHER	13 U	70 U	15 U	14 U	15 U	17 U	75 U
4-CHLORO-3-METHYLPHENOL	22 U	110 U	25 U	23 U	24 U	27 U	120 U
4-CHLOROANILINE	18 U	92 U	20 U	19 U	19 U	22 U	98 U
4-CHLOROPHENYL PHENYL ETHER	13 U	70 U	15 U	14 U	15 U	17 U	75 U
4-NITROANILINE	27 U	140 U	31 U	29 U	30 U	33 U	150 U
4-NITROPHENOL	83 U	430 U	94 U	89 U	91 U	100 U	460 U
ACENAPHTHENE	17	300	3.9 U	3.7 U	3.8 U	4.2 U	19 U
ACENAPHTHYLENE	45	370	3.9 U	3.7 U	3.8 U	4.2 U	19 U
ACETOPHENONE	9.6 U	50 U	11 U	10 U	11 U	12 U	53 U
ANTHRACENE	98	1200	3.9 U	3.7 U	9.1	4.2 U	19 U
ATRAZINE	9.4 U	49 U	11 U	10 U	10 U	12 U	53 U
BENZALDEHYDE	12 U	65 U	14 U	13 U	14 U	15 U	69 U
BENZO(A)ANTHRACENE	140	1600	11	3.7 U	42	4.2 U	86
BENZO(A)PYRENE	200	2400	11	3.7 U	42	4.2 U	110

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-102-0-2	GSP-SB-102-6-8	GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-104-0-2	GSP-SB-104-6-8	GSP-SB-105-0-2
LABORATORY ID:	240-742-7	240-742-8	240-741-1	240-741-2	240-681-4	240-681-5	240-741-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/1/2011	6/1/2011	6/2/2011
LOCATION:	GSP-SB-102	GSP-SB-102	GSP-SB-103	GSP-SB-103	GSP-SB-104	GSP-SB-104	GSP-SB-105
BENZO(B)FLUORANTHENE	140	1900	14	3.7 U	50	4.2 U	120
BENZO(G,H,I)PERYLENE	260	1500	7.9	3.7 U	25	4.2 U	19 U
BENZO(K)FLUORANTHENE	90	750	3.9 U	3.7 U	21	4.2 U	92
BIS(2-CHLOROETHOXY)METHANE	23 U	120 U	26 U	24 U	25 U	28 U	130 U
BIS(2-CHLOROETHYL)ETHER	2.1 U	11 U	2.4 U	2.2 U	2.3 U	2.5 U	12 U
BIS(2-ETHYLHEXYL)PHTHALATE	20 U	100 U	22 U	21 U	58 B	60 B	110 U
BUTYL BENZYL PHTHALATE	10 U	54 U	12 U	11 U	11 U	13 U	58 U
CAPROLACTAM	38 U	200 U	44 U	41 U	42 U	47 U	210 U
CARBAZOLE	28 U	150 U	32 U	30 U	31 U	34 U	160 U
CHRYSENE	160	2000	13	1.2 U	46	1.4 U	150
DIBENZO(A,H)ANTHRACENE	32	470	3.9 U	3.7 U	3.8 U	4.2 U	19 U
DIBENZOFURAN	3.4 U	73 J	3.9 U	3.7 U	3.8 U	4.2 U	19 U
DIETHYL PHTHALATE	17 U	86 U	19 U	18 U	45 J	20 U	93 U
DIMETHYL PHTHALATE	18 U	92 U	20 U	19 U	19 U	22 U	98 U
DI-N-BUTYL PHTHALATE	16 U	81 U	18 U	17 U	20 J	32 J	87 U
DI-N-OCTYL PHTHALATE	28 U	150 U	32 U	30 U	31 U	34 U	160 U
FLUORANTHENE	200	2300	21	3.7 U	82	4.2 U	190
FLUORENE	35	640	3.9 U	3.7 U	3.8 U	4.2 U	19 U
HEXACHLOROBENZENE	2.2 U	11 U	2.5 U	2.3 U	2.4 U	2.7 U	12 U
HEXACHLOROBUTADIENE	28 U	150 U	32 U	30 U	31 U	34 U	160 U
HEXACHLOROCYCLOPENTADIENE	28 U	150 U	32 U	30 U	31 U	34 U	160 U
HEXACHLOROETHANE	9.3 U	48 U	11 U	10 U	10 U	11 U	52 U
INDENO(1,2,3-CD)PYRENE	160	1100	3.9 U	3.7 U	22	4.2 U	19 U
ISOPHORONE	13 U	70 U	15 U	14 U	15 U	17 U	75 U
NAPHTHALENE	94	890	3.9 U	3.7 U	3.8 U	4.2 U	19 U
NITROBENZENE	2.3 U	12 U	2.6 U	2.4 U	2.5 U	2.8 U	13 U
N-NITROSODIMETHYLAMINE	17 U	86 U	19 U	18 U	18 U	20 U	93 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-102-0-2	GSP-SB-102-6-8	GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-104-0-2	GSP-SB-104-6-8	GSP-SB-105-0-2
LABORATORY ID:	240-742-7	240-742-8	240-741-1	240-741-2	240-681-4	240-681-5	240-741-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/1/2011	6/1/2011	6/2/2011
LOCATION:	GSP-SB-102	GSP-SB-102	GSP-SB-103	GSP-SB-103	GSP-SB-104	GSP-SB-104	GSP-SB-105
N-NITROSO-DI-N-PROPYLAMINE	28 U	150 U	32 U	30 U	31 U	34 U	160 U
N-NITROSODIPHENYLAMINE	22 U	110 U	25 U	23 U	24 U	27 U	120 U
PENTACHLOROPHENOL	83 U	430 U	94 U	89 U	91 U	100 U	460 U
PHENANTHRENE	210	2700	8.1	3.7 U	32	4.2 U	73
PHENOL	28 U	150 U	32 U	30 U	31 U	34 U	160 U
PYRENE	250	3200	17	3.7 U	75	4.2 U	180
INORGANICS (mg/kg)							
ANTIMONY	0.72 J	0.36 UL	0.43 UL	0.4 UL	0.4 UL	0.45 UL	0.38 UL
ARSENIC	2.1	5.2	4.1	1.7	3.3	2.5	2
BARIUM	140	21	24	21	25	6.5 J	25
BERYLLIUM	0.044 U	0.45 J	0.12 J	0.093 J	0.21 J	0.049 U	0.072 J
CADMIUM	0.037 U	0.033 U	0.04 U	0.036 U	0.037 U	0.041 U	0.035 U
CHROMIUM	17 K	16 K	11 K	9 K	11	6.7	7.5 K
COBALT	5.6	5.7	2.5	0.97 J	3.2	0.81 J	1.5
COPPER	12	23	4.2	12	7.3	4 K	8
LEAD	8.4	4.4	5.5	3.8	9.7	1.9 K	17
MERCURY	0.084 J	0.014 U	0.015 U	0.014 U	0.037 J	0.014 U	0.039 J
MOLYBDENUM	0.28 U	0.51 B	0.34 B	0.27 U	0.49 B	0.31 U	0.27 U
NICKEL	7.6	8.1	4.8	0.82 J	5.2	1.3 J	3 J
SELENIUM	0.47 U	0.42 U	0.75 J	0.46 U	0.62 J	0.52 U	0.6 J
SILVER	0.1 U	0.093 U	0.11 U	0.1 U	0.1 U	0.11 U	0.098 U
THALLIUM	2 J	0.51 U	0.61 U	0.56 U	0.57 U	0.63 U	0.54 U
VANADIUM	22	29	20	11	19	17	13
ZINC	38	19	16	3.7 J	22	5.2 B	24
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016	22 U	23 U	25 U	23 U	24 U	27 U	24 U
AROCLOR-1221	17 U	17 U	19 U	18 U	18 U	20 U	18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-102-0-2	GSP-SB-102-6-8	GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-104-0-2	GSP-SB-104-6-8	GSP-SB-105-0-2
LABORATORY ID:	240-742-7	240-742-8	240-741-1	240-741-2	240-681-4	240-681-5	240-741-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/1/2011	6/1/2011	6/2/2011
LOCATION:	GSP-SB-102	GSP-SB-102	GSP-SB-103	GSP-SB-103	GSP-SB-104	GSP-SB-104	GSP-SB-105
AROCLOR-1232	15 U	15 U	17 U	15 U	16 U	18 U	16 U
AROCLOR-1242	14 U	14 U	15 U	14 U	15 U	17 U	15 U
AROCLOR-1248	18 U	18 U	20 U	19 U	19 U	22 U	20 U
AROCLOR-1254	18 U	18 U	20 U	19 U	19 U	22 U	20 U
AROCLOR-1260	18 U	18 U	20 U	19 U	19 U	22 U	20 U
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	190	340	11 U	13 B	30 B	12 U	140
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	26 U	27 U	29 U	28 U	29 U	32 U	29 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-105-6-8	GSP-SB-106-0-2	GSP-SB-106-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8	GSP-SB-108-0-2	GSP-SB-108-6-8
LABORATORY ID:	240-741-4	240-681-22	240-681-23	240-742-9	240-742-10	240-742-3	240-742-4
SAMPLE DATE:	6/2/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-105	GSP-SB-106	GSP-SB-106	GSP-SB-107	GSP-SB-107	GSP-SB-108	GSP-SB-108
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.52 U	0.35 U	0.44 U	0.67 U	0.59 U	0.52 U	0.52 U
1,1,1-TRICHLOROETHANE	0.47 U	0.31 U	0.4 U	0.61 U	0.53 U	0.47 U	0.47 U
1,1,2,2-TETRACHLOROETHANE	0.29 U	0.19 U	0.24 U	0.37 U	0.32 U	0.29 U	0.28 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.1 U	0.73 U	0.93 U	1.4 U	1.2 U	1.1 U	1.1 U
1,1-DICHLOROETHANE	0.3 U	0.2 U	0.26 U	0.39 U	0.34 U	0.3 U	0.3 U
1,1-DICHLOROETHENE	0.44 U	0.29 U	0.37 U	0.57 U	0.49 U	0.44 U	0.44 U
1,1-DICHLOROPROPENE	0.25 U	0.17 U	0.21 U	0.33 U	0.28 U	0.25 U	0.25 U
1,2,3-TRICHLOROBENZENE	0.32 U	0.21 U	0.27 U	0.41 U	0.36 U	0.32 U	0.32 U
1,2,3-TRICHLOROPROPANE	0.76 U	0.5 U	0.64 U	0.98 U	0.85 U	0.76 U	0.75 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.095 U	0.12 U	0.19 U	0.16 U	0.14 U	0.14 U
1,2,4-TRICHLOROBENZENE	0.23 U	0.15 U	0.19 U	0.29 U	0.25 U	0.23 U	0.23 U
1,2,4-TRIMETHYLBENZENE	0.55 U	0.36 U	0.47 U	0.71 U	0.61 U	0.55 U	0.54 U
1,2-DIBROMO-3-CHLOROPROPANE	1.1 U	0.73 U	0.93 U	1.4 U	1.2 U	1.1 U	1.1 U
1,2-DIBROMOETHANE	0.42 U	0.28 U	0.36 U	0.54 U	0.47 U	0.42 U	0.42 U
1,2-DICHLOROBENZENE	0.3 U	0.2 U	0.26 U	0.39 U	0.34 U	0.3 U	0.3 U
1,2-DICHLOROETHANE	0.29 U	0.19 U	0.24 U	0.37 U	0.32 U	0.29 U	0.28 U
1,2-DICHLOROPROPANE	0.58 U	0.39 U	0.49 U	0.75 U	0.65 U	0.58 U	0.58 U
1,3-DICHLOROBENZENE	0.3 U	0.2 U	0.25 U	0.38 U	0.33 U	0.29 U	0.29 U
1,3-DICHLOROPROPANE	0.29 U	0.19 U	0.24 U	0.37 U	0.32 U	0.29 U	0.28 U
1,4-DICHLOROBENZENE	0.56 U	0.37 U	0.47 U	0.72 U	0.62 U	0.55 U	0.55 U
2,2-DICHLOROPROPANE	0.79 U	0.53 U	0.67 U	1 U	0.89 U	0.79 U	0.79 U
2-BUTANONE	1.2 U	5.3 J	1 U	2.6 J	3.9 J	1.2 U	1.2 U
2-CHLOROETHYL VINYL ETHER	1.2 UR	0.78 U	1 U	1.5 U	1.3 U	1.2 U	1.2 U
2-CHLOROTOLUENE	0.34 U	0.22 U	0.29 U	0.44 U	0.38 U	0.34 U	0.34 U
2-HEXANONE	0.53 U	0.35 U	0.45 U	0.69 U	0.59 U	0.53 U	0.53 U
4-CHLOROTOLUENE	0.35 U	0.23 U	0.29 U	0.45 U	0.39 U	0.34 U	0.34 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-105-6-8	GSP-SB-106-0-2	GSP-SB-106-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8	GSP-SB-108-0-2	GSP-SB-108-6-8
LABORATORY ID:	240-741-4	240-681-22	240-681-23	240-742-9	240-742-10	240-742-3	240-742-4
SAMPLE DATE:	6/2/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-105	GSP-SB-106	GSP-SB-106	GSP-SB-107	GSP-SB-107	GSP-SB-108	GSP-SB-108
4-ISOPROPYLTOLUENE	0.18 U	0.12 U	0.15 U	0.23 U	0.2 U	0.18 U	0.18 U
4-METHYL-2-PENTANONE	0.46 U	0.3 U	0.39 U	0.59 U	0.51 U	0.45 U	0.45 U
ACETONE	5.3 U	29 B	17 B	34 B	21 B	5.9 B	23 B
BENZENE	0.19 U	0.13 U	0.16 U	0.25 U	0.22 U	0.19 U	0.19 U
BROMOBENZENE	0.28 U	0.18 U	0.24 U	0.36 U	0.31 U	0.28 U	0.28 U
BROMOCHLOROMETHANE	0.6 U	0.4 U	0.51 U	0.77 U	0.67 U	0.6 U	0.6 U
BROMODICHLOROMETHANE	0.24 U	0.16 U	0.2 U	0.3 U	0.26 U	0.23 U	0.23 U
BROMOFORM	0.28 U	0.18 U	0.24 U	0.36 U	0.31 U	0.28 U	0.28 U
BROMOMETHANE	0.46 U	0.3 U	0.39 U	0.59 U	0.51 U	0.45 U	0.45 U
CARBON DISULFIDE	0.37 U	0.25 U	0.32 U	0.48 U	0.42 U	0.37 U	0.37 U
CARBON TETRACHLORIDE	0.31 U	0.21 U	0.27 U	0.4 U	0.35 U	0.31 U	0.31 U
CHLOROBENZENE	0.28 U	0.18 U	0.24 U	0.36 U	0.31 U	0.28 U	0.28 U
CHLORODIBROMOMETHANE	0.47 U	0.31 U	0.39 U	0.6 U	0.52 U	0.46 U	0.46 U
CHLOROETHANE	0.73 U	0.48 UJ	0.62 UJ	0.94 UJ	0.81 UJ	0.72 UJ	0.72 UJ
CHLOROFORM	0.25 U	0.16 U	0.21 U	0.32 U	0.27 U	0.24 U	0.24 U
CHLOROMETHANE	0.35 U	0.23 U *	0.29 U *	0.45 U *	0.39 U	0.34 U *	0.34 U *
CIS-1,2-DICHLOROETHENE	0.3 U	0.2 U	0.26 U	0.39 U	0.34 U	0.3 U	0.3 U
CIS-1,3-DICHLOROPROPENE	0.29 U	0.19 U	0.24 U	0.37 U	0.32 U	0.29 U	0.28 U
DIBROMOMETHANE	0.53 U	0.35 U	0.45 U	0.69 U	0.59 U	0.53 U	0.53 U
DICHLORODIFLUOROMETHANE	0.42 U	0.28 U	0.36 U	0.54 U	0.47 U	0.42 U	0.42 U
DIISOPROPYL ETHER	1.3 U	0.84 U	1.1 U	1.6 U	1.4 U	1.3 U	1.3 U
ETHYL TERT-BUTYL ETHER	0.19 U	0.12 U	0.16 U	0.24 U	0.21 U	0.18 U	0.18 U
ETHYLBENZENE	0.22 U	0.21 J	0.19 U	0.28 U	0.25 U	0.22 U	0.22 U
HEXACHLOROBUTADIENE	1 U	0.67 U	0.86 U	1.3 U	1.1 U	1 U	1 U
ISOPROPYLBENZENE	0.14 U	0.09 U	0.11 U	0.17 U	0.15 U	0.13 U	0.13 U
M+P-XYLENES	1 U	0.67 U	0.86 U	1.3 U	1.1 U	1 U	1 U
METHYL TERT-BUTYL ETHER	0.36 U	0.24 U	0.31 U	0.47 U	0.41 U	0.36 U	0.36 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-105-6-8	GSP-SB-106-0-2	GSP-SB-106-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8	GSP-SB-108-0-2	GSP-SB-108-6-8
LABORATORY ID:	240-741-4	240-681-22	240-681-23	240-742-9	240-742-10	240-742-3	240-742-4
SAMPLE DATE:	6/2/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-105	GSP-SB-106	GSP-SB-106	GSP-SB-107	GSP-SB-107	GSP-SB-108	GSP-SB-108
METHYLENE CHLORIDE	0.57 U	1.7 J	2.3 J	4 B	3.9 B	2.3 B	2.4 B
NAPHTHALENE	0.16 U	0.11 U	0.14 U	0.21 U	0.18 U	0.16 U	0.16 U
N-BUTYLBENZENE	0.19 U	0.13 U	0.16 U	0.25 U	0.22 U	0.19 U	0.19 U
N-PROPYLBENZENE	0.34 U	0.24 J	0.29 U	0.44 U	0.38 U	0.34 U	0.34 U
O-XYLENE	0.3 U	0.2 U	0.25 U	0.38 U	0.33 U	0.29 U	0.29 U
SEC-BUTYLBENZENE	0.15 U	0.1 U	0.13 U	0.2 U	0.17 U	0.15 U	0.15 U
STYRENE	0.13 U	0.084 U	0.11 U	0.16 U	0.14 U	0.13 U	0.13 U
TERT-AMYL METHYL ETHER	0.31 U	0.21 U	0.27 U	0.4 U	0.35 U	0.31 U	0.31 U
TERT-BUTYLBENZENE	0.25 U	0.16 U	0.21 U	0.32 U	0.27 U	0.24 U	0.24 U
TERTIARY-BUTYL ALCOHOL	6.4 UR	4.3 UR	5.4 UR	8.3 UR	7.2 UR	6.4 UR	6.4 UR
TETRACHLOROETHENE	0.44 U	0.29 U	0.37 U	0.57 U	0.49 U	0.44 U	0.44 U
TOLUENE	0.23 U	0.15 U	0.19 U	0.29 J	0.25 U	0.27 J	0.33 J
TOTAL XYLENES	0.57 U	0.38 U	0.48 U	0.73 U	0.63 U	0.56 U	0.56 U
TRANS-1,2-DICHLOROETHENE	0.35 U	0.23 U	0.29 U	0.45 U	0.39 U	0.34 U	0.34 U
TRANS-1,3-DICHLOROPROPENE	0.46 U	0.3 U	0.39 U	0.59 U	0.51 U	0.45 U	0.45 U
TRICHLOROETHENE	0.36 U	0.24 U	0.3 U	0.46 U	0.4 U	0.35 U	0.35 U
TRICHLOROFLUOROMETHANE	0.29 U	0.19 U	0.24 U	0.37 U	0.32 U	0.29 U	0.28 U
VINYL ACETATE	0.21 UR	0.14 UR	0.18 UR	0.27 UR	0.24 UR	0.21 UR	0.21 UR
VINYL CHLORIDE	0.33 U	0.22 U	0.28 U	0.42 U	0.37 U	0.33 U	0.33 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	31 U	30 U	33 U	33 U	32 U	31 U	32 U
1,4-DIOXANE	25 U	24 U	27 U	27 U	26 U	26 U	26 U
2,2'-OXYBIS(1-CHLOROPROPANE)	11 U	10 U	12 U	12 U	11 U	11 U	11 U
2,4,5-TRICHLOROPHENOL	28 U	27 U	30 U	31 U	30 U	29 U	30 U
2,4,6-TRICHLOROPHENOL	91 U	88 U	97 U	98 U	96 U	93 U	95 U
2,4-DICHLOROPHENOL	23 U	22 U	24 U	25 U	24 U	23 U	24 U
2,4-DIMETHYLPHENOL	23 U	22 U	24 U	25 U	24 U	23 U	24 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-105-6-8	GSP-SB-106-0-2	GSP-SB-106-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8	GSP-SB-108-0-2	GSP-SB-108-6-8
LABORATORY ID:	240-741-4	240-681-22	240-681-23	240-742-9	240-742-10	240-742-3	240-742-4
SAMPLE DATE:	6/2/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-105	GSP-SB-106	GSP-SB-106	GSP-SB-107	GSP-SB-107	GSP-SB-108	GSP-SB-108
2,4-DINITROPHENOL	91 U	88 U	97 UR	98 U	96 U	93 U	95 U
2,4-DINITROTOLUENE	31 U	30 U	33 U	33 U	32 U	31 U	32 U
2,6-DINITROTOLUENE	24 U	23 U	26 U	26 U	25 U	24 U	25 U
2-CHLORONAPHTHALENE	3.7 U	3.6 U	4 U	4.1 U	3.9 U	3.8 U	3.9 U
2-CHLOROPHENOL	31 U	30 U	33 U	33 U	32 U	31 U	32 U
2-METHYLNAPHTHALENE	3.7 U	29	4 U	4.1 U	3.9 U	3.8 U	3.9 U
2-METHYLPHENOL	91 U	88 U	97 U	98 U	96 U	93 U	95 U
2-NITROANILINE	10 U	10 U	11 U	11 U	11 U	11 U	11 U
2-NITROPHENOL	31 U	30 U	33 U	33 U	32 U	31 U	32 U
3&4-METHYLPHENOL	23 U	22 U	24 U	25 U	24 U	23 U	24 U
3,3'-DICHLOROBENZIDINE	20 U	20 U	22 U	22 U	22 U	21 U	21 U
3-NITROANILINE	18 U	18 U	19 U	20 U	19 U	19 U	19 U
4,6-DINITRO-2-METHYLPHENOL	91 U	88 U	97 UR	98 U	96 U	93 U	95 U
4-BROMOPHENYL PHENYL ETHER	15 U	14 U	16 U	16 U	16 U	15 U	15 U
4-CHLORO-3-METHYLPHENOL	24 U	23 U	26 U	26 U	25 U	24 U	25 U
4-CHLOROANILINE	19 U	19 U	21 U	21 U	20 U	20 U	20 U
4-CHLOROPHENYL PHENYL ETHER	15 U	14 U	16 U	16 U	16 U	15 U	15 U
4-NITROANILINE	29 U	29 U	32 U	32 U	31 U	30 U	31 U
4-NITROPHENOL	91 U	88 U	97 U	98 U	96 U	93 U	95 U
ACENAPHTHENE	3.7 U	26	4 U	4.1 U	3.9 U	3.8 U	3.9 U
ACENAPHTHYLENE	3.7 U	75	4 U	4.1 U	3.9 U	3.8 U	3.9 U
ACETOPHENONE	10 U	10 U	11 U	11 U	11 U	11 U	11 U
ANTHRACENE	3.7 U	150	4 U	4.1 U	3.9 U	3.8 U	3.9 U
ATRAZINE	10 U	10 U	11 U	11 U	11 U	11 U	11 U
BENZALDEHYDE	14 U	13 U	15 U	15 U	14 U	14 U	14 U
BENZO(A)ANTHRACENE	3.7 U	520	4 U	12	3.9 U	3.8 U	14
BENZO(A)PYRENE	7.6	550	4 U	15	3.9 U	3.8 U	20

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-105-6-8	GSP-SB-106-0-2	GSP-SB-106-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8	GSP-SB-108-0-2	GSP-SB-108-6-8
LABORATORY ID:	240-741-4	240-681-22	240-681-23	240-742-9	240-742-10	240-742-3	240-742-4
SAMPLE DATE:	6/2/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-105	GSP-SB-106	GSP-SB-106	GSP-SB-107	GSP-SB-107	GSP-SB-108	GSP-SB-108
BENZO(B)FLUORANTHENE	3.7 U	580	4 U	19	3.9 U	3.8 U	26
BENZO(G,H,I)PERYLENE	13	390	4 U	13	3.9 U	3.8 U	19
BENZO(K)FLUORANTHENE	3.7 U	320	4 U	4.1 U	3.9 U	3.8 U	14
BIS(2-CHLOROETHOXY)METHANE	25 U	24 U	27 U	27 U	26 U	26 U	26 U
BIS(2-CHLOROETHYL)ETHER	2.3 U	2.2 U	2.4 U	2.5 U	2.4 U	2.3 U	2.4 U
BIS(2-ETHYLHEXYL)PHTHALATE	22 J	21 U	41 B	23 U	23 U	25 J	23 U
BUTYL BENZYL PHTHALATE	11 U	11 U	12 U	12 U	12 U	12 U	12 U
CAPROLACTAM	42 U	41 U	45 U	46 U	44 U	43 U	44 U
CARBAZOLE	31 U	30 U	33 U	33 U	32 U	31 U	32 U
CHRYSENE	1.2 U	550	1.3 U	15	1.3 U	1.3 U	20
DIBENZO(A,H)ANTHRACENE	3.7 U	3.6 U	4 U	4.1 U	3.9 U	3.8 U	3.9 U
DIBENZOFURAN	3.7 U	3.6 U	4 U	4.1 U	3.9 U	3.8 U	3.9 U
DIETHYL PHTHALATE	18 U	18 U	19 U	20 U	19 U	19 U	19 U
DIMETHYL PHTHALATE	19 U	19 U	21 U	21 U	20 U	20 U	20 U
DI-N-BUTYL PHTHALATE	17 U	16 U	18 U	18 U	18 U	17 U	18 U
DI-N-OCTYL PHTHALATE	31 U	30 U	33 U	33 U	32 U	31 U	32 U
FLUORANTHENE	3.7 U	810	4 U	22	3.9 U	8.7	28
FLUORENE	3.7 U	36	4 U	4.1 U	3.9 U	3.8 U	3.9 U
HEXACHLOROBENZENE	2.4 U	2.3 U	2.6 U	2.6 U	2.5 U	2.4 U	2.5 U
HEXACHLOROBUTADIENE	31 U	30 U	33 U	33 U	32 U	31 U	32 U
HEXACHLOROCYCLOPENTADIENE	31 U	30 U	33 UR	33 U	32 U	31 U	32 U
HEXACHLOROETHANE	10 U	9.9 U	11 U	11 U	11 U	10 U	11 U
INDENO(1,2,3-CD)PYRENE	3.7 U	270	4 U	11	3.9 U	3.8 U	15
ISOPHORONE	15 U	14 U	16 U	16 U	16 U	15 U	15 U
NAPHTHALENE	3.7 U	44	4 U	4.1 U	3.9 U	3.8 U	3.9 U
NITROBENZENE	2.5 U	2.4 U	2.7 U	2.7 U	2.6 U	2.6 U	2.6 U
N-NITROSODIMETHYLAMINE	18 U	18 U	19 U	20 U	19 U	19 U	19 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-105-6-8	GSP-SB-106-0-2	GSP-SB-106-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8	GSP-SB-108-0-2	GSP-SB-108-6-8
LABORATORY ID:	240-741-4	240-681-22	240-681-23	240-742-9	240-742-10	240-742-3	240-742-4
SAMPLE DATE:	6/2/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-105	GSP-SB-106	GSP-SB-106	GSP-SB-107	GSP-SB-107	GSP-SB-108	GSP-SB-108
N-NITROSO-DI-N-PROPYLAMINE	31 U	30 U	33 U	33 U	32 U	31 U	32 U
N-NITROSODIPHENYLAMINE	24 U	23 U	26 U	26 U	25 U	24 U	25 U
PENTACHLOROPHENOL	91 U	88 U	97 U	98 U	96 U	93 U	95 U
PHENANTHRENE	3.7 U	350	4 U	8.3	3.9 U	3.8 U	11
PHENOL	31 U	30 U	33 U	33 U	32 U	31 U	32 U
PYRENE	8.4	1100	8.2	22	3.9 U	7.1 J	26
INORGANICS (mg/kg)							
ANTIMONY	0.43 UL	0.43 UL	0.42 UL	0.44 UL	0.41 UL	0.39 UL	0.45 UL
ARSENIC	4.1	3.1	4.1	1.9	1.5 J	5.5	5.4
BARIUM	29	25	8.9 J	14 J	8.9 J	25	17 J
BERYLLIUM	0.047 U	0.15 J	0.084 J	0.049 J	0.045 U	0.36 J	0.65
CADMIUM	0.039 U	0.04 U	0.039 U	0.062 J	0.037 U	0.036 U	0.041 U
CHROMIUM	27 K	12	11	9.5 K	5.8 K	24 K	32 K
COBALT	0.78 J	2.9	2.7	1.6	1	7.1	8.2
COPPER	2.1 J	9.6	7.5	6.8	2.3 J	14	26
LEAD	4	7.8	2.6	10	2.1	7.9	4.6
MERCURY	0.014 U	0.06 J	0.018 U	0.017 U	0.016 U	0.011 U	0.034 J
MOLYBDENUM	0.48 B	0.61 B	0.56 B	0.3 U	0.89 B	0.27 U	0.31 U
NICKEL	0.83 J	4.7	1.5 J	3.5 J	1.1 J	15	22
SELENIUM	0.49 U	0.56 J	0.49 U	0.51 U	0.47 U	0.45 U	0.54 J
SILVER	0.11 U	0.11 U	0.11 U	0.11 U	0.1 U	0.1 U	0.11 U
THALLIUM	0.6 U	0.6 U	0.6 U	0.62 U	0.57 U	0.55 U	0.63 U
VANADIUM	49	19	26	13	9.8	65	59
ZINC	5.1 J	20	6.5 K	24	5 J	29	31
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016	24 U	23 U	26 U	26 U	25 U	24 U	25 U
AROCLOR-1221	18 U	18 U	19 U	20 U	19 U	19 U	19 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-105-6-8	GSP-SB-106-0-2	GSP-SB-106-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8	GSP-SB-108-0-2	GSP-SB-108-6-8
LABORATORY ID:	240-741-4	240-681-22	240-681-23	240-742-9	240-742-10	240-742-3	240-742-4
SAMPLE DATE:	6/2/2011	6/1/2011	6/1/2011	6/2/2011	6/2/2011	6/2/2011	6/2/2011
LOCATION:	GSP-SB-105	GSP-SB-106	GSP-SB-106	GSP-SB-107	GSP-SB-107	GSP-SB-108	GSP-SB-108
AROCLOR-1232	16 U	15 U	17 U	17 U	17 U	16 U	17 U
AROCLOR-1242	15 U	14 U	16 U	16 U	16 U	15 U	15 U
AROCLOR-1248	19 U	19 U	21 U	21 U	20 U	20 U	20 U
AROCLOR-1254	19 U	19 U	21 U	21 U	20 U	20 U	20 U
AROCLOR-1260	19 U	19 U	21 U	21 U	20 U	20 U	20 U
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	27 B	140	11 U	11 U	11 U	24 B	23 B
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	28 U	27 U	30 U	31 U	30 U	29 U	30 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-109-0-2	GSP-SB-109-6-8	GSP-SB-110-0-2	GSP-SB-110-6-8	GSP-SB-111-0-2	GSP-SB-111-6-8	GSP-SB-111-22-24
LABORATORY ID:	240-742-1	240-742-2	240-742-5	240-742-6	240-775-1	240-775-2	240-775-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/3/2011	6/3/2011	6/3/2011
LOCATION:	GSP-SB-109	GSP-SB-109	GSP-SB-110	GSP-SB-110	GSP-SB-111	GSP-SB-111	GSP-SB-111
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.57 U	0.59 U	0.53 U	0.77 U	0.56 U	0.65 U	0.55 U
1,1,1-TRICHLOROETHANE	0.51 U	0.53 U	0.48 U	0.7 U	0.5 U	0.59 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.31 U	0.32 U	0.29 U	0.42 U	0.31 U	0.36 U	0.3 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.2 U	1.2 U	1.1 U	1.6 U	1.2 U	1.4 U	1.2 U
1,1-DICHLOROETHANE	0.33 U	0.34 U	0.31 U	0.45 U	0.32 U	0.38 U	0.32 U
1,1-DICHLOROETHENE	0.48 U	0.49 U	0.44 U	0.65 U	0.47 U	0.55 U	0.46 U
1,1-DICHLOROPROPENE	0.28 U	0.28 U	0.26 U	0.37 U	0.27 U	0.32 U	0.27 U
1,2,3-TRICHLOROBENZENE	0.35 U	0.36 U	0.32 U	0.47 U	0.34 U	0.4 U	0.34 U
1,2,3-TRICHLOROPROPANE	0.83 U	0.85 U	0.77 U	1.1 U	0.81 U	0.95 U	0.8 U
1,2,3-TRIMETHYLBENZENE	0.16 U	0.16 U	0.14 U	0.21 U	0.15 U	0.18 U	0.15 U
1,2,4-TRICHLOROBENZENE	0.25 U	0.25 U	0.23 U	0.34 U	0.24 U	0.28 U	0.24 U
1,2,4-TRIMETHYLBENZENE	0.6 U	0.61 U	0.55 U	0.81 U	0.58 U	0.68 U	0.58 U
1,2-DIBROMO-3-CHLOROPROPANE	1.2 U	1.2 U	1.1 U	1.6 U	1.2 U	1.4 U	1.2 U
1,2-DIBROMOETHANE	0.46 U	0.47 U	0.43 U	0.62 U	0.45 U	0.53 U	0.45 U
1,2-DICHLOROBENZENE	0.33 U	0.34 U	0.31 U	0.45 U	0.32 U	0.38 U	0.32 U
1,2-DICHLOROETHANE	0.31 U	0.32 U	0.29 U	0.42 U	0.31 U	0.36 U	0.3 U
1,2-DICHLOROPROPANE	0.63 U	0.65 U	0.59 U	0.86 U	0.62 U	0.72 U	0.61 U
1,3-DICHLOROBENZENE	0.32 U	0.33 U	0.3 U	0.44 U	0.31 U	0.37 U	0.31 U
1,3-DICHLOROPROPANE	0.31 U	0.32 U	0.29 U	0.42 U	0.31 U	0.36 U	0.3 U
1,4-DICHLOROBENZENE	0.61 U	0.62 U	0.56 U	0.82 U	0.59 U	0.69 U	0.59 U
2,2-DICHLOROPROPANE	0.86 U	0.89 U	0.8 U	1.2 U	0.84 U	0.99 U	0.84 U
2-BUTANONE	1.7 J	1.9 J	1.2 U	1.7 U	1.3 U	1.5 U	1.2 U
2-CHLOROETHYL VINYL ETHER	1.3 U	1.3 U	1.2 U	1.7 U	1.3 UR	1.5 U	1.2 U
2-CHLOROTOLUENE	0.37 U	0.38 U	0.34 U	0.5 U	0.36 U	0.42 U	0.36 U
2-HEXANONE	0.58 U	0.59 U	0.54 U	0.79 U	0.57 U	0.66 U	0.56 U
4-CHLOROTOLUENE	0.38 U	0.39 U	0.35 U	0.51 U	0.37 U	0.43 U	0.37 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-109-0-2	GSP-SB-109-6-8	GSP-SB-110-0-2	GSP-SB-110-6-8	GSP-SB-111-0-2	GSP-SB-111-6-8	GSP-SB-111-22-24
LABORATORY ID:	240-742-1	240-742-2	240-742-5	240-742-6	240-775-1	240-775-2	240-775-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/3/2011	6/3/2011	6/3/2011
LOCATION:	GSP-SB-109	GSP-SB-109	GSP-SB-110	GSP-SB-110	GSP-SB-111	GSP-SB-111	GSP-SB-111
4-ISOPROPYLTOLUENE	0.19 U	0.2 U	0.18 U	0.26 U	0.19 U	0.22 U	0.19 U
4-METHYL-2-PENTANONE	0.5 U	0.51 U	0.46 U	0.67 U	0.48 U	0.57 U	0.48 U
ACETONE	12 B	25 B	16 B	7.9 U	5.7 U	24 B	24 B
BENZENE	0.21 U	0.22 U	0.2 U	0.29 U	0.21 U	0.24 U	0.2 U
BROMOBENZENE	0.3 U	0.31 U	0.28 U	0.41 U	0.3 U	0.35 U	0.29 U
BROMOCHLOROMETHANE	0.65 U	0.67 U	0.6 U	0.89 U	0.64 U	0.75 U	0.63 U
BROMODICHLOROMETHANE	0.26 U	0.26 U	0.24 U	0.35 U	0.25 U	0.29 U	0.25 U
BROMOFORM	0.3 U	0.31 U	0.28 U	0.41 U	0.3 U	0.35 U	0.29 U
BROMOMETHANE	0.5 U	0.51 U	0.46 U	0.67 U	0.48 U	0.57 U	0.48 U
CARBON DISULFIDE	0.4 U	0.42 U	0.37 U	0.55 U	0.39 U	0.46 U	0.39 U
CARBON TETRACHLORIDE	0.34 U	0.35 U	0.31 U	0.46 U	0.33 U	0.39 U	0.33 U
CHLOROBENZENE	0.3 U	0.31 U	0.28 U	0.41 U	0.3 U	0.35 U	0.29 U
CHLORODIBROMOMETHANE	0.5 U	0.52 U	0.47 U	0.69 U	0.49 U	0.58 U	0.49 U
CHLOROETHANE	0.79 UJ	0.81 UJ	0.73 UJ	1.1 UJ	0.77 U	0.9 UJ	0.77 UJ
CHLOROFORM	0.27 U	0.27 U	0.25 U	0.36 U	0.26 U	0.3 U	0.26 U
CHLOROMETHANE	0.38 U *	0.39 U *	0.35 U *	0.51 U *	0.37 U	0.43 U	0.37 U
CIS-1,2-DICHLOROETHENE	0.33 U	0.34 U	0.31 U	0.45 U	0.32 U	0.38 U	0.32 U
CIS-1,3-DICHLOROPROPENE	0.31 U	0.32 U	0.29 U	0.42 U	0.31 U	0.36 U	0.3 U
DIBROMOMETHANE	0.58 U	0.59 U	0.54 U	0.79 U	0.57 U	0.66 U	0.56 U
DICHLORODIFLUOROMETHANE	0.46 U	0.47 U	0.43 U	0.62 U	0.45 U	0.53 U	0.45 U
DIISOPROPYL ETHER	1.4 U	1.4 U	1.3 U	1.9 U	1.3 U	1.6 U	1.3 U
ETHYL TERT-BUTYL ETHER	0.2 U	0.21 U	0.19 U	0.27 U	0.2 U	0.23 U	0.2 U
ETHYLBENZENE	0.24 U	0.25 U	0.22 U	0.32 U	0.23 U	0.27 U	0.23 U
HEXACHLOROBUTADIENE	1.1 U	1.1 U	1 U	1.5 U	1.1 U	1.3 U	1.1 U
ISOPROPYLBENZENE	0.15 U	0.15 U	0.14 U	0.2 U	0.14 U	0.17 U	0.14 U
M+P-XYLENES	1.1 U	1.1 U	1 U	1.5 U	1.1 U	1.3 U	1.1 U
METHYL TERT-BUTYL ETHER	0.39 U	0.41 U	0.37 U	0.54 U	0.39 U	0.45 U	0.38 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-109-0-2	GSP-SB-109-6-8	GSP-SB-110-0-2	GSP-SB-110-6-8	GSP-SB-111-0-2	GSP-SB-111-6-8	GSP-SB-111-22-24
LABORATORY ID:	240-742-1	240-742-2	240-742-5	240-742-6	240-775-1	240-775-2	240-775-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/3/2011	6/3/2011	6/3/2011
LOCATION:	GSP-SB-109	GSP-SB-109	GSP-SB-110	GSP-SB-110	GSP-SB-111	GSP-SB-111	GSP-SB-111
METHYLENE CHLORIDE	2.3 B	3 B	3 B	5 B	0.6 U	3.9 B	3.6 B
NAPHTHALENE	0.55 B	0.18 U	0.16 U	0.25 B	0.17 U	0.2 U	0.17 U
N-BUTYLBENZENE	0.21 U	0.22 U	0.2 U	0.29 U	0.21 U	0.24 U	0.2 U
N-PROPYLBENZENE	0.37 U	0.38 U	0.34 U	0.5 U	0.36 U	0.42 U	0.36 U
O-XYLENE	0.32 U	0.33 U	0.52 J	0.44 U	0.31 U	0.45 J	0.31 U
SEC-BUTYLBENZENE	0.17 U	0.17 U	0.15 U	0.22 U	0.16 U	0.19 U	0.16 U
STYRENE	0.14 U	0.14 U	0.13 U	0.19 U	0.13 U	0.16 U	0.13 U
TERT-AMYL METHYL ETHER	0.34 U	0.35 U	0.31 U	0.46 U	0.33 U	0.39 U	0.33 U
TERT-BUTYLBENZENE	0.27 U	0.27 U	0.25 U	0.36 U	0.26 U	0.3 U	0.26 U
TERTIARY-BUTYL ALCOHOL	7 UR	7.2 UR	6.5 UR	9.5 UR	6.8 UR	8 UR	6.8 UR
TETRACHLOROETHENE	0.48 U	0.49 U	0.44 U	0.65 U	0.47 U	0.55 U	0.46 U
TOLUENE	0.42 J	0.25 U	0.66 J	0.39 J	0.24 U	0.77 J	0.42 J
TOTAL XYLENES	0.61 U	0.63 U	0.57 U	0.84 U	0.6 U	0.7 U	0.6 U
TRANS-1,2-DICHLOROETHENE	0.38 U	0.39 U	0.35 U	0.51 U	0.37 U	0.43 U	0.37 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.51 U	0.46 U	0.67 U	0.48 U	0.57 U	0.48 U
TRICHLOROETHENE	0.39 U	0.4 U	0.36 U	0.52 U	0.38 U	0.44 U	0.37 U
TRICHLOROFLUOROMETHANE	0.31 U	0.32 U	0.29 U	0.42 U	0.31 U	0.36 U	0.3 U
VINYL ACETATE	0.23 UR	0.24 UR	0.21 UR	0.31 UR	0.22 UR	0.26 UR	0.22 UR
VINYL CHLORIDE	0.36 U	0.37 U	0.33 U	0.49 U	0.35 U	0.41 U	0.35 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	280 U	760 U	31 U	290 U	31 U	31 U	32 U
1,4-DIOXANE	230 U	620 U	25 U	240 UJ	25 U	25 U	26 U
2,2'-OXYBIS(1-CHLOROPROPANE)	99 U	270 U	11 U	100 UJ	11 U	11 U	11 U
2,4,5-TRICHLOROPHENOL	260 U	710 U	28 U	270 U	28 U	28 U	30 U
2,4,6-TRICHLOROPHENOL	840 U	2300 U	91 U	860 U	91 U	90 U	94 U
2,4-DICHLOROPHENOL	210 U	570 U	23 U	220 U	23 U	23 U	24 U
2,4-DIMETHYLPHENOL	210 U	570 U	23 U	220 U	23 U	23 U	24 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-109-0-2	GSP-SB-109-6-8	GSP-SB-110-0-2	GSP-SB-110-6-8	GSP-SB-111-0-2	GSP-SB-111-6-8	GSP-SB-111-22-24
LABORATORY ID:	240-742-1	240-742-2	240-742-5	240-742-6	240-775-1	240-775-2	240-775-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/3/2011	6/3/2011	6/3/2011
LOCATION:	GSP-SB-109	GSP-SB-109	GSP-SB-110	GSP-SB-110	GSP-SB-111	GSP-SB-111	GSP-SB-111
2,4-DINITROPHENOL	840 U	2300 U	91 U	860 U	91 U	90 U	94 U
2,4-DINITROTOLUENE	280 U	760 U	31 U	290 U	31 U	31 U	32 U
2,6-DINITROTOLUENE	220 U	590 U	24 U	230 U	24 U	24 U	25 U
2-CHLORONAPHTHALENE	35 U	93 U	3.7 U	36 U	3.7 U	3.7 U	3.9 U
2-CHLOROPHENOL	280 U	760 U	31 U	290 UJ	31 U	31 U	32 U
2-METHYLNAPHTHALENE	35 U	1200	21	36 U	12	3.7 U	3.9 U
2-METHYLPHENOL	840 U	2300 U	91 U	860 UJ	91 U	90 U	94 U
2-NITROANILINE	95 U	260 U	10 U	98 U	10 U	10 U	11 U
2-NITROPHENOL	280 U	760 U	31 U	290 U	31 U	31 U	32 U
3&4-METHYLPHENOL	210 U	570 U	23 U	220 UJ	23 U	23 U	24 U
3,3'-DICHLOROBENZIDINE	190 U	510 U	20 U	190 U	20 U	20 U	21 U
3-NITROANILINE	170 U	450 U	18 U	170 U	18 U	18 U	19 U
4,6-DINITRO-2-METHYLPHENOL	840 U	2300 U	91 U	860 U	91 U	90 U	94 U
4-BROMOPHENYL PHENYL ETHER	140 U	370 U	15 U	140 U	15 U	15 U	15 U
4-CHLORO-3-METHYLPHENOL	220 U	590 U	24 U	230 U	24 U	24 U	25 U
4-CHLOROANILINE	180 U	480 U	19 U	180 U	19 U	19 U	20 U
4-CHLOROPHENYL PHENYL ETHER	140 U	370 U	15 U	140 U	15 U	15 U	15 U
4-NITROANILINE	270 U	730 U	29 U	280 U	29 U	29 U	31 U
4-NITROPHENOL	840 U	2300 U	91 U	860 U	91 U	90 U	94 U
ACENAPHTHENE	35 U	1100	3.7 U	36 U	18	3.7 U	3.9 U
ACENAPHTHYLENE	35 U	1900	16	36 U	18	3.7 U	3.9 U
ACETOPHENONE	96 U	260 U	10 U	99 UJ	10 U	10 U	11 U
ANTHRACENE	150	4000	27	130	100	3.7 U	3.9 U
ATRAZINE	95 U	260 U	10 U	98 U	10 U	10 U	11 U
BENZALDEHYDE	130 U	340 U	14 U	130 UJ	14 U	14 U	14 U
BENZO(A)ANTHRACENE	290	13000	32	280	450	3.7 U	12
BENZO(A)PYRENE	460	14000	49	390	390	3.7 U	17

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-109-0-2	GSP-SB-109-6-8	GSP-SB-110-0-2	GSP-SB-110-6-8	GSP-SB-111-0-2	GSP-SB-111-6-8	GSP-SB-111-22-24
LABORATORY ID:	240-742-1	240-742-2	240-742-5	240-742-6	240-775-1	240-775-2	240-775-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/3/2011	6/3/2011	6/3/2011
LOCATION:	GSP-SB-109	GSP-SB-109	GSP-SB-110	GSP-SB-110	GSP-SB-111	GSP-SB-111	GSP-SB-111
BENZO(B)FLUORANTHENE	380	12000	40	340	410	8	15
BENZO(G,H,I)PERYLENE	550	10000	81	430	260	3.7 U	15
BENZO(K)FLUORANTHENE	200	6300	16	210	220	3.7 U	12
BIS(2-CHLOROETHOXY)METHANE	230 U	620 U	25 U	240 U	25 U	25 U	26 U
BIS(2-CHLOROETHYL)ETHER	21 U	57 U	2.3 U	22 UJ	2.3 U	2.3 U	2.4 U
BIS(2-ETHYLHEXYL)PHTHALATE	200 U	540 U	22 U	210 U	30 J	21 U	22 U
BUTYL BENZYL PHTHALATE	100 U	280 U	11 U	110 U	11 U	11 U	12 U
CAPROLACTAM	390 U	1000 U	42 U	400 U	50 J	42 U	44 U
CARBAZOLE	280 U	760 U	31 U	290 U	31 U	31 U	32 U
CHRYSENE	410	14000	37	360	420	1.2 U	17
DIBENZO(A,H)ANTHRACENE	35 U	2700	3.7 U	36 U	94	3.7 U	3.9 U
DIBENZOFURAN	35 U	290 J	3.7 U	36 U	3.7 U	3.7 U	3.9 U
DIETHYL PHTHALATE	170 U	450 U	18 U	170 U	18 U	18 U	19 U
DIMETHYL PHTHALATE	180 U	480 U	19 U	180 U	19 U	19 U	20 U
DI-N-BUTYL PHTHALATE	160 U	420 U	17 U	160 U	17 U	17 U	18 U
DI-N-OCTYL PHTHALATE	280 U	760 U	31 U	290 U	31 U	31 U	32 U
FLUORANTHENE	480	21000	37	500	820	3.7 U	19
FLUORENE	35 U	2000	9.4	36 U	25	3.7 U	3.9 U
HEXACHLOROBENZENE	22 U	59 U	2.4 U	23 U	2.4 U	2.4 U	2.5 U
HEXACHLOROBUTADIENE	280 U	760 U	31 U	290 U	31 U	31 U	32 U
HEXACHLOROCYCLOPENTADIENE	280 U	760 U	31 U	290 U	31 U	31 U	32 U
HEXACHLOROETHANE	94 U	250 U	10 U	97 UJ	10 U	10 U	11 U
INDENO(1,2,3-CD)PYRENE	340	7500	44	270	200	3.7 U	13
ISOPHORONE	140 U	370 U	15 U	140 U	15 U	15 U	15 U
NAPHTHALENE	35 U	1100	24	36 U	15	3.7 U	3.9 U
NITROBENZENE	23 U	62 U	2.5 U	24 U	2.5 U	2.5 U	2.6 U
N-NITROSODIMETHYLAMINE	170 U	450 U	18 U	170 UJ	18 U	18 U	19 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-109-0-2	GSP-SB-109-6-8	GSP-SB-110-0-2	GSP-SB-110-6-8	GSP-SB-111-0-2	GSP-SB-111-6-8	GSP-SB-111-22-24
LABORATORY ID:	240-742-1	240-742-2	240-742-5	240-742-6	240-775-1	240-775-2	240-775-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/3/2011	6/3/2011	6/3/2011
LOCATION:	GSP-SB-109	GSP-SB-109	GSP-SB-110	GSP-SB-110	GSP-SB-111	GSP-SB-111	GSP-SB-111
N-NITROSO-DI-N-PROPYLAMINE	280 U	760 U	31 U	290 UJ	31 U	31 U	32 U
N-NITROSODIPHENYLAMINE	220 U	590 U	24 U	230 U	24 U	24 U	25 U
PENTACHLOROPHENOL	840 U	2300 U	91 U	860 U	91 U	90 U	94 U
PHENANTHRENE	360	13000	46	310	340	3.7 U	12
PHENOL	280 U	760 U	31 U	290 UJ	31 U	31 U	32 U
PYRENE	600	32000	54	490	780	9.1	29
INORGANICS (mg/kg)							
ANTIMONY	0.35 UL	0.39 J	0.41 UL	0.48 J	0.4 U	0.99 B	
ARSENIC	3.6	4	5.6	2.6	2.8	52	
BARIUM	69	74	32	250	13 J	12 J	
BERYLLIUM	0.039 U	0.19 J	0.19 J	0.045 U	0.046 J	0.047 U	
CADMIUM	0.033 U	0.032 U	0.038 U	0.038 U	0.037 U	0.039 U	
CHROMIUM	17 K	15 K	23 K	14 K	13	27	
COBALT	4.9	7.4	5.6	4	1.4	2.2	
COPPER	9.9	17	14	11	13	12	
LEAD	7.6	18	5.4	13	8.3	13	
MERCURY	0.11	0.058 J	0.035 J	0.063 J	0.015 U	0.017 J	
MOLYBDENUM	1.1 B	0.4 B	0.28 U	0.29 U	0.68 B	2.4 B	
NICKEL	6.1	8.6	4.6	6.4	1.5 J	4.8	
SELENIUM	0.41 U	0.4 U	0.78 J	0.48 U	0.48 J	0.84 J	
SILVER	0.09 U	0.089 U	0.1 U	0.11 U	0.1 U	0.11 U	
THALLIUM	0.7 J	0.67 J	0.57 U	1.5 J	0.7 B	0.6 U	
VANADIUM	18	26	47	26	22	300	
ZINC	42	35	14	43	4.6 J	9.9	
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016	22 U	24 U	24 U	23 U	24 U	24 U	
AROCLOR-1221	17 U	18 U	18 U	17 U	18 U	18 U	

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-109-0-2	GSP-SB-109-6-8	GSP-SB-110-0-2	GSP-SB-110-6-8	GSP-SB-111-0-2	GSP-SB-111-6-8	GSP-SB-111-22-24
LABORATORY ID:	240-742-1	240-742-2	240-742-5	240-742-6	240-775-1	240-775-2	240-775-3
SAMPLE DATE:	6/2/2011	6/2/2011	6/2/2011	6/2/2011	6/3/2011	6/3/2011	6/3/2011
LOCATION:	GSP-SB-109	GSP-SB-109	GSP-SB-110	GSP-SB-110	GSP-SB-111	GSP-SB-111	GSP-SB-111
AROCLOR-1232	15 U	16 U	16 U	15 U	16 U	16 U	
AROCLOR-1242	14 U	15 U	15 U	14 U	15 U	15 U	
AROCLOR-1248	18 U	19 U	19 U	18 U	19 U	19 U	
AROCLOR-1254	18 U	19 U	19 U	18 U	19 U	19 U	
AROCLOR-1260	18 U	64	19 U	18 U	19 U	19 U	
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	290	410	320	210	10 U	10 U	11 U
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	26 U	28 U	28 U	27 U	28 U	28 U	30 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-112-0-2	GSP-SB-112-6-8	GSP-SB-113-0-2	GSP-SB-113-6-8	GSP-SB-113-22-24	GSP-SB-114-0-2	GSP-SB-114-6-8
LABORATORY ID:	240-775-4	240-775-5	240-681-13	240-681-14	240-681-15	240-681-1	240-681-2
SAMPLE DATE:	6/3/2011	6/3/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-112	GSP-SB-112	GSP-SB-113	GSP-SB-113	GSP-SB-113	GSP-SB-114	GSP-SB-114
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.59 U	0.52 U	0.54 U	0.54 U	0.71 U	0.61 U	0.67 U
1,1,1-TRICHLOROETHANE	0.54 U	0.47 U	0.49 U	0.49 U	0.64 U	0.55 U	0.61 U
1,1,2,2-TETRACHLOROETHANE	0.33 U	0.28 U	0.3 U	0.29 U	0.39 U	0.33 U	0.37 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.2 U	1.1 U	1.1 U	1.1 U	1.5 U	1.3 U	1.4 U
1,1-DICHLOROETHANE	0.35 U	0.3 U	0.31 U	0.31 U	0.41 U	0.35 U	0.39 U
1,1-DICHLOROETHENE	0.5 U	0.43 U	0.45 U	0.45 U	0.59 U	0.51 U	0.57 U
1,1-DICHLOROPROPENE	0.29 U	0.25 U	0.26 U	0.26 U	0.34 U	0.29 U	0.33 U
1,2,3-TRICHLOROBENZENE	0.36 U	0.32 U	0.33 U	0.33 U	0.43 U	0.37 U	0.41 U
1,2,3-TRICHLOROPROPANE	0.86 U	0.75 U	0.78 U	0.78 U	1 U	0.88 U	0.98 U
1,2,3-TRIMETHYLBENZENE	0.16 U	0.14 U	0.15 U	0.15 U	0.19 U	0.17 U	0.19 U
1,2,4-TRICHLOROBENZENE	0.26 U	0.23 U	0.24 U	0.23 U	0.31 U	0.26 U	0.29 U
1,2,4-TRIMETHYLBENZENE	0.62 U	0.54 U	0.57 U	0.56 U	0.74 U	0.64 U	0.71 U
1,2-DIBROMO-3-CHLOROPROPANE	1.2 U	1.1 U	1.1 U	1.1 U	1.5 U	1.3 U	1.4 U
1,2-DIBROMOETHANE	0.48 U	0.42 U	0.44 U	0.43 U	0.57 U	0.49 U	0.54 U
1,2-DICHLOROBENZENE	0.35 U	0.3 U	0.31 U	0.31 U	0.41 U	0.35 U	0.39 U
1,2-DICHLOROETHANE	0.33 U	0.28 U	0.3 U	0.29 U	0.39 U	0.33 U	0.37 U
1,2-DICHLOROPROPANE	0.66 U	0.58 U	0.6 U	0.6 U	0.79 U	0.68 U	0.75 U
1,3-DICHLOROBENZENE	0.34 U	0.29 U	0.31 U	0.3 U	0.4 U	0.34 U	0.38 U
1,3-DICHLOROPROPANE	0.33 U	0.28 U	0.3 U	0.29 U	0.39 U	0.33 U	0.37 U
1,4-DICHLOROBENZENE	0.63 U	0.55 U	0.58 U	0.57 U	0.75 U	0.65 U	0.72 U
2,2-DICHLOROPROPANE	0.9 U	0.78 U	0.82 U	0.81 U	1.1 U	0.92 U	1 U
2-BUTANONE	1.3 U	1.2 U	1.2 U	8.4 J	1.6 U	1.4 U	4.3 J
2-CHLOROETHYL VINYL ETHER	1.3 UR	1.2 U	1.2 UR	1.2 UR	1.6 UR	1.4 UR	1.5 UR
2-CHLOROTOLUENE	0.38 U	0.33 U	0.35 U	0.35 U	0.46 U	0.39 U	0.44 U
2-HEXANONE	0.6 U	0.53 U	0.55 U	0.55 U	0.72 U	0.62 U	0.69 U
4-CHLOROTOLUENE	0.39 U	0.34 U	0.36 U	0.36 U	0.47 U	0.4 U	0.45 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-112-0-2	GSP-SB-112-6-8	GSP-SB-113-0-2	GSP-SB-113-6-8	GSP-SB-113-22-24	GSP-SB-114-0-2	GSP-SB-114-6-8
LABORATORY ID:	240-775-4	240-775-5	240-681-13	240-681-14	240-681-15	240-681-1	240-681-2
SAMPLE DATE:	6/3/2011	6/3/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-112	GSP-SB-112	GSP-SB-113	GSP-SB-113	GSP-SB-113	GSP-SB-114	GSP-SB-114
4-ISOPROPYLTOLUENE	0.2 U	0.18 U	0.18 U	0.18 U	0.24 U	0.21 U	0.23 U
4-METHYL-2-PENTANONE	0.52 U	0.45 U	0.47 U	0.47 U	0.62 U	0.53 U	0.59 U
ACETONE	6 U	5.3 U	5.5 U	61	7.2 U	6.2 U	32
BENZENE	0.22 U	0.19 U	0.2 U	0.2 U	0.26 U	0.23 U	0.25 U
BROMOBENZENE	0.32 U	0.28 U	0.29 U	0.29 U	0.38 U	0.32 U	0.36 U
BROMOCHLOROMETHANE	0.68 U	0.59 U	0.62 U	0.62 U	0.81 U	0.7 U	0.77 U
BROMODICHLOROMETHANE	0.27 U	0.23 U	0.24 U	0.24 U	0.32 U	0.27 U	0.3 U
BROMOFORM	0.32 U	0.28 U	0.29 U	0.29 U	0.38 U	0.32 U	0.36 U
BROMOMETHANE	0.52 U	0.45 U	0.47 U	0.47 U	0.62 U	0.53 U	0.59 U
CARBON DISULFIDE	0.42 U	0.37 U	0.38 U	0.55 J	0.67 J	0.43 U	1.1 J
CARBON TETRACHLORIDE	0.35 U	0.31 U	0.32 U	0.32 U	0.42 U	0.36 U	0.4 U
CHLOROBENZENE	0.32 U	0.28 U	0.29 U	0.29 U	0.38 U	0.32 U	0.36 U
CHLORODIBROMOMETHANE	0.53 U	0.46 U	0.48 U	0.48 U	0.63 U	0.54 U	0.6 U
CHLOROETHANE	0.82 U	0.72 UJ	0.75 U	0.75 U	0.98 U	0.84 U	0.94 U
CHLOROFORM	0.28 U	0.24 U	0.25 U	0.25 U	0.33 U	0.28 U	0.32 U
CHLOROMETHANE	0.39 U	0.34 U	0.36 U	0.36 U	0.47 U	0.4 U	0.45 U
CIS-1,2-DICHLOROETHENE	0.35 U	0.3 U	0.31 U	0.31 U	0.41 U	0.35 U	0.39 U
CIS-1,3-DICHLOROPROPENE	0.33 U	0.28 U	0.3 U	0.29 U	0.39 U	0.33 U	0.37 U
DIBROMOMETHANE	0.6 U	0.53 U	0.55 U	0.55 U	0.72 U	0.62 U	0.69 U
DICHLORODIFLUOROMETHANE	0.48 U	0.42 U	0.44 U	0.43 U	0.57 U	0.49 U	0.54 U
DIISOPROPYL ETHER	1.4 U	1.3 U	1.3 U	1.3 U	1.7 U	1.5 U	1.6 U
ETHYL TERT-BUTYL ETHER	0.21 U	0.18 U	0.19 U	0.19 U	0.25 U	0.22 U	0.24 U
ETHYLBENZENE	0.25 U	0.22 U	0.23 U	1.2 J	0.3 U	0.25 U	0.28 U
HEXACHLOROBUTADIENE	1.2 U	1 U	1 U	1 U	1.4 U	1.2 U	1.3 U
ISOPROPYLBENZENE	0.15 U	0.13 U	0.14 U	0.14 U	0.18 U	0.16 U	0.17 U
M+P-XYLENES	1.2 U	1 U	1 U	1 U	1.4 U	1.2 U	1.3 U
METHYL TERT-BUTYL ETHER	0.41 U	0.36 U	0.37 U	0.37 U	0.49 U	0.42 U	0.47 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-112-0-2	GSP-SB-112-6-8	GSP-SB-113-0-2	GSP-SB-113-6-8	GSP-SB-113-22-24	GSP-SB-114-0-2	GSP-SB-114-6-8
LABORATORY ID:	240-775-4	240-775-5	240-681-13	240-681-14	240-681-15	240-681-1	240-681-2
SAMPLE DATE:	6/3/2011	6/3/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-112	GSP-SB-112	GSP-SB-113	GSP-SB-113	GSP-SB-113	GSP-SB-114	GSP-SB-114
METHYLENE CHLORIDE	0.64 U	3.1 B	0.58 U	0.58 U	0.76 U	0.66 U	0.73 U
NAPHTHALENE	0.18 U	0.16 U	0.17 U	3.4 J	0.22 U	0.19 U	0.21 U
N-BUTYLBENZENE	0.22 U	0.19 U	0.2 U	0.2 U	0.26 U	0.23 U	0.25 U
N-PROPYLBENZENE	0.38 U	0.33 U	0.35 U	0.35 U	0.46 U	0.39 U	0.44 U
O-XYLENE	0.34 U	0.29 J	0.31 U	0.3 U	0.4 U	0.34 U	0.38 U
SEC-BUTYLBENZENE	0.17 U	0.15 U	0.16 U	0.16 U	0.21 U	0.18 U	0.2 U
STYRENE	0.14 U	0.13 U	0.13 U	0.13 U	0.17 U	0.15 U	0.16 U
TERT-AMYL METHYL ETHER	0.35 U	0.31 U	0.32 U	0.32 U	0.42 U	0.36 U	0.4 U
TERT-BUTYLBENZENE	0.28 U	0.24 U	0.25 U	0.25 U	0.33 U	0.28 U	0.32 U
TERTIARY-BUTYL ALCOHOL	7.3 UR	6.3 UR	6.6 UR	6.6 UR	8.7 UR	7.4 UR	8.3 UR
TETRACHLOROETHENE	0.5 U	0.43 U	0.45 U	0.45 U	0.59 U	0.51 U	0.57 U
TOLUENE	0.26 U	0.34 J	0.24 U	44	0.31 U	0.26 U	0.29 U
TOTAL XYLENES	0.64 U	0.56 U	0.58 U	0.58 U	0.76 U	0.66 U	0.73 U
TRANS-1,2-DICHLOROETHENE	0.39 U	0.34 U	0.36 U	0.36 U	0.47 U	0.4 U	0.45 U
TRANS-1,3-DICHLOROPROPENE	0.52 U	0.45 U	0.47 U	0.47 U	0.62 U	0.53 U	0.59 U
TRICHLOROETHENE	0.4 U	0.35 U	0.37 U	0.36 U	4.7 J	0.41 U	0.46 U
TRICHLOROFLUOROMETHANE	0.33 U	0.28 U	0.3 U	0.29 U	0.39 U	0.33 U	0.37 U
VINYL ACETATE	0.24 UR	0.21 UR	0.22 UR	0.22 UR	0.28 UR	0.24 UR	0.27 UR
VINYL CHLORIDE	0.37 U	0.33 U	0.34 U	0.34 U	0.44 U	0.38 U	0.42 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	59 U	32 U	30 U	30 U	36 U	30 U	31 U
1,4-DIOXANE	48 U	26 U	25 U	24 U	29 U	25 U	25 U
2,2'-OXYBIS(1-CHLOROPROPANE)	21 U	11 U	11 U	11 U	13 U	11 U	11 U
2,4,5-TRICHLOROPHENOL	55 U	29 U	28 U	28 U	33 U	28 U	29 U
2,4,6-TRICHLOROPHENOL	180 U	94 U	90 U	89 U	110 U	90 U	92 U
2,4-DICHLOROPHENOL	44 U	24 U	22 U	22 U	26 U	22 U	23 U
2,4-DIMETHYLPHENOL	44 U	24 U	22 U	22 U	26 U	22 U	23 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-112-0-2	GSP-SB-112-6-8	GSP-SB-113-0-2	GSP-SB-113-6-8	GSP-SB-113-22-24	GSP-SB-114-0-2	GSP-SB-114-6-8
LABORATORY ID:	240-775-4	240-775-5	240-681-13	240-681-14	240-681-15	240-681-1	240-681-2
SAMPLE DATE:	6/3/2011	6/3/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-112	GSP-SB-112	GSP-SB-113	GSP-SB-113	GSP-SB-113	GSP-SB-114	GSP-SB-114
2,4-DINITROPHENOL	180 U	94 U	90 U	89 U	110 U	90 U	92 U
2,4-DINITROTOLUENE	59 U	32 U	30 U	30 U	36 U	30 U	31 U
2,6-DINITROTOLUENE	46 U	25 U	24 U	23 U	28 U	24 U	24 U
2-CHLORONAPHTHALENE	7.2 U	3.9 U	3.7 U	3.7 U	4.4 U	3.7 U	3.8 U
2-CHLOROPHENOL	59 U	32 U	30 U	30 U	36 U	30 U	31 U
2-METHYLNAPHTHALENE	51	3.9 U	19	3.7 U	4.4 U	16	86
2-METHYLPHENOL	180 U	94 U	90 U	89 U	110 U	90 U	92 U
2-NITROANILINE	20 U	11 U	10 U	10 U	12 U	10 U	10 U
2-NITROPHENOL	59 U	32 U	30 U	30 U	36 U	30 U	31 U
3&4-METHYLPHENOL	44 U	24 U	22 U	22 U	26 U	22 U	23 U
3,3'-DICHLOROBENZIDINE	40 U	21 U	20 U	20 U	24 U	20 U	21 U
3-NITROANILINE	35 U	19 U	18 U	18 U	21 U	18 U	18 U
4,6-DINITRO-2-METHYLPHENOL	180 U	94 U	90 U	89 U	110 U	90 U	92 U
4-BROMOPHENYL PHENYL ETHER	29 U	15 U	15 U	14 U	17 U	15 U	15 U
4-CHLORO-3-METHYLPHENOL	46 U	25 U	24 U	23 U	28 U	24 U	24 U
4-CHLOROANILINE	37 U	20 U	19 U	19 U	23 U	19 U	20 U
4-CHLOROPHENYL PHENYL ETHER	29 U	15 U	15 U	14 U	17 U	15 U	15 U
4-NITROANILINE	57 U	31 U	29 U	29 U	34 U	29 U	30 U
4-NITROPHENOL	180 U	94 U	90 U	89 U	110 U	90 U	92 U
ACENAPHTHENE	69	3.9 U	22	3.7 U	4.4 U	25	43
ACENAPHTHYLENE	100	3.9 U	32	3.7 U	4.4 U	46	9
ACETOPHENONE	20 U	11 U	10 U	10 U	12 U	10 U	11 U
ANTHRACENE	360	3.9 U	93	3.7 U	4.4 U	98	110
ATRAZINE	20 U	11 U	10 U	10 U	12 U	10 U	10 U
BENZALDEHYDE	26 U	14 U	13 U	13 U	16 U	13 U	14 U
BENZO(A)ANTHRACENE	1300	3.9 U	340	3.7 U	4.4 U	390	190
BENZO(A)PYRENE	1200	3.9 U	320	3.7 U	4.4 U	390	160

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-112-0-2	GSP-SB-112-6-8	GSP-SB-113-0-2	GSP-SB-113-6-8	GSP-SB-113-22-24	GSP-SB-114-0-2	GSP-SB-114-6-8
LABORATORY ID:	240-775-4	240-775-5	240-681-13	240-681-14	240-681-15	240-681-1	240-681-2
SAMPLE DATE:	6/3/2011	6/3/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-112	GSP-SB-112	GSP-SB-113	GSP-SB-113	GSP-SB-113	GSP-SB-114	GSP-SB-114
BENZO(B)FLUORANTHENE	1200	3.9 U	310	3.7 U	4.4 U	400	170
BENZO(G,H,I)PERYLENE	720	3.9 U	200	3.7 U	4.4 U	250	86
BENZO(K)FLUORANTHENE	690	3.9 U	240	3.7 U	4.4 U	240	95
BIS(2-CHLOROETHOXY)METHANE	48 U	26 U	25 U	24 U	29 U	25 U	25 U
BIS(2-CHLOROETHYL)ETHER	4.4 U	2.4 U	2.2 U	2.2 U	2.6 U	2.2 U	2.3 U
BIS(2-ETHYLHEXYL)PHTHALATE	42 U	22 U	31 B	33 B	49 B	31 B	27 B
BUTYL BENZYL PHTHALATE	22 U	12 U	11 U	11 U	13 U	11 U	11 U
CAPROLACTAM	81 U	44 U	42 U	41 U	49 U	41 U	42 U
CARBAZOLE	72 J	32 U	30 U	30 U	36 U	30 J	31 U
CHRYSENE	1400	1.3 U	390	1.2 U	1.5 U	450	190
DIBENZO(A,H)ANTHRACENE	260	3.9 U	3.7 U	3.7 U	4.4 U	3.7 U	3.8 U
DIBENZOFURAN	7.2 U	3.9 U	5.2 J	3.7 U	4.4 U	9.4 J	26 J
DIETHYL PHTHALATE	35 U	19 U	18 U	18 U	21 U	18 U	18 U
DIMETHYL PHTHALATE	37 U	20 U	19 U	19 U	23 U	19 U	20 U
DI-N-BUTYL PHTHALATE	33 U	18 U	17 U	17 U	26 J	17 U	34 J
DI-N-OCTYL PHTHALATE	59 U	32 U	30 U	30 U	36 U	30 U	31 U
FLUORANTHENE	2400	3.9 U	560	3.7 U	13	780	410
FLUORENE	100	3.9 U	36	3.7 U	4.4 U	32	74
HEXACHLOROBENZENE	4.6 U	2.5 U	2.4 U	2.3 U	2.8 U	2.4 U	2.4 U
HEXACHLOROBUTADIENE	59 U	32 U	30 U	30 U	36 U	30 U	31 U
HEXACHLOROCYCLOPENTADIENE	59 UJ	32 U	30 U	30 U	36 U	30 U	31 U
HEXACHLOROETHANE	20 U	11 U	10 U	10 U	12 U	10 U	10 U
INDENO(1,2,3-CD)PYRENE	590	3.9 U	150	3.7 U	4.4 U	190	70
ISOPHORONE	29 U	15 U	15 U	14 U	17 U	15 U	15 U
NAPHTHALENE	60	3.9 U	27	3.7 U	4.4 U	22	130
NITROBENZENE	4.8 U	2.6 U	2.5 U	2.4 U	2.9 U	2.5 U	2.5 U
N-NITROSODIMETHYLAMINE	35 U	19 U	18 U	18 U	21 U	18 U	18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-112-0-2	GSP-SB-112-6-8	GSP-SB-113-0-2	GSP-SB-113-6-8	GSP-SB-113-22-24	GSP-SB-114-0-2	GSP-SB-114-6-8
LABORATORY ID:	240-775-4	240-775-5	240-681-13	240-681-14	240-681-15	240-681-1	240-681-2
SAMPLE DATE:	6/3/2011	6/3/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-112	GSP-SB-112	GSP-SB-113	GSP-SB-113	GSP-SB-113	GSP-SB-114	GSP-SB-114
N-NITROSO-DI-N-PROPYLAMINE	59 U	32 U	30 U	30 U	36 U	30 U	31 U
N-NITROSODIPHENYLAMINE	46 U	25 U	24 U	23 U	28 U	24 U	24 U
PENTACHLOROPHENOL	180 U	94 U	90 U	89 U	110 U	90 U	92 U
PHENANTHRENE	1100	3.9 U	300	3.7 U	13	300	400
PHENOL	59 U	32 U	30 U	30 U	36 U	30 U	31 U
PYRENE	2500	3.9 U	710	3.7 U	15	550	340
INORGANICS (mg/kg)							
ANTIMONY	0.43 U	0.36 U	0.41 B	0.37 UL		0.41 UL	0.42 UL
ARSENIC	3.3	2.9	4	1.6		3.3	1.4 J
BARIUM	22	23	43	11 J		32	21 J
BERYLLIUM	0.37 J	0.072 J	0.44 J	0.041 U		0.36 J	0.047 U
CADMIUM	0.04 U	0.034 U	0.037 U	0.034 U		0.038 U	0.039 U
CHROMIUM	14	18	18	5.1		15	5.3
COBALT	2.7	0.35 J	5	0.61 J		3.6	0.94 J
COPPER	11	16	18	4.8 K		11	6.4
LEAD	8.3	5.9	21	4		9.8	12
MERCURY	0.035 J	0.022 J	0.3	0.016 U		0.1 J	0.035 J
MOLYBDENUM	0.3 U	0.25 U	0.3 B	0.26 U		0.62 B	0.29 U
NICKEL	5.5	1 J	9.6	1.2 J		6.2	1.9 J
SELENIUM	0.58 J	0.42 U	0.51 J	0.43 U		0.48 U	0.61 J
SILVER	0.11 U	0.094 U	0.44 J	0.095 U		0.11 J	0.11 U
THALLIUM	0.65 B	0.51 U	0.56 U	0.52 U		0.58 U	0.6 U
VANADIUM	25	37	29	8.3		25	9.6
ZINC	22	6.1	43	7.7 K		23	14
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016	23 U	25 U	24 U	23 U		24 U	24 U
AROCLOR-1221	18 U	19 U	18 U	18 U		18 U	18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-112-0-2	GSP-SB-112-6-8	GSP-SB-113-0-2	GSP-SB-113-6-8	GSP-SB-113-22-24	GSP-SB-114-0-2	GSP-SB-114-6-8
LABORATORY ID:	240-775-4	240-775-5	240-681-13	240-681-14	240-681-15	240-681-1	240-681-2
SAMPLE DATE:	6/3/2011	6/3/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011	6/1/2011
LOCATION:	GSP-SB-112	GSP-SB-112	GSP-SB-113	GSP-SB-113	GSP-SB-113	GSP-SB-114	GSP-SB-114
AROCLOR-1232	15 U	16 U	16 U	16 U		16 U	16 U
AROCLOR-1242	14 U	15 U	15 U	15 U		15 U	15 U
AROCLOR-1248	19 U	20 U	19 U	19 U		19 U	20 U
AROCLOR-1254	19 U	20 U	19 U	19 U		19 U	20 U
AROCLOR-1260	19 U	20 U	19 U	19 U		70	20 U
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	66	11 U	110	10 U	12 U	91	180
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	28 U	29 U	28 U	28 U	33 U	28 U	29 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-114-22-24	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2
LABORATORY ID:	240-681-3	240-635-1	240-635-2	240-635-3	240-775-6	240-775-7	240-635-4
SAMPLE DATE:	6/1/2011	5/31/2011	5/31/2011	5/31/2011	6/3/2011	6/3/2011	5/31/2011
LOCATION:	GSP-SB-114	GSP-SB-115	GSP-SB-115	GSP-SB-115	GSP-SB-116	GSP-SB-116	GSP-SB-117
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.61 U	0.64 U	0.52 U	0.7 U	0.58 U	0.63 U	0.64 U
1,1,1-TRICHLOROETHANE	0.55 U	0.58 U	0.47 U	0.63 U	0.52 U	0.57 U	0.58 U
1,1,2,2-TETRACHLOROETHANE	0.34 U	0.35 U	0.29 U	0.38 U	0.32 U	0.35 U	0.35 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.3 U	1.4 U	1.1 U	1.5 U	1.2 U	1.3 U	1.3 U
1,1-DICHLOROETHANE	0.36 U	0.37 U	0.3 U	0.4 U	0.34 U	0.37 U	0.37 U
1,1-DICHLOROETHENE	0.51 U	0.54 U	0.44 U	0.58 U	0.49 U	0.53 U	0.53 U
1,1-DICHLOROPROPENE	0.3 U	0.31 U	0.25 U	0.34 U	0.28 U	0.31 U	0.31 U
1,2,3-TRICHLOROBENZENE	0.38 U	0.4 U	0.32 U	0.43 U	0.35 U	0.39 U	0.39 U
1,2,3-TRICHLOROPROPANE	0.89 U	0.94 U	0.76 U	1 U	0.84 U	0.92 U	0.92 U
1,2,3-TRIMETHYLBENZENE	0.17 U	0.18 U	0.14 U	0.19 U	0.16 U	0.17 U	0.17 U
1,2,4-TRICHLOROBENZENE	0.27 U	0.28 U	0.23 U	0.3 U	0.25 U	0.27 U	0.28 U
1,2,4-TRIMETHYLBENZENE	0.64 U	0.68 U	0.55 U	0.73 U	0.61 U	0.66 U	0.67 U
1,2-DIBROMO-3-CHLOROPROPANE	1.3 U	1.4 U	1.1 U	1.5 U	1.2 U	1.3 U	1.3 U
1,2-DIBROMOETHANE	0.49 U	0.52 U	0.42 U	0.56 U	0.47 U	0.51 U	0.51 U
1,2-DICHLOROBENZENE	0.36 U	0.37 U	0.3 U	0.4 U	0.34 U	0.37 U	0.37 U
1,2-DICHLOROETHANE	0.34 U	0.35 U	0.29 U	0.38 U	0.32 U	0.35 U	0.35 U
1,2-DICHLOROPROPANE	0.68 U	0.72 U	0.58 U	0.78 U	0.64 U	0.7 U	0.71 U
1,3-DICHLOROBENZENE	0.35 U	0.36 U	0.3 U	0.39 U	0.33 U	0.36 U	0.36 U
1,3-DICHLOROPROPANE	0.34 U	0.35 U	0.29 U	0.38 U	0.32 U	0.35 U	0.35 U
1,4-DICHLOROBENZENE	0.65 U	0.69 U	0.56 U	0.74 U	0.62 U	0.67 U	0.68 U
2,2-DICHLOROPROPANE	0.93 U	0.98 U	0.79 U	1.1 U	0.88 U	0.96 U	0.97 U
2-BUTANONE	1.4 U	1.5 U	1.2 U	1.6 U	1.3 U	2.3 B	1.4 U
2-CHLOROETHYL VINYL ETHER	1.4 UR	1.5 U	1.2 U	1.6 U	1.3 U	1.4 U	1.4 U
2-CHLOROTOLUENE	0.4 U	0.42 U	0.34 U	0.45 U	0.37 U	0.41 U	0.41 U
2-HEXANONE	0.62 U	0.66 U	0.53 U	0.71 U	0.59 U	0.64 U	0.65 U
4-CHLOROTOLUENE	0.41 U	0.43 U	0.35 U	0.46 U	0.38 U	0.42 U	0.42 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-114-22-24	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2
LABORATORY ID:	240-681-3	240-635-1	240-635-2	240-635-3	240-775-6	240-775-7	240-635-4
SAMPLE DATE:	6/1/2011	5/31/2011	5/31/2011	5/31/2011	6/3/2011	6/3/2011	5/31/2011
LOCATION:	GSP-SB-114	GSP-SB-115	GSP-SB-115	GSP-SB-115	GSP-SB-116	GSP-SB-116	GSP-SB-117
4-ISOPROPYLTOLUENE	0.21 U	0.22 U	0.18 U	0.24 U	0.2 U	0.21 U	0.22 U
4-METHYL-2-PENTANONE	0.53 U	0.56 U	0.46 U	0.61 U	0.5 U	0.55 U	0.55 U
ACETONE	6.2 U	6.6 U	5.3 U	13 B	5.9 U	27 B	6.5 U
BENZENE	0.23 U	0.24 U	0.19 U	0.26 U	0.21 U	0.23 U	0.24 U
BROMOBENZENE	0.33 U	0.34 U	0.28 U	0.37 U	0.31 U	0.34 U	0.34 U
BROMOCHLOROMETHANE	0.7 U	0.74 U	0.6 U	0.8 U	0.66 U	0.72 U	0.73 U
BROMODICHLOROMETHANE	0.28 U	0.29 U	0.24 U	0.31 U	0.26 U	0.28 U	0.29 U
BROMOFORM	0.33 U	0.34 U	0.28 U	0.37 U	0.31 U	0.34 U	0.34 U
BROMOMETHANE	0.53 U	0.56 U	0.46 U	0.61 U	0.5 U	0.55 U	0.55 U
CARBON DISULFIDE	0.43 U	0.46 U	0.37 U	1.1 J	0.41 U	0.45 U	0.45 U
CARBON TETRACHLORIDE	0.37 U	0.38 U	0.31 U	0.42 U	0.35 U	0.38 U	0.38 U
CHLOROBENZENE	0.33 U	0.34 U	0.28 U	0.37 U	0.31 U	0.34 U	0.34 U
CHLORODIBROMOMETHANE	0.54 U	0.57 U	0.46 U	0.62 U	0.51 U	0.56 U	0.56 U
CHLOROETHANE	0.85 U	0.89 UJ	0.73 UJ	0.97 UJ	0.8 UJ	0.87 UJ	0.88 UJ
CHLOROFORM	0.29 U	0.3 U	0.24 U	0.33 U	0.27 U	0.29 U	0.3 U
CHLOROMETHANE	0.41 U	0.43 U	0.35 U	0.46 U	0.38 U	0.42 U	0.42 U
CIS-1,2-DICHLOROETHENE	0.36 U	0.37 U	0.3 U	2 J	0.34 U	0.37 U	0.37 U
CIS-1,3-DICHLOROPROPENE	0.34 U	0.35 U	0.29 U	0.38 U	0.32 U	0.35 U	0.35 U
DIBROMOMETHANE	0.62 U	0.66 U	0.53 U	0.71 U	0.59 U	0.64 U	0.65 U
DICHLORODIFLUOROMETHANE	0.49 U	0.52 U	0.42 U	0.56 U	0.47 U	0.51 U	0.51 U
DIISOPROPYL ETHER	1.5 U	1.6 U	1.3 U	1.7 U	1.4 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.22 U	0.23 U	0.19 U	0.25 U	0.21 U	0.22 U	0.23 U
ETHYLBENZENE	0.26 U	0.27 U	0.22 U	0.29 U	0.24 U	0.26 U	0.27 U
HEXACHLOROBUTADIENE	1.2 U	1.2 U	1 U	1.3 U	1.1 U	1.2 U	1.2 U
ISOPROPYLBENZENE	0.16 U	0.17 U	0.14 U	0.18 U	0.15 U	0.16 U	0.16 U
M+P-XYLENES	1.2 U	1.2 U	1 U	1.3 U	1.1 U	1.2 U	1.2 U
METHYL TERT-BUTYL ETHER	0.43 U	0.45 U	0.36 U	0.48 U	0.4 U	0.44 U	0.44 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-114-22-24	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2
LABORATORY ID:	240-681-3	240-635-1	240-635-2	240-635-3	240-775-6	240-775-7	240-635-4
SAMPLE DATE:	6/1/2011	5/31/2011	5/31/2011	5/31/2011	6/3/2011	6/3/2011	5/31/2011
LOCATION:	GSP-SB-114	GSP-SB-115	GSP-SB-115	GSP-SB-115	GSP-SB-116	GSP-SB-116	GSP-SB-117
METHYLENE CHLORIDE	0.66 U	2.4 B	2 B	2.5 B	4.5 B	4.4 B	2.1 B
NAPHTHALENE	0.19 U	0.2 U	0.16 U	0.21 U	0.18 U	0.19 U	0.2 U
N-BUTYLBENZENE	0.23 U	0.24 U	0.19 U	0.26 U	0.21 U	0.23 U	0.24 U
N-PROPYLBENZENE	0.4 U	0.42 U	0.34 U	0.45 U	0.37 U	0.41 U	0.41 U
O-XYLENE	0.35 U	0.36 U	0.3 U	0.39 U	0.33 U	0.36 U	0.36 U
SEC-BUTYLBENZENE	0.18 U	0.19 U	0.15 U	0.2 U	0.17 U	0.18 U	0.18 U
STYRENE	0.15 U	0.16 U	0.13 U	0.17 U	0.14 U	0.15 U	0.15 U
TERT-AMYL METHYL ETHER	0.37 U	0.38 U	0.31 U	0.42 U	0.35 U	0.38 U	0.38 U
TERT-BUTYLBENZENE	0.29 U	0.3 U	0.24 U	0.33 U	0.27 U	0.29 U	0.3 U
TERTIARY-BUTYL ALCOHOL	7.5 UR	7.9 UR	6.4 UR	8.5 UR	7.1 UR	7.7 UR	7.8 UR
TETRACHLOROETHENE	0.51 U	0.54 U	0.44 U	0.58 U	0.49 U	0.53 U	0.53 U
TOLUENE	0.27 U	0.28 U	0.23 U	0.3 U	0.25 U	0.39 J	0.28 U
TOTAL XYLENES	0.66 U	0.7 U	0.57 U	0.75 U	0.63 U	0.68 U	0.69 U
TRANS-1,2-DICHLOROETHENE	0.41 U	0.43 U	0.35 U	0.46 U	0.38 U	0.42 U	0.42 U
TRANS-1,3-DICHLOROPROPENE	0.53 U	0.56 U	0.46 U	0.61 U	0.5 U	0.55 U	0.55 U
TRICHLOROETHENE	0.42 U	0.44 U	0.35 U	32	0.39 U	0.43 U	0.43 U
TRICHLOROFLUOROMETHANE	0.34 U	0.35 U	0.29 U	0.38 U	0.32 U	0.35 U	0.35 U
VINYL ACETATE	0.25 UR	0.26 UR	0.21 UR	0.28 UR	0.23 UR	0.25 UR	0.26 UR
VINYL CHLORIDE	0.39 U	0.41 U	0.33 U	0.45 J	0.36 U	0.4 U	0.4 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	34 U	67 U	31 U	33 U	30 U	33 U	74 U
1,4-DIOXANE	28 U	55 U	25 U	27 U	24 U	27 U	61 U
2,2'-OXYBIS(1-CHLOROPROPANE)	12 U	24 U	11 U	12 U	10 U	12 U	26 U
2,4,5-TRICHLOROPHENOL	32 U	62 U	29 U	31 U	27 U	31 U	69 U
2,4,6-TRICHLOROPHENOL	100 U	200 U	93 U	98 U	88 U	99 U	220 U
2,4-DICHLOROPHENOL	25 U	50 U	23 U	24 U	22 U	25 U	55 U
2,4-DIMETHYLPHENOL	25 U	50 U	23 U	24 U	22 U	25 U	55 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-114-22-24	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2
LABORATORY ID:	240-681-3	240-635-1	240-635-2	240-635-3	240-775-6	240-775-7	240-635-4
SAMPLE DATE:	6/1/2011	5/31/2011	5/31/2011	5/31/2011	6/3/2011	6/3/2011	5/31/2011
LOCATION:	GSP-SB-114	GSP-SB-115	GSP-SB-115	GSP-SB-115	GSP-SB-116	GSP-SB-116	GSP-SB-117
2,4-DINITROPHENOL	100 U	200 UR	93 U	98 U	88 U	99 U	220 U
2,4-DINITROTOLUENE	34 U	67 U	31 U	33 U	30 U	33 U	74 U
2,6-DINITROTOLUENE	27 U	52 U	24 U	26 U	23 U	26 U	58 U
2-CHLORONAPHTHALENE	4.2 U	8.2 U	3.8 U	4 U	3.6 U	4.1 U	9.1 U
2-CHLOROPHENOL	34 U	67 U	31 U	33 U	30 U	33 U	74 U
2-METHYLNAPHTHALENE	4.2 U	400	82	4 U	20	4.1 U	26
2-METHYLPHENOL	100 U	200 U	93 U	98 U	88 U	99 U	220 U
2-NITROANILINE	12 U	23 U	11 U	11 U	10 U	11 U	25 U
2-NITROPHENOL	34 U	67 U	31 U	33 U	30 U	33 U	74 U
3&4-METHYLPHENOL	25 U	50 U	23 U	24 U	22 U	25 U	55 U
3,3'-DICHLOROBENZIDINE	23 U	45 UR	21 UL	22 UL	20 U	22 U	50 UL
3-NITROANILINE	20 U	40 U	19 U	20 U	18 U	20 U	44 U
4,6-DINITRO-2-METHYLPHENOL	100 U	200 UR	93 U	98 U	88 U	99 U	220 U
4-BROMOPHENYL PHENYL ETHER	17 U	32 U	15 U	16 U	14 U	16 U	36 U
4-CHLORO-3-METHYLPHENOL	27 U	52 UR	24 U	26 U	23 U	26 U	58 U
4-CHLOROANILINE	22 U	42 U	20 U	21 U	19 U	21 U	47 U
4-CHLOROPHENYL PHENYL ETHER	17 U	32 U	15 U	16 U	14 U	16 U	36 U
4-NITROANILINE	33 U	65 U	30 U	32 U	28 U	32 U	72 U
4-NITROPHENOL	100 U	200 UR	93 U	98 U	88 U	99 U	220 U
ACENAPHTHENE	4.2 U	230	48	4 U	17	4.1 U	100
ACENAPHTHYLENE	4.2 U	73	14	4 U	11	4.1 U	22
ACETOPHENONE	12 U	23 U	11 U	11 U	10 U	11 U	25 U
ANTHRACENE	4.2 U	570 K	89	4 U	36	4.1 U	260
ATRAZINE	12 U	23 U	11 U	11 U	10 U	11 U	25 U
BENZALDEHYDE	15 U	30 U	14 U	15 U	13 U	15 U	33 U
BENZO(A)ANTHRACENE	4.2 U	740 K	230	4 U	220	13	1200
BENZO(A)PYRENE	6 J	680	180	4 U	310	15	1000

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ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-114-22-24	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2
LABORATORY ID:	240-681-3	240-635-1	240-635-2	240-635-3	240-775-6	240-775-7	240-635-4
SAMPLE DATE:	6/1/2011	5/31/2011	5/31/2011	5/31/2011	6/3/2011	6/3/2011	5/31/2011
LOCATION:	GSP-SB-114	GSP-SB-115	GSP-SB-115	GSP-SB-115	GSP-SB-116	GSP-SB-116	GSP-SB-117
BENZO(B)FLUORANTHENE	11	710	210	4 U	270	17	1300
BENZO(G,H,I)PERYLENE	4.2 U	360	86	4 U	220	19	690
BENZO(K)FLUORANTHENE	4.2 U	300	89	4 U	160	7 J	670
BIS(2-CHLOROETHOXY)METHANE	28 U	55 U	25 U	27 U	24 U	27 U	61 U
BIS(2-CHLOROETHYL)ETHER	2.5 U	5 U	2.3 U	2.4 U	2.2 U	2.5 U	5.5 U
BIS(2-ETHYLHEXYL)PHTHALATE	31 B	59 B	22 U	25 B	23 J	23 U	52 U
BUTYL BENZYL PHTHALATE	13 U	25 U	12 U	12 U	11 U	12 U	28 U
CAPROLACTAM	47 U	92 UL	43 UL	45 UL	41 U	46 U	100 UL
CARBAZOLE	34 U	67 U	31 U	33 U	30 U	33 U	120 J
CHRYSENE	1.4 U	790 K	210	1.3 U	320	14	1200
DIBENZO(A,H)ANTHRACENE	4.2 U	140	36	4 U	3.6 U	4.1 U	180
DIBENZOFURAN	4.2 U	73 J	3.8 U	4 U	3.6 U	4.1 U	44 J
DIETHYL PHTHALATE	20 U	40 U	19 U	20 U	18 U	20 U	44 U
DIMETHYL PHTHALATE	22 U	42 U	20 U	21 U	19 U	21 U	47 U
DI-N-BUTYL PHTHALATE	19 U	37 U	17 U	18 J	16 U	19 U	41 U
DI-N-OCTYL PHTHALATE	34 U	67 U	31 U	33 U	30 U	33 U	74 U
FLUORANTHENE	13	1300 K	400	4 U	380	14	2200
FLUORENE	4.2 U	500 K	88	4 U	17	4.1 U	85
HEXACHLOROBENZENE	2.7 U	5.2 U	2.4 U	2.6 U	2.3 U	2.6 U	5.8 U
HEXACHLOROBUTADIENE	34 U	67 U	31 U	33 U	30 U	33 U	74 U
HEXACHLOROCYCLOPENTADIENE	34 U	67 UR	31 U	33 U	30 U	33 U	74 U
HEXACHLOROETHANE	11 U	22 U	10 U	11 U	9.9 U	11 U	25 U
INDENO(1,2,3-CD)PYRENE	4.2 U	310	72	4 U	190	10	590
ISOPHORONE	17 U	32 U	15 U	16 U	14 U	16 U	36 U
NAPHTHALENE	4.2 U	450	88	4 U	21	4.1 U	30
NITROBENZENE	2.8 U	5.5 U	2.5 U	2.7 U	2.4 U	2.7 U	6.1 U
N-NITROSODIMETHYLAMINE	20 U	40 U	19 U	20 U	18 U	20 U	44 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-114-22-24	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2
LABORATORY ID:	240-681-3	240-635-1	240-635-2	240-635-3	240-775-6	240-775-7	240-635-4
SAMPLE DATE:	6/1/2011	5/31/2011	5/31/2011	5/31/2011	6/3/2011	6/3/2011	5/31/2011
LOCATION:	GSP-SB-114	GSP-SB-115	GSP-SB-115	GSP-SB-115	GSP-SB-116	GSP-SB-116	GSP-SB-117
N-NITROSO-DI-N-PROPYLAMINE	34 U	67 U	31 U	33 U	30 U	33 U	74 U
N-NITROSODIPHENYLAMINE	27 U	52 U	24 U	26 U	23 U	26 U	58 U
PENTACHLOROPHENOL	100 U	200 UR	93 U	98 U	88 U	99 U	220 U
PHENANTHRENE	4.2 U	2100 K	340	4 U	140	4.1 U	890
PHENOL	34 U	67 U	31 U	33 U	30 U	33 U	74 U
PYRENE	4.2 U	1700 K	590	4 U	440	21	2100
INORGANICS (mg/kg)							
ANTIMONY		0.43 UL	0.43 UL		0.42 U	0.44 U	0.41 J
ARSENIC		3.4	2.9		2.8	1.1 J	3.4
BARIUM		23	10 J		23	17 J	21
BERYLLIUM		0.11 J	0.047 U		0.79	0.048 U	0.12 J
CADMIUM		0.039 U	0.04 U		0.039 U	0.04 U	0.037 U
CHROMIUM		11	17		14	24	14
COBALT		2.4	0.69 J		5.9	0.77 J	3.8
COPPER		7.1	19		14	11	9.9
LEAD		6.4	3.7		8.6	7	6.5
MERCURY		0.04 J	0.017 U		0.04 J	0.015 U	0.053 J
MOLYBDENUM		0.66 B	0.64 B		0.45 B	0.3 U	0.31 B
NICKEL		4.3 J	0.85 J		10	2.3 J	6.2
SELENIUM		0.49 U	0.49 U		0.53 J	0.5 U	0.46 U
SILVER		0.11 U	0.11 U		0.11 U	0.11 U	0.1 U
THALLIUM		0.6 U	0.67 J		0.6 U	0.61 U	0.56 U
VANADIUM		20	19		28	20	27
ZINC		16	2.5 B		33	19	20
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016		26 U	24 U		23 U	26 U	23 U
AROCLOR-1221		20 U	19 U		18 U	20 U	18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-114-22-24	GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20	GSP-SB-116-0-2	GSP-SB-116-6-8	GSP-SB-117-0-2
LABORATORY ID:	240-681-3	240-635-1	240-635-2	240-635-3	240-775-6	240-775-7	240-635-4
SAMPLE DATE:	6/1/2011	5/31/2011	5/31/2011	5/31/2011	6/3/2011	6/3/2011	5/31/2011
LOCATION:	GSP-SB-114	GSP-SB-115	GSP-SB-115	GSP-SB-115	GSP-SB-116	GSP-SB-116	GSP-SB-117
AROCLOR-1232		17 U	16 U		15 U	17 U	15 U
AROCLOR-1242		16 U	15 U		14 U	16 U	14 U
AROCLOR-1248		21 U	20 U		19 U	21 U	19 U
AROCLOR-1254		21 U	20 U		19 U	21 U	19 U
AROCLOR-1260		21 U	20 U		19 U	21 U	19 U
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	12 U	700 L	16 J	19 J	13 J	11 U	210
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	32 U	57 J	29 U	30 U	27 U	31 U	28 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-117-6-8	GSP-SB-117-20-22	GSP-SB-118-0-2	GSP-SB-118-6-8	GSP-SB-118-20-22	GSP-SB-119-0-2	GSP-SB-119-6-8
LABORATORY ID:	240-635-5	240-635-6	240-635-10	240-635-11	240-635-12	240-635-7	240-635-8
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-117	GSP-SB-117	GSP-SB-118	GSP-SB-118	GSP-SB-118	GSP-SB-119	GSP-SB-119
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.52 U	0.51 U	0.49 U	0.42 U	0.44 U	0.57 U	0.55 U
1,1,1-TRICHLOROETHANE	0.47 U	0.46 U	0.44 U	0.38 U	0.4 U	0.51 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.28 U	0.28 U	0.27 U	0.23 U	0.24 U	0.31 U	0.3 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.1 U	1.1 U	1 U	0.88 U	0.93 U	1.2 U	1.2 U
1,1-DICHLOROETHANE	0.3 U	0.29 U	0.28 U	0.24 U	0.26 U	0.33 U	0.32 U
1,1-DICHLOROETHENE	0.44 U	0.42 U	0.41 U	0.35 U	0.37 U	0.48 U	0.47 U
1,1-DICHLOROPROPENE	0.25 U	0.24 U	0.23 U	0.2 U	0.21 U	0.27 U	0.27 U
1,2,3-TRICHLOROBENZENE	0.32 U	0.31 U	0.3 U	0.26 U	0.27 U	0.35 U	0.34 U
1,2,3-TRICHLOROPROPANE	0.75 U	0.73 U	0.7 U	0.61 U	0.64 U	0.82 U	0.81 U
1,2,3-TRIMETHYLBENZENE	0.14 U	0.14 U	0.13 U	0.12 U	0.12 U	0.16 U	0.15 U
1,2,4-TRICHLOROBENZENE	0.23 U	0.22 U	0.21 U	0.18 U	0.19 U	4.2 J	0.24 U
1,2,4-TRIMETHYLBENZENE	0.54 U	0.53 U	0.51 U	0.44 U	0.46 U	0.6 U	0.58 U
1,2-DIBROMO-3-CHLOROPROPANE	1.1 U	1.1 U	1 U	0.88 U	0.93 U	1.2 U	1.2 U
1,2-DIBROMOETHANE	0.42 U	0.41 U	0.39 U	0.34 U	0.36 U	0.46 U	0.45 U
1,2-DICHLOROBENZENE	0.3 U	0.29 U	0.28 U	0.24 U	0.26 U	0.35 J	0.32 U
1,2-DICHLOROETHANE	0.28 U	0.28 U	0.27 U	0.23 U	0.24 U	0.31 U	0.3 U
1,2-DICHLOROPROPANE	0.58 U	0.56 U	0.54 U	0.47 U	0.49 U	0.63 U	0.62 U
1,3-DICHLOROBENZENE	0.29 U	0.29 U	0.27 U	0.24 U	0.25 U	6.6	0.31 U
1,3-DICHLOROPROPANE	0.28 U	0.28 U	0.27 U	0.23 U	0.24 U	0.31 U	0.3 U
1,4-DICHLOROBENZENE	0.55 U	0.54 U	0.52 U	0.45 U	0.47 U	0.6 U	0.59 U
2,2-DICHLOROPROPANE	0.79 U	0.77 U	0.74 U	0.64 U	0.67 U	0.86 U	0.84 U
2-BUTANONE	1.2 U	1.1 U	1.1 U	0.95 U	1 U	1.3 U	1.3 U
2-CHLOROETHYL VINYL ETHER	1.2 U	1.1 U	1.1 U	0.95 U	1 U	1.3 U	1.3 U
2-CHLOROTOLUENE	0.33 U	0.33 U	0.31 U	0.27 U	0.29 U	0.37 U	0.36 U
2-HEXANONE	0.53 U	0.51 U	0.49 U	0.43 U	0.45 U	0.58 U	0.56 U
4-CHLOROTOLUENE	0.34 U	0.33 U	0.32 U	0.28 U	0.29 U	0.38 U	0.37 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-117-6-8	GSP-SB-117-20-22	GSP-SB-118-0-2	GSP-SB-118-6-8	GSP-SB-118-20-22	GSP-SB-119-0-2	GSP-SB-119-6-8
LABORATORY ID:	240-635-5	240-635-6	240-635-10	240-635-11	240-635-12	240-635-7	240-635-8
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-117	GSP-SB-117	GSP-SB-118	GSP-SB-118	GSP-SB-118	GSP-SB-119	GSP-SB-119
4-ISOPROPYLTOLUENE	0.18 U	0.17 U	0.16 U	0.14 U	0.15 U	0.19 U	0.19 U
4-METHYL-2-PENTANONE	0.45 U	0.44 U	0.42 U	0.37 U	0.39 U	0.49 U	0.48 U
ACETONE	5.3 U	5.1 U	4.9 U	4.3 U	10 B	22 B	5.6 U
BENZENE	0.19 U	0.19 U	0.18 U	0.16 U	0.5 J	0.21 U	0.21 U
BROMOBENZENE	0.28 U	0.27 U	0.26 U	0.22 U	0.24 U	0.3 U	0.3 U
BROMOCHLOROMETHANE	0.59 U	0.58 U	0.56 U	0.48 U	0.51 U	0.65 U	0.64 U
BROMODICHLOROMETHANE	0.23 U	0.23 U	0.22 U	0.19 U	0.2 U	0.26 U	0.25 U
BROMOFORM	0.28 U	0.27 U	0.26 U	0.22 U	0.24 U	0.3 U	0.3 U
BROMOMETHANE	0.45 U	0.44 U	0.42 U	0.37 U	0.39 U	0.49 U	0.48 U
CARBON DISULFIDE	0.56 J	0.36 U	0.34 U	0.3 U	0.31 U	0.4 U	0.39 U
CARBON TETRACHLORIDE	0.31 U	0.3 U	0.29 U	0.25 U	0.26 U	0.34 U	0.33 U
CHLOROBENZENE	0.28 U	0.27 U	0.26 U	0.22 U	0.24 U	0.36 J	0.3 U
CHLORODIBROMOMETHANE	0.46 U	0.45 U	0.43 U	0.37 U	0.39 U	0.5 U	0.49 U
CHLOROETHANE	0.72 UJ	0.7 UJ	0.67 UJ	0.58 U	0.61 U	0.79 UJ	0.77 UJ
CHLOROFORM	0.24 U	0.24 U	0.23 U	0.2 U	0.21 U	0.27 U	0.26 U
CHLOROMETHANE	0.34 U	0.33 U	0.32 U	0.28 U	0.29 U	0.38 U	0.37 U
CIS-1,2-DICHLOROETHENE	0.3 U	0.29 U	0.28 U	0.24 U	4.2	0.33 U	2.2 J
CIS-1,3-DICHLOROPROPENE	0.28 U	0.28 U	0.27 U	0.23 U	0.24 U	0.31 U	0.3 U
DIBROMOMETHANE	0.53 U	0.51 U	0.49 U	0.43 U	0.45 U	0.58 U	0.56 U
DICHLORODIFLUOROMETHANE	0.42 U	0.41 U	0.39 U	0.34 U	0.36 U	0.46 U	0.45 U
DIISOPROPYL ETHER	1.3 U	1.2 U	1.2 U	1 U	1.1 U	1.4 U	1.3 U
ETHYL TERT-BUTYL ETHER	0.18 U	0.18 U	0.17 U	0.15 U	0.16 U	0.2 U	0.2 U
ETHYLBENZENE	0.22 U	0.21 U	0.2 U	0.18 U	0.19 U	0.24 U	0.23 U
HEXACHLOROBUTADIENE	1 U	0.98 U	0.94 U	0.81 U	0.86 U	1.1 U	1.1 U
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U	0.11 U	0.11 U	0.15 U	0.14 U
M+P-XYLENES	1 U	0.98 U	0.94 U	0.81 U	0.86 U	1.1 U	1.1 U
METHYL TERT-BUTYL ETHER	0.36 U	0.35 U	0.34 U	0.29 U	0.31 U	0.39 U	0.38 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-117-6-8	GSP-SB-117-20-22	GSP-SB-118-0-2	GSP-SB-118-6-8	GSP-SB-118-20-22	GSP-SB-119-0-2	GSP-SB-119-6-8
LABORATORY ID:	240-635-5	240-635-6	240-635-10	240-635-11	240-635-12	240-635-7	240-635-8
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-117	GSP-SB-117	GSP-SB-118	GSP-SB-118	GSP-SB-118	GSP-SB-119	GSP-SB-119
METHYLENE CHLORIDE	1.8 B	2.2 B	2.2 B	1.7 B	2.2 B	2.2 B	2.1 B
NAPHTHALENE	0.16 U	0.15 U	0.15 U	0.13 U	0.14 U	0.17 U	0.17 U
N-BUTYLBENZENE	0.19 U	0.19 U	0.18 U	0.16 U	0.16 U	0.21 U	0.21 U
N-PROPYLBENZENE	0.33 U	0.33 U	0.31 U	0.27 U	0.29 U	0.37 U	0.36 U
O-XYLENE	0.29 U	0.29 U	0.27 U	0.24 U	0.25 U	0.32 U	0.31 U
SEC-BUTYLBENZENE	0.15 U	0.15 U	0.14 U	0.12 U	0.13 U	0.16 U	0.16 U
STYRENE	0.13 U	0.12 U	0.12 U	0.1 U	0.11 U	0.14 U	0.13 U
TERT-AMYL METHYL ETHER	0.31 U	0.3 U	0.29 U	0.25 U	0.26 U	0.34 U	0.33 U
TERT-BUTYLBENZENE	0.24 U	0.24 U	0.23 U	0.2 U	0.21 U	0.27 U	0.26 U
TERTIARY-BUTYL ALCOHOL	6.4 UR	6.2 UR	6 UR	5.1 UR	5.4 UR	7 UR	6.8 UR
TETRACHLOROETHENE	0.44 U	0.42 U	0.41 U	0.35 U	0.37 U	0.48 U	0.47 U
TOLUENE	0.23 U	0.22 U	0.21 U	0.18 U	0.19 U	0.25 U	0.24 U
TOTAL XYLENES	0.56 U	0.55 U	0.52 U	0.45 U	0.48 U	0.61 U	0.6 U
TRANS-1,2-DICHLOROETHENE	0.34 U	0.33 U	0.32 U	0.28 U	0.29 U	0.38 U	0.37 U
TRANS-1,3-DICHLOROPROPENE	0.45 U	0.44 U	0.42 U	0.37 U	0.39 U	0.49 U	0.48 U
TRICHLOROETHENE	0.35 U	1.4 J	0.33 U	0.28 U	2.5 J	0.38 U	3.8 J
TRICHLOROFLUOROMETHANE	0.28 U	0.28 U	0.27 U	0.23 U	0.24 U	0.31 U	0.3 U
VINYL ACETATE	0.21 UR	0.2 UR	0.2 UR	0.17 UR	0.18 UR	0.23 UR	0.22 UR
VINYL CHLORIDE	0.33 U	0.55 J	0.31 U	0.26 U	1.5 J	0.36 U	0.35 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	31 U	33 U	62 U	32 U	33 U	30 UR	31 UL
1,4-DIOXANE	25 U	27 U	51 U	26 U	27 U	25 UR	25 UL
2,2'-OXYBIS(1-CHLOROPROPANE)	11 U	12 U	22 U	11 U	12 U	11 UR	11 UL
2,4,5-TRICHLOROPHENOL	29 U	31 U	58 U	29 U	31 U	28 UR	28 UL
2,4,6-TRICHLOROPHENOL	91 U	98 U	180 U	94 U	99 U	90 UR	91 UL
2,4-DICHLOROPHENOL	23 U	24 U	46 U	24 U	25 U	22 UR	23 UL
2,4-DIMETHYLPHENOL	23 U	24 U	46 U	24 U	25 U	22 UR	23 UL

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-117-6-8	GSP-SB-117-20-22	GSP-SB-118-0-2	GSP-SB-118-6-8	GSP-SB-118-20-22	GSP-SB-119-0-2	GSP-SB-119-6-8
LABORATORY ID:	240-635-5	240-635-6	240-635-10	240-635-11	240-635-12	240-635-7	240-635-8
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-117	GSP-SB-117	GSP-SB-118	GSP-SB-118	GSP-SB-118	GSP-SB-119	GSP-SB-119
2,4-DINITROPHENOL	91 U	98 U	180 U	94 U	99 U	90 UR	91 UR
2,4-DINITROTOLUENE	31 U	33 U	62 U	32 U	33 U	30 UR	31 UL
2,6-DINITROTOLUENE	24 U	26 U	48 U	25 U	26 U	24 UR	24 UL
2-CHLORONAPHTHALENE	3.8 U	4 U	7.6 U	3.9 U	4.1 U	3.7 UR	3.7 UL
2-CHLOROPHENOL	31 U	33 U	62 U	32 U	33 U	30 UR	31 UL
2-METHYLNAPHTHALENE	3.8 U	4 U	56	3.9 U	4.1 U	28 L	3.7 UL
2-METHYLPHENOL	91 U	98 U	180 U	94 U	99 U	90 UR	91 UL
2-NITROANILINE	10 U	11 U	21 U	11 U	11 U	10 UR	10 UL
2-NITROPHENOL	31 U	33 U	62 U	32 U	33 U	30 UR	31 UL
3&4-METHYLPHENOL	23 U	24 U	46 U	24 U	25 U	22 UR	23 UL
3,3'-DICHLOROBENZIDINE	21 UL	22 UL	42 UL	21 UL	22 UL	20 UR	20 UL
3-NITROANILINE	18 U	20 U	37 U	19 U	20 U	18 UR	18 UL
4,6-DINITRO-2-METHYLPHENOL	91 U	98 U	180 U	94 U	99 U	90 UR	91 UL
4-BROMOPHENYL PHENYL ETHER	15 U	16 U	30 U	15 U	16 U	15 UR	15 UL
4-CHLORO-3-METHYLPHENOL	24 U	26 U	48 U	25 U	26 U	24 UR	24 UL
4-CHLOROANILINE	19 U	21 U	39 U	20 U	21 U	19 UR	19 UL
4-CHLOROPHENYL PHENYL ETHER	15 U	16 U	30 U	15 U	16 U	15 UR	15 UL
4-NITROANILINE	30 U	32 U	60 U	31 U	32 U	29 UR	29 UL
4-NITROPHENOL	91 U	98 U	180 U	94 U	99 U	90 UR	91 UL
ACENAPHTHENE	3.8 U	4 U	37	3.9 U	14	20 L	3.7 UL
ACENAPHTHYLENE	3.8 U	4 U	69	3.9 U	4.1 U	38 L	3.7 UL
ACETOPHENONE	11 U	11 U	21 U	11 U	11 U	10 UR	10 UL
ANTHRACENE	3.8 U	4 U	220	3.9 U	20	100 L	11 L
ATRAZINE	10 U	11 U	21 U	11 U	11 U	10 UR	10 UL
BENZALDEHYDE	14 U	15 U	28 U	14 U	15 U	13 UR	14 UL
BENZO(A)ANTHRACENE	3.8 U	4 U	760	8.8	23	590 L	29 L
BENZO(A)PYRENE	3.8 U	4 U	750	3.9 U	21	540 L	31 L

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ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-117-6-8	GSP-SB-117-20-22	GSP-SB-118-0-2	GSP-SB-118-6-8	GSP-SB-118-20-22	GSP-SB-119-0-2	GSP-SB-119-6-8
LABORATORY ID:	240-635-5	240-635-6	240-635-10	240-635-11	240-635-12	240-635-7	240-635-8
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-117	GSP-SB-117	GSP-SB-118	GSP-SB-118	GSP-SB-118	GSP-SB-119	GSP-SB-119
BENZO(B)FLUORANTHENE	3.8 U	4 U	730	9	24	720 L	32 L
BENZO(G,H,I)PERYLENE	3.8 U	4 U	450	3.9 U	14	380 L	19 L
BENZO(K)FLUORANTHENE	3.8 U	4 U	390	3.9 U	13	240 L	18 L
BIS(2-CHLOROETHOXY)METHANE	25 U	27 U	51 U	26 U	27 U	25 UR	25 UL
BIS(2-CHLOROETHYL)ETHER	2.3 U	2.4 U	4.6 U	2.4 U	2.5 U	2.2 UR	2.3 UL
BIS(2-ETHYLHEXYL)PHTHALATE	28 B	23 U	44 U	22 U	110 B	21 UR	22 UL
BUTYL BENZYL PHTHALATE	11 U	12 U	23 U	12 U	12 U	11 UR	11 UL
CAPROLACTAM	42 UL	45 UL	85 UL	44 UL	46 UL	41 UR	42 UL
CARBAZOLE	31 U	33 U	62 U	32 U	33 U	30 UR	31 UL
CHRYSENE	1.3 U	1.3 U	760	8.1	23	610 L	39 L
DIBENZO(A,H)ANTHRACENE	3.8 U	4 U	140	3.9 U	4.1 U	130 L	3.7 UL
DIBENZOFURAN	3.8 U	4 U	7.6 U	3.9 U	4.1 U	9 L	3.7 UL
DIETHYL PHTHALATE	18 U	20 U	37 U	19 U	20 U	18 UR	18 UL
DIMETHYL PHTHALATE	19 U	21 U	39 U	20 U	21 U	19 UR	19 UL
DI-N-BUTYL PHTHALATE	17 U	18 U	35 U	18 U	23 J	23 B	17 UL
DI-N-OCTYL PHTHALATE	31 U	33 U	62 U	32 U	33 U	30 UR	31 UL
FLUORANTHENE	8.8	4 U	1200	20	64	1100 L	61 L
FLUORENE	3.8 U	4 U	80	3.9 U	13	28 L	7.6 L
HEXACHLOROBENZENE	2.4 U	2.6 U	4.8 U	2.5 U	2.6 U	2.4 UR	2.4 UL
HEXACHLOROBUTADIENE	31 U	33 U	62 U	32 U	33 U	30 UR	31 UL
HEXACHLOROCYCLOPENTADIENE	31 U	33 U	62 U	32 U	33 U	30 UR	31 UR
HEXACHLOROETHANE	10 U	11 U	21 U	11 U	11 U	10 UR	10 UL
INDENO(1,2,3-CD)PYRENE	3.8 U	4 U	380	3.9 U	12	320 L	17 L
ISOPHORONE	15 U	16 U	30 U	15 U	16 U	15 UR	15 UL
NAPHTHALENE	3.8 U	4 U	69	3.9 U	4.1 U	34 L	3.7 UL
NITROBENZENE	2.5 U	2.7 U	5.1 U	2.6 U	2.7 U	2.5 UR	2.5 UL
N-NITROSODIMETHYLAMINE	18 U	20 U	37 U	19 U	20 U	18 UR	18 UL

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-117-6-8	GSP-SB-117-20-22	GSP-SB-118-0-2	GSP-SB-118-6-8	GSP-SB-118-20-22	GSP-SB-119-0-2	GSP-SB-119-6-8
LABORATORY ID:	240-635-5	240-635-6	240-635-10	240-635-11	240-635-12	240-635-7	240-635-8
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-117	GSP-SB-117	GSP-SB-118	GSP-SB-118	GSP-SB-118	GSP-SB-119	GSP-SB-119
N-NITROSO-DI-N-PROPYLAMINE	31 U	33 U	62 U	32 U	33 U	30 UR	31 UL
N-NITROSODIPHENYLAMINE	24 U	26 U	48 U	25 U	26 U	24 UR	24 UL
PENTACHLOROPHENOL	91 U	98 U	180 U	94 U	99 U	90 UR	91 UL
PHENANTHRENE	3.8 U	4 U	640	17	75	340 L	39 L
PHENOL	31 U	33 U	62 U	32 U	33 U	30 UR	31 UL
PYRENE	3.8 U	4 U	1400	15	48	990 L	53 L
INORGANICS (mg/kg)							
ANTIMONY	0.43 UL		0.71 J	0.46 UL		0.41 J	0.71 J
ARSENIC	0.46 J		2.8	1 J		4.2	2.1
BARIUM	13 J		33	39		31	37
BERYLLIUM	0.047 U		0.28 J	0.16 J		0.37 J	0.19 J
CADMIUM	0.04 U		0.04 U	0.043 U		0.033 U	0.038 U
CHROMIUM	5.2		13	21		19	13
COBALT	0.54 J		3.4	2.5		4.4	2.6
COPPER	3.2		12	68		14	11
LEAD	3.4		19	6.7		15	11
MERCURY	0.017 U		0.15	0.048 J		0.13	0.035 J
MOLYBDENUM	0.3 U		0.5 B	0.32 U		0.3 B	0.49 B
NICKEL	0.36 J		6.8	4.6 J		7.8	4.6
SELENIUM	0.49 U		0.5 U	0.53 U		0.51 J	0.48 U
SILVER	0.11 U		0.11 U	0.12 U		0.25 J	0.11 U
THALLIUM	0.6 U		0.61 U	0.65 U		0.5 U	0.64 J
VANADIUM	9.5		22	11		33	18
ZINC	2.2 B		39	28		31	28
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016	24 U		240 U	25 U		24 U	240 U
AROCLOR-1221	18 U		180 U	19 U		18 U	180 U

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GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-117-6-8	GSP-SB-117-20-22	GSP-SB-118-0-2	GSP-SB-118-6-8	GSP-SB-118-20-22	GSP-SB-119-0-2	GSP-SB-119-6-8
LABORATORY ID:	240-635-5	240-635-6	240-635-10	240-635-11	240-635-12	240-635-7	240-635-8
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-117	GSP-SB-117	GSP-SB-118	GSP-SB-118	GSP-SB-118	GSP-SB-119	GSP-SB-119
AROCLOR-1232	16 U		160 U	17 U		16 U	160 U
AROCLOR-1242	15 U		150 U	15 U		15 U	150 U
AROCLOR-1248	19 U		190 U	20 U		19 U	190 U
AROCLOR-1254	19 U		190 U	20 U		19 U	190 U
AROCLOR-1260	19 U		1200	20 U		92	2700
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	23	11 J	110	12 J	11 U	61	40
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	29 U	31 U	29 U	30 U	31 U	28 U	28 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-119-20-22	GSP-SB-119-20-22RA	GSP-SB-120-0-2	GSP-SB-120-6-8	GSP-SB-120-18-20	GSP-SB-121-0-3	GSP-SB-121-6-8
LABORATORY ID:	240-635-9	240-635-9	240-635-19	240-635-20	240-635-21	240-635-16	240-635-17
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-119	GSP-SB-119	GSP-SB-120	GSP-SB-120	GSP-SB-120	GSP-SB-121	GSP-SB-121
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.54 U		0.6 UL	11 U	0.59 U	0.62 U	6.5 UJ
1,1,1-TRICHLOROETHANE	0.49 U		0.55 UL	24 U	0.53 U	0.56 U	15 UJ
1,1,2,2-TETRACHLOROETHANE	0.3 U		0.33 UL	10 U	0.32 U	0.34 U	6.4 UJ
1,1,2-TRICHLOROTRIFLUOROETHANE	1.1 U		1.3 UL	45 U	1.2 U	1.3 U	28 UJ
1,1-DICHLOROETHANE	0.32 U		0.35 UL	20 U	0.34 U	0.36 U	12 UJ
1,1-DICHLOROETHENE	0.46 U		0.51 UL	21 U	0.49 U	0.52 U	13 UJ
1,1-DICHLOROPROPENE	0.26 U		0.29 UL	12 U	0.29 U	0.3 U	7.2 UJ
1,2,3-TRICHLOROBENZENE	0.36 J		0.37 UL	12 U	0.36 U	0.38 U	7.2 UJ
1,2,3-TRICHLOROPROPANE	0.79 U		0.88 UL	24 U	0.86 U	0.89 U	15 UJ
1,2,3-TRIMETHYLBENZENE	0.78 J		0.17 UL	0.2 U	0.26 J	0.41 J	0.12 UJ
1,2,4-TRICHLOROBENZENE	11		0.26 UL	8.4 U	0.26 U	0.27 U	5.2 UJ
1,2,4-TRIMETHYLBENZENE	1.2 J		0.63 UL	8.2 J	0.62 U	0.65 U	9.4 J
1,2-DIBROMO-3-CHLOROPROPANE	1.1 U		1.3 UL	58 U	1.2 U	1.3 U	36 UJ
1,2-DIBROMOETHANE	0.44 U		0.49 UL	12 U	0.48 U	0.5 U	7.2 UJ
1,2-DICHLOROBENZENE	0.32 U		0.35 UL	9.9 U	0.34 U	0.36 U	6.2 UJ
1,2-DICHLOROETHANE	0.3 U		0.33 UL	12 U	0.32 U	0.34 U	7.2 UJ
1,2-DICHLOROPROPANE	0.61 U		0.67 UL	9.5 U	0.66 U	0.69 U	5.9 UJ
1,3-DICHLOROBENZENE	10		0.34 UL	5.5 U	0.33 U	0.35 U	3.4 UJ
1,3-DICHLOROPROPANE	0.3 U		0.33 UL	25 U	0.32 U	0.34 U	16 UJ
1,4-DICHLOROBENZENE	0.61 J		0.64 UL	9.2 U	0.63 U	0.66 U	5.7 UJ
2,2-DICHLOROPROPANE	0.83 U		0.92 UL	27 U	0.89 U	0.93 U	16 UJ
2-BUTANONE	11 J		1.4 UL	50 U	1.3 U	1.4 U	31 UJ
2-CHLOROETHYL VINYL ETHER	1.2 U		1.4 UL	50 U	1.3 U	1.4 U	31 UJ
2-CHLOROTOLUENE	0.35 U		0.39 UL	10 U	0.38 U	0.4 U	6.4 UJ
2-HEXANONE	0.55 U		0.61 UL	23 U	0.6 U	0.63 U	14 UJ
4-CHLOROTOLUENE	0.36 U		0.4 UL	11 U	0.39 U	0.41 U	7.1 UJ

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-119-20-22	GSP-SB-119-20-22RA	GSP-SB-120-0-2	GSP-SB-120-6-8	GSP-SB-120-18-20	GSP-SB-121-0-3	GSP-SB-121-6-8
LABORATORY ID:	240-635-9	240-635-9	240-635-19	240-635-20	240-635-21	240-635-16	240-635-17
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-119	GSP-SB-119	GSP-SB-120	GSP-SB-120	GSP-SB-120	GSP-SB-121	GSP-SB-121
4-ISOPROPYLTOLUENE	0.18 U		0.2 UL	5.5 U	0.2 U	0.21 U	3.4 UJ
4-METHYL-2-PENTANONE	0.47 U		0.53 UL	55 U	0.51 U	0.54 U	34 UJ
ACETONE	52 B		6.1 UL	200 U	17 B	37 B	220 J
BENZENE	0.2 U		0.22 UL	14 U	0.22 U	0.23 U	8.6 UJ
BROMOBENZENE	0.29 U		0.32 UL	15 U	0.31 U	0.33 U	9.3 UJ
BROMOCHLOROMETHANE	0.62 U		0.69 UL	15 U	0.67 U	0.71 U	9.3 UJ
BROMODICHLOROMETHANE	0.25 U		0.27 UL	11 U	0.27 U	0.28 U	7.1 UJ
BROMOFORM	0.29 U		0.32 UL	22 U	0.31 U	0.33 U	14 UJ
BROMOMETHANE	0.47 U		0.53 UL	33 U	0.51 U	0.54 U	21 UJ
CARBON DISULFIDE	1.8 J		0.43 UL	14 U	0.42 U	1.9 J	8.6 UJ
CARBON TETRACHLORIDE	0.32 U		0.36 UL	7.4 U	0.35 U	0.37 U	4.6 UJ
CHLOROBENZENE	0.29 U		0.32 UL	7.4 U	0.31 U	0.33 U	4.6 UJ
CHLORODIBROMOMETHANE	0.48 U		0.54 UL	14 U	0.52 U	0.55 U	8.6 UJ
CHLOROETHANE	0.75 UJ		0.84 UJ	70 U	0.82 U	0.85 U	44 UJ
CHLOROFORM	0.25 U		0.28 UL	10 U	0.28 U	0.29 U	6.3 UJ
CHLOROMETHANE	0.36 U		0.4 UL	16 U	0.39 U	0.41 U	10 UJ
CIS-1,2-DICHLOROETHENE	0.49 J		0.35 UL	8 U	0.34 U	0.36 U	4.9 UJ
CIS-1,3-DICHLOROPROPENE	0.3 U		0.33 UL	9.1 U	0.32 U	0.34 U	5.7 UJ
DIBROMOMETHANE	0.55 U		0.61 UL	16 U	0.6 U	0.63 U	10 UJ
DICHLORODIFLUOROMETHANE	0.44 U		0.49 UL	18 U	0.48 U	0.5 U	11 UJ
DIISOPROPYL ETHER	1.3 U		1.5 UL	58 U	1.4 U	1.5 U	36 UJ
ETHYL TERT-BUTYL ETHER	0.19 U		0.21 UL	0.25 U	0.21 U	0.22 U	0.16 UJ
ETHYLBENZENE	0.24 J		0.25 UL	6.2 U	0.4 J	0.31 J	4.4 J
HEXACHLOROBUTADIENE	1.1 U		1.2 UL	16 U	1.1 U	1.2 U	10 UJ
ISOPROPYLBENZENE	0.14 U		0.16 UL	7.5 U	0.15 U	0.16 U	4.7 UJ
M+P-XYLENES	1.1 U		1.2 UL	15 J	1.1 U	1.2 U	14 J
METHYL TERT-BUTYL ETHER	0.38 U		0.42 UL	8.2 U	0.41 U	0.43 U	5.1 UJ

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-119-20-22	GSP-SB-119-20-22RA	GSP-SB-120-0-2	GSP-SB-120-6-8	GSP-SB-120-18-20	GSP-SB-121-0-3	GSP-SB-121-6-8
LABORATORY ID:	240-635-9	240-635-9	240-635-19	240-635-20	240-635-21	240-635-16	240-635-17
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-119	GSP-SB-119	GSP-SB-120	GSP-SB-120	GSP-SB-120	GSP-SB-121	GSP-SB-121
METHYLENE CHLORIDE	2.7 B		3.3 B	400 B	2.9 B	3.4 B	420 B
NAPHTHALENE	11		0.76 J	1200	38	32	1700 J
N-BUTYLBENZENE	0.2 U		0.22 UL	9.2 U	0.22 U	0.23 U	5.7 UJ
N-PROPYLBENZENE	0.35 U		0.39 UL	16 U	0.38 U	0.4 U	10 UJ
O-XYLENE	0.42 J		0.34 UL	9.8 U	0.65 J	0.5 J	6.4 J
SEC-BUTYLBENZENE	0.16 U		0.18 UL	5.4 U	0.17 U	0.18 U	3.4 UJ
STYRENE	0.13 U		0.15 UL	6.5 U	0.17 J	0.15 U	4 UJ
TERT-AMYL METHYL ETHER	0.32 U		0.36 UL	0.43 U	0.35 U	0.37 U	0.26 UJ
TERT-BUTYLBENZENE	0.25 U		0.28 UL	7.5 U	0.28 U	0.29 U	4.7 UJ
TERTIARY-BUTYL ALCOHOL	6.7 UR		7.4 UR	280 UR	7.2 UR	7.6 UR	170 UR
TETRACHLOROETHENE	0.46 U		0.51 UL	14 U	0.49 U	0.52 U	8.6 UJ
TOLUENE	0.57 J		0.26 UL	20 U	0.5 J	0.29 J	12 UJ
TOTAL XYLENES	0.59 U		0.65 UL	15 J	0.65 J	0.67 U	20 J
TRANS-1,2-DICHLOROETHENE	0.36 U		0.4 UL	11 U	0.39 U	0.41 U	6.6 UJ
TRANS-1,3-DICHLOROPROPENE	0.47 U		0.53 UL	23 U	0.51 U	0.54 U	14 UJ
TRICHLOROETHENE	0.89 J		0.41 UL	11 U	0.4 U	0.42 U	6.9 UJ
TRICHLOROFLUOROMETHANE	0.3 U		0.33 UL	18 U	0.32 U	0.34 U	11 UJ
VINYL ACETATE	0.22 UR		0.24 UR	27 UR	0.24 UR	0.25 UR	16 UR
VINYL CHLORIDE	0.34 U		0.38 UL	21 U	0.37 U	0.39 U	13 UJ
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	64 U		78 U	74 U	660 U	63 U	310 U
1,4-DIOXANE	52 U		64 U	60 U	540 U	51 UJ	250 U
2,2'-OXYBIS(1-CHLOROPROPANE)	22 U		27 U	26 U	230 U	22 UJ	110 U
2,4,5-TRICHLOROPHENOL	59 U		72 U	68 U	610 UR	58 U	290 UR
2,4,6-TRICHLOROPHENOL	190 U		230 U	220 U	2000 UR	190 U	920 UR
2,4-DICHLOROPHENOL	47 U		58 U	55 U	490 UR	46 UJ	230 UR
2,4-DIMETHYLPHENOL	47 U		58 U	55 U	490 UR	46 UJ	230 UR

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-119-20-22	GSP-SB-119-20-22RA	GSP-SB-120-0-2	GSP-SB-120-6-8	GSP-SB-120-18-20	GSP-SB-121-0-3	GSP-SB-121-6-8
LABORATORY ID:	240-635-9	240-635-9	240-635-19	240-635-20	240-635-21	240-635-16	240-635-17
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-119	GSP-SB-119	GSP-SB-120	GSP-SB-120	GSP-SB-120	GSP-SB-121	GSP-SB-121
2,4-DINITROPHENOL	190 U		230 U	220 U	2000 UR	190 U	920 UR
2,4-DINITROTOLUENE	64 U		78 U	74 U	660 U	63 U	310 U
2,6-DINITROTOLUENE	50 U		61 U	58 U	520 U	49 U	240 U
2-CHLORONAPHTHALENE	7.8 U		9.5 U	9 U	81 U	7.6 U	38 U
2-CHLOROPHENOL	64 U		78 U	74 U	660 UR	63 UJ	310 UR
2-METHYLNAPHTHALENE	59		36	150	460	88 J	480
2-METHYLPHENOL	190 U		230 U	220 U	2000 UR	190 UJ	920 UR
2-NITROANILINE	22 U		26 U	25 U	220 U	21 U	110 U
2-NITROPHENOL	64 U		78 U	74 U	660 UR	63 UJ	310 UR
3&4-METHYLPHENOL	47 U		58 U	55 U	490 UR	46 UJ	230 UR
3,3'-DICHLOROBENZIDINE	43 UL		52 UL	49 UL	440 UL	42 UL	210 UL
3-NITROANILINE	38 U		46 U	44 U	390 U	37 U	180 U
4,6-DINITRO-2-METHYLPHENOL	190 U		230 U	220 U	2000 UR	190 U	920 UR
4-BROMOPHENYL PHENYL ETHER	31 U		38 U	36 U	320 U	30 U	150 U
4-CHLORO-3-METHYLPHENOL	50 U		61 U	58 U	520 UR	49 UJ	240 UR
4-CHLOROANILINE	40 U		49 U	47 U	420 U	39 UJ	200 U
4-CHLOROPHENYL PHENYL ETHER	31 U		38 U	36 U	320 U	30 U	150 U
4-NITROANILINE	61 U		75 U	71 U	640 U	60 U	300 U
4-NITROPHENOL	190 U		230 U	220 U	2000 UR	190 U	920 UR
ACENAPHTHENE	150		80	500	2000	240	1600
ACENAPHTHYLENE	17		48	9 U	430	59	38 U
ACETOPHENONE	22 U		27 U	25 U	230 U	21 UJ	110 U
ANTHRACENE	260		320	580	7400	500	2500
ATRAZINE	22 U		26 U	25 U	220 U	21 U	110 U
BENZALDEHYDE	28 U		35 U	33 U	300 U	28 UJ	140 U
BENZO(A)ANTHRACENE	740		1600	960	11000	1200	4400
BENZO(A)PYRENE	570		1300	880	8700	1200	3700

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-119-20-22	GSP-SB-119-20-22RA	GSP-SB-120-0-2	GSP-SB-120-6-8	GSP-SB-120-18-20	GSP-SB-121-0-3	GSP-SB-121-6-8
LABORATORY ID:	240-635-9	240-635-9	240-635-19	240-635-20	240-635-21	240-635-16	240-635-17
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-119	GSP-SB-119	GSP-SB-120	GSP-SB-120	GSP-SB-120	GSP-SB-121	GSP-SB-121
BENZO(B)FLUORANTHENE	610		1600	1000	9200	1400	4000
BENZO(G,H,I)PERYLENE	310		760	540	4500	710	2100
BENZO(K)FLUORANTHENE	490		860	520	6400	660	2000
BIS(2-CHLOROETHOXY)METHANE	52 U		64 U	60 U	540 U	51 UJ	250 U
BIS(2-CHLOROETHYL)ETHER	4.7 U		5.8 U	5.5 U	49 U	4.6 UJ	23 U
BIS(2-ETHYLHEXYL)PHTHALATE	45 U		55 U	52 U	470 U	74 B	220 U
BUTYL BENZYL PHTHALATE	24 U		29 U	27 U	250 U	23 U	120 U
CAPROLACTAM	88 UL		110 UL	100 UL	910 UL	86 UJ	430 UL
CARBAZOLE	130		130 J	450	920 J	190	1600
CHRYSENE	600		1500	1000	11000	1100	4200
DIBENZO(A,H)ANTHRACENE	74		230	160	1500	240	860
DIBENZOFURAN	74 J		31 J	300	1800	120	1000
DIETHYL PHTHALATE	38 U		46 U	44 U	390 U	37 U	180 U
DIMETHYL PHTHALATE	40 U		49 U	47 U	420 U	39 U	200 U
DI-N-BUTYL PHTHALATE	35 U		43 U	41 U	370 U	35 U	170 U
DI-N-OCTYL PHTHALATE	64 U		78 U	74 U	660 U	63 U	310 U
FLUORANTHENE	1400		2800	2600	28000	2400	10000
FLUORENE	150		90	460	3900	210	1600
HEXACHLOROBENZENE	5 U		6.1 U	5.8 U	52 U	4.9 U	24 U
HEXACHLOROBUTADIENE	64 U		78 U	74 U	660 U	63 UJ	310 U
HEXACHLOROCYCLOPENTADIENE	64 U		78 U	74 U	660 U	63 U	310 U
HEXACHLOROETHANE	21 U		26 U	25 U	220 U	21 UJ	100 U
INDENO(1,2,3-CD)PYRENE	300		730	460	4300	650	1900
ISOPHORONE	31 U		38 U	36 U	320 U	30 UJ	150 U
NAPHTHALENE	54		41	260	730	120 J	690
NITROBENZENE	5.2 U		6.4 U	6 U	54 U	5.1 UJ	25 U
N-NITROSODIMETHYLAMINE	38 U		46 U	44 U	390 U	37 UJ	180 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-119-20-22	GSP-SB-119-20-22RA	GSP-SB-120-0-2	GSP-SB-120-6-8	GSP-SB-120-18-20	GSP-SB-121-0-3	GSP-SB-121-6-8
LABORATORY ID:	240-635-9	240-635-9	240-635-19	240-635-20	240-635-21	240-635-16	240-635-17
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-119	GSP-SB-119	GSP-SB-120	GSP-SB-120	GSP-SB-120	GSP-SB-121	GSP-SB-121
N-NITROSO-DI-N-PROPYLAMINE	64 U		78 U	74 U	660 U	63 UJ	310 U
N-NITROSODIPHENYLAMINE	50 U		61 U	58 U	520 U	49 U	240 U
PENTACHLOROPHENOL	190 U		230 U	220 U	2000 UR	190 U	920 UR
PHENANTHRENE	990		1100	2400	26000	1500	9500
PHENOL	64 U		78 U	130 J	660 UR	63 UJ	310 UR
PYRENE	1200		2800	2000	20000	2200	7700
INORGANICS (mg/kg)							
ANTIMONY			0.69 J	0.37 UL		1.2 J	0.45 UL
ARSENIC			3.6	1.7		4.1	2.8
BARIUM			44	27		42	57
BERYLLIUM			0.33 J	0.09 J		0.32 J	0.049 U
CADMIUM			0.23 J	0.034 U		0.057 J	0.14 J
CHROMIUM			19	8.2		18	13
COBALT			4.1	1.4		3.7	2.7
COPPER			17	5.4		26	11
LEAD			23	8.8		27	19
MERCURY			0.095 J	0.028 J		0.052 J	0.044 J
MOLYBDENUM			0.33 B	0.33 B		0.29 U	0.38 B
NICKEL			7.9	2.8 J		7.8	5.6
SELENIUM			0.47 U	0.43 U		0.49 U	0.51 U
SILVER			0.2 J	0.096 U		0.11 U	0.11 U
THALLIUM			0.92 J	0.53 U		0.6 U	0.94 J
VANADIUM			22	14		31	15
ZINC			45	24		51	63
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016			240 U	23 U		240 U	24 U
AROCLOR-1221			180 U	17 U		180 U	18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-119-20-22	GSP-SB-119-20-22RA	GSP-SB-120-0-2	GSP-SB-120-6-8	GSP-SB-120-18-20	GSP-SB-121-0-3	GSP-SB-121-6-8
LABORATORY ID:	240-635-9	240-635-9	240-635-19	240-635-20	240-635-21	240-635-16	240-635-17
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011	5/31/2011
LOCATION:	GSP-SB-119	GSP-SB-119	GSP-SB-120	GSP-SB-120	GSP-SB-120	GSP-SB-121	GSP-SB-121
AROCLOR-1232			160 U	15 U		160 U	16 U
AROCLOR-1242			150 U	21 J		150 U	130
AROCLOR-1248			200 U	18 U		200 U	19 U
AROCLOR-1254			200 U	18 U		200 U	19 U
AROCLOR-1260			1700	37		2400	47
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS		320 J	280	46	97	280	340
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	30 U		29 U	57	44 J	29 U	130

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-121-18-20	GSP-SB-122-0-2	GSP-SB-122-6-8	GSP-SB-122-20-22	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2
LABORATORY ID:	240-635-18	240-635-22	240-635-23	240-635-24	240-820-4	240-820-5	240-820-7
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-121	GSP-SB-122	GSP-SB-122	GSP-SB-122	GSP-SB-123	GSP-SB-123	GSP-SB-124
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.36 U	0.59 U	0.56 U	0.67 U	0.57 U	0.56 U	0.56 U
1,1,1-TRICHLOROETHANE	0.32 U	0.53 U	0.51 U	0.61 U	0.52 U	0.51 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.2 U	0.32 U	0.31 U	0.37 U	0.31 U	0.31 U	0.31 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.75 U	1.2 U	1.2 U	1.4 U	1.2 U	1.2 U	1.2 U
1,1-DICHLOROETHANE	0.21 U	0.34 U	0.33 U	0.39 U	0.33 U	0.33 U	0.32 U
1,1-DICHLOROETHENE	0.3 U	0.49 U	0.47 U	0.56 U	0.48 U	0.47 U	0.47 U
1,1-DICHLOROPROPENE	0.17 U	0.28 U	0.27 U	0.32 U	0.28 U	0.27 U	0.27 U
1,2,3-TRICHLOROBENZENE	0.22 U	0.36 U	0.34 U	0.41 U	0.35 U	0.34 U	0.34 U
1,2,3-TRICHLOROPROPANE	0.52 U	0.85 U	0.81 U	0.97 U	0.83 U	0.81 U	0.81 U
1,2,3-TRIMETHYLBENZENE	0.1 J	0.16 U	0.15 U	0.18 U	0.16 U	0.15 U	0.15 U
1,2,4-TRICHLOROBENZENE	0.16 U	0.26 U	0.24 U	0.29 U	0.25 U	0.24 U	0.24 U
1,2,4-TRIMETHYLBENZENE	0.37 U	0.62 U	0.59 U	0.7 U	0.6 U	0.59 U	0.58 U
1,2-DIBROMO-3-CHLOROPROPANE	0.75 U	1.2 U	1.2 U	1.4 U	1.2 U	1.2 U	1.2 U
1,2-DIBROMOETHANE	0.29 U	0.47 U	0.45 U	0.54 U	0.46 U	0.45 U	0.45 U
1,2-DICHLOROBENZENE	0.21 U	0.34 U	0.33 U	0.39 U	0.33 U	0.33 U	0.32 U
1,2-DICHLOROETHANE	0.2 U	0.32 U	0.31 U	0.37 U	0.31 U	0.31 U	0.31 U
1,2-DICHLOROPROPANE	0.4 U	0.66 U	0.62 U	0.75 U	0.64 U	0.62 U	0.62 U
1,3-DICHLOROBENZENE	0.2 U	0.33 U	0.32 U	0.38 U	0.32 U	0.32 U	0.31 U
1,3-DICHLOROPROPANE	0.2 U	0.32 U	0.31 U	0.37 U	0.31 U	0.31 U	0.31 U
1,4-DICHLOROBENZENE	0.38 U	0.63 U	0.6 U	0.71 U	0.61 U	0.6 U	0.59 U
2,2-DICHLOROPROPANE	0.54 U	0.89 U	0.85 U	1 U	0.87 U	0.85 U	0.85 U
2-BUTANONE	0.81 U	1.3 U	1.3 U	1.5 U	1.3 U	1.3 U	1.6 B
2-CHLOROETHYL VINYL ETHER	0.81 U	1.3 U	1.3 U	1.5 U	1.3 U	1.3 UR	1.3 UR
2-CHLOROTOLUENE	0.23 U	0.38 U	0.36 U	0.43 U	0.37 U	0.36 U	0.36 U
2-HEXANONE	0.36 U	0.6 U	0.57 U	0.68 U	0.58 U	0.57 U	0.57 U
4-CHLOROTOLUENE	0.24 U	0.39 U	0.37 U	0.44 U	0.38 U	0.37 U	0.37 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-121-18-20	GSP-SB-122-0-2	GSP-SB-122-6-8	GSP-SB-122-20-22	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2
LABORATORY ID:	240-635-18	240-635-22	240-635-23	240-635-24	240-820-4	240-820-5	240-820-7
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-121	GSP-SB-122	GSP-SB-122	GSP-SB-122	GSP-SB-123	GSP-SB-123	GSP-SB-124
4-ISOPROPYLTOLUENE	1.3 J	0.2 U	0.19 U	0.23 U	0.19 U	0.19 U	0.19 U
4-METHYL-2-PENTANONE	0.31 U	0.51 U	0.49 U	0.58 U	0.58 J	0.49 U	0.49 U
ACETONE	14 B	6 U	63 B	25 B	17 B	9.8 B	5.7 U
BENZENE	0.45 J	0.22 U	0.21 U	0.25 U	0.21 U	0.21 U	0.21 U
BROMOBENZENE	0.19 U	0.31 U	0.3 U	0.36 U	0.3 U	0.3 U	0.3 U
BROMOCHLOROMETHANE	0.41 U	0.67 U	0.64 U	0.77 U	0.65 U	0.64 U	0.64 U
BROMODICHLOROMETHANE	0.16 U	0.27 U	0.25 U	0.3 U	0.26 U	0.25 U	0.25 U
BROMOFORM	0.19 U	0.31 U	0.3 U	0.36 U	0.3 U	0.3 U	0.3 U
BROMOMETHANE	0.31 U	0.51 U	0.49 U	0.58 U	0.5 U	0.49 U	0.49 U
CARBON DISULFIDE	0.25 U	0.42 U	0.4 U	0.55 J	0.41 U	0.4 U	0.4 U
CARBON TETRACHLORIDE	0.21 U	0.35 U	0.33 U	0.4 U	0.34 U	0.33 U	0.33 U
CHLOROBENZENE	0.19 U	0.31 U	0.3 U	0.36 U	0.3 U	0.3 U	0.3 U
CHLORODIBROMOMETHANE	0.32 U	0.52 U	0.5 U	0.6 U	0.51 U	0.5 U	0.49 U
CHLOROETHANE	0.49 UJ	0.82 U	0.78 U	0.93 U	0.79 UJ	0.78 U	0.77 U
CHLOROFORM	0.17 U	0.28 U	0.26 U	0.31 U	0.27 U	0.26 U	0.26 U
CHLOROMETHANE	0.24 U	0.39 U	0.37 U	0.44 U	0.38 U	0.37 U	0.37 U
CIS-1,2-DICHLOROETHENE	0.21 U	0.34 U	0.33 U	0.39 U	0.33 U	0.33 U	0.32 U
CIS-1,3-DICHLOROPROPENE	0.2 U	0.32 U	0.31 U	0.37 U	0.31 U	0.31 U	0.31 U
DIBROMOMETHANE	0.36 U	0.6 U	0.57 U	0.68 U	0.58 U	0.57 U	0.57 U
DICHLORODIFLUOROMETHANE	0.29 U	0.47 U	0.45 U	0.54 U	0.46 U	0.45 U	0.45 U
DIISOPROPYL ETHER	0.86 U	1.4 U	1.4 U	1.6 U	1.4 U	1.4 U	1.3 U
ETHYL TERT-BUTYL ETHER	0.13 U	0.21 U	0.2 U	0.24 U	0.2 U	0.2 U	0.2 U
ETHYLBENZENE	0.53 J	0.25 U	0.24 U	0.28 U	0.24 U	0.24 U	0.23 U
HEXACHLOROBUTADIENE	0.69 U	1.1 U	1.1 U	1.3 U	1.1 U	1.1 U	1.1 U
ISOPROPYLBENZENE	0.092 U	0.15 U	0.14 U	0.17 U	0.15 U	0.14 U	0.14 U
M+P-XYLENES	0.69 U	1.1 U	1.1 U	1.3 U	1.1 U	1.1 U	1.1 U
METHYL TERT-BUTYL ETHER	0.25 U	0.41 U	0.39 U	0.47 U	0.4 U	0.39 U	0.39 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-121-18-20	GSP-SB-122-0-2	GSP-SB-122-6-8	GSP-SB-122-20-22	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2
LABORATORY ID:	240-635-18	240-635-22	240-635-23	240-635-24	240-820-4	240-820-5	240-820-7
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-121	GSP-SB-122	GSP-SB-122	GSP-SB-122	GSP-SB-123	GSP-SB-123	GSP-SB-124
METHYLENE CHLORIDE	1.5 B	3.2 B	3.8 B	3.8 B	3.7 B	0.61 U	0.6 U
NAPHTHALENE	31	0.53 B	0.17 U	2.5 B	0.18 U	0.17 U	0.17 U
N-BUTYLBENZENE	0.13 U	0.22 U	0.21 U	0.25 U	0.21 U	0.21 U	0.21 U
N-PROPYLBENZENE	0.23 U	0.38 U	0.36 U	0.43 U	0.37 U	0.36 U	0.36 U
O-XYLENE	0.36 J	0.33 U	0.32 U	0.38 U	0.32 U	0.32 U	0.31 U
SEC-BUTYLBENZENE	0.1 U	0.17 U	0.16 U	0.19 U	0.17 U	0.16 U	0.16 U
STYRENE	0.086 U	0.14 U	0.14 U	0.16 U	0.14 U	0.14 U	0.13 U
TERT-AMYL METHYL ETHER	0.21 U	0.35 U	0.33 U	0.4 U	0.34 U	0.33 U	0.33 U
TERT-BUTYLBENZENE	0.17 U	0.28 U	0.26 U	0.31 U	0.27 U	0.26 U	0.26 U
TERTIARY-BUTYL ALCOHOL	4.4 UR	7.2 UR	6.9 UR	8.2 UR	7 UR	6.9 UR	6.8 UR
TETRACHLOROETHENE	0.3 U	0.49 U	0.47 U	0.56 U	0.48 U	0.47 U	0.47 U
TOLUENE	1 J	0.26 U	0.24 U	0.29 U	0.25 U	0.36 J	0.24 U
TOTAL XYLENES	0.39 U	0.64 U	0.61 U	0.73 U	0.62 U	0.61 U	0.6 U
TRANS-1,2-DICHLOROETHENE	0.24 U	0.39 U	0.37 U	0.44 U	0.38 U	0.37 U	0.37 U
TRANS-1,3-DICHLOROPROPENE	0.31 U	0.51 U	0.49 U	0.58 U	0.5 U	0.49 U	0.49 U
TRICHLOROETHENE	0.24 U	0.4 U	0.38 U	0.45 U	0.39 U	0.38 U	0.38 U
TRICHLOROFLUOROMETHANE	0.2 U	0.32 U	0.31 U	0.37 U	0.31 U	0.31 U	0.31 U
VINYL ACETATE	0.14 UR	0.24 UR	0.23 UR	0.27 UR	0.23 UR	0.23 UR	0.22 UR
VINYL CHLORIDE	0.22 U	0.37 U	0.35 U	0.42 U	0.36 U	0.35 U	0.35 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	33 U	29 U	76 U	35 U	30 U	33 U	590 UJ
1,4-DIOXANE	27 U	24 U	62 U	28 U	24 U	27 U	480 U
2,2'-OXYBIS(1-CHLOROPROPANE)	12 U	10 U	27 U	12 U	10 U	12 U	210 U
2,4,5-TRICHLOROPHENOL	30 U	27 U	70 U	32 U	27 UJ	31 U	550 U
2,4,6-TRICHLOROPHENOL	97 U	86 U	230 U	100 U	88 UJ	98 U	1800 U
2,4-DICHLOROPHENOL	24 U	22 U	56 U	26 U	22 U	25 U	440 U
2,4-DIMETHYLPHENOL	24 U	22 U	56 U	26 U	22 U	25 U	440 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-121-18-20	GSP-SB-122-0-2	GSP-SB-122-6-8	GSP-SB-122-20-22	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2
LABORATORY ID:	240-635-18	240-635-22	240-635-23	240-635-24	240-820-4	240-820-5	240-820-7
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-121	GSP-SB-122	GSP-SB-122	GSP-SB-122	GSP-SB-123	GSP-SB-123	GSP-SB-124
2,4-DINITROPHENOL	97 U	86 U	230 U	100 U	88 UR	98 U	1800 U
2,4-DINITROTOLUENE	33 U	29 U	76 U	35 U	30 U	33 U	590 U
2,6-DINITROTOLUENE	26 U	23 U	59 U	27 U	23 U	26 U	460 U
2-CHLORONAPHTHALENE	4 U	3.6 U	9.3 U	4.3 U	3.6 U	4 U	72 U
2-CHLOROPHENOL	33 U	29 U	76 U	35 U	30 U	33 U	590 U
2-METHYLNAPHTHALENE	4 U	24	9.3 U	4.3 U	9.3	4 U	360
2-METHYLPHENOL	97 U	86 U	230 U	100 U	88 U	98 U	1800 U
2-NITROANILINE	11 U	9.8 U	26 U	12 U	10 U	11 U	200 U
2-NITROPHENOL	33 U	29 U	76 U	35 U	30 U	33 U	590 U
3&4-METHYLPHENOL	24 U	22 U	56 U	26 U	22 U	25 U	440 U
3,3'-DICHLOROBENZIDINE	22 UL	19 UL	51 U	23 U	20 U	22 U	390 U
3-NITROANILINE	19 U	17 U	45 U	21 U	18 U	20 U	350 U
4,6-DINITRO-2-METHYLPHENOL	97 U	86 U	230 U	100 U	88 UR	98 U	1800 U
4-BROMOPHENYL PHENYL ETHER	16 U	14 U	37 U	17 U	14 U	16 U	280 U
4-CHLORO-3-METHYLPHENOL	26 U	23 U	59 U	27 U	23 UJ	26 U	460 U
4-CHLOROANILINE	21 U	18 U	48 U	22 U	19 U	21 U	370 U
4-CHLOROPHENYL PHENYL ETHER	16 U	14 U	37 U	17 U	14 U	16 U	280 U
4-NITROANILINE	32 U	28 U	73 U	34 U	29 U	32 U	570 U
4-NITROPHENOL	97 U	86 U	230 U	100 U	88 UJ	98 U	1800 U
ACENAPHTHENE	4 U	25	9.3 U	4.3 U	28	4 U	240
ACENAPHTHYLENE	4 U	44	9.3 U	4.3 U	13	4 U	300
ACETOPHENONE	11 U	9.9 U	26 U	12 U	10 U	11 U	200 UJ
ANTHRACENE	4 U	110	9.3 U	4.3 U	68	4 U	1200
ATRAZINE	11 U	9.8 U	26 U	12 U	10 U	11 U	200 U
BENZALDEHYDE	15 U	13 U	34 U	15 U	13 U	15 U	260 U
BENZO(A)ANTHRACENE	19	390	9.3 U	4.3 U	230	4 U	3700
BENZO(A)PYRENE	15	440	9.3 U	4.3 U	220	4 U	4000

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-121-18-20	GSP-SB-122-0-2	GSP-SB-122-6-8	GSP-SB-122-20-22	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2
LABORATORY ID:	240-635-18	240-635-22	240-635-23	240-635-24	240-820-4	240-820-5	240-820-7
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-121	GSP-SB-122	GSP-SB-122	GSP-SB-122	GSP-SB-123	GSP-SB-123	GSP-SB-124
BENZO(B)FLUORANTHENE	19	460	9.3 U	4.3 U	270	4 U	4000
BENZO(G,H,I)PERYLENE	11	300	9.3 U	4.3 U	120	4 U	2500
BENZO(K)FLUORANTHENE	8.6	230	9.3 U	4.3 U	150	4 U	1100
BIS(2-CHLOROETHOXY)METHANE	27 U	24 U	62 U	28 U	24 U	27 U	480 U
BIS(2-CHLOROETHYL)ETHER	2.4 U	2.2 U	5.6 U	2.6 U	2.2 U	2.5 U	44 U
BIS(2-ETHYLHEXYL)PHTHALATE	27 B	22 B	100 J	46 J	24 J	23 U	420 U
BUTYL BENZYL PHTHALATE	12 U	11 U	28 U	13 U	11 U	12 U	220 UJ
CAPROLACTAM	45 UL	40 UL	100 U	48 U	41 U	45 U	810 U
CARBAZOLE	33 U	29 U	76 U	35 U	30 J	33 U	590 U
CHRYSENE	18	380	3.1 U	1.4 U	230	1.3 U	4200
DIBENZO(A,H)ANTHRACENE	4 U	130	9.3 U	4.3 U	42	4 U	780
DIBENZOFURAN	4 U	3.6 U	9.3 U	4.3 U	3.6 U	4 U	72 U
DIETHYL PHTHALATE	19 U	17 U	45 U	21 U	18 U	20 U	350 U
DIMETHYL PHTHALATE	21 U	18 U	48 U	22 U	19 U	21 U	370 U
DI-N-BUTYL PHTHALATE	18 U	17 J	42 U	20 J	16 UJ	18 U	330 U
DI-N-OCTYL PHTHALATE	33 U	29 U	76 U	35 U	30 U	33 U	590 U
FLUORANTHENE	43	600	9.3 U	7.2 J	470	4 U	5000
FLUORENE	4 U	29	9.3 U	4.3 U	23	4 U	450
HEXACHLOROBENZENE	2.6 U	2.3 U	5.9 U	2.7 U	2.3 U	2.6 U	46 U
HEXACHLOROBUTADIENE	33 U	29 U	76 U	35 U	30 U	33 U	590 U
HEXACHLOROCYCLOPENTADIENE	33 U	29 U	76 U	35 U	30 UR	33 U	590 U
HEXACHLOROETHANE	11 U	9.7 U	25 U	12 U	9.9 U	11 U	200 U
INDENO(1,2,3-CD)PYRENE	9.7	250	9.3 U	4.3 U	110	4 U	1900
ISOPHORONE	16 U	14 U	37 U	17 U	14 U	16 U	280 U
NAPHTHALENE	4 U	36	9.3 U	4.3 U	3.6 U	4 U	400
NITROBENZENE	2.7 U	2.4 U	6.2 U	2.8 U	2.4 U	2.7 U	48 U
N-NITROSODIMETHYLAMINE	19 U	17 U	45 U	21 U	18 U	20 U	350 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-121-18-20	GSP-SB-122-0-2	GSP-SB-122-6-8	GSP-SB-122-20-22	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2
LABORATORY ID:	240-635-18	240-635-22	240-635-23	240-635-24	240-820-4	240-820-5	240-820-7
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-121	GSP-SB-122	GSP-SB-122	GSP-SB-122	GSP-SB-123	GSP-SB-123	GSP-SB-124
N-NITROSO-DI-N-PROPYLAMINE	33 U	29 U	76 U	35 U	30 U	33 U	590 U
N-NITROSODIPHENYLAMINE	26 U	23 U	59 U	27 U	23 U	26 U	460 U
PENTACHLOROPHENOL	97 U	86 U	230 U	100 U	88 UR	98 U	1800 U
PHENANTHRENE	32	240	9.3 U	4.3 U	230	4 U	3500
PHENOL	33 U	29 U	76 U	35 U	30 U	33 U	590 U
PYRENE	33	650	9.3 U	6.4 J	410	4 U	7800
INORGANICS (mg/kg)							
ANTIMONY		0.34 UL	0.4 UL		0.42 J	0.47 U	1.1 J
ARSENIC		3.2	2.6		3.2	1.1 J	4.1
BARIUM		26	13 J		30	4.1 J	72
BERYLLIUM		0.19 J	0.045 U		0.24 J	0.052 U	0.37 J
CADMIUM		0.032 U	0.037 U		0.037 U	0.044 U	0.038 U
CHROMIUM		12	7.3		14	3.6	13
COBALT		3.2	3.1		2.4	0.19 U	3.8
COPPER		19	5.7		8.8	1.4 J	12
LEAD		14	3.1		15	1.1 B	34
MERCURY		0.045 J	0.013 U		0.053 J	0.015 U	0.014 U
MOLYBDENUM		0.24 U	0.28 U		0.31 B	0.63 B	0.31 B
NICKEL		5.1	2.7 J		4.4	0.33 U	5.2
SELENIUM		0.46 J	0.47 U		0.46 U	0.55 U	0.61 J
SILVER		0.088 U	0.1 U		0.1 U	0.12 U	0.11 U
THALLIUM		0.48 U	0.57 U		0.56 U	0.67 U	0.58 U
VANADIUM		20	15		21	15	23
ZINC		29	9.6 K		29	3.2 J	41
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016		450 U	24 U		120 U	26 U	23 U
AROCLOR-1221		340 U	18 U		88 U	20 U	18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-121-18-20	GSP-SB-122-0-2	GSP-SB-122-6-8	GSP-SB-122-20-22	GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2
LABORATORY ID:	240-635-18	240-635-22	240-635-23	240-635-24	240-820-4	240-820-5	240-820-7
SAMPLE DATE:	5/31/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-121	GSP-SB-122	GSP-SB-122	GSP-SB-122	GSP-SB-123	GSP-SB-123	GSP-SB-124
AROCLOR-1232		300 U	16 U		77 U	17 U	15 U
AROCLOR-1242		280 U	15 U		72 U	16 U	14 U
AROCLOR-1248		360 U	19 U		94 U	21 U	19 U
AROCLOR-1254		360 U	19 U		94 U	21 U	19 U
AROCLOR-1260		3400	19 J		640	21 U	24 J
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	14 J	150	14 J	16 J B	42	11 U	890
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	31 U	27 U	28 U	32 U	28 U	31 U	28 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-124-6-8	GSP-SB-125-0-2	GSP-SB-125-6-8	GSP-SB-126-0-2	GSP-SB-126-8-10	GSP-SB-126-20-22	GSP-SB-127-0-2
LABORATORY ID:	240-820-8	240-775-8	240-775-9	240-820-10	240-820-11	240-820-12	240-820-13
SAMPLE DATE:	6/6/2011	6/3/2011	6/3/2011	6/6/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-124	GSP-SB-125	GSP-SB-125	GSP-SB-126	GSP-SB-126	GSP-SB-126	GSP-SB-127
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.56 U	0.72 U	0.74 U	0.62 U	0.6 U	0.64 U	0.55 U
1,1,1-TRICHLOROETHANE	0.51 U	0.65 U	0.67 U	0.56 U	0.54 U	0.58 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.31 U	0.4 U	0.41 U	0.34 U	0.33 U	0.35 U	0.3 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.2 U	1.5 U	1.6 U	1.3 U	1.3 U	1.3 U	1.2 U
1,1-DICHLOROETHANE	0.33 U	0.42 U	0.43 U	0.36 U	0.35 U	0.37 U	0.32 U
1,1-DICHLOROETHENE	0.47 U	0.61 U	0.62 U	0.52 U	0.5 U	0.54 U	0.46 U
1,1-DICHLOROPROPENE	0.27 U	0.35 U	0.36 U	0.3 U	0.29 U	0.31 U	0.27 U
1,2,3-TRICHLOROBENZENE	0.35 U	0.44 U	0.45 U	0.38 U	0.37 U	0.39 U	0.34 U
1,2,3-TRICHLOROPROPANE	0.82 U	1 U	1.1 U	0.9 U	0.87 U	0.93 U	0.8 U
1,2,3-TRIMETHYLBENZENE	0.15 U	0.2 U	0.2 U	0.17 U	0.16 U	0.18 U	0.15 U
1,2,4-TRICHLOROBENZENE	0.25 U	0.31 U	0.32 U	0.27 U	0.26 U	0.28 U	0.24 U
1,2,4-TRIMETHYLBENZENE	0.59 U	0.76 U	0.78 U	0.65 U	0.63 U	0.67 U	0.58 U
1,2-DIBROMO-3-CHLOROPROPANE	1.2 U	1.5 U	1.6 U	1.3 U	1.3 U	1.3 U	1.2 U
1,2-DIBROMOETHANE	0.46 U	0.58 U	0.6 U	0.5 U	0.48 U	0.52 U	0.44 U
1,2-DICHLOROBENZENE	0.33 U	0.42 U	0.43 U	0.36 U	0.35 U	0.37 U	0.32 U
1,2-DICHLOROETHANE	0.31 U	0.4 U	0.41 U	0.34 U	0.33 U	0.35 U	0.3 U
1,2-DICHLOROPROPANE	0.63 U	0.8 U	0.83 U	0.69 U	0.67 U	0.72 U	0.61 U
1,3-DICHLOROBENZENE	0.32 U	0.41 U	0.42 U	0.35 U	0.34 U	0.36 U	0.31 U
1,3-DICHLOROPROPANE	0.31 U	0.4 U	0.41 U	0.34 U	0.33 U	0.35 U	0.3 U
1,4-DICHLOROBENZENE	0.6 U	0.77 U	0.79 U	0.66 U	0.64 U	0.68 U	0.59 U
2,2-DICHLOROPROPANE	0.86 U	1.1 U	1.1 U	0.93 U	0.91 U	0.97 U	0.83 U
2-BUTANONE	1.3 U	4.7 B	1.7 U	1.4 U	1.4 U	1.5 U	1.2 U
2-CHLOROETHYL VINYL ETHER	1.3 UR	1.6 U	1.7 U	1.4 UR	1.4 UR	1.5 UR	1.2 UR
2-CHLOROTOLUENE	0.36 U	0.47 U	0.48 U	0.4 U	0.39 U	0.41 U	0.36 U
2-HEXANONE	0.57 U	0.73 U	0.75 U	0.63 U	0.61 U	0.65 U	0.56 U
4-CHLOROTOLUENE	0.37 U	0.48 U	0.49 U	0.41 U	0.4 U	0.42 U	0.36 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-124-6-8	GSP-SB-125-0-2	GSP-SB-125-6-8	GSP-SB-126-0-2	GSP-SB-126-8-10	GSP-SB-126-20-22	GSP-SB-127-0-2
LABORATORY ID:	240-820-8	240-775-8	240-775-9	240-820-10	240-820-11	240-820-12	240-820-13
SAMPLE DATE:	6/6/2011	6/3/2011	6/3/2011	6/6/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-124	GSP-SB-125	GSP-SB-125	GSP-SB-126	GSP-SB-126	GSP-SB-126	GSP-SB-127
4-ISOPROPYLTOLUENE	0.19 U	0.24 U	0.25 U	0.21 U	0.2 U	0.22 U	0.19 U
4-METHYL-2-PENTANONE	0.49 U	0.63 U	0.65 U	0.54 U	0.52 U	0.56 U	0.48 U
ACETONE	5.7 U	28 B	18 B	6.3 U	22 B	6.5 U	5.6 U
BENZENE	0.21 U	0.27 U	0.28 U	0.23 U	0.22 U	0.24 U	0.2 U
BROMOBENZENE	0.3 U	0.38 U	0.39 U	0.33 U	0.32 U	0.34 U	0.29 U
BROMOCHLOROMETHANE	0.65 U	0.83 U	0.85 U	0.71 U	0.69 U	0.74 U	0.63 U
BROMODICHLOROMETHANE	0.26 U	0.33 U	0.33 U	0.28 U	0.27 U	0.29 U	0.25 U
BROMOFORM	0.3 U	0.38 U	0.39 U	0.33 U	0.32 U	0.34 U	0.29 U
BROMOMETHANE	0.49 U	0.63 U	0.65 U	0.54 U	0.52 U	0.56 U	0.48 U
CARBON DISULFIDE	0.4 U	0.51 U	0.53 U	0.44 U	0.42 U	0.46 U	0.39 U
CARBON TETRACHLORIDE	0.34 U	0.43 U	0.44 U	0.37 U	0.36 U	0.38 U	0.33 U
CHLOROBENZENE	0.3 U	0.38 U	0.39 U	0.33 U	0.32 U	0.34 U	0.29 U
CHLORODIBROMOMETHANE	0.5 U	0.64 U	0.66 U	0.55 U	0.53 U	0.57 U	0.49 U
CHLOROETHANE	0.78 U	1 UJ	1 UJ	0.86 U	0.83 U	0.89 U	0.76 U
CHLOROFORM	0.26 U	0.34 U	0.35 U	0.29 U	0.28 U	0.3 U	0.26 U
CHLOROMETHANE	0.37 U	0.48 U	0.49 U	0.41 U	0.4 U	0.42 U	0.36 U
CIS-1,2-DICHLOROETHENE	0.33 U	0.42 U	0.43 U	0.36 U	0.35 U	0.37 U	0.32 U
CIS-1,3-DICHLOROPROPENE	0.31 U	0.4 U	0.41 U	0.34 U	0.33 U	0.35 U	0.3 U
DIBROMOMETHANE	0.57 U	0.73 U	0.75 U	0.63 U	0.61 U	0.65 U	0.56 U
DICHLORODIFLUOROMETHANE	0.46 U	0.58 U	0.6 U	0.5 U	0.48 U	0.52 U	0.44 U
DIISOPROPYL ETHER	1.4 U	1.7 U	1.8 U	1.5 U	1.4 U	1.6 U	1.3 U
ETHYL TERT-BUTYL ETHER	0.2 U	0.26 U	0.26 U	0.22 U	0.21 U	0.23 U	0.2 U
ETHYLBENZENE	0.24 U	0.3 U	0.31 U	0.26 U	0.25 U	0.27 U	0.23 U
HEXACHLOROBUTADIENE	1.1 U	1.4 U	1.4 U	1.2 U	1.2 U	1.2 U	1.1 U
ISOPROPYLBENZENE	0.15 U	0.19 U	0.19 U	0.16 U	0.15 U	0.17 U	0.14 U
M+P-XYLENES	1.1 U	1.4 U	1.4 U	1.2 U	1.2 U	1.2 U	1.1 U
METHYL TERT-BUTYL ETHER	0.39 U	0.5 U	0.51 U	0.43 U	0.42 U	0.45 U	0.38 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-124-6-8	GSP-SB-125-0-2	GSP-SB-125-6-8	GSP-SB-126-0-2	GSP-SB-126-8-10	GSP-SB-126-20-22	GSP-SB-127-0-2
LABORATORY ID:	240-820-8	240-775-8	240-775-9	240-820-10	240-820-11	240-820-12	240-820-13
SAMPLE DATE:	6/6/2011	6/3/2011	6/3/2011	6/6/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-124	GSP-SB-125	GSP-SB-125	GSP-SB-126	GSP-SB-126	GSP-SB-126	GSP-SB-127
METHYLENE CHLORIDE	0.61 U	4.1 B	4.4 B	0.67 U	0.65 U	0.69 U	0.59 U
NAPHTHALENE	0.17 U	0.22 U	0.23 U	0.19 U	0.18 U	0.2 U	0.17 U
N-BUTYLBENZENE	0.21 U	0.27 U	0.28 U	0.23 U	0.22 U	0.24 U	0.2 U
N-PROPYLBENZENE	0.36 U	0.47 U	0.48 U	0.4 U	0.39 U	0.41 U	0.36 U
O-XYLENE	0.32 U	0.41 U	0.42 U	0.35 U	0.34 U	0.36 U	0.31 U
SEC-BUTYLBENZENE	0.16 U	0.21 U	0.22 U	0.18 U	0.17 U	0.19 U	0.16 U
STYRENE	0.14 U	0.17 U	0.18 U	0.15 U	0.14 U	0.16 U	0.13 U
TERT-AMYL METHYL ETHER	0.34 U	0.43 U	0.44 U	0.37 U	0.36 U	0.38 U	0.33 U
TERT-BUTYLBENZENE	0.26 U	0.34 U	0.35 U	0.29 U	0.28 U	0.3 U	0.26 U
TERTIARY-BUTYL ALCOHOL	6.9 UR	8.9 UR	9.1 UR	7.6 UR	7.3 UR	7.9 UR	6.7 UR
TETRACHLOROETHENE	0.47 U	0.61 U	0.62 U	0.52 U	0.5 U	0.54 U	0.46 U
TOLUENE	0.25 U	0.31 U	0.33 J	0.27 U	0.26 U	0.28 U	0.24 U
TOTAL XYLENES	0.61 U	0.78 U	0.8 U	0.67 U	0.65 U	0.69 U	0.59 U
TRANS-1,2-DICHLOROETHENE	0.37 U	0.48 U	0.49 U	0.41 U	0.4 U	0.42 U	0.36 U
TRANS-1,3-DICHLOROPROPENE	0.49 U	0.63 U	0.65 U	0.54 U	0.52 U	0.56 U	0.48 U
TRICHLOROETHENE	19 J	0.49 U	0.5 U	0.42 U	0.81 J	10 J	0.37 U
TRICHLOROFLUOROMETHANE	0.31 U	0.4 U	0.41 U	0.34 U	0.33 U	0.35 U	0.3 U
VINYL ACETATE	0.23 UR	0.29 UR	0.3 UR	0.25 UR	0.24 UR	0.26 UR	0.22 UR
VINYL CHLORIDE	0.36 U	0.45 U	0.47 U	0.39 U	0.38 U	0.4 U	0.35 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	32 UJ	35 U	33 U	30 UJ	32 UJ	35 U	31 UJ
1,4-DIOXANE	26 U	29 U	27 U	24 U	26 U	29 U	25 U
2,2'-OXYBIS(1-CHLOROPROPANE)	11 U	12 U	12 U	10 U	11 U	12 U	11 U
2,4,5-TRICHLOROPHENOL	30 U	33 U	31 U	28 U	30 U	33 U	28 U
2,4,6-TRICHLOROPHENOL	96 U	100 U	98 U	88 U	95 U	100 U	91 U
2,4-DICHLOROPHENOL	24 U	26 U	25 U	22 U	24 U	26 U	23 U
2,4-DIMETHYLPHENOL	24 U	26 U	25 U	22 U	24 U	26 U	23 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-124-6-8	GSP-SB-125-0-2	GSP-SB-125-6-8	GSP-SB-126-0-2	GSP-SB-126-8-10	GSP-SB-126-20-22	GSP-SB-127-0-2
LABORATORY ID:	240-820-8	240-775-8	240-775-9	240-820-10	240-820-11	240-820-12	240-820-13
SAMPLE DATE:	6/6/2011	6/3/2011	6/3/2011	6/6/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-124	GSP-SB-125	GSP-SB-125	GSP-SB-126	GSP-SB-126	GSP-SB-126	GSP-SB-127
2,4-DINITROPHENOL	96 U	100 U	98 U	88 U	95 U	100 U	91 U
2,4-DINITROTOLUENE	32 U	35 U	33 U	30 U	32 U	35 U	31 U
2,6-DINITROTOLUENE	25 U	27 U	26 U	23 U	25 U	27 U	24 U
2-CHLORONAPHTHALENE	4 U	4.3 U	4.1 U	3.6 U	3.9 U	4.3 U	3.7 U
2-CHLOROPHENOL	32 U	35 U	33 U	30 U	32 U	35 U	31 U
2-METHYLNAPHTHALENE	4 U	16	4.1 U	3.6 U	3.9 U	4.3 U	3.7 U
2-METHYLPHENOL	96 U	100 U	98 U	88 U	95 U	100 U	91 U
2-NITROANILINE	11 U	12 U	11 U	10 U	11 U	12 U	10 U
2-NITROPHENOL	32 U	35 U	33 U	30 U	32 U	35 U	31 U
3&4-METHYLPHENOL	24 U	26 U	25 U	22 U	24 U	26 U	23 U
3,3'-DICHLOROBENZIDINE	22 U	24 U	22 U	20 U	21 U	23 U	20 U
3-NITROANILINE	19 U	21 U	20 U	18 U	19 U	21 U	18 U
4,6-DINITRO-2-METHYLPHENOL	96 U	100 U	98 U	88 U	95 U	100 U	91 U
4-BROMOPHENYL PHENYL ETHER	16 U	17 U	16 U	14 U	15 U	17 U	15 U
4-CHLORO-3-METHYLPHENOL	25 U	27 U	26 U	23 U	25 U	27 U	24 U
4-CHLOROANILINE	20 U	22 U	21 U	19 U	20 U	22 U	19 U
4-CHLOROPHENYL PHENYL ETHER	16 U	17 U	16 U	14 U	15 U	17 U	15 U
4-NITROANILINE	31 U	34 U	32 U	29 U	31 U	34 U	30 U
4-NITROPHENOL	96 U	100 U	98 U	88 U	95 U	100 U	91 U
ACENAPHTHENE	4 U	31	4.1 U	3.6 U	3.9 U	4.3 U	3.7 U
ACENAPHTHYLENE	4 U	17	4.1 U	3.6 U	3.9 U	4.3 U	3.7 U
ACETOPHENONE	11 UJ	12 U	11 U	10 UJ	11 UJ	12 U	10 UJ
ANTHRACENE	4 U	110	4.1 U	10	3.9 U	4.3 U	20
ATRAZINE	11 U	12 U	11 U	10 U	11 U	12 U	10 U
BENZALDEHYDE	14 U	16 U	15 U	13 U	14 U	16 U	14 U
BENZO(A)ANTHRACENE	4 U	510	4.1 U	42	3.9 U	4.3 U	62
BENZO(A)PYRENE	4 U	600	4.1 U	41	3.9 U	4.3 U	55

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-124-6-8	GSP-SB-125-0-2	GSP-SB-125-6-8	GSP-SB-126-0-2	GSP-SB-126-8-10	GSP-SB-126-20-22	GSP-SB-127-0-2
LABORATORY ID:	240-820-8	240-775-8	240-775-9	240-820-10	240-820-11	240-820-12	240-820-13
SAMPLE DATE:	6/6/2011	6/3/2011	6/3/2011	6/6/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-124	GSP-SB-125	GSP-SB-125	GSP-SB-126	GSP-SB-126	GSP-SB-126	GSP-SB-127
BENZO(B)FLUORANTHENE	4 U	530	4.1 U	50	3.9 U	4.3 U	72
BENZO(G,H,I)PERYLENE	4 U	320	4.1 U	31	3.9 U	4.3 U	38
BENZO(K)FLUORANTHENE	4 U	330	4.1 U	30	3.9 U	4.3 U	31
BIS(2-CHLOROETHOXY)METHANE	26 U	29 U	27 U	24 U	26 U	29 U	25 U
BIS(2-CHLOROETHYL)ETHER	2.4 U	2.6 U	2.5 U	2.2 U	2.4 U	2.6 U	2.3 U
BIS(2-ETHYLHEXYL)PHTHALATE	23 U	25 U	23 U	21 U	23 U	25 U	22 U
BUTYL BENZYL PHTHALATE	12 UJ	13 U	12 U	11 UJ	12 UJ	13 U	11 UJ
CAPROLACTAM	44 U	48 U	45 U	41 U	44 U	48 U	42 U
CARBAZOLE	32 U	35 U	33 U	30 U	32 U	35 U	31 U
CHRYSENE	1.3 U	520	1.4 U	45	1.3 U	1.4 U	57
DIBENZO(A,H)ANTHRACENE	4 U	4.3 U	4.1 U	7.5	3.9 U	4.3 U	10
DIBENZOFURAN	4 U	4.3 U	4.1 U	3.6 U	3.9 U	4.3 U	3.7 U
DIETHYL PHTHALATE	19 U	21 U	20 U	18 U	19 U	21 U	18 U
DIMETHYL PHTHALATE	20 U	22 U	21 U	19 U	20 U	22 U	19 U
DI-N-BUTYL PHTHALATE	18 U	20 U	18 U	17 U	18 U	20 U	17 U
DI-N-OCTYL PHTHALATE	32 U	35 U	33 U	30 U	32 U	35 U	31 U
FLUORANTHENE	4 U	1000	4.1 U	88	3.9 U	4.3 U	130
FLUORENE	4 U	37	4.1 U	3.6 U	3.9 U	4.3 U	3.7 U
HEXACHLOROBENZENE	2.5 U	2.7 U	2.6 U	2.3 U	2.5 U	2.7 U	2.4 U
HEXACHLOROBUTADIENE	32 U	35 U	33 U	30 U	32 U	35 U	31 U
HEXACHLOROCYCLOPENTADIENE	32 U	35 U	33 U	30 U	32 U	35 U	31 U
HEXACHLOROETHANE	11 U	12 U	11 U	9.9 U	11 U	12 U	10 U
INDENO(1,2,3-CD)PYRENE	4 U	300	4.1 U	26	3.9 U	4.3 U	32
ISOPHORONE	16 U	17 U	16 U	14 U	15 U	17 U	15 U
NAPHTHALENE	4 U	16	4.1 U	3.6 U	3.9 U	4.3 U	3.7 U
NITROBENZENE	2.6 U	2.9 U	2.7 U	2.4 U	2.6 U	2.9 U	2.5 U
N-NITROSODIMETHYLAMINE	19 U	21 U	20 U	18 U	19 U	21 U	18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-124-6-8	GSP-SB-125-0-2	GSP-SB-125-6-8	GSP-SB-126-0-2	GSP-SB-126-8-10	GSP-SB-126-20-22	GSP-SB-127-0-2
LABORATORY ID:	240-820-8	240-775-8	240-775-9	240-820-10	240-820-11	240-820-12	240-820-13
SAMPLE DATE:	6/6/2011	6/3/2011	6/3/2011	6/6/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-124	GSP-SB-125	GSP-SB-125	GSP-SB-126	GSP-SB-126	GSP-SB-126	GSP-SB-127
N-NITROSO-DI-N-PROPYLAMINE	32 U	35 U	33 U	30 U	32 U	35 U	31 U
N-NITROSODIPHENYLAMINE	25 U	27 U	26 U	23 U	25 U	27 U	24 U
PENTACHLOROPHENOL	96 U	100 U	98 U	88 U	95 U	100 U	91 U
PHENANTHRENE	4 U	400	4.1 U	43	3.9 U	4.3 U	68
PHENOL	32 U	35 U	33 U	30 U	32 U	35 U	31 U
PYRENE	4 U	900	4.1 U	73	3.9 U	4.3 U	99
INORGANICS (mg/kg)							
ANTIMONY	0.44 U	1.2 B	0.47 U	0.4 U	0.42 U		0.39 U
ARSENIC	1.7	3.9	1.8	4.5	0.65 J		1.9
BARIUM	8.1 J	33	8.6 J	20 J	3.1 J		20
BERYLLIUM	0.049 U	0.28 J	0.052 U	0.081 J	0.046 U		0.088 J
CADMIUM	0.041 U	0.046 U	0.044 U	0.037 U	0.038 U		0.036 U
CHROMIUM	10	16	8.4	11	5.8		6.7
COBALT	0.34 J	3.9	1.9	1.1	0.42 J		0.88 J
COPPER	4.5 K	20	3.3	7.2	1.2 J		4 K
LEAD	3.1	41	14	5.7	1.5 K		7.9
MERCURY	0.018 U	0.085 J	0.027 J	0.016 U	0.016 U		0.017 U
MOLYBDENUM	0.31 U	0.5 B	0.33 U	0.28 U	0.48 B		0.47 B
NICKEL	0.62 J	6.6	3.1 J	2.4 J	0.36 J		2 J
SELENIUM	0.51 U	0.66 J	0.55 U	0.46 U	0.48 U		0.45 U
SILVER	0.11 U	0.13 U	0.12 U	0.1 U	0.11 U		0.1 U
THALLIUM	0.63 U	0.7 U	0.67 U	0.57 U	0.59 U		0.55 U
VANADIUM	27	24	9.5	16	10		13
ZINC	2.9 J	50	11	15	1.9 J		29
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016	25 U	27 U	26 U	23 U	25 U		24 U
AROCLOR-1221	19 U	21 U	20 U	18 U	19 U		18 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-124-6-8	GSP-SB-125-0-2	GSP-SB-125-6-8	GSP-SB-126-0-2	GSP-SB-126-8-10	GSP-SB-126-20-22	GSP-SB-127-0-2
LABORATORY ID:	240-820-8	240-775-8	240-775-9	240-820-10	240-820-11	240-820-12	240-820-13
SAMPLE DATE:	6/6/2011	6/3/2011	6/3/2011	6/6/2011	6/6/2011	6/6/2011	6/6/2011
LOCATION:	GSP-SB-124	GSP-SB-125	GSP-SB-125	GSP-SB-126	GSP-SB-126	GSP-SB-126	GSP-SB-127
AROCLOR-1232	17 U	18 U	17 U	15 U	17 U		16 U
AROCLOR-1242	16 U	17 U	16 U	14 U	15 U		15 U
AROCLOR-1248	21 U	22 U	21 U	19 U	20 U		19 U
AROCLOR-1254	21 U	22 U	21 U	19 U	20 U		19 U
AROCLOR-1260	21 U	22 U	21 U	19 U	20 U		62
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	11 U	410	11 J	10 U	11 U	12 U	10 U
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	30 U	33 U	31 U	28 U	30 U	33 U	28 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-127-6-8	GSP-SB-128-0-2	GSP-SB-128-6-8	GSP-SB-129-0-2	GSP-SB-129-6-8	GSP-SB-129-20-22	GSP-SB-130-0-2
LABORATORY ID:	240-820-14	240-820-1	240-820-2	240-635-25	240-635-26	240-635-27	240-820-16
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011
LOCATION:	GSP-SB-127	GSP-SB-128	GSP-SB-128	GSP-SB-129	GSP-SB-129	GSP-SB-129	GSP-SB-130
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.67 U	0.66 U	0.65 U	0.68 U	0.59 U	0.59 U	0.67 U
1,1,1-TRICHLOROETHANE	0.61 U	0.6 U	0.59 U	0.62 U	0.53 U	0.53 U	0.6 U
1,1,2,2-TETRACHLOROETHANE	0.37 U	0.36 U	0.36 U	0.37 U	0.32 U	0.32 U	0.37 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.4 U	1.4 U	1.4 U	1.4 U	1.2 U	1.2 U	1.4 U
1,1-DICHLOROETHANE	0.39 U	0.38 U	0.38 U	0.4 U	0.34 U	0.34 U	0.39 U
1,1-DICHLOROETHENE	0.57 U	0.55 U	0.55 U	0.57 U	0.49 U	0.49 U	0.56 U
1,1-DICHLOROPROPENE	0.33 U	0.32 U	0.31 U	0.33 U	0.28 U	0.29 U	0.32 U
1,2,3-TRICHLOROBENZENE	0.41 U	0.4 U	0.4 U	0.42 U	0.36 U	0.36 U	0.41 U
1,2,3-TRICHLOROPROPANE	0.98 U	0.96 U	0.94 U	0.99 U	0.85 U	0.86 U	0.97 U
1,2,3-TRIMETHYLBENZENE	0.18 U	0.18 U	0.18 U	0.19 U	0.16 U	0.16 U	0.18 U
1,2,4-TRICHLOROBENZENE	0.29 U	0.29 U	0.28 U	0.3 U	0.26 U	0.26 U	0.29 U
1,2,4-TRIMETHYLBENZENE	0.71 U	0.69 U	0.68 U	0.71 U	0.62 U	0.62 U	0.7 U
1,2-DIBROMO-3-CHLOROPROPANE	1.4 U	1.4 U	1.4 U	1.4 U	1.2 U	1.2 U	1.4 U
1,2-DIBROMOETHANE	0.54 U	0.53 U	0.52 U	0.55 U	0.47 U	0.48 U	0.54 U
1,2-DICHLOROBENZENE	0.39 U	0.38 U	0.38 U	0.4 U	0.34 U	0.34 U	0.39 U
1,2-DICHLOROETHANE	0.37 U	0.36 U	0.36 U	0.37 U	0.32 U	0.32 U	0.37 U
1,2-DICHLOROPROPANE	0.75 U	0.74 U	0.72 U	0.76 U	0.65 U	0.66 U	0.74 U
1,3-DICHLOROBENZENE	0.38 U	0.37 U	0.37 U	0.38 U	0.33 U	0.33 U	0.38 U
1,3-DICHLOROPROPANE	0.37 U	0.36 U	0.36 U	0.37 U	0.32 U	0.32 U	0.37 U
1,4-DICHLOROBENZENE	0.72 U	0.7 U	0.69 U	0.73 U	0.63 U	0.63 U	0.71 U
2,2-DICHLOROPROPANE	1 U	1 U	0.99 U	1 U	0.89 U	0.89 U	1 U
2-BUTANONE	1.5 U	1.5 U	1.5 U	1.5 U	1.3 U	1.3 U	1.5 U
2-CHLOROETHYL VINYL ETHER	1.5 UR	1.5 U	1.5 U	1.5 U	1.3 U	1.3 U	1.5 UR
2-CHLOROTOLUENE	0.43 U	0.43 U	0.42 U	0.44 U	0.38 U	0.38 U	0.43 U
2-HEXANONE	0.68 U	0.67 U	0.66 U	0.69 U	0.6 U	0.6 U	0.68 U
4-CHLOROTOLUENE	0.45 U	0.44 U	0.43 U	0.45 U	0.39 U	0.39 U	0.44 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-127-6-8	GSP-SB-128-0-2	GSP-SB-128-6-8	GSP-SB-129-0-2	GSP-SB-129-6-8	GSP-SB-129-20-22	GSP-SB-130-0-2
LABORATORY ID:	240-820-14	240-820-1	240-820-2	240-635-25	240-635-26	240-635-27	240-820-16
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011
LOCATION:	GSP-SB-127	GSP-SB-128	GSP-SB-128	GSP-SB-129	GSP-SB-129	GSP-SB-129	GSP-SB-130
4-ISOPROPYLTOLUENE	0.23 U	0.22 U	0.22 U	0.23 U	0.2 U	0.2 U	0.23 U
4-METHYL-2-PENTANONE	0.59 U	0.58 U	0.57 U	0.59 U	0.51 U	0.51 U	0.58 U
ACETONE	6.8 U	6.7 U	46 B	6.9 U	6.5 B	7.2 B	6.8 U
BENZENE	0.25 U	0.25 U	0.24 U	0.25 U	0.22 U	0.22 U	0.25 U
BROMOBENZENE	0.36 U	0.35 U	0.35 U	0.36 U	0.31 U	0.31 U	0.36 U
BROMOCHLOROMETHANE	0.77 U	0.76 U	0.74 U	0.78 U	0.67 U	0.67 U	0.76 U
BROMODICHLOROMETHANE	0.3 U	0.3 U	0.29 U	0.31 U	0.27 U	0.27 U	0.3 U
BROMOFORM	0.36 U	0.35 U	0.35 U	0.36 U	0.31 U	0.31 U	0.36 U
BROMOMETHANE	0.59 U	0.58 U	0.57 U	0.59 U	0.51 U	0.51 U	0.58 U
CARBON DISULFIDE	0.48 U	0.47 U	0.46 U	0.48 U	0.42 U	0.42 U	0.47 U
CARBON TETRACHLORIDE	0.4 U	0.39 U	0.39 U	0.41 U	0.35 U	0.35 U	0.4 U
CHLOROBENZENE	0.36 U	0.35 U	0.35 U	0.36 U	0.31 U	0.31 U	0.36 U
CHLORODIBROMOMETHANE	0.6 U	0.59 U	0.58 U	0.6 U	0.52 U	0.52 U	0.59 U
CHLOROETHANE	0.94 U	0.92 UJ	0.9 UJ	0.95 U	0.82 U	0.82 U	0.93 U
CHLOROFORM	0.32 U	0.31 U	0.3 U	0.32 U	0.27 U	0.28 U	0.31 U
CHLOROMETHANE	0.45 U	0.44 U	0.43 U	0.45 U	0.39 U	0.39 U	0.44 U
CIS-1,2-DICHLOROETHENE	0.39 U	0.38 U	0.38 U	0.4 U	0.34 U	0.34 U	0.39 U
CIS-1,3-DICHLOROPROPENE	0.37 U	0.36 U	0.36 U	0.37 U	0.32 U	0.32 U	0.37 U
DIBROMOMETHANE	0.68 U	0.67 U	0.66 U	0.69 U	0.6 U	0.6 U	0.68 U
DICHLORODIFLUOROMETHANE	0.54 U	0.53 U	0.52 U	0.55 U	0.47 U	0.48 U	0.54 U
DIISOPROPYL ETHER	1.6 U	1.6 U	1.6 U	1.6 U	1.4 U	1.4 U	1.6 U
ETHYL TERT-BUTYL ETHER	0.24 U	0.23 U	0.23 U	0.24 U	0.21 U	0.21 U	0.24 U
ETHYLBENZENE	0.28 U	0.28 U	0.27 U	0.29 U	0.25 U	0.25 U	0.28 U
HEXACHLOROBUTADIENE	1.3 U	1.3 U	1.3 U	1.3 U	1.1 U	1.1 U	1.3 U
ISOPROPYLBENZENE	0.17 U	0.17 U	0.17 U	0.18 U	0.15 U	0.15 U	0.17 U
M+P-XYLENES	1.3 U	1.3 U	1.3 U	1.3 U	1.1 U	1.1 U	1.3 U
METHYL TERT-BUTYL ETHER	0.47 U	0.46 U	0.45 U	0.47 U	0.41 U	0.41 U	0.46 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-127-6-8	GSP-SB-128-0-2	GSP-SB-128-6-8	GSP-SB-129-0-2	GSP-SB-129-6-8	GSP-SB-129-20-22	GSP-SB-130-0-2
LABORATORY ID:	240-820-14	240-820-1	240-820-2	240-635-25	240-635-26	240-635-27	240-820-16
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011
LOCATION:	GSP-SB-127	GSP-SB-128	GSP-SB-128	GSP-SB-129	GSP-SB-129	GSP-SB-129	GSP-SB-130
METHYLENE CHLORIDE	0.73 U	3.4 B	4.8 B	4.4 B	3.2 B	3.1 B	0.72 U
NAPHTHALENE	0.21 U	0.2 U	0.2 U	0.21 U	0.18 U	0.18 U	0.2 U
N-BUTYLBENZENE	0.25 U	0.25 U	0.24 U	0.25 U	0.22 U	0.22 U	0.25 U
N-PROPYLBENZENE	0.43 U	0.43 U	0.42 U	0.44 U	0.38 U	0.38 U	0.43 U
O-XYLENE	0.38 U	0.37 U	0.37 U	0.38 U	0.33 U	0.33 U	0.38 U
SEC-BUTYLBENZENE	0.2 U	0.19 U	0.19 U	0.2 U	0.17 U	0.17 U	0.19 U
STYRENE	0.16 U	0.16 U	0.16 U	0.16 U	0.14 U	0.14 U	0.16 U
TERT-AMYL METHYL ETHER	0.4 U	0.39 U	0.39 U	0.41 U	0.35 U	0.35 U	0.4 U
TERT-BUTYLBENZENE	0.32 U	0.31 U	0.3 U	0.32 U	0.27 U	0.28 U	0.31 U
TERTIARY-BUTYL ALCOHOL	8.3 UR	8.1 UR	8 UR	8.4 UR	7.2 UR	7.2 UR	8.2 UR
TETRACHLOROETHENE	0.57 U	0.55 U	0.55 U	0.57 U	0.49 U	0.49 U	0.56 U
TOLUENE	0.29 U	0.37 J	0.4 J	0.3 U	0.26 U	0.26 U	0.29 U
TOTAL XYLENES	0.73 U	0.71 U	0.7 U	0.74 U	0.63 U	0.64 U	0.72 U
TRANS-1,2-DICHLOROETHENE	0.45 U	0.44 U	0.43 U	0.45 U	0.39 U	0.39 U	0.44 U
TRANS-1,3-DICHLOROPROPENE	0.59 U	0.58 U	0.57 U	0.59 U	0.51 U	0.51 U	0.58 U
TRICHLOROETHENE	0.46 U	0.45 U	0.44 U	0.46 U	0.4 U	0.4 U	0.45 U
TRICHLOROFLUOROMETHANE	0.37 U	0.36 U	0.36 U	0.37 U	0.32 U	0.32 U	0.37 U
VINYL ACETATE	0.27 UR	0.27 UR	0.26 UR	0.27 UR	0.24 UR	0.24 UR	0.27 UR
VINYL CHLORIDE	0.42 U	0.42 U	0.41 U	0.43 U	0.37 U	0.37 U	0.42 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	34 UJ	34 U	34 U	31 U	32 U	32 U	130 UJ
1,4-DIOXANE	28 U	27 U	28 U	25 U	26 U	26 U	100 U
2,2'-OXYBIS(1-CHLOROPROPANE)	12 U	12 U	12 U	11 U	11 U	11 U	44 U
2,4,5-TRICHLOROPHENOL	31 U	31 U	32 U	29 U	30 U	30 U	120 U
2,4,6-TRICHLOROPHENOL	100 U	99 U	100 U	92 U	95 U	96 U	370 U
2,4-DICHLOROPHENOL	25 U	25 U	25 U	23 U	24 U	24 U	93 U
2,4-DIMETHYLPHENOL	25 U	25 U	25 U	23 U	24 U	24 U	93 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-127-6-8	GSP-SB-128-0-2	GSP-SB-128-6-8	GSP-SB-129-0-2	GSP-SB-129-6-8	GSP-SB-129-20-22	GSP-SB-130-0-2
LABORATORY ID:	240-820-14	240-820-1	240-820-2	240-635-25	240-635-26	240-635-27	240-820-16
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011
LOCATION:	GSP-SB-127	GSP-SB-128	GSP-SB-128	GSP-SB-129	GSP-SB-129	GSP-SB-129	GSP-SB-130
2,4-DINITROPHENOL	100 U	99 U	100 U	92 U	95 U	96 U	370 U
2,4-DINITROTOLUENE	34 U	34 U	34 U	31 U	32 U	32 U	130 U
2,6-DINITROTOLUENE	26 U	26 U	27 U	24 U	25 U	25 U	98 U
2-CHLORONAPHTHALENE	4.1 U	4.1 U	4.2 U	3.8 U	3.9 U	4 U	15 U
2-CHLOROPHENOL	34 U	34 U	34 U	31 U	32 U	32 U	130 U
2-METHYLNAPHTHALENE	4.1 U	15	4.2 U	3.8 U	3.9 U	4 U	15 U
2-METHYLPHENOL	100 U	99 U	100 U	92 U	95 U	96 U	370 U
2-NITROANILINE	11 U	11 U	12 U	10 U	11 U	11 U	42 U
2-NITROPHENOL	34 U	34 U	34 U	31 U	32 U	32 U	130 U
3&4-METHYLPHENOL	25 U	25 U	25 U	23 U	24 U	24 U	93 U
3,3'-DICHLOROBENZIDINE	23 U	22 U	23 U	21 U	21 U	22 U	84 U
3-NITROANILINE	20 U	20 U	20 U	18 U	19 U	19 U	75 U
4,6-DINITRO-2-METHYLPHENOL	100 U	99 U	100 U	92 U	95 U	96 U	370 U
4-BROMOPHENYL PHENYL ETHER	16 U	16 U	17 U	15 U	15 U	16 U	61 U
4-CHLORO-3-METHYLPHENOL	26 U	26 U	27 U	24 U	25 U	25 U	98 U
4-CHLOROANILINE	21 U	21 U	22 U	19 U	20 U	20 U	79 U
4-CHLOROPHENYL PHENYL ETHER	16 U	16 U	17 U	15 U	15 U	16 U	61 U
4-NITROANILINE	33 U	32 U	33 U	30 U	31 U	31 U	120 U
4-NITROPHENOL	100 U	99 U	100 U	92 U	95 U	96 U	370 U
ACENAPHTHENE	4.1 U	24	4.2 U	3.8 U	3.9 U	4 U	15 U
ACENAPHTHYLENE	4.1 U	23	4.2 U	3.8 U	3.9 U	4 U	15 U
ACETOPHENONE	12 UJ	11 U	12 U	11 U	11 U	11 U	43 UJ
ANTHRACENE	4.1 U	86	4.2 U	10	3.9 U	4 U	34
ATRAZINE	11 U	11 U	12 U	10 U	11 U	11 U	42 U
BENZALDEHYDE	15 U	15 U	15 U	14 U	14 U	14 U	56 U
BENZO(A)ANTHRACENE	4.1 U	360	4.2 U	50	8	21	120
BENZO(A)PYRENE	4.1 U	310	4.2 U	44	5.9 J	10	120

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-127-6-8	GSP-SB-128-0-2	GSP-SB-128-6-8	GSP-SB-129-0-2	GSP-SB-129-6-8	GSP-SB-129-20-22	GSP-SB-130-0-2
LABORATORY ID:	240-820-14	240-820-1	240-820-2	240-635-25	240-635-26	240-635-27	240-820-16
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011
LOCATION:	GSP-SB-127	GSP-SB-128	GSP-SB-128	GSP-SB-129	GSP-SB-129	GSP-SB-129	GSP-SB-130
BENZO(B)FLUORANTHENE	4.1 U	330	4.2 U	60	8.3	16	140
BENZO(G,H,I)PERYLENE	4.1 U	180	4.2 U	26	3.9 U	4.4 J	77
BENZO(K)FLUORANTHENE	4.1 U	250	4.2 U	26	3.9 U	5.6 J	39
BIS(2-CHLOROETHOXY)METHANE	28 U	27 U	28 U	25 U	26 U	26 U	100 U
BIS(2-CHLOROETHYL)ETHER	2.5 U	2.5 U	2.5 U	2.3 U	2.4 U	2.4 U	9.3 U
BIS(2-ETHYLHEXYL)PHTHALATE	24 U	97	24 U	25 J	43 J	25 J	89 U
BUTYL BENZYL PHTHALATE	13 UJ	12 U	13 U	11 U	12 U	12 U	47 UJ
CAPROLACTAM	46 U	46 U	47 U	42 U	44 U	44 U	170 U
CARBAZOLE	34 U	45 J	34 U	31 U	32 U	32 U	130 U
CHRYSENE	1.4 U	360	1.4 U	55	7.8 J	17	130
DIBENZO(A,H)ANTHRACENE	4.1 U	40	4.2 U	6.3 J	3.9 U	4 U	20 J
DIBENZOFURAN	4.1 U	15 J	4.2 U	3.8 U	3.9 U	4 U	15 U
DIETHYL PHTHALATE	20 U	20 U	20 U	18 U	19 U	19 U	75 U
DIMETHYL PHTHALATE	21 U	21 U	22 U	19 U	20 U	20 U	79 U
DI-N-BUTYL PHTHALATE	19 U	19 U	19 U	17 U	18 U	27 J	70 U
DI-N-OCTYL PHTHALATE	34 U	34 U	34 U	31 U	32 U	32 U	130 U
FLUORANTHENE	4.1 U	730	4.2 U	110	15	49	210
FLUORENE	4.1 U	26	4.2 U	3.8 U	3.9 U	4 U	15 U
HEXACHLOROBENZENE	2.6 U	2.6 U	2.7 U	2.4 U	2.5 U	2.5 U	9.8 U
HEXACHLOROBUTADIENE	34 U	34 U	34 U	31 U	32 U	32 U	130 U
HEXACHLOROCYCLOPENTADIENE	34 U	34 U	34 U	31 U	32 U	32 U	130 U
HEXACHLOROETHANE	11 U	11 U	11 U	10 U	11 U	11 U	42 U
INDENO(1,2,3-CD)PYRENE	4.1 U	170	4.2 U	22	3.9 U	4.1 J	66
ISOPHORONE	16 U	16 U	17 U	15 U	15 U	16 U	61 U
NAPHTHALENE	4.1 U	14	4.2 U	3.8 U	3.9 U	4 U	15 U
NITROBENZENE	2.8 U	2.7 U	2.8 U	2.5 U	2.6 U	2.6 U	10 U
N-NITROSODIMETHYLAMINE	20 U	20 U	20 U	18 U	19 U	19 U	75 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-127-6-8	GSP-SB-128-0-2	GSP-SB-128-6-8	GSP-SB-129-0-2	GSP-SB-129-6-8	GSP-SB-129-20-22	GSP-SB-130-0-2
LABORATORY ID:	240-820-14	240-820-1	240-820-2	240-635-25	240-635-26	240-635-27	240-820-16
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011
LOCATION:	GSP-SB-127	GSP-SB-128	GSP-SB-128	GSP-SB-129	GSP-SB-129	GSP-SB-129	GSP-SB-130
N-NITROSO-DI-N-PROPYLAMINE	34 U	34 U	34 U	31 U	32 U	32 U	130 U
N-NITROSODIPHENYLAMINE	26 U	26 U	27 U	24 U	25 U	25 U	98 U
PENTACHLOROPHENOL	100 U	99 U	100 U	92 U	95 U	96 U	370 U
PHENANTHRENE	4.1 U	260	4.2 U	38	7.6 J	20	96
PHENOL	34 U	34 U	34 U	31 U	32 U	32 U	130 U
PYRENE	4.1 U	590	4.2 U	97	15	39	180
INORGANICS (mg/kg)							
ANTIMONY	0.45 U	0.48 U	0.48 U	0.39 UL	0.41 UL		0.43 U
ARSENIC	0.98 J	3.7	1.3 J	2.6	1.2 J		2.4
BARIUM	3.9 J	8.3 J	3.3 J	18 J	7.1 J		26
BERYLLIUM	0.05 U	0.053 U	0.053 U	0.11 J	0.045 U		0.24 J
CADMIUM	0.042 U	0.044 U	0.044 U	0.036 U	0.038 U		1
CHROMIUM	3.5	11	2.5	10	3.5		9.6
COBALT	0.19 U	0.53 J	0.2 J	2.1	0.82 J		1.7
COPPER	1.6 J	3.4 K	1.6 J	6.6	2.7		7.8
LEAD	1.1 B	2.3 K	0.73 B	9.5	1.6 K		19
MERCURY	0.017 U	0.017 U	0.018 U	0.099 J	0.016 U		0.1 J
MOLYBDENUM	0.31 U	0.33 U	0.33 U	0.44 B	0.28 U		0.32 B
NICKEL	0.36 J	0.95 J	0.33 U	3.6 J	0.96 J		5.1
SELENIUM	0.52 U	0.56 U	0.55 U	0.45 U	0.47 U		0.5 U
SILVER	0.12 U	0.12 U	0.12 U	0.1 U	0.1 U		0.26 J
THALLIUM	0.64 U	0.68 U	0.67 U	0.55 U	0.58 U		0.61 U
VANADIUM	8.3	22	5.3	15	6.8		18
ZINC	2.4 J	5.5 J	3.5 J	20	4.4 B		44
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016	26 U	26 U	27 U	24 U	25 U		24 U
AROCLOR-1221	20 U	20 U	20 U	18 U	19 U		19 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-127-6-8	GSP-SB-128-0-2	GSP-SB-128-6-8	GSP-SB-129-0-2	GSP-SB-129-6-8	GSP-SB-129-20-22	GSP-SB-130-0-2
LABORATORY ID:	240-820-14	240-820-1	240-820-2	240-635-25	240-635-26	240-635-27	240-820-16
SAMPLE DATE:	6/6/2011	6/6/2011	6/6/2011	5/31/2011	5/31/2011	5/31/2011	6/6/2011
LOCATION:	GSP-SB-127	GSP-SB-128	GSP-SB-128	GSP-SB-129	GSP-SB-129	GSP-SB-129	GSP-SB-130
AROCLOR-1232	18 U	17 U	18 U	16 U	17 U		16 U
AROCLOR-1242	16 U	16 U	17 U	15 U	15 U		15 U
AROCLOR-1248	21 U	21 U	22 U	20 U	20 U		20 U
AROCLOR-1254	21 U	21 U	22 U	20 U	20 U		20 U
AROCLOR-1260	21 U	30 J	22 U	220	20 U		56
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	12 U	12 U	12 U	22 B	15 J B	15 J B	100
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	31 U	31 U	32 U	29 U	30 U	30 U	29 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-130-6-8	GSP-SB-130-20-22
LABORATORY ID:	240-820-17	240-820-18
SAMPLE DATE:	6/6/2011	6/6/2011
LOCATION:	GSP-SB-130	GSP-SB-130
VOLATILE SOILS (ug/kg)		
1,1,1,2-TETRACHLOROETHANE	0.6 U	0.6 U
1,1,1-TRICHLOROETHANE	0.54 U	0.54 U
1,1,2,2-TETRACHLOROETHANE	0.33 U	0.33 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.3 U	1.3 U
1,1-DICHLOROETHANE	0.35 U	0.35 U
1,1-DICHLOROETHENE	0.5 U	0.5 U
1,1-DICHLOROPROPENE	0.29 U	0.29 U
1,2,3-TRICHLOROBENZENE	0.37 U	0.37 U
1,2,3-TRICHLOROPROPANE	0.87 U	0.87 U
1,2,3-TRIMETHYLBENZENE	0.16 U	0.16 U
1,2,4-TRICHLOROBENZENE	0.26 U	0.26 U
1,2,4-TRIMETHYLBENZENE	0.63 U	0.63 U
1,2-DIBROMO-3-CHLOROPROPANE	1.3 U	1.3 U
1,2-DIBROMOETHANE	0.48 U	0.49 U
1,2-DICHLOROBENZENE	0.35 U	0.35 U
1,2-DICHLOROETHANE	0.33 U	0.33 U
1,2-DICHLOROPROPANE	0.67 U	0.67 U
1,3-DICHLOROBENZENE	0.34 U	0.34 U
1,3-DICHLOROPROPANE	0.33 U	0.33 U
1,4-DICHLOROBENZENE	0.64 U	0.64 U
2,2-DICHLOROPROPANE	0.91 U	0.91 U
2-BUTANONE	1.4 U	1.4 U
2-CHLOROETHYL VINYL ETHER	1.4 UR	1.4 UR
2-CHLOROTOLUENE	0.39 U	0.39 U
2-HEXANONE	0.61 U	0.61 U
4-CHLOROTOLUENE	0.4 U	0.4 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-130-6-8	GSP-SB-130-20-22
LABORATORY ID:	240-820-17	240-820-18
SAMPLE DATE:	6/6/2011	6/6/2011
LOCATION:	GSP-SB-130	GSP-SB-130
4-ISOPROPYLTOLUENE	0.2 U	0.2 U
4-METHYL-2-PENTANONE	0.52 U	0.52 U
ACETONE	14 B	9.6 B
BENZENE	0.22 U	0.22 U
BROMOBENZENE	0.32 U	0.32 U
BROMOCHLOROMETHANE	0.69 U	0.69 U
BROMODICHLOROMETHANE	0.27 U	0.27 U
BROMOFORM	0.32 U	0.32 U
BROMOMETHANE	0.52 U	0.52 U
CARBON DISULFIDE	0.43 U	0.43 U
CARBON TETRACHLORIDE	0.36 U	0.36 U
CHLOROBENZENE	0.32 U	0.32 U
CHLORODIBROMOMETHANE	0.53 U	0.53 U
CHLOROETHANE	0.83 U	0.83 U
CHLOROFORM	0.28 U	0.28 U
CHLOROMETHANE	0.4 U	0.4 U
CIS-1,2-DICHLOROETHENE	0.35 U	0.35 U
CIS-1,3-DICHLOROPROPENE	0.33 U	0.33 U
DIBROMOMETHANE	0.61 U	0.61 U
DICHLORODIFLUOROMETHANE	0.48 U	0.49 U
DIISOPROPYL ETHER	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.21 U	0.21 U
ETHYLBENZENE	0.25 U	0.25 U
HEXACHLOROBUTADIENE	1.2 U	1.2 U
ISOPROPYLBENZENE	0.15 U	0.16 U
M+P-XYLENES	1.2 U	1.2 U
METHYL TERT-BUTYL ETHER	0.42 U	0.42 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-130-6-8	GSP-SB-130-20-22
LABORATORY ID:	240-820-17	240-820-18
SAMPLE DATE:	6/6/2011	6/6/2011
LOCATION:	GSP-SB-130	GSP-SB-130
METHYLENE CHLORIDE	0.65 U	0.65 U
NAPHTHALENE	0.18 U	1.3 B
N-BUTYLBENZENE	0.22 U	0.22 U
N-PROPYLBENZENE	0.39 U	0.39 U
O-XYLENE	0.34 U	0.34 U
SEC-BUTYLBENZENE	0.17 U	0.17 U
STYRENE	0.15 U	0.15 U
TERT-AMYL METHYL ETHER	0.36 U	0.36 U
TERT-BUTYLBENZENE	0.28 U	0.28 U
TERTIARY-BUTYL ALCOHOL	7.4 UR	7.4 UR
TETRACHLOROETHENE	0.5 U	0.5 U
TOLUENE	0.26 U	0.26 U
TOTAL XYLENES	0.65 U	0.65 U
TRANS-1,2-DICHLOROETHENE	0.4 U	0.4 U
TRANS-1,3-DICHLOROPROPENE	0.52 U	0.52 U
TRICHLOROETHENE	0.41 U	5.5 J
TRICHLOROFLUOROMETHANE	0.33 U	0.33 U
VINYL ACETATE	0.24 UR	0.24 UR
VINYL CHLORIDE	0.38 U	0.38 U
SEMIVOLATILE SOIL (ug/kg)		
1,1-BIPHENYL	33 UJ	33 U
1,4-DIOXANE	27 U	27 U
2,2'-OXYBIS(1-CHLOROPROPANE)	11 U	12 U
2,4,5-TRICHLOROPHENOL	30 U	31 U
2,4,6-TRICHLOROPHENOL	96 U	98 U
2,4-DICHLOROPHENOL	24 U	25 U
2,4-DIMETHYLPHENOL	24 U	25 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-130-6-8	GSP-SB-130-20-22
LABORATORY ID:	240-820-17	240-820-18
SAMPLE DATE:	6/6/2011	6/6/2011
LOCATION:	GSP-SB-130	GSP-SB-130
2,4-DINITROPHENOL	96 U	98 U
2,4-DINITROTOLUENE	33 U	33 U
2,6-DINITROTOLUENE	25 U	26 U
2-CHLORONAPHTHALENE	4 U	4 U
2-CHLOROPHENOL	33 U	33 U
2-METHYLNAPHTHALENE	4 U	4 U
2-METHYLPHENOL	96 U	98 U
2-NITROANILINE	11 U	11 U
2-NITROPHENOL	33 U	33 U
3&4-METHYLPHENOL	24 U	25 U
3,3'-DICHLOROBENZIDINE	22 U	22 U
3-NITROANILINE	19 U	20 U
4,6-DINITRO-2-METHYLPHENOL	96 U	98 U
4-BROMOPHENYL PHENYL ETHER	16 U	16 U
4-CHLORO-3-METHYLPHENOL	25 U	26 U
4-CHLOROANILINE	21 U	21 U
4-CHLOROPHENYL PHENYL ETHER	16 U	16 U
4-NITROANILINE	31 U	32 U
4-NITROPHENOL	96 U	98 U
ACENAPHTHENE	4 U	4 U
ACENAPHTHYLENE	4 U	4 U
ACETOPHENONE	11 UJ	11 U
ANTHRACENE	4 U	7.4 J
ATRAZINE	11 U	11 U
BENZALDEHYDE	14 U	15 U
BENZO(A)ANTHRACENE	4 U	12
BENZO(A)PYRENE	4 U	13

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-130-6-8	GSP-SB-130-20-22
LABORATORY ID:	240-820-17	240-820-18
SAMPLE DATE:	6/6/2011	6/6/2011
LOCATION:	GSP-SB-130	GSP-SB-130
BENZO(B)FLUORANTHENE	4 U	13
BENZO(G,H,I)PERYLENE	4 U	4 U
BENZO(K)FLUORANTHENE	4 U	9.6
BIS(2-CHLOROETHOXY)METHANE	27 U	27 U
BIS(2-CHLOROETHYL)ETHER	2.4 U	2.5 U
BIS(2-ETHYLHEXYL)PHTHALATE	23 U	23 U
BUTYL BENZYL PHTHALATE	12 UJ	12 U
CAPROLACTAM	45 U	45 U
CARBAZOLE	33 U	33 U
CHRYSENE	1.3 U	14
DIBENZO(A,H)ANTHRACENE	4 U	4 U
DIBENZOFURAN	4 U	4 U
DIETHYL PHTHALATE	19 U	20 U
DIMETHYL PHTHALATE	21 U	21 U
DI-N-BUTYL PHTHALATE	18 U	18 U
DI-N-OCTYL PHTHALATE	33 U	33 U
FLUORANTHENE	4 U	33
FLUORENE	4 U	4 U
HEXACHLOROBENZENE	2.5 U	2.6 U
HEXACHLOROBUTADIENE	33 U	33 U
HEXACHLOROCYCLOPENTADIENE	33 U	33 U
HEXACHLOROETHANE	11 U	11 U
INDENO(1,2,3-CD)PYRENE	4 U	4 U
ISOPHORONE	16 U	16 U
NAPHTHALENE	4 U	4 U
NITROBENZENE	2.7 U	2.7 U
N-NITROSODIMETHYLAMINE	19 U	20 U

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-130-6-8	GSP-SB-130-20-22
LABORATORY ID:	240-820-17	240-820-18
SAMPLE DATE:	6/6/2011	6/6/2011
LOCATION:	GSP-SB-130	GSP-SB-130
N-NITROSO-DI-N-PROPYLAMINE	33 U	33 U
N-NITROSODIPHENYLAMINE	25 U	26 U
PENTACHLOROPHENOL	96 U	98 U
PHENANTHRENE	4 U	25
PHENOL	33 U	33 U
PYRENE	4 U	24
INORGANICS (mg/kg)		
ANTIMONY	0.42 U	
ARSENIC	0.33 U	
BARIUM	3.4 J	
BERYLLIUM	0.047 U	
CADMIUM	0.07 J	
CHROMIUM	3.2	
COBALT	0.17 U	
COPPER	0.8 U	
LEAD	0.84 B	
MERCURY	0.016 U	
MOLYBDENUM	0.29 U	
NICKEL	0.29 U	
SELENIUM	0.49 U	
SILVER	0.18 J	
THALLIUM	0.6 U	
VANADIUM	4.2	
ZINC	2.6 J	
PESTICIDES/PCBs (ug/kg)		
AROCLOR-1016	25 U	
AROCLOR-1221	19 U	

TABLE
ANALYTICAL RESULTS FOR SOIL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-130-6-8	GSP-SB-130-20-22
LABORATORY ID:	240-820-17	240-820-18
SAMPLE DATE:	6/6/2011	6/6/2011
LOCATION:	GSP-SB-130	GSP-SB-130
AROCLOR-1232	17 U	
AROCLOR-1242	16 U	
AROCLOR-1248	20 U	
AROCLOR-1254	20 U	
AROCLOR-1260	20 U	
PETROLEUM HYDROCARBONS (mg/kg)		
DIESEL RANGE ORGANICS	11 U	11 U
PETROLEUM HYDROCARBONS (ug/kg)		
GASOLINE RANGE ORGANICS	30 U	31 U

U - Not detected at listed detection limit.

B - Laboratory blank contamination.

J - Positive result is considered estimated as a result of technical noncompliance.

L - Positive result is considered to be biased low as a result of technical noncompliance.

K - Positive result is considered to be biased high as a result of technical noncompliance.

R - Result is rejected as a result of technical noncompliance.

ug/l - micrograms per liter.

mg/l - milligrams per liter.

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6
LABORATORY ID:	240-888-1	240-888-2	240-944-2	240-944-1	240-944-4	240-944-3	240-990-1
SAMPLE DATE:	6/7/2011	6/7/2011	6/8/2011	6/8/2011	6/8/2011	6/8/2011	6/9/2011
LOCATION:	GSP-TP-1	GSP-TP-2	GSP-TP-3	GSP-TP-4	GSP-TP-5E	GSP-TP-5W	GSP-TP-6
VOLATILE SOILS (ug/kg)							
1,1,1,2-TETRACHLOROETHANE	0.54 U	0.55 U	0.57 U	0.56 U	57 U	8.3 U	0.57 U
1,1,1-TRICHLOROETHANE	0.49 U	0.5 U	0.51 U	0.5 U	130 U	19 U	0.51 U
1,1,2,2-TETRACHLOROETHANE	0.3 U	0.3 U	0.31 U	0.31 U	56 U	8.1 U	0.31 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.1 U	1.2 U	1.2 U	1.2 U	240 U	35 U	1.2 U
1,1-DICHLOROETHANE	0.31 U	0.32 U	0.33 U	0.32 U	110 U	15 U	0.33 U
1,1-DICHLOROETHENE	0.45 U	0.47 U	0.47 U	0.47 U	110 U	16 U	0.48 U
1,1-DICHLOROPROPENE	0.26 U	0.27 U	0.27 U	0.27 U	63 U	9.1 U	0.27 U
1,2,3-TRICHLOROBENZENE	0.33 U	0.34 U	0.35 U	0.34 U	63 U	9.1 U	0.35 U
1,2,3-TRICHLOROPROPANE	0.78 U	0.81 U	0.82 U	0.81 U	130 U	19 U	0.82 U
1,2,3-TRIMETHYLBENZENE	0.15 U	0.15 U	0.16 U	0.15 U	620 J	76 J	1.4 J
1,2,4-TRICHLOROBENZENE	0.24 U	0.24 U	0.25 U	0.24 U	46 U	6.6 U	0.25 U
1,2,4-TRIMETHYLBENZENE	0.57 U	0.58 U	0.59 U	0.58 U	940 J	210 J	1.8 J
1,2-DIBROMO-3-CHLOROPROPANE	1.1 U	1.2 U	1.2 U	1.2 U	310 U	45 U	1.2 U
1,2-DIBROMOETHANE	0.44 U	0.45 U	0.46 U	0.45 U	63 U	9.1 U	0.46 U
1,2-DICHLOROBENZENE	0.31 U	0.32 U	0.33 U	0.32 U	54 U	7.8 U	0.33 U
1,2-DICHLOROETHANE	0.3 U	0.3 U	0.31 U	0.31 U	63 U	9.1 U	0.31 U
1,2-DICHLOROPROPANE	0.6 U	0.62 U	0.63 U	0.62 U	51 U	7.5 U	0.63 U
1,3-DICHLOROBENZENE	0.3 U	0.31 U	0.32 U	0.31 U	30 U	4.4 U	0.32 U
1,3-DICHLOROPROPANE	0.3 U	0.3 U	0.31 U	0.31 U	140 U	20 U	0.31 U
1,4-DICHLOROBENZENE	0.57 U	0.59 U	0.6 U	0.59 U	50 U	7.3 U	0.6 U
2,2-DICHLOROPROPANE	0.82 U	0.84 U	0.86 U	0.85 U	140 U	21 U	0.86 U
2-BUTANONE	1.2 U	1.3 U	1.3 U	1.3 U	270 U	97 J	13 J
2-CHLOROETHYL VINYL ETHER	1.2 U	1.3 U	1.3 U	1.3 U	270 UR	39 UR	1.3 U
2-CHLOROTOLUENE	0.35 U	0.36 U	0.37 U	0.36 U	56 U	8.2 U	0.37 U
2-HEXANONE	0.55 U	0.56 U	0.57 U	0.57 U	130 U	18 U	1.1 J
4-CHLOROTOLUENE	0.36 U	0.37 U	0.37 U	0.37 U	62 U	9 U	0.38 U

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6
LABORATORY ID:	240-888-1	240-888-2	240-944-2	240-944-1	240-944-4	240-944-3	240-990-1
SAMPLE DATE:	6/7/2011	6/7/2011	6/8/2011	6/8/2011	6/8/2011	6/8/2011	6/9/2011
LOCATION:	GSP-TP-1	GSP-TP-2	GSP-TP-3	GSP-TP-4	GSP-TP-5E	GSP-TP-5W	GSP-TP-6
4-ISOPROPYLTOLUENE	0.18 U	0.19 U	0.19 U	0.19 U	190 J	4.4 U	0.25 J
4-METHYL-2-PENTANONE	0.47 U	0.48 U	0.49 U	0.49 U	300 U	44 U	0.49 U
ACETONE	6.2 B	9.8 B	27 B	5.7 U	1100 U	150 U	82 B
BENZENE	0.2 U	0.21 U	0.21 U	0.21 U	75 U	11 U	0.21 U
BROMOBENZENE	0.29 U	0.3 U	0.3 U	0.3 U	82 U	12 U	0.3 U
BROMOCHLOROMETHANE	0.62 U	0.64 U	0.65 U	0.64 U	82 U	12 U	0.65 U
BROMODICHLOROMETHANE	0.24 U	0.25 U	0.26 U	0.25 U	62 U	9 U	0.26 U
BROMOFORM	0.29 U	0.3 U	0.3 U	0.3 U	120 U	17 U	0.3 U
BROMOMETHANE	0.47 U	0.48 U	0.49 U	0.49 U	180 U	26 U	0.49 U
CARBON DISULFIDE	0.38 U	0.39 U	0.4 U	0.4 U	75 U	12 J	1.3 J
CARBON TETRACHLORIDE	0.32 U	0.33 U	0.34 U	0.33 U	40 U	5.8 U	0.34 U
CHLOROBENZENE	0.29 U	0.3 U	0.3 U	0.3 U	40 U	5.8 U	0.3 U
CHLORODIBROMOMETHANE	0.48 U	0.49 U	0.5 U	0.49 U	75 U	11 U	0.5 U
CHLOROETHANE	0.75 UJ	0.77 UJ	0.78 UJ	0.77 UJ	380 U	56 U	0.79 UJ
CHLOROFORM	0.25 U	0.26 U	0.26 U	0.26 U	55 U	8 U	0.27 U
CHLOROMETHANE	0.36 U	0.37 U	0.37 U	0.37 U	88 U	13 U	0.38 U
CIS-1,2-DICHLOROETHENE	0.31 U	0.32 U	0.33 U	0.32 U	43 U	6.3 U	0.33 U
CIS-1,3-DICHLOROPROPENE	0.3 U	0.3 U	0.31 U	0.31 U	50 U	7.2 U	0.31 U
DIBROMOMETHANE	0.55 U	0.56 U	0.57 U	0.57 U	88 U	13 U	0.58 U
DICHLORODIFLUOROMETHANE	0.44 U	0.45 U	0.46 U	0.45 U	100 U	15 U	0.46 U
DIISOPROPYL ETHER	1.3 U	1.3 U	1.4 U	1.3 U	310 U	45 U	1.4 U
ETHYL TERT-BUTYL ETHER	0.19 U	0.2 U	0.2 U	0.2 U	1.4 U	0.2 U	0.2 U
ETHYLBENZENE	0.23 U	0.23 U	0.24 U	0.23 U	270 J	68 J	0.41 J
HEXACHLOROBUTADIENE	1 U	1.1 U	1.1 U	1.1 U	88 U	13 U	1.1 U
ISOPROPYLBENZENE	0.14 U	0.14 U	0.15 U	0.14 U	41 U	58 J	0.15 U
M+P-XYLENES	1 U	1.1 U	1.1 U	1.1 U	310 J	5.6 U	1.9 J
METHYL TERT-BUTYL ETHER	0.37 U	0.38 U	0.39 U	0.39 U	45 U	6.5 U	0.39 U

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6
LABORATORY ID:	240-888-1	240-888-2	240-944-2	240-944-1	240-944-4	240-944-3	240-990-1
SAMPLE DATE:	6/7/2011	6/7/2011	6/8/2011	6/8/2011	6/8/2011	6/8/2011	6/9/2011
LOCATION:	GSP-TP-1	GSP-TP-2	GSP-TP-3	GSP-TP-4	GSP-TP-5E	GSP-TP-5W	GSP-TP-6
METHYLENE CHLORIDE	3.5 B	3 B	8.3 B	4.5 B	510 B	70 U	5.1 B
NAPHTHALENE	0.17 U	0.17 U	0.17 U	0.22 B	42000	8600	21
N-BUTYLBENZENE	0.2 U	0.21 U	0.21 U	0.21 U	270 J	110 J	0.21 U
N-PROPYLBENZENE	0.35 U	0.36 U	0.37 U	0.36 U	200 J	85 J	0.37 U
O-XYLENE	0.3 U	0.31 U	0.32 U	0.31 U	230 J	7.7 U	1.2 J
SEC-BUTYLBENZENE	0.16 U	0.16 U	0.16 U	0.16 U	150 J	75 J	0.16 U
STYRENE	0.13 UJ	0.13 UJ	0.14 U	0.13 U	35 U	5.1 U	0.14 U
TERT-AMYL METHYL ETHER	0.32 U	0.33 U	0.34 U	0.33 U	2.3 U	0.34 U	0.34 U
TERT-BUTYLBENZENE	0.25 U	0.26 U	0.26 U	0.26 U	41 U	5.9 U	0.27 U
TERTIARY-BUTYL ALCOHOL	6.6 UR	6.8 UR	6.9 UR	6.8 UR	1500 UR	220 UR	7 UR
TETRACHLOROETHENE	0.45 U	0.47 U	0.47 U	0.47 U	75 U	11 U	0.48 U
TOLUENE	0.24 J	0.29 J	0.27 J	0.31 J	110 U	15 U	0.79 J
TOTAL XYLENES	0.58 U	0.6 U	0.61 U	0.6 U	540 J	7.4 U	3.1 J
TRANS-1,2-DICHLOROETHENE	0.36 U	0.37 U	0.37 U	0.37 U	58 U	8.4 U	0.38 U
TRANS-1,3-DICHLOROPROPENE	0.47 U	0.48 U	0.49 U	0.49 U	130 U	18 U	0.49 U
TRICHLOROETHENE	0.37 U	0.38 U	0.38 U	0.38 U	61 U	8.8 U	0.38 U
TRICHLOROFLUOROMETHANE	0.3 U	0.3 U	0.31 U	0.31 U	100 U	15 U	0.31 U
VINYL ACETATE	0.22 UR	0.22 UR	0.23 UR	0.22 UR	140 UR	21 UR	0.23 UR
VINYL CHLORIDE	0.34 U	0.35 U	0.36 U	0.35 U	110 U	16 U	0.36 U
SEMIVOLATILE SOIL (ug/kg)							
1,1-BIPHENYL	31 U	32 U	30 UJ	130 UJ	1100 J	160 UJ	150 UJ
1,4-DIOXANE	26 U	26 U	24 U	100 U	330 U	130 U	120 U
2,2'-OXYBIS(1-CHLOROPROPANE)	11 U	11 U	10 U	45 U	140 U	55 U	53 U
2,4,5-TRICHLOROPHENOL	29 U	30 U	28 U	120 U	370 U	140 U	140 U
2,4,6-TRICHLOROPHENOL	93 U	96 U	88 U	380 U	1200 U	460 U	450 U
2,4-DICHLOROPHENOL	23 U	24 U	22 U	94 U	300 U	120 U	110 U
2,4-DIMETHYLPHENOL	23 U	24 U	22 U	94 U	300 U	120 U	110 U

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6
LABORATORY ID:	240-888-1	240-888-2	240-944-2	240-944-1	240-944-4	240-944-3	240-990-1
SAMPLE DATE:	6/7/2011	6/7/2011	6/8/2011	6/8/2011	6/8/2011	6/8/2011	6/9/2011
LOCATION:	GSP-TP-1	GSP-TP-2	GSP-TP-3	GSP-TP-4	GSP-TP-5E	GSP-TP-5W	GSP-TP-6
2,4-DINITROPHENOL	93 U	96 U	88 U	380 U	1200 U	460 U	450 U
2,4-DINITROTOLUENE	31 U	32 U	30 U	130 U	400 U	160 U	150 U
2,6-DINITROTOLUENE	24 U	25 U	23 U	99 U	310 U	120 U	120 U
2-CHLORONAPHTHALENE	3.8 U	3.9 U	3.6 U	16 U	49 U	19 U	19 U
2-CHLOROPHENOL	31 U	32 U	30 U	130 U	400 U	160 U	150 U
2-METHYLNAPHTHALENE	3.8 U	3.9 U	3.6 U	44	13000	1300	74
2-METHYLPHENOL	93 U	96 U	88 U	380 U	1200 U	460 U	450 U
2-NITROANILINE	11 U	11 U	10 U	43 U	140 U	53 U	51 U
2-NITROPHENOL	31 U	32 U	30 U	130 U	400 U	160 U	150 U
3&4-METHYLPHENOL	23 U	24 U	22 U	94 U	300 U	120 U	110 U
3,3'-DICHLOROBENZIDINE	21 U	22 U	20 U	85 U	270 U	100 U	100 U
3-NITROANILINE	19 U	19 U	18 U	75 U	240 U	92 U	90 U
4,6-DINITRO-2-METHYLPHENOL	93 U	96 U	88 U	380 U	1200 U	460 U	450 U
4-BROMOPHENYL PHENYL ETHER	15 U	16 U	14 U	61 U	190 U	75 U	73 U
4-CHLORO-3-METHYLPHENOL	24 U	25 U	23 U	99 U	310 U	120 U	120 U
4-CHLOROANILINE	20 U	20 U	19 U	80 U	250 U	98 U	95 U
4-CHLOROPHENYL PHENYL ETHER	15 U	16 U	14 U	61 U	190 U	75 U	73 U
4-NITROANILINE	30 U	31 U	29 U	120 U	390 U	150 U	150 U
4-NITROPHENOL	93 U	96 U	88 U	380 U	1200 U	460 U	450 U
ACENAPHTHENE	3.8 U	3.9 U	3.6 U	48	2000	850	45
ACENAPHTHYLENE	3.8 U	3.9 U	3.6 U	190	230	140	54
ACETOPHENONE	11 U	11 U	10 UJ	43 UJ	140 UJ	53 UJ	52 UJ
ANTHRACENE	3.8 U	3.9 U	3.6 U	290	3000	1500	140
ATRAZINE	11 U	11 U	10 U	43 U	140 U	53 U	51 U
BENZALDEHYDE	14 U	14 U	13 U	57 U	180 U	69 U	67 U
BENZO(A)ANTHRACENE	3.8 U	3.9 U	3.6 U	1100	2500	1900	420
BENZO(A)PYRENE	3.8 U	3.9 U	3.6 U	1500	1700	1800	470

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6
LABORATORY ID:	240-888-1	240-888-2	240-944-2	240-944-1	240-944-4	240-944-3	240-990-1
SAMPLE DATE:	6/7/2011	6/7/2011	6/8/2011	6/8/2011	6/8/2011	6/8/2011	6/9/2011
LOCATION:	GSP-TP-1	GSP-TP-2	GSP-TP-3	GSP-TP-4	GSP-TP-5E	GSP-TP-5W	GSP-TP-6
BENZO(B)FLUORANTHENE	3.8 U	3.9 U	3.6 U	1800	1500	2000	570
BENZO(G,H,I)PERYLENE	3.8 U	3.9 U	3.6 U	1200	880	1200	350
BENZO(K)FLUORANTHENE	3.8 U	3.9 U	3.6 U	750	760	590	220
BIS(2-CHLOROETHOXY)METHANE	26 U	26 U	24 U	100 U	330 U	130 U	120 U
BIS(2-CHLOROETHYL)ETHER	2.3 U	2.4 U	2.2 U	9.4 U	30 U	12 U	11 U
BIS(2-ETHYLHEXYL)PHTHALATE	22 U	23 U	28 J	90 U	280 U	140 J	110 U
BUTYL BENZYL PHTHALATE	12 U	12 U	11 U	47 U	150 U	58 U	56 U
CAPROLACTAM	43 U	44 U	41 U	170 U	550 U	210 U	210 U
CARBAZOLE	31 U	32 U	30 U	130 U	400 U	160 U	150 U
CHRYSENE	1.3 U	1.3 U	1.2 U	1300	2400	2000	520
DIBENZO(A,H)ANTHRACENE	3.8 U	3.9 U	3.6 U	240	210	390	88
DIBENZOFURAN	3.8 U	22 J	3.6 U	16 U	610 J	280 J	19 U
DIETHYL PHTHALATE	19 U	19 U	18 U	75 U	240 U	92 U	90 U
DIMETHYL PHTHALATE	20 U	20 U	19 U	80 U	250 U	98 U	95 U
DI-N-BUTYL PHTHALATE	17 U	18 U	18 J	71 U	220 U	87 U	84 U
DI-N-OCTYL PHTHALATE	31 U	32 U	30 U	130 U	400 U	160 U	150 U
FLUORANTHENE	3.8 U	3.9 U	3.6 U	2100	5100	3500	820
FLUORENE	3.8 U	3.9 U	3.6 U	67	3900	1700	62
HEXACHLOROBENZENE	2.4 U	2.5 U	2.3 U	9.9 U	31 U	12 U	12 U
HEXACHLOROBUTADIENE	31 U	32 U	30 U	130 U	400 U	160 U	150 U
HEXACHLOROCYCLOPENTADIENE	31 U	32 U	30 U	130 U	400 U	160 U	150 U
HEXACHLOROETHANE	10 U	11 U	9.9 U	42 U	130 U	52 U	50 U
INDENO(1,2,3-CD)PYRENE	3.8 U	3.9 U	3.6 U	930	690	990	270
ISOPHORONE	15 U	16 U	14 U	61 U	190 U	75 U	73 U
NAPHTHALENE	3.8 U	3.9 U	3.6 U	57	17000	3100	74
NITROBENZENE	2.6 U	2.6 U	2.4 U	10 U	33 U	13 U	12 U
N-NITROSODIMETHYLAMINE	19 U	19 U	18 U	75 U	240 U	92 U	90 U

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6
LABORATORY ID:	240-888-1	240-888-2	240-944-2	240-944-1	240-944-4	240-944-3	240-990-1
SAMPLE DATE:	6/7/2011	6/7/2011	6/8/2011	6/8/2011	6/8/2011	6/8/2011	6/9/2011
LOCATION:	GSP-TP-1	GSP-TP-2	GSP-TP-3	GSP-TP-4	GSP-TP-5E	GSP-TP-5W	GSP-TP-6
N-NITROSO-DI-N-PROPYLAMINE	31 U	32 U	30 U	130 U	400 U	160 U	150 U
N-NITROSODIPHENYLAMINE	24 U	25 U	23 U	99 U	310 U	120 U	120 U
PENTACHLOROPHENOL	93 U	96 U	88 U	380 U	1200 U	460 U	450 U
PHENANTHRENE	3.8 U	18	3.6 U	660	13000	6200	460
PHENOL	31 U	32 U	30 U	130 U	400 U	160 U	150 U
PYRENE	3.8 U	11	3.6 U	1900	6600	4400	860
INORGANICS (mg/kg)							
ANTIMONY	0.45 UL	0.43 UL	0.43 UL	0.77 J	0.7 J	0.79 J	0.43 UL
ARSENIC	0.4 J	0.52 J	1.9	3.1	1.5	3.1	2.6
BARIUM	12 J	13 J	3.9 J	50	120	110	46
BERYLLIUM	0.05 U	0.33 J	0.047 U	0.5	0.039 U	0.047 U	0.14 J
CADMIUM	0.042 U	0.039 U	0.039 U	0.85	0.033 U	0.039 U	0.04 U
CHROMIUM	6.9	20	5.6 K	15	28 K	23 K	9 K
COBALT	3.1	2.6	0.21 J	3.4	7.3	8.8	2.8
COPPER	4.7 L	170	1.5 J	12	26	20	7.4
LEAD	2.5	4.3	2.1 K	41	7.2	18	11
MERCURY	0.016 U	0.013 U	0.014 U	0.064 J	0.074 J	0.093	0.048 J
MOLYBDENUM	0.31 U	0.66 B	0.5 B	0.27 U	0.25 U	0.98 B	0.46 B
NICKEL	0.79 J	3.4 J	0.3 U	9.4	9.8	12	4.8
SELENIUM	0.52 U	0.49 U	0.49 U	0.45 U	0.41 U	0.49 U	0.49 U
SILVER	0.12 U	0.11 U	0.11 U	0.17 J	0.091 U	0.11 U	0.11 U
THALLIUM	0.64 UL	0.6 UL	0.6 U	0.92 J	1.3 J	1.1 J	0.69 J
VANADIUM	7.1	15	12	27	34	36	18
ZINC	2.9 J	2.3 J	1.8 J	47	50	57	23
PESTICIDES/PCBs (ug/kg)							
AROCLOR-1016	25 U	25 U	23 U	120 U	25 U	24 U	24 U
AROCLOR-1221	19 U	19 U	18 U	94 U	19 U	18 U	18 U

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6
LABORATORY ID:	240-888-1	240-888-2	240-944-2	240-944-1	240-944-4	240-944-3	240-990-1
SAMPLE DATE:	6/7/2011	6/7/2011	6/8/2011	6/8/2011	6/8/2011	6/8/2011	6/9/2011
LOCATION:	GSP-TP-1	GSP-TP-2	GSP-TP-3	GSP-TP-4	GSP-TP-5E	GSP-TP-5W	GSP-TP-6
AROCLOR-1232	16 U	17 U	15 U	83 U	17 U	16 U	16 U
AROCLOR-1242	15 U	16 U	14 U	77 U	16 U	15 U	15 U
AROCLOR-1248	20 U	20 U	19 U	100 U	20 U	20 U	19 U
AROCLOR-1254	20 U	20 U	19 U	100 U	20 U	20 U	19 U
AROCLOR-1260	20 U	20 U	19 U	100 U	20 U	20 U	19 U
PETROLEUM HYDROCARBONS (mg/kg)							
DIESEL RANGE ORGANICS	11 U	11 U	10 U	1100 J	700	480	190
PETROLEUM HYDROCARBONS (ug/kg)							
GASOLINE RANGE ORGANICS	29 U	30 U	28 U	30 U	88000	41000	28 U

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-7-9-10	GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9
LABORATORY ID:	240-990-6	240-944-5	240-990-3	240-990-2	240-990-4	240-990-5
SAMPLE DATE:	6/9/2011	6/8/2011	6/9/2011	6/9/2011	6/9/2011	6/9/2011
LOCATION:	GSP-TP-7	GSP-TP-8	GSP-TP-9	GSP-TP-10	GSP-TP-11	GSP-TP-12
VOLATILE SOILS (ug/kg)						
1,1,1,2-TETRACHLOROETHANE	0.61 U	0.68 U	0.57 U	0.67 U	0.48 U	0.67 U
1,1,1-TRICHLOROETHANE	0.55 U	0.61 U	0.52 U	0.6 U	0.43 U	0.6 U
1,1,2,2-TETRACHLOROETHANE	0.33 U	0.37 U	0.31 U	0.37 U	0.26 U	0.37 U
1,1,2-TRICHLOROTRIFLUOROETHANE	1.3 U	1.4 U	1.2 U	1.4 U	1 U	1.4 U
1,1-DICHLOROETHANE	0.35 U	0.39 U	0.33 U	0.39 U	0.28 U	0.39 U
1,1-DICHLOROETHENE	0.51 U	0.57 U	0.48 U	0.56 U	0.4 U	0.56 U
1,1-DICHLOROPROPENE	0.29 U	0.33 U	0.28 U	0.32 U	0.23 U	0.32 U
1,2,3-TRICHLOROBENZENE	0.37 U	0.41 U	0.35 U	0.41 U	0.29 U	0.41 U
1,2,3-TRICHLOROPROPANE	0.88 U	0.98 U	0.83 U	0.97 U	0.7 U	0.97 U
1,2,3-TRIMETHYLBENZENE	0.17 U	0.19 U	0.16 U	0.18 U	0.13 U	0.18 U
1,2,4-TRICHLOROBENZENE	0.26 U	0.29 U	0.25 U	0.29 U	0.21 U	0.29 U
1,2,4-TRIMETHYLBENZENE	0.64 U	0.71 U	0.6 U	0.7 U	0.5 U	0.7 U
1,2-DIBROMO-3-CHLOROPROPANE	1.3 U	1.4 U	1.2 U	1.4 U	1 U	1.4 U
1,2-DIBROMOETHANE	0.49 U	0.55 U	0.46 U	0.54 U	0.39 U	0.54 U
1,2-DICHLOROBENZENE	0.35 U	0.39 U	0.33 U	0.39 U	0.28 U	0.39 U
1,2-DICHLOROETHANE	0.33 U	0.37 U	0.31 U	0.37 U	0.26 U	0.37 U
1,2-DICHLOROPROPANE	0.68 U	0.75 U	0.64 U	0.74 U	0.53 U	0.74 U
1,3-DICHLOROBENZENE	0.34 U	0.38 U	0.32 U	0.38 U	0.27 U	0.38 U
1,3-DICHLOROPROPANE	0.33 U	0.37 U	0.31 U	0.37 U	0.26 U	0.37 U
1,4-DICHLOROBENZENE	0.65 U	0.72 U	0.61 U	0.71 U	0.51 U	0.71 U
2,2-DICHLOROPROPANE	0.92 U	1 U	0.87 U	1 U	0.73 U	1 U
2-BUTANONE	1.4 U	1.5 U	1.3 U	1.5 U	1.1 U	1.5 U
2-CHLOROETHYL VINYL ETHER	1.4 U	1.5 UR	1.3 U	1.5 U	1.1 U	1.5 U
2-CHLOROTOLUENE	0.39 U	0.44 U	0.37 U	0.43 U	0.31 U	0.43 U
2-HEXANONE	0.62 U	0.69 U	0.58 U	0.68 U	0.49 U	0.68 U
4-CHLOROTOLUENE	0.4 U	0.45 U	0.38 U	0.44 U	0.32 U	0.44 U

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-7-9-10	GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9
LABORATORY ID:	240-990-6	240-944-5	240-990-3	240-990-2	240-990-4	240-990-5
SAMPLE DATE:	6/9/2011	6/8/2011	6/9/2011	6/9/2011	6/9/2011	6/9/2011
LOCATION:	GSP-TP-7	GSP-TP-8	GSP-TP-9	GSP-TP-10	GSP-TP-11	GSP-TP-12
4-ISOPROPYLTOLUENE	0.21 U	0.23 U	0.19 U	0.23 U	0.16 U	0.23 U
4-METHYL-2-PENTANONE	0.53 U	0.59 U	0.5 U	0.82 J	0.42 U	0.58 U
ACETONE	6.2 U	6.9 U	17 B	37 B	4.9 U	6.8 U
BENZENE	0.23 U	0.25 U	0.21 U	0.25 U	0.18 U	0.25 U
BROMOBENZENE	0.32 U	0.36 U	0.3 U	0.36 U	0.26 U	0.36 U
BROMOCHLOROMETHANE	0.7 U	0.78 U	0.65 U	0.77 U	0.55 U	0.77 U
BROMODICHLOROMETHANE	0.27 U	0.31 U	0.26 U	0.3 U	0.22 U	0.3 U
BROMOFORM	0.32 U	0.36 U	0.3 U	0.36 U	0.26 U	0.36 U
BROMOMETHANE	0.53 U	0.59 U	0.5 U	0.58 U	0.42 U	0.58 U
CARBON DISULFIDE	0.43 U	0.48 U	0.41 U	0.47 U	0.34 U	0.47 U
CARBON TETRACHLORIDE	0.36 U	0.4 U	0.34 U	0.4 U	0.29 U	0.4 U
CHLOROBENZENE	0.32 U	0.36 U	0.3 U	0.36 U	0.26 U	0.36 U
CHLORODIBROMOMETHANE	0.54 U	0.6 U	0.51 U	0.59 U	0.43 U	0.59 U
CHLOROETHANE	0.84 UJ	0.94 U	0.79 UJ	0.93 UJ	0.67 UJ	0.93 UJ
CHLOROFORM	0.28 U	0.32 U	0.27 U	0.31 U	0.22 U	0.31 U
CHLOROMETHANE	0.4 U	0.45 U	0.38 U	0.44 U	0.32 U	0.44 U
CIS-1,2-DICHLOROETHENE	0.35 U	0.39 U	0.33 U	0.39 U	0.28 U	0.39 U
CIS-1,3-DICHLOROPROPENE	0.33 U	0.37 U	0.31 U	0.37 U	0.26 U	0.37 U
DIBROMOMETHANE	0.62 U	0.69 U	0.58 U	0.68 U	0.49 U	0.68 U
DICHLORODIFLUOROMETHANE	0.49 U	0.55 U	0.46 U	0.54 U	0.39 U	0.54 U
DIISOPROPYL ETHER	1.5 U	1.6 U	1.4 U	1.6 U	1.2 U	1.6 U
ETHYL TERT-BUTYL ETHER	0.22 U	0.24 U	0.2 U	0.24 U	0.17 U	0.24 U
ETHYLBENZENE	0.25 U	0.28 U	0.24 U	0.28 U	0.2 U	0.28 U
HEXACHLOROBUTADIENE	1.2 U	1.3 U	1.1 U	1.3 U	0.93 U	1.3 U
ISOPROPYLBENZENE	0.16 U	0.17 U	0.15 U	0.17 U	0.12 U	0.17 U
M+P-XYLENES	1.2 U	1.3 U	1.1 U	1.3 U	0.93 U	1.3 U
METHYL TERT-BUTYL ETHER	0.42 U	0.47 U	0.4 U	0.46 U	0.33 U	0.46 U

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-7-9-10	GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9
LABORATORY ID:	240-990-6	240-944-5	240-990-3	240-990-2	240-990-4	240-990-5
SAMPLE DATE:	6/9/2011	6/8/2011	6/9/2011	6/9/2011	6/9/2011	6/9/2011
LOCATION:	GSP-TP-7	GSP-TP-8	GSP-TP-9	GSP-TP-10	GSP-TP-11	GSP-TP-12
METHYLENE CHLORIDE	5.6 B	0.73 U	3.9 B	8.9 B	3.1 B	7.3 B
NAPHTHALENE	0.19 U	1.8 B	0.3 B	0.6 B	0.19 B	0.2 B
N-BUTYLBENZENE	0.23 U	0.25 U	0.21 U	0.25 U	0.18 U	0.25 U
N-PROPYLBENZENE	0.39 U	0.44 U	0.37 U	0.43 U	0.31 U	0.43 U
O-XYLENE	0.34 U	0.38 U	0.32 U	0.38 U	0.27 U	0.38 U
SEC-BUTYLBENZENE	0.18 U	0.2 U	0.17 U	0.19 U	0.14 U	0.19 U
STYRENE	0.15 U	0.16 U	0.14 U	0.16 U	0.12 U	0.16 U
TERT-AMYL METHYL ETHER	0.36 U	0.4 U	0.34 U	0.4 U	0.29 U	0.4 U
TERT-BUTYLBENZENE	0.28 U	0.32 U	0.27 U	0.31 U	0.22 U	0.31 U
TERTIARY-BUTYL ALCOHOL	7.4 UR	8.3 UR	7 UR	8.2 UR	5.9 UR	8.2 UR
TETRACHLOROETHENE	0.51 U	0.57 U	0.48 U	0.56 U	0.4 U	0.56 U
TOLUENE	0.26 U	0.29 U	0.25 U	0.38 J	0.21 U	0.29 U
TOTAL XYLENES	0.66 U	0.73 U	0.62 U	0.72 U	0.52 U	0.72 U
TRANS-1,2-DICHLOROETHENE	0.4 U	0.45 U	0.38 U	0.44 U	0.32 U	0.44 U
TRANS-1,3-DICHLOROPROPENE	0.53 U	0.59 U	0.5 U	0.58 U	0.42 U	0.58 U
TRICHLOROETHENE	0.41 U	0.46 U	0.39 U	0.45 U	0.33 U	0.45 U
TRICHLOROFLUOROMETHANE	0.33 U	0.37 U	0.31 U	0.37 U	0.26 U	0.37 U
VINYL ACETATE	0.24 UR	0.27 UR	0.23 UR	0.27 UR	0.19 UR	0.27 UR
VINYL CHLORIDE	0.38 U	0.43 U	0.36 U	0.42 U	0.3 U	0.42 U
SEMIVOLATILE SOIL (ug/kg)						
1,1-BIPHENYL	34 UJ	32 UJ	33 UJ	31 UJ	31 UJ	33 UJ
1,4-DIOXANE	28 U	26 U	27 U	26 U	25 U	27 U
2,2'-OXYBIS(1-CHLOROPROPANE)	12 U	11 U	11 U	11 U	11 U	11 U
2,4,5-TRICHLOROPHENOL	31 U	30 U	30 U	29 U	28 U	30 U
2,4,6-TRICHLOROPHENOL	100 U	96 U	97 U	93 U	91 U	97 U
2,4-DICHLOROPHENOL	25 U	24 U	24 U	23 U	23 U	24 U
2,4-DIMETHYLPHENOL	25 U	24 U	24 U	23 U	23 U	24 U

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-7-9-10	GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9
LABORATORY ID:	240-990-6	240-944-5	240-990-3	240-990-2	240-990-4	240-990-5
SAMPLE DATE:	6/9/2011	6/8/2011	6/9/2011	6/9/2011	6/9/2011	6/9/2011
LOCATION:	GSP-TP-7	GSP-TP-8	GSP-TP-9	GSP-TP-10	GSP-TP-11	GSP-TP-12
2,4-DINITROPHENOL	100 U	96 U	97 U	93 U	91 U	97 U
2,4-DINITROTOLUENE	34 U	32 U	33 U	31 U	31 U	33 U
2,6-DINITROTOLUENE	26 U	25 U	25 U	24 U	24 U	25 U
2-CHLORONAPHTHALENE	4.1 U	4 UJ	4 U	3.8 U	3.7 U	4 U
2-CHLOROPHENOL	34 U	32 U	33 U	31 U	31 U	33 U
2-METHYLNAPHTHALENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
2-METHYLPHENOL	100 U	96 U	97 U	93 U	91 U	97 U
2-NITROANILINE	11 U	11 U	11 U	11 U	10 U	11 U
2-NITROPHENOL	34 U	32 U	33 U	31 U	31 U	33 U
3&4-METHYLPHENOL	25 U	24 U	24 U	23 U	23 U	24 U
3,3'-DICHLOROBENZIDINE	23 U	22 U	22 U	21 U	20 U	22 U
3-NITROANILINE	20 U	19 U	19 U	19 U	18 U	19 U
4,6-DINITRO-2-METHYLPHENOL	100 U	96 U	97 U	93 U	91 U	97 U
4-BROMOPHENYL PHENYL ETHER	16 U	16 U	16 U	15 U	15 U	16 U
4-CHLORO-3-METHYLPHENOL	26 U	25 U	25 U	24 U	24 U	25 U
4-CHLOROANILINE	21 U	20 U	21 U	20 U	19 U	21 U
4-CHLOROPHENYL PHENYL ETHER	16 U	16 UJ	16 U	15 U	15 U	16 U
4-NITROANILINE	33 U	31 U	31 U	30 U	30 U	31 U
4-NITROPHENOL	100 U	96 U	97 U	93 U	91 U	97 U
ACENAPHTHENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
ACENAPHTHYLENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
ACETOPHENONE	12 UJ	11 UJ	11 UJ	11 UJ	10 UJ	11 UJ
ANTHRACENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
ATRAZINE	11 U	11 U	11 U	11 U	10 U	11 U
BENZALDEHYDE	15 U	14 U	15 U	14 U	14 U	14 U
BENZO(A)ANTHRACENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
BENZO(A)PYRENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-7-9-10	GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9
LABORATORY ID:	240-990-6	240-944-5	240-990-3	240-990-2	240-990-4	240-990-5
SAMPLE DATE:	6/9/2011	6/8/2011	6/9/2011	6/9/2011	6/9/2011	6/9/2011
LOCATION:	GSP-TP-7	GSP-TP-8	GSP-TP-9	GSP-TP-10	GSP-TP-11	GSP-TP-12
BENZO(B)FLUORANTHENE	4.1 U	5.2 J	4 U	3.8 U	3.7 U	4 U
BENZO(G,H,I)PERYLENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
BENZO(K)FLUORANTHENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
BIS(2-CHLOROETHOXY)METHANE	28 U	26 U	27 U	26 U	25 U	27 U
BIS(2-CHLOROETHYL)ETHER	2.5 U	2.4 U	2.4 U	2.3 U	2.3 U	2.4 U
BIS(2-ETHYLHEXYL)PHTHALATE	24 U	25 J	23 U	22 U	22 U	23 U
BUTYL BENZYL PHTHALATE	13 U	12 U	12 U	12 U	11 U	12 U
CAPROLACTAM	46 U	44 UJ	45 U	43 U	42 U	45 U
CARBAZOLE	34 U	32 U	33 U	31 U	31 U	33 U
CHRYSENE	1.4 U	1.3 U	1.3 U	1.3 U	1.2 U	1.3 U
DIBENZO(A,H)ANTHRACENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
DIBENZOFURAN	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
DIETHYL PHTHALATE	20 U	19 U	19 U	19 U	18 U	19 U
DIMETHYL PHTHALATE	21 U	20 U	21 U	20 U	19 U	21 U
DI-N-BUTYL PHTHALATE	19 U	18 U	20 J	17 U	17 U	18 U
DI-N-OCTYL PHTHALATE	34 U	32 U	33 U	31 U	31 U	33 U
FLUORANTHENE	4.1 U	8.3	4 U	3.8 U	3.7 U	4 U
FLUORENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
HEXACHLOROBENZENE	2.6 U	2.5 U	2.5 U	2.4 U	2.4 U	2.5 U
HEXACHLOROBUTADIENE	34 U	32 U	33 U	31 U	31 U	33 U
HEXACHLOROCYCLOPENTADIENE	34 U	32 U	33 U	31 U	31 U	33 U
HEXACHLOROETHANE	11 U	11 U	11 U	10 U	10 U	11 U
INDENO(1,2,3-CD)PYRENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
ISOPHORONE	16 U	16 U	16 U	15 U	15 U	16 U
NAPHTHALENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
NITROBENZENE	2.8 U	2.6 U	2.7 U	2.6 U	2.5 U	2.7 U
N-NITROSODIMETHYLAMINE	20 U	19 U	19 U	19 U	18 U	19 U

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-7-9-10	GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9
LABORATORY ID:	240-990-6	240-944-5	240-990-3	240-990-2	240-990-4	240-990-5
SAMPLE DATE:	6/9/2011	6/8/2011	6/9/2011	6/9/2011	6/9/2011	6/9/2011
LOCATION:	GSP-TP-7	GSP-TP-8	GSP-TP-9	GSP-TP-10	GSP-TP-11	GSP-TP-12
N-NITROSO-DI-N-PROPYLAMINE	34 U	32 U	33 U	31 U	31 U	33 U
N-NITROSODIPHENYLAMINE	26 U	25 U	25 U	24 U	24 U	25 U
PENTACHLOROPHENOL	100 U	96 U	97 U	93 U	91 U	97 U
PHENANTHRENE	4.1 U	4 U	4 U	3.8 U	3.7 U	4 U
PHENOL	34 U	32 U	33 U	31 U	31 U	33 U
PYRENE	4.1 U	6.6 J	4 U	3.8 U	3.7 U	4 U
INORGANICS (mg/kg)						
ANTIMONY	0.49 UL	0.46 UL	0.46 UL	0.36 UL	0.44 UL	0.46 UL
ARSENIC	0.5 J	2.2	0.68 J	1.9	0.34 U	0.35 U
BARIUM	6.6 J	4.3 J	3.7 J	5.6 J	3.8 J	6 J
BERYLLIUM	0.054 U	0.051 U	0.05 U	0.04 U	0.049 U	0.051 U
CADMIUM	0.045 U	0.042 U	0.042 U	0.033 U	0.041 U	0.043 U
CHROMIUM	6.2 K	3.2 K	2.4 K	5.3 K	2.4 K	14 K
COBALT	0.2 U	0.27 J	0.19 U	0.34 J	0.18 U	0.44 J
COPPER	0.93 U	2.6 J	0.87 U	2.9	0.84 U	1.4 J
LEAD	2.5 K	1.3 K	1.1 B	1.8 K	1.4 K	2.6
MERCURY	0.013 U	0.014 U	0.017 U	0.017 U	0.015 U	0.012 U
MOLYBDENUM	0.34 U	0.32 U	0.32 U	0.25 U	0.31 U	0.32 U
NICKEL	0.34 U	0.73 J	0.44 J	0.85 J	0.31 U	0.56 J
SELENIUM	0.57 U	0.53 U	0.53 U	0.42 U	0.51 U	0.53 U
SILVER	0.13 U	0.12 U	0.12 U	0.092 U	0.11 U	0.12 U
THALLIUM	0.69 U	0.65 U	0.64 U	0.51 U	0.62 U	0.65 U
VANADIUM	3.3	5.1	3.8	10	2.5	11
ZINC	1.8 J	3.2 J	2.1 J	3.8 J	1.7 J	2.7 J
PESTICIDES/PCBs (ug/kg)						
AROCLOR-1016	26 U	25 U	25 U	24 U	24 U	25 U
AROCLOR-1221	20 U	19 U	19 U	19 U	18 U	19 U

TABLE
ANALYTICAL RESULTS FOR TEST PITS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-TP-7-9-10	GSP-TP-8-6-7	GSP-TP-9-8-10	GSP-TP-10-10-12	GSP-TP-11-7-8	GSP-TP-12-8-9
LABORATORY ID:	240-990-6	240-944-5	240-990-3	240-990-2	240-990-4	240-990-5
SAMPLE DATE:	6/9/2011	6/8/2011	6/9/2011	6/9/2011	6/9/2011	6/9/2011
LOCATION:	GSP-TP-7	GSP-TP-8	GSP-TP-9	GSP-TP-10	GSP-TP-11	GSP-TP-12
AROCLOR-1232	18 U	17 U	17 U	16 U	16 U	17 U
AROCLOR-1242	16 U	16 U	16 U	15 U	15 U	16 U
AROCLOR-1248	21 U	20 U	21 U	20 U	19 U	21 U
AROCLOR-1254	21 U	20 U	21 U	20 U	19 U	21 U
AROCLOR-1260	21 U	20 U	21 U	20 U	19 U	21 U
PETROLEUM HYDROCARBONS (mg/kg)						
DIESEL RANGE ORGANICS	12 U	11 U	11 U	11 U	10 U	11 U
PETROLEUM HYDROCARBONS (ug/kg)						
GASOLINE RANGE ORGANICS	31 U	30 U	30 U	29 U	28 U	30 U

U - Not detected at listed detection limit.

B - Laboratory blank contamination.

J - Positive result is considered estimated as a result of technical noncompliance.

L - Positive result is considered to be biased low as a result of technical noncompliance.

K - Positive result is considered to be biased high as a result of technical noncompliance.

R - Result is rejected as a result of technical noncompliance.

ug/l - micrograms per liter.

mg/l - milligrams per liter.

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-50-062211	GSP-SB-WP-54-062111	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-SB-WP-66-062311	GSP-SB-WP-66-062311RA	GSP-SB-WP-66-062411
LABORATORY ID:	240-1365-2	240-1342-2	240-1365-1	240-1443-3	240-1443-4	240-1443-4	240-1470-1
SAMPLE DATE:	6/22/2011	6/21/2011	6/22/2011	6/23/2011	6/23/2011	6/23/2011	6/24/2011
LOCATION:	GSP-SB-WP-50	GSP-SB-WP-54	GSP-SB-WP-61	GSP-SB-WP-61	GSP-SB-WP-66	GSP-SB-WP-66	GSP-SB-WP-66
VOLATILES (ug/L)							
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U		0.23 U		
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U		0.22 U		
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U	0.18 U		0.18 U		
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U		0.28 U		
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U		0.15 U		
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U		0.19 U		
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U		0.13 U		
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U		0.17 U		
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U	0.43 U		0.43 U		
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U	0.0059 U		0.0059 U		
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U		0.15 U		
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U		0.12 U		
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U		0.67 U		
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U		0.24 U		
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U		0.13 U		
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U		0.22 U		
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U		0.18 U		
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U		0.14 U		
1,3-DICHLOROPROPANE	0.16 U	0.16 U	0.16 U		0.16 U		
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U		0.13 U		
2,2-DICHLOROPROPANE	0.13 U	0.13 U	0.13 U		0.13 U		
2-BUTANONE	0.57 U	0.57 U	0.57 U		3.2 J		
2-CHLOROETHYL VINYL ETHER	0.99 U	0.99 U	0.99 U		0.99 U		
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U		0.11 U		
2-HEXANONE	0.41 U	0.41 U	0.41 U		0.41 U		

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-50-062211	GSP-SB-WP-54-062111	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-SB-WP-66-062311	GSP-SB-WP-66-062311RA	GSP-SB-WP-66-062411
LABORATORY ID:	240-1365-2	240-1342-2	240-1365-1	240-1443-3	240-1443-4	240-1443-4	240-1470-1
SAMPLE DATE:	6/22/2011	6/21/2011	6/22/2011	6/23/2011	6/23/2011	6/23/2011	6/24/2011
LOCATION:	GSP-SB-WP-50	GSP-SB-WP-54	GSP-SB-WP-61	GSP-SB-WP-61	GSP-SB-WP-66	GSP-SB-WP-66	GSP-SB-WP-66
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U		0.18 U		
4-ISOPROPYLTOLUENE	0.12 U	0.12 U	0.12 U		0.12 U		
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U		0.32 U		
ACETONE	1.9 B	2.8 J	1.4 B			7.9 B	
BENZENE	0.13 U	0.13 U	0.13 U		0.13 U		
BROMOBENZENE	0.13 U	0.13 U	0.13 U		0.13 U		
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U		0.29 U		
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U		0.15 U		
BROMOFORM	0.64 U	0.64 U	0.64 U		0.64 U		
BROMOMETHANE	0.41 U	0.41 U	0.41 U		0.41 U		
CARBON DISULFIDE	0.13 U	0.13 U	0.13 U		0.27 J		
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U		0.13 U		
CHLOROBENZENE	0.15 U	0.15 U	0.15 U		0.15 U		
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U		0.18 U		
CHLOROETHANE	0.29 U	0.29 U	0.29 U		0.29 U		
CHLOROFORM	0.16 U	0.16 U	0.16 U		0.16 U		
CHLOROMETHANE	0.3 U	0.3 U	0.3 U		0.3 U		
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	0.17 U		0.17 U		
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U		0.14 U		
DIBROMOMETHANE	0.28 U	0.28 U	0.28 U		0.28 U		
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U		0.31 U		
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U		1.5 U		
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U		0.11 U		
ETHYLBENZENE	0.17 U	0.17 U	0.17 U		0.17 U		
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U		0.3 U		
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U		0.13 U		

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-50-062211	GSP-SB-WP-54-062111	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-SB-WP-66-062311	GSP-SB-WP-66-062311RA	GSP-SB-WP-66-062411
LABORATORY ID:	240-1365-2	240-1342-2	240-1365-1	240-1443-3	240-1443-4	240-1443-4	240-1470-1
SAMPLE DATE:	6/22/2011	6/21/2011	6/22/2011	6/23/2011	6/23/2011	6/23/2011	6/24/2011
LOCATION:	GSP-SB-WP-50	GSP-SB-WP-54	GSP-SB-WP-61	GSP-SB-WP-61	GSP-SB-WP-66	GSP-SB-WP-66	GSP-SB-WP-66
M+P-XYLENES	0.24 U	0.24 U	0.24 U		0.24 U		
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U		0.17 U		
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U		0.33 U		
NAPHTHALENE	0.24 U	0.24 U	0.24 U		0.24 U		
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 U		0.12 U		
N-PROPYLBENZENE	0.14 U	0.14 U	0.14 U		0.14 U		
O-XYLENE	0.14 U	0.14 U	0.14 U		0.14 U		
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U		0.13 U		
STYRENE	0.11 U	0.11 U	0.11 U		0.11 U		
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U		0.067 U		
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U		0.13 U		
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR	3.9 UR		6.9 J		
TETRACHLOROETHENE	0.29 U	0.29 U	0.29 U		0.29 U		
TOLUENE	0.13 U	0.13 U	0.13 U		22		
TOTAL XYLENES	0.28 U	0.28 U	0.28 U		0.28 U		
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U		0.19 U		
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U		0.19 U		
TRICHLOROETHENE	0.17 U	0.17 U	0.17 U		0.17 U		
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 U		0.21 UJ		
VINYL ACETATE	0.19 UR	0.19 UR	0.19 UR		0.19 UR		
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U		0.22 U		
SEMIVOLATILES (ug/L)							
1,1-BIPHENYL	0.82 U	0.76 U		0.77 U			1.2 U
1,4-DIOXANE	0.51 U	0.47 U		0.47 U			0.74 U
2,2'-OXYBIS(1-CHLOROPROPANE)	0.41 U	0.38 U		0.38 U			0.61 U
2,4,5-TRICHLOROPHENOL	0.31 U	0.29 U		0.29 U			0.45 U

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-50-062211	GSP-SB-WP-54-062111	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-SB-WP-66-062311	GSP-SB-WP-66-062311RA	GSP-SB-WP-66-062411
LABORATORY ID:	240-1365-2	240-1342-2	240-1365-1	240-1443-3	240-1443-4	240-1443-4	240-1470-1
SAMPLE DATE:	6/22/2011	6/21/2011	6/22/2011	6/23/2011	6/23/2011	6/23/2011	6/24/2011
LOCATION:	GSP-SB-WP-50	GSP-SB-WP-54	GSP-SB-WP-61	GSP-SB-WP-61	GSP-SB-WP-66	GSP-SB-WP-66	GSP-SB-WP-66
2,4,6-TRICHLOROPHENOL	0.82 U	0.76 U		0.77 U			1.2 U
2,4-DICHLOROPHENOL	0.82 U	0.76 U		0.77 U			1.2 U
2,4-DIMETHYLPHENOL	0.82 U	0.76 U		0.77 U			1.2 U
2,4-DINITROPHENOL	2.5 U	2.3 U		2.3 U			3.6 U
2,4-DINITROTOLUENE	0.28 U	0.26 U		0.26 U			0.41 U
2,6-DINITROTOLUENE	0.82 U	0.76 U		0.77 U			1.2 U
2-CHLORONAPHTHALENE	0.1 U	0.095 U		0.096 U			0.15 U
2-CHLOROPHENOL	0.3 U	0.28 U		0.28 U			0.44 U
2-METHYLNAPHTHALENE	0.1 U	0.095 U		0.096 U			0.15 U
2-METHYLPHENOL	0.82 U	0.76 U		0.77 U			1.2 U
2-NITROANILINE	0.82 U	0.76 U		0.77 U			1.2 U
2-NITROPHENOL	0.29 U	0.27 U		0.27 U			0.42 U
3&4-METHYLPHENOL	0.77 U	0.71 U		0.72 U			1.1 U
3,3'-DICHLOROBENZIDINE	0.38 U	0.35 U		0.36 U			0.56 U
3-NITROANILINE	0.29 U	0.27 U		0.27 U			0.42 U
4,6-DINITRO-2-METHYLPHENOL	2.5 U	2.3 U		2.3 U			3.6 U
4-BROMOPHENYL PHENYL ETHER	0.82 U	0.76 U		0.77 U			1.2 U
4-CHLORO-3-METHYLPHENOL	0.82 U	0.76 U		0.77 U			1.2 U
4-CHLOROANILINE	0.82 U	0.76 U		0.77 U			1.2 U
4-CHLOROPHENYL PHENYL ETHER	0.31 U	0.29 U		0.29 U			0.45 U
4-NITROANILINE	0.82 U	0.76 U		0.77 U			1.2 U
4-NITROPHENOL	2.5 U	2.3 U		2.3 U			3.6 U
ACENAPHTHENE	0.1 U	0.095 U		0.096 U			0.15 U
ACENAPHTHYLENE	0.1 U	0.095 U		0.096 U			0.15 U
ACETOPHENONE	0.35 U	0.32 U		0.33 U			0.52 U
ANTHRACENE	0.1 U	0.095 U		0.096 U			0.15 U

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-50-062211	GSP-SB-WP-54-062111	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-SB-WP-66-062311	GSP-SB-WP-66-062311RA	GSP-SB-WP-66-062411
LABORATORY ID:	240-1365-2	240-1342-2	240-1365-1	240-1443-3	240-1443-4	240-1443-4	240-1470-1
SAMPLE DATE:	6/22/2011	6/21/2011	6/22/2011	6/23/2011	6/23/2011	6/23/2011	6/24/2011
LOCATION:	GSP-SB-WP-50	GSP-SB-WP-54	GSP-SB-WP-61	GSP-SB-WP-61	GSP-SB-WP-66	GSP-SB-WP-66	GSP-SB-WP-66
ATRAZINE	0.35 U	0.32 U		0.33 U			0.52 U
BENZALDEHYDE	0.4 U	0.37 U		0.37 U			0.59 U
BENZO(A)ANTHRACENE	0.1 U	0.095 U		0.096 U			0.15 U
BENZO(A)PYRENE	0.1 U	0.095 U		0.096 U			0.15 U
BENZO(B)FLUORANTHENE	0.1 U	0.095 U		0.096 U			0.15 U
BENZO(G,H,I)PERYLENE	0.1 U	0.095 U		0.096 U			0.15 U
BENZO(K)FLUORANTHENE	0.1 U	0.095 U		0.096 U			0.15 U
BIS(2-CHLOROETHOXY)METHANE	0.33 U	0.3 U		0.31 U			0.48 U
BIS(2-CHLOROETHYL)ETHER	0.1 U	0.095 U		0.096 U			0.15 U
BIS(2-ETHYLHEXYL)PHTHALATE	1.1 B	0.89 B		0.77 U			1.2 U
BUTYL BENZYL PHTHALATE	0.82 U	0.76 U		0.77 U			1.2 U
CAPROLACTAM	0.82 U	0.76 U		0.77 U			1.2 U
CARBAZOLE	0.29 U	0.27 U		0.27 U			0.42 U
CHRYSENE	0.1 U	0.095 U		0.096 U			0.15 U
DIBENZO(A,H)ANTHRACENE	0.1 U	0.095 U		0.096 U			0.15 U
DIBENZOFURAN	0.1 U	0.095 U		0.096 U			0.15 U
DIETHYL PHTHALATE	0.62 U	0.57 U		0.58 U			0.91 U
DIMETHYL PHTHALATE	0.3 U	0.28 U		0.28 U			0.44 U
DI-N-BUTYL PHTHALATE	0.69 U	0.73 J		0.64 U			1 U
DI-N-OCTYL PHTHALATE	0.82 U	0.76 U		0.77 U			1.2 U
FLUORANTHENE	0.1 U	0.095 U		0.096 U			0.15 U
FLUORENE	0.1 U	0.095 U		0.096 U			0.15 U
HEXACHLOROBENZENE	0.1 U	0.095 U		0.096 U			0.15 U
HEXACHLOROBUTADIENE	0.28 U	0.26 U		0.26 U			0.41 U
HEXACHLOROCYCLOPENTADIENE	0.82 U	0.76 U		0.77 U			1.2 U
HEXACHLOROETHANE	0.82 U	0.76 U		0.77 U			1.2 U

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-50-062211	GSP-SB-WP-54-062111	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-SB-WP-66-062311	GSP-SB-WP-66-062311RA	GSP-SB-WP-66-062411
LABORATORY ID:	240-1365-2	240-1342-2	240-1365-1	240-1443-3	240-1443-4	240-1443-4	240-1470-1
SAMPLE DATE:	6/22/2011	6/21/2011	6/22/2011	6/23/2011	6/23/2011	6/23/2011	6/24/2011
LOCATION:	GSP-SB-WP-50	GSP-SB-WP-54	GSP-SB-WP-61	GSP-SB-WP-61	GSP-SB-WP-66	GSP-SB-WP-66	GSP-SB-WP-66
INDENO(1,2,3-CD)PYRENE	0.1 U	0.095 U		0.096 U			0.15 U
ISOPHORONE	0.28 U	0.26 U		0.26 U			0.41 U
NAPHTHALENE	0.1 U	0.095 U		0.096 U			0.15 U
NITROBENZENE	0.041 U	0.038 U		0.038 U			0.061 U
N-NITROSODIMETHYLAMINE	0.32 U	0.3 U		0.3 U			0.47 U
N-NITROSO-DI-N-PROPYLAMINE	0.82 U	0.76 U		0.77 U			1.2 U
N-NITROSODIPHENYLAMINE	0.32 U	0.3 U		0.3 U			0.47 U
PENTACHLOROPHENOL	2.5 U	2.3 U		2.3 U			3.6 U
PHENANTHRENE	0.1 U	0.095 U		0.096 U			0.15 U
PHENOL	0.62 U	0.57 U		0.58 U			0.91 U
PYRENE	0.1 U	0.095 U		0.096 U			0.15 U
INORGANICS (ug/L)							
ANTIMONY	0.4 B	0.19 B	0.23 B		0.53 J		
ARSENIC	19 J	0.092 UJ	0.79 J		7.1		
BARIUM	150	23	30		60		
BERYLLIUM	0.97 J	0.092 U	0.092 U		0.12 J		
CADMIUM	0.34 J	0.046 U	0.046 U		0.15 J		
CHROMIUM	42	0.52 B	1.8 J		8.2		
COBALT	8.3	0.53 B	0.68 J		11		
COPPER	35	0.69 J	39		23		
LEAD	16	0.3 B	1.7		8.5		
MERCURY	0.14 J	0.066 U	0.066 U		0.066 U		
MOLYBDENUM	2.3 B	0.46 B	1.5 B		1.2 J		
NICKEL	13	0.63 U	1 J		9.7		
SELENIUM	0.5 J	0.32 U	0.32 U		0.6 J		
SILVER	0.018 J	0.014 U	0.014 U		0.014 U		

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-50-062211	GSP-SB-WP-54-062111	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-SB-WP-66-062311	GSP-SB-WP-66-062311RA	GSP-SB-WP-66-062411
LABORATORY ID:	240-1365-2	240-1342-2	240-1365-1	240-1443-3	240-1443-4	240-1443-4	240-1470-1
SAMPLE DATE:	6/22/2011	6/21/2011	6/22/2011	6/23/2011	6/23/2011	6/23/2011	6/24/2011
LOCATION:	GSP-SB-WP-50	GSP-SB-WP-54	GSP-SB-WP-61	GSP-SB-WP-61	GSP-SB-WP-66	GSP-SB-WP-66	GSP-SB-WP-66
THALLIUM	0.51 B	0.25 B	0.26 B		0.26 B		
TUNGSTEN	0.16 U	0.16 U	0.16 U		0.16 U		
VANADIUM	110	0.98 J	3.9 J		23		
ZINC	33	7.5 J	30		26 J		
INORGANICS FILTERED (ug/L)							
ANTIMONY	0.11 B	0.18 B	0.19 B		0.49 J		
ARSENIC	1.2 J	0.092 UJ	0.41 B		6.6		
BARIUM	58	24	28		46		
BERYLLIUM	0.092 U	0.092 U	0.092 U		0.092 U		
CADMIUM	0.046 U	0.046 U	0.046 U		0.046 U		
CHROMIUM	0.47 J	0.31 B	0.47 J		3.4		
COBALT	2.1	0.33 B	0.42 J		13		
COPPER	3.2	0.99 J	14		12		
LEAD	0.16 B	0.2 B	0.3 B		2.7		
MERCURY	0.066 U	0.066 U	0.066 U		0.066 U		
MOLYBDENUM	1.8 B	0.47 B	0.93 B		1 J		
NICKEL	1.3 J	0.63 U	0.63 U		8.1		
SELENIUM	0.32 U	0.32 U	0.32 U		0.62 J		
SILVER	0.014 U	0.014 U	0.014 U		0.014 U		
THALLIUM	0.25 B	0.24 B	0.2 B		0.21 B		
TUNGSTEN	0.16 U	0.16 U	0.16 U		0.16 U		
VANADIUM	3.3 J	0.39 J	0.99 J		13 J		
ZINC	1.2 B	7.1 J	9.9 J		20 J		
MISCELLANEOUS (ug/L)							
PERCHLORATE	0.36 U	0.36 U	0.36 U		1.8 U		
PETROLEUM HYDROCARBONS (ug/L)							

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-50-062211	GSP-SB-WP-54-062111	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-SB-WP-66-062311	GSP-SB-WP-66-062311RA	GSP-SB-WP-66-062411
LABORATORY ID:	240-1365-2	240-1342-2	240-1365-1	240-1443-3	240-1443-4	240-1443-4	240-1470-1
SAMPLE DATE:	6/22/2011	6/21/2011	6/22/2011	6/23/2011	6/23/2011	6/23/2011	6/24/2011
LOCATION:	GSP-SB-WP-50	GSP-SB-WP-54	GSP-SB-WP-61	GSP-SB-WP-61	GSP-SB-WP-66	GSP-SB-WP-66	GSP-SB-WP-66
DIESEL RANGE ORGANICS	380 B	230 B	320 B				240 U
GASOLINE RANGE ORGANICS	34 B	36 B	33 B		42 B		
TENTATIVELY IDENTIFIED VOLATILE (ug/l)							
SILANOL, TRIMETHYL-	2.9 NJ						
TERT-BUTYLDIMETHYLSILANOL					2.8 R		
UNKNOWN					1.8 NJ		

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-71-062111	GSP-SB-WP-83-062211	GSP-SB-WP-84-062311	GSP-SB-WP-89-062311
LABORATORY ID:	240-1342-3	240-1365-6	240-1443-1	240-1443-2
SAMPLE DATE:	6/21/2011	6/22/2011	6/23/2011	6/23/2011
LOCATION:	GSP-SB-WP-71	GSP-SB-WP-83	GSP-SB-WP-84	GSP-SB-WP-89
VOLATILES (ug/L)				
1,1,1,2-TETRACHLOROETHANE	0.23 U	0.23 U	0.23 U	0.23 U
1,1,1-TRICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U
1,1,2,2-TETRACHLOROETHANE	0.18 U	0.18 U	0.18 U	0.18 U
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28 U	0.28 U	0.28 U	0.28 U
1,1-DICHLOROETHANE	0.15 U	0.15 U	0.15 U	0.15 U
1,1-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.99 J
1,1-DICHLOROPROPENE	0.13 U	0.13 U	0.13 U	0.13 U
1,2,3-TRICHLOROBENZENE	0.17 U	0.17 U	0.17 U	0.17 U
1,2,3-TRICHLOROPROPANE	0.43 U	0.43 U	0.43 U	0.43 U
1,2,3-TRIMETHYLBENZENE	0.0059 U	0.0059 U	0.0059 U	0.0059 U
1,2,4-TRICHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
1,2,4-TRIMETHYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
1,2-DIBROMO-3-CHLOROPROPANE	0.67 U	0.67 U	0.67 U	0.67 U
1,2-DIBROMOETHANE	0.24 U	0.24 U	0.24 U	0.24 U
1,2-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
1,2-DICHLOROETHANE	0.22 U	0.22 U	0.22 U	0.22 U
1,2-DICHLOROPROPANE	0.18 U	0.18 U	0.18 U	0.18 U
1,3-DICHLOROBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
1,3-DICHLOROPROPANE	0.16 U	0.16 U	0.16 U	0.16 U
1,4-DICHLOROBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
2,2-DICHLOROPROPANE	0.13 U	0.13 U	0.13 U	0.13 U
2-BUTANONE	0.57 U	0.57 U	0.57 U	0.57 U
2-CHLOROETHYL VINYL ETHER	0.99 U	0.99 U	0.99 U	0.99 U
2-CHLOROTOLUENE	0.11 U	0.11 U	0.11 U	0.11 U
2-HEXANONE	0.41 U	0.41 U	0.41 U	0.41 U

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-71-062111	GSP-SB-WP-83-062211	GSP-SB-WP-84-062311	GSP-SB-WP-89-062311
LABORATORY ID:	240-1342-3	240-1365-6	240-1443-1	240-1443-2
SAMPLE DATE:	6/21/2011	6/22/2011	6/23/2011	6/23/2011
LOCATION:	GSP-SB-WP-71	GSP-SB-WP-83	GSP-SB-WP-84	GSP-SB-WP-89
4-CHLOROTOLUENE	0.18 U	0.18 U	0.18 U	0.18 U
4-ISOPROPYLTOLUENE	0.12 U	0.12 U	0.12 U	0.12 U
4-METHYL-2-PENTANONE	0.32 U	0.32 U	0.32 U	0.32 U
ACETONE	1.9 J	1.6 B	1.1 U	1.1 U
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
BROMOCHLOROMETHANE	0.29 U	0.29 U	0.29 U	0.29 U
BROMODICHLOROMETHANE	0.15 U	0.15 U	0.15 U	0.15 U
BROMOFORM	0.64 U	0.64 U	0.64 U	0.64 U
BROMOMETHANE	0.41 U	0.41 U	0.41 U	0.41 U
CARBON DISULFIDE	0.13 U	0.13 U	0.13 U	0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U	0.13 U	0.13 U
CHLOROBENZENE	0.15 U	0.15 U	0.15 U	0.15 U
CHLORODIBROMOMETHANE	0.18 U	0.18 U	0.18 U	0.18 U
CHLOROETHANE	0.29 U	0.29 U	0.29 U	0.29 U
CHLOROFORM	0.16 U	0.16 U	0.16 U	0.16 U
CHLOROMETHANE	0.3 U	0.3 U	0.3 U	0.3 U
CIS-1,2-DICHLOROETHENE	0.17 U	0.17 U	0.33 J	4.1
CIS-1,3-DICHLOROPROPENE	0.14 U	0.14 U	0.14 U	0.14 U
DIBROMOMETHANE	0.28 U	0.28 U	0.28 U	0.28 U
DICHLORODIFLUOROMETHANE	0.31 U	0.31 U	0.31 U	0.31 U
DIISOPROPYL ETHER	1.5 U	1.5 U	1.5 U	1.5 U
ETHYL TERT-BUTYL ETHER	0.11 U	0.11 U	0.11 U	0.11 U
ETHYLBENZENE	0.17 U	0.17 U	0.17 U	0.17 U
HEXACHLOROBUTADIENE	0.3 U	0.3 U	0.3 U	0.3 U
ISOPROPYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-71-062111	GSP-SB-WP-83-062211	GSP-SB-WP-84-062311	GSP-SB-WP-89-062311
LABORATORY ID:	240-1342-3	240-1365-6	240-1443-1	240-1443-2
SAMPLE DATE:	6/21/2011	6/22/2011	6/23/2011	6/23/2011
LOCATION:	GSP-SB-WP-71	GSP-SB-WP-83	GSP-SB-WP-84	GSP-SB-WP-89
M+P-XYLENES	0.24 U	0.24 U	0.24 U	0.24 U
METHYL TERT-BUTYL ETHER	0.17 U	0.17 U	0.17 U	0.17 U
METHYLENE CHLORIDE	0.33 U	0.33 U	0.33 U	0.33 U
NAPHTHALENE	0.24 U	0.24 U	0.24 U	0.24 U
N-BUTYLBENZENE	0.12 U	0.12 U	0.12 U	0.12 U
N-PROPYLBENZENE	0.14 U	0.14 U	0.14 U	0.14 U
O-XYLENE	0.14 U	0.14 U	0.14 U	0.14 U
SEC-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
STYRENE	0.11 U	0.11 U	0.11 U	0.11 U
TERT-AMYL METHYL ETHER	0.067 U	0.067 U	0.067 U	0.067 U
TERT-BUTYLBENZENE	0.13 U	0.13 U	0.13 U	0.13 U
TERTIARY-BUTYL ALCOHOL	3.9 UR	3.9 UR	3.9 UR	3.9 UR
TETRACHLOROETHENE	0.29 U	0.29 U	0.29 U	0.29 U
TOLUENE	0.13 U	0.13 U	0.13 U	0.13 U
TOTAL XYLENES	0.28 U	0.28 U	0.28 U	0.28 U
TRANS-1,2-DICHLOROETHENE	0.19 U	0.19 U	0.19 U	0.19 J
TRANS-1,3-DICHLOROPROPENE	0.19 U	0.19 U	0.19 U	0.19 U
TRICHLOROETHENE	0.17 U	1.3	5	25
TRICHLOROFLUOROMETHANE	0.21 U	0.21 U	0.21 UJ	0.21 UJ
VINYL ACETATE	0.19 UR	0.19 UR	0.19 UR	0.19 UR
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U
SEMIVOLATILES (ug/L)				
1,1-BIPHENYL	0.76 U	0.77 U	0.77 U	0.76 U
1,4-DIOXANE	0.47 U	0.47 U	0.47 U	0.47 U
2,2'-OXYBIS(1-CHLOROPROPANE)	0.38 U	0.38 U	0.38 U	0.38 U
2,4,5-TRICHLOROPHENOL	0.29 U	0.29 U	0.29 U	0.29 U

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-71-062111	GSP-SB-WP-83-062211	GSP-SB-WP-84-062311	GSP-SB-WP-89-062311
LABORATORY ID:	240-1342-3	240-1365-6	240-1443-1	240-1443-2
SAMPLE DATE:	6/21/2011	6/22/2011	6/23/2011	6/23/2011
LOCATION:	GSP-SB-WP-71	GSP-SB-WP-83	GSP-SB-WP-84	GSP-SB-WP-89
2,4,6-TRICHLOROPHENOL	0.76 U	0.77 U	0.77 U	0.76 U
2,4-DICHLOROPHENOL	0.76 U	0.77 U	0.77 U	0.76 U
2,4-DIMETHYLPHENOL	0.76 U	0.77 U	0.77 U	0.76 U
2,4-DINITROPHENOL	2.3 U	2.3 U	2.3 U	2.3 U
2,4-DINITROTOLUENE	0.26 U	0.26 U	0.26 U	0.26 U
2,6-DINITROTOLUENE	0.76 U	0.77 U	0.77 U	0.76 U
2-CHLORONAPHTHALENE	0.095 U	0.096 U	0.096 U	0.095 U
2-CHLOROPHENOL	0.28 U	0.28 U	0.28 U	0.28 U
2-METHYLNAPHTHALENE	0.095 U	0.096 U	0.096 U	0.095 U
2-METHYLPHENOL	0.76 U	0.77 U	0.77 U	0.76 U
2-NITROANILINE	0.76 U	0.77 U	0.77 U	0.76 U
2-NITROPHENOL	0.27 U	0.27 U	0.27 U	0.27 U
3&4-METHYLPHENOL	0.71 U	0.72 U	0.72 U	0.71 U
3,3'-DICHLOROBENZIDINE	0.35 U	0.36 U	0.36 U	0.35 U
3-NITROANILINE	0.27 U	0.27 U	0.27 U	0.27 U
4,6-DINITRO-2-METHYLPHENOL	2.3 U	2.3 U	2.3 U	2.3 U
4-BROMOPHENYL PHENYL ETHER	0.76 U	0.77 U	0.77 U	0.76 U
4-CHLORO-3-METHYLPHENOL	0.76 U	0.77 U	0.77 U	0.76 U
4-CHLOROANILINE	0.76 U	0.77 U	0.77 U	0.76 U
4-CHLOROPHENYL PHENYL ETHER	0.29 U	0.29 U	0.29 U	0.29 U
4-NITROANILINE	0.76 U	0.77 U	0.77 U	0.76 U
4-NITROPHENOL	2.3 U	2.3 U	2.3 U	2.3 U
ACENAPHTHENE	0.095 U	0.096 U	0.096 U	0.095 U
ACENAPHTHYLENE	0.095 U	0.096 U	0.096 U	0.095 U
ACETOPHENONE	0.32 U	0.33 U	0.33 U	0.32 U
ANTHRACENE	0.095 U	0.096 U	0.096 U	0.095 U

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-71-062111	GSP-SB-WP-83-062211	GSP-SB-WP-84-062311	GSP-SB-WP-89-062311
LABORATORY ID:	240-1342-3	240-1365-6	240-1443-1	240-1443-2
SAMPLE DATE:	6/21/2011	6/22/2011	6/23/2011	6/23/2011
LOCATION:	GSP-SB-WP-71	GSP-SB-WP-83	GSP-SB-WP-84	GSP-SB-WP-89
ATRAZINE	0.32 U	0.33 U	0.33 U	0.32 U
BENZALDEHYDE	0.37 U	0.37 U	0.37 U	0.37 U
BENZO(A)ANTHRACENE	0.095 U	0.096 U	0.096 U	0.095 U
BENZO(A)PYRENE	0.095 U	0.096 U	0.096 U	0.095 U
BENZO(B)FLUORANTHENE	0.095 U	0.096 U	0.096 U	0.095 U
BENZO(G,H,I)PERYLENE	0.095 U	0.096 U	0.096 U	0.095 U
BENZO(K)FLUORANTHENE	0.095 U	0.096 U	0.096 U	0.095 U
BIS(2-CHLOROETHOXY)METHANE	0.3 U	0.31 U	0.31 U	0.3 U
BIS(2-CHLOROETHYL)ETHER	0.095 U	0.096 U	0.096 U	0.095 U
BIS(2-ETHYLHEXYL)PHTHALATE	0.85 B	0.77 U	0.77 U	0.76 U
BUTYL BENZYL PHTHALATE	0.76 U	0.77 U	0.77 U	0.76 U
CAPROLACTAM	0.76 U	0.77 U	0.77 U	0.76 U
CARBAZOLE	0.27 U	0.27 U	0.27 U	0.27 U
CHRYSENE	0.095 U	0.096 U	0.096 U	0.095 U
DIBENZO(A,H)ANTHRACENE	0.095 U	0.096 U	0.096 U	0.095 U
DIBENZOFURAN	0.095 U	0.096 U	0.096 U	0.095 U
DIETHYL PHTHALATE	0.57 U	0.58 U	0.58 U	0.57 U
DIMETHYL PHTHALATE	0.28 U	0.28 U	0.28 U	0.28 U
DI-N-BUTYL PHTHALATE	0.64 U	0.64 U	0.64 U	0.64 U
DI-N-OCTYL PHTHALATE	0.76 U	0.77 U	0.77 U	0.76 U
FLUORANTHENE	0.095 U	0.096 U	0.096 U	0.095 U
FLUORENE	0.095 U	0.096 U	0.096 U	0.095 U
HEXACHLOROBENZENE	0.095 U	0.096 U	0.096 U	0.095 U
HEXACHLOROBUTADIENE	0.26 U	0.26 U	0.26 U	0.26 U
HEXACHLOROCYCLOPENTADIENE	0.76 U	0.77 U	0.77 U	0.76 U
HEXACHLOROETHANE	0.76 U	0.77 U	0.77 U	0.76 U

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-71-062111	GSP-SB-WP-83-062211	GSP-SB-WP-84-062311	GSP-SB-WP-89-062311
LABORATORY ID:	240-1342-3	240-1365-6	240-1443-1	240-1443-2
SAMPLE DATE:	6/21/2011	6/22/2011	6/23/2011	6/23/2011
LOCATION:	GSP-SB-WP-71	GSP-SB-WP-83	GSP-SB-WP-84	GSP-SB-WP-89
INDENO(1,2,3-CD)PYRENE	0.095 U	0.096 U	0.096 U	0.095 U
ISOPHORONE	0.26 U	0.26 U	0.26 U	0.26 U
NAPHTHALENE	0.095 U	0.096 U	0.096 U	0.095 U
NITROBENZENE	0.038 U	0.038 U	0.038 U	0.038 U
N-NITROSODIMETHYLAMINE	0.3 U	0.3 U	0.3 U	0.3 U
N-NITROSO-DI-N-PROPYLAMINE	0.76 U	0.77 U	0.77 U	0.76 U
N-NITROSODIPHENYLAMINE	0.3 U	0.3 U	0.3 U	0.3 U
PENTACHLOROPHENOL	2.3 U	2.3 U	2.3 U	2.3 U
PHENANTHRENE	0.095 U	0.096 U	0.096 U	0.095 U
PHENOL	0.57 U	0.58 U	0.58 U	0.57 U
PYRENE	0.095 U	0.096 U	0.096 U	0.095 U
INORGANICS (ug/L)				
ANTIMONY	0.36 B	0.31 B	0.073 U	0.073 U
ARSENIC	9.7 J	11 J	6.4	4.8 J
BARIUM	68	46	74	49
BERYLLIUM	0.092 U	0.092 U	0.64 J	0.6 J
CADMIUM	0.076 J	0.046 U	1	0.1 J
CHROMIUM	5.9	4.2	2.2	3.6
COBALT	11 J	4.5	210	38
COPPER	7	5.2	3	1.8 J
LEAD	0.98 J	0.56 B	3.1	0.75 B
MERCURY	0.066 U	0.066 U	0.073 J	0.066 U
MOLYBDENUM	1.5 B	0.64 B	0.42 U	0.42 U
NICKEL	2	3.4	380	47
SELENIUM	0.32 U	0.73 J	0.36 J	1.2 J
SILVER	0.014 U	0.014 U	0.014 U	0.014 U

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-71-062111	GSP-SB-WP-83-062211	GSP-SB-WP-84-062311	GSP-SB-WP-89-062311
LABORATORY ID:	240-1342-3	240-1365-6	240-1443-1	240-1443-2
SAMPLE DATE:	6/21/2011	6/22/2011	6/23/2011	6/23/2011
LOCATION:	GSP-SB-WP-71	GSP-SB-WP-83	GSP-SB-WP-84	GSP-SB-WP-89
THALLIUM	0.23 B	0.21 B	1.1 J	0.36 B
TUNGSTEN	0.16 U	0.16 U	0.16 U	0.16 U
VANADIUM	11 J	3.6 J	14 J	4.2 J
ZINC	12 J	6 J	1500 J	100 J
INORGANICS FILTERED (ug/L)				
ANTIMONY	0.28 B	0.31 B	0.073 U	0.073 U
ARSENIC	9.1 J	9.4 J	6.9	4.3 J
BARIUM	68	44	76	48
BERYLLIUM	0.092 U	0.092 U	0.64 J	0.61 J
CADMIUM	0.055 J	0.046 U	1.1	0.074 J
CHROMIUM	2.7	2.5	1.4 J	2
COBALT	13 J	4	220	38
COPPER	0.47 J	2	2.4	0.83 J
LEAD	0.25 B	0.19 B	2.6	0.27 B
MERCURY	0.066 U	0.066 U	0.066 U	0.066 U
MOLYBDENUM	1.6 B	0.83 B	0.42 U	0.42 U
NICKEL	2.1	1.7 J	410	48
SELENIUM	0.32 U	0.71 J	0.32 U	0.96 J
SILVER	0.014 U	0.014 U	0.014 U	0.014 U
THALLIUM	0.23 B	0.26 B	1.1 J	0.34 B
TUNGSTEN	0.16 U	0.16 U	0.16 U	0.16 U
VANADIUM	4.9 J	1.3 J	13 J	0.51 J
ZINC	7.6 J	6.1 B	1600 J	100 J
MISCELLANEOUS (ug/L)				
PERCHLORATE	0.36 U	0.36 U	0.36 U	0.36 U
PETROLEUM HYDROCARBONS (ug/L)				

TABLE
ANALYTICAL RESULTS FOR WELL POINTS
GREATER STRAWBERRY POINT
LOCKHEED MARTIN MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

SAMPLE ID:	GSP-SB-WP-71-062111	GSP-SB-WP-83-062211	GSP-SB-WP-84-062311	GSP-SB-WP-89-062311
LABORATORY ID:	240-1342-3	240-1365-6	240-1443-1	240-1443-2
SAMPLE DATE:	6/21/2011	6/22/2011	6/23/2011	6/23/2011
LOCATION:	GSP-SB-WP-71	GSP-SB-WP-83	GSP-SB-WP-84	GSP-SB-WP-89
DIESEL RANGE ORGANICS	230 U	260 B	450 B	740 B
GASOLINE RANGE ORGANICS	31 B	37 B	38 B	53 B
TENTATIVELY IDENTIFIED VOLATILE (ug/l)				
SILANOL, TRIMETHYL-	1.4 NJ		1.3 R	
TERT-BUTYLDIMETHYLSILANOL				
UNKNOWN				

U - Not detected at listed detection limit.

B - Laboratory blank contamination.

J - Positive result is considered estimated as a result of technical noncompliance.

L - Positive result is considered to be biased low as a result of technical noncompliance.

K - Positive result is considered to be biased high as a result of technical noncompliance.

R - Result rejected as a result of technical noncompliance.

ug/l - micrograms per liter.

APPENDIX I—DATA-VALIDATION REPORTS (ON CD)

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**SEPTEMBER 6, 2011**
FROM:	**A. COGNETTI**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION - VOC/SVOC/PCB/TPH (GASOLINE & DIESEL)/ METALS/PERCHLORATE**
GREATER STRAWBERRY POINT MSA
SAMPLE DELIVERY GROUP (SDG) – 240-1267-1

SAMPLES: 4/Aqueous/VOC

GSP-MW1-061711 GSP-MW2-061711 GSP-MW3-061711
TB-061711

3/Aqueous/SVOC/GRO/DRO/Metals/Perchlorate

GSP-MW1-061711 GSP-MW2-061711 GSP-MW3-061711

Overview

The sample set for Greater Strawberry Point MSA, SDG 240-1267-1 consisted of three (3) aqueous samples and a trip blank analyzed for volatile organic compounds (VOCs). Three (3) aqueous samples were analyzed for semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH) gasoline and total petroleum hydrocarbons (TPH) diesel, total select metals, dissolved select metals and perchlorate. The select metals were antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, tungsten, vanadium and zinc.

The samples were collected on June 17, 2011 and analyzed by Test America Laboratories Inc. All analyses were conducted in accordance with SW-846 Methods 8260B for VOCs, 8270C for SVOCs, 8015B for TPH (gasoline and diesel), 6010C for metals, 7471B for mercury and MCAWW 314 for perchlorate analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method /preparation blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate, internal standard recoveries, chromatographic resolution, ICP interference results, ICP serial dilution results, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- VOC initial calibration relative response factors (RRFs) for tert-butyl alcohol and vinyl acetate were less than the 0.05 quality control limit on May 29, 2011 for instrument A3UX16 and the continuing calibrations on June 28, 2011 @ 14:29. The nondetected tert-butyl alcohol and vinyl acetate results were qualified as rejected (UR) in the affected samples.

Minor

- The following VOC contaminants were detected in the trip blank at the following maximum concentrations:

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
Benzene	0.29	1.45
Acetone	2.2	22.0
Toluene	0.26	1.3

An action level of ten times the maximum level for the common laboratory contaminant, acetone, and five times the maximum level for other contaminants has been used to evaluate sample data for blank contamination. Sample aliquot, and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for the above analytes were qualified "B" as a result of laboratory blank contamination.

- The VOC continuing calibration percent difference (%D) for acetone was greater than 50% on June 28, 2011@ 14:29 on instrument A3UX16. The positive acetone result in the trip blank TB-062211 was qualified as estimated (J). The positive acetone results in the samples were qualified due to blank contamination. No further action was taken.

- The TPH as gasoline laboratory method blank 240-6402/19 contained contaminant.

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
TPH as gasoline	37.9	189.5

An action level of 5X the maximum concentration of contaminant was used in order to evaluate the affected samples. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified (B) as a result of laboratory blank contamination.

- The following contaminants were detected in the laboratory method/preparation/continuing calibration blanks at the following maximum concentrations:

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
Antimony [(1)]	0.343	1.72
Chromium [(2)]	0.281	1.41
Cobalt [(3)]	0.243	1.22
Lead [(2)]	0.176	0.88
Molybdenum [(4)]	0.619	3.095
Thallium [(2)]	0.225	1.125
Tungsten [(1)]	0.338	1.69
Zinc [(2)]	0.851	4.255

(1) Maximum concentration of contaminants in the initial calibration blank 200-21675/8 analyzed on July 16, 2011 @ 1:09.
(2) Maximum concentration of contaminant in the method blank 200-20966/1-A affecting all samples both total and dissolved.

(3) Maximum concentration of contaminant in CCB 200-21675/26 analyzed on July 16, 2011 @ 12:05.
(4) Maximum concentration of contaminant in CCB 200-21675/12 analyzed on July 16, 2011 @ 1:47 affecting the total metals.

An action level of 5x the maximum concentration of contaminant was used in order to evaluate the affected samples. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified (B) as a result of laboratory blank contamination.

- The %D in the serial dilution of total and dissolved lead and zinc were greater than 10%. The positive total and dissolved lead and zinc results were qualified as estimated (J).

- Positive results reported below the quantitation limit but above the method detection limit (MDL) were qualified as estimated, (J).

Notes

Form 1s of the VOC Tentatively Identified Compounds (TICs) are included in this SDG in Appendix B. No action was taken on these findings. TICS were qualified as (NJ).

The VOC continuing calibration %Ds for several analytes were greater than the 20% quality control limit but less than 50% on June 28, 2011 @ 14:29 and 14:52. The analytes were trichlorofluoromethane, carbon disulfide, tert-butyl alcohol, vinyl acetate, 2-chloroethyl vinyl ether, trans-1,3-dichloropropene, tetrachloroethene, bromoform, 1,2-dibromo-3-chloropropane, naphthalene, 1,2,3-trichlorobenzene, ethyl tert butyl ether and tert amyl methyl ether. No action was taken on the nondetected results of the aforementioned analytes in the affected samples.

The percent recovery (%R) of tert-butyl alcohol was less than the lower quality control limit in the laboratory control sample associated with batch 240-6415/4. No further action was taken on the nondetected tert-butyl alcohol results which were qualified due to a more serious noncompliance.

Naphthalene and hexachlorobutadiene were reported in both the VOC and the SVOC fractions.

Nondetected results were reported to the MDL.

Executive Summary

Laboratory Performance: The VOC RRFs for tert-butyl alcohol and vinyl acetate were less than the quality control limit resulting in the rejection of nondetected results. VOC, TPH as diesel and gasoline and metals results were qualified due to method blank contamination. Continuing calibration verification percent difference exceeded quality control limits in the VOC fraction for acetone. The LCS %R of tert-butyl alcohol was less than quality control limits.

Other Factors Affecting Data Quality: Trip blank contained acetone, benzene and toluene. The serial dilution %Ds for total and dissolved lead and zinc exceeded quality control limits. Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and U.S. EPA National Functional Guidelines for Inorganic Data Validation (April 1993). The text of this report has been formulated to address only those problem areas affecting data quality.

Ann Cognetti
Tetra Tech NUS
Ann Cognetti
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279 SDG: 240-1267-1 FRACTION: OV MEDIA: WATER	NSAMPLE	GSP-MW1-061711			GSP-MW2-061711			GSP-MW3-061711			TB-061711		
	LAB_ID	240-1267-2			240-1267-3			240-1267-4			240-1267-1		
	SAMP_DATE	6/17/2011			6/17/2011			6/17/2011			6/17/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.45	J	P	0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.26	J	P	0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	U		0.57	U		0.62	J	P	0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		6.9	B	B	1.6	B	B	3.6	B	B	2.1	J	CP
BENZENE		0.35	B	B	0.19	B	B	0.16	B	B	0.29	J	P
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 03279 SDG: 240-1267-1 FRACTION: OV MEDIA: WATER	NSAMPLE	GSP-MW1-061711			GSP-MW2-061711			GSP-MW3-061711			TB-061711		
	LAB_ID	240-1267-2			240-1267-3			240-1267-4			240-1267-1		
	SAMP_DATE	6/17/2011			6/17/2011			6/17/2011			6/17/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		2.1			0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES		0.71	J	P	0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE		0.33	J	P	0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE		1.1	B	B	0.19	B	B	0.17	B	B	0.26	J	P
TOTAL XYLENES		1	J	P	0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE		12			0.17	U		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW1-061711			GSP-MW2-061711			GSP-MW3-061711			TB-061711		
SDG: 240-1267-1	LAB_ID	240-1267-2			240-1267-3			240-1267-4			240-1267-1		
FRACTION: OV	SAMP_DATE	6/17/2011			6/17/2011			6/17/2011			6/17/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW1-061711			GSP-MW2-061711			GSP-MW3-061711		
SDG: 240-1267-1	LAB_ID	240-1267-2			240-1267-3			240-1267-4		
FRACTION: OS	SAMP_DATE	6/17/2011			6/17/2011			6/17/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL	0.77	U		0.78	U		0.78	U	
1,4-DIOXANE	0.47	U		0.48	U		0.48	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	0.38	U		0.39	U		0.39	U	
2,4,5-TRICHLOROPHENOL	0.29	U		0.29	U		0.29	U	
2,4,6-TRICHLOROPHENOL	0.77	U		0.78	U		0.78	U	
2,4-DICHLOROPHENOL	0.77	U		0.78	U		0.78	U	
2,4-DIMETHYLPHENOL	0.77	U		0.78	U		0.78	U	
2,4-DINITROPHENOL	2.3	U		2.4	U		2.3	U	
2,4-DINITROTOLUENE	0.26	U		0.26	U		0.26	U	
2,6-DINITROTOLUENE	0.77	U		0.78	U		0.78	U	
2-CHLORONAPHTHALENE	0.096	U		0.098	U		0.097	U	
2-CHLOROPHENOL	0.28	U		0.28	U		0.28	U	
2-METHYLNAPHTHALENE	0.096	U		0.098	U		0.097	U	
2-METHYLPHENOL	0.77	U		0.78	U		0.78	U	
2-NITROANILINE	0.77	U		0.78	U		0.78	U	
2-NITROPHENOL	0.27	U		0.27	U		0.27	U	
3&4-METHYLPHENOL	0.72	U		0.74	U		0.73	U	
3,3'-DICHLOROBENZIDINE	0.36	U		0.36	U		0.36	U	
3-NITROANILINE	0.27	U		0.27	U		0.27	U	
4,6-DINITRO-2-METHYLPHENOL	2.3	U		2.4	U		2.3	U	
4-BROMOPHENYL PHENYL ETHER	0.77	U		0.78	U		0.78	U	
4-CHLORO-3-METHYLPHENOL	0.77	U		0.78	U		0.78	U	
4-CHLOROANILINE	0.77	U		0.78	U		0.78	U	
4-CHLOROPHENYL PHENYL ETHER	0.29	U		0.29	U		0.29	U	
4-NITROANILINE	0.77	U		0.78	U		0.78	U	
4-NITROPHENOL	2.3	U		2.4	U		2.3	U	
ACENAPHTHENE	0.096	U		0.098	U		0.097	U	
ACENAPHTHYLENE	0.096	U		0.098	U		0.097	U	
ACETOPHENONE	0.33	U		0.33	U		0.33	U	
ANTHRACENE	0.096	U		0.098	U		0.097	U	
ATRAZINE	0.33	U		0.33	U		0.33	U	
BENZALDEHYDE	0.37	U		0.38	U		0.38	U	
BENZO(A)ANTHRACENE	0.096	U		0.098	U		0.097	U	
BENZO(A)PYRENE	0.096	U		0.098	U		0.097	U	
BENZO(B)FLUORANTHENE	0.096	U		0.098	U		0.097	U	

PROJ_NO: 03279 SDG: 240-1267-1 FRACTION: OS MEDIA: WATER	NSAMPLE	GSP-MW1-061711			GSP-MW2-061711			GSP-MW3-061711		
	LAB_ID	240-1267-2			240-1267-3			240-1267-4		
	SAMP_DATE	6/17/2011			6/17/2011			6/17/2011		
	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		0.096	U		0.098	U		0.097	U	
BENZO(K)FLUORANTHENE		0.096	U		0.098	U		0.097	U	
BIS(2-CHLOROETHOXY)METHANE		0.31	U		0.31	U		0.31	U	
BIS(2-CHLOROETHYL)ETHER		0.096	U		0.098	U		0.097	U	
BIS(2-ETHYLHEXYL)PHTHALATE		0.77	U		0.78	U		0.99	J	P
BUTYL BENZYL PHTHALATE		0.77	U		0.78	U		0.78	U	
CAPROLACTAM		0.77	J	P	0.78	U		0.78	U	
CARBAZOLE		0.27	U		0.27	U		0.27	U	
CHRYSENE		0.096	U		0.098	U		0.097	U	
DIBENZO(A,H)ANTHRACENE		0.096	U		0.098	U		0.097	U	
DIBENZOFURAN		0.096	U		0.098	U		0.097	U	
DIETHYL PHTHALATE		0.58	U		0.59	U		0.58	U	
DIMETHYL PHTHALATE		0.28	U		0.28	U		0.28	U	
DI-N-BUTYL PHTHALATE		0.64	U		0.66	U		0.65	U	
DI-N-OCTYL PHTHALATE		0.77	U		0.78	U		0.78	U	
FLUORANTHENE		0.096	U		0.098	U		0.097	U	
FLUORENE		0.096	U		0.098	U		0.097	U	
HEXACHLOROBENZENE		0.096	U		0.098	U		0.097	U	
HEXACHLOROBUTADIENE		0.26	U		0.26	U		0.26	U	
HEXACHLOROCYCLOPENTADIENE		0.77	U		0.78	U		0.78	U	
HEXACHLOROETHANE		0.77	U		0.78	U		0.78	U	
INDENO(1,2,3-CD)PYRENE		0.096	U		0.098	U		0.097	U	
ISOPHORONE		0.26	U		0.26	U		0.26	U	
NAPHTHALENE		0.096	U		0.098	U		0.097	U	
NITROBENZENE		0.038	U		0.039	U		0.039	U	
N-NITROSODIMETHYLAMINE		0.3	U		0.3	U		0.3	U	
N-NITROSO-DI-N-PROPYLAMINE		0.77	U		0.78	U		0.78	U	
N-NITROSODIPHENYLAMINE		0.3	U		0.3	U		0.3	U	
PENTACHLOROPHENOL		2.3	U		2.4	U		2.3	U	
PHENANTHRENE		0.096	U		0.098	U		0.097	U	
PHENOL		0.58	U		0.59	U		0.58	U	
PYRENE		0.096	U		0.098	U		0.097	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW1-061711			GSP-MW2-061711			GSP-MW3-061711		
SDG: 240-1267-1	LAB_ID	240-1267-2			240-1267-3			240-1267-4		
FRACTION: PET	SAMP_DATE	6/17/2011			6/17/2011			6/17/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		310	J	P	300	J	P	360	J	P
GASOLINE RANGE ORGANICS		51	B	A	40	B	A	41	B	A

PROJ_NO: 03279 SDG: 240-1267-1 FRACTION: M MEDIA: WATER	NSAMPLE	GSP-MW1-061711			GSP-MW2-061711			GSP-MW3-061711		
	LAB_ID	240-1267-2			240-1267-3			240-1267-4		
	SAMP_DATE	6/17/2011			6/17/2011			6/17/2011		
	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.17	B	A	0.14	B	A	0.28	B	A
ARSENIC		0.55	J	P	0.95	J	P	11		
BARIUM		120			24			16		
BERYLLIUM		1.7			0.092	U		0.092	U	
CADMIUM		0.3	J	P	0.11	J	P	0.046	U	
CHROMIUM		5.1			0.36	B	A	4.3		
COBALT		52			16			11		
COPPER		35			3			17		
LEAD		1.1	J	I	0.33	B	A	1.9	J	I
MERCURY		0.066	U		0.066	U		0.066	U	
MOLYBDENUM		0.56	B	A	0.42	U		0.48	B	A
NICKEL		77			17			11		
SELENIUM		1.1	J	P	0.32	U		0.32	U	
SILVER		0.014	U		0.014	U		0.014	U	
THALLIUM		0.47	B	A	0.28	B	A	0.29	B	A
TUNGSTEN		0.25	B	A	0.16	U		0.16	U	
VANADIUM		0.3	U		0.41	J	P	48		
ZINC		210	J	I	29	J	I	45	J	I

PROJ_NO: 03279	NSAMPLE	GSP-MW1-061711			GSP-MW2-061711			GSP-MW3-061711		
SDG: 240-1267-1	LAB_ID	240-1267-2			240-1267-3			240-1267-4		
FRACTION: MF	SAMP_DATE	6/17/2011			6/17/2011			6/17/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.18	B	A	0.15	B	A	0.15	B	A
ARSENIC		0.3	J	P	0.87	J	P	0.27	J	P
BARIUM		10			23			120		
BERYLLIUM		0.092	U		0.092	U		1.8		
CADMIUM		0.046	U		0.1	J	P	0.36	J	P
CHROMIUM		0.3	B	A	0.62	B	A	4.7		
COBALT		11			16			54		
COPPER		7.2			3.9			36		
LEAD		0.21	B	A	0.34	B	A	1.2	J	I
MERCURY		0.066	U		0.066	U		0.066	U	
MOLYBDENUM		0.42	U		0.42	U		0.42	U	
NICKEL		11			16			79		
SELENIUM		0.32	U		0.32	U		0.35	J	P
SILVER		0.014	U		0.014	U		0.014	U	
THALLIUM		0.25	B	A	0.25	B	A	0.39	B	A
TUNGSTEN		0.16	U		0.16	U		0.16	U	
VANADIUM		0.67	J	P	0.3	U		0.3	U	
ZINC		42	J	I	31	J	I	220	J	I

PROJ_NO: 03279	NSAMPLE	GSP-MW1-061711			GSP-MW2-061711			GSP-MW3-061711		
SDG: 240-1267-1	LAB_ID	240-1267-2			240-1267-3			240-1267-4		
FRACTION: MISC	SAMP_DATE	6/17/2011			6/17/2011			6/17/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.36	U		0.36	U		0.36	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW1-061711 | Lab Sample ID: 240-1267-2

Matrix: Water | Lab File ID: UXM7289.D

Analysis Method: 8260B | Date Collected: 06/17/2011 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2011 20:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6415 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.45	J	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	0.26	J	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	6.9	J	10	1.1
71-43-2	Benzene	0.35	J	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW1-061711 | Lab Sample ID: 240-1267-2

Matrix: Water | Lab File ID: UXM7289.D

Analysis Method: 8260B | Date Collected: 06/17/2011 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2011 20:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6415 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	2.1		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.71	J	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	0.33	J	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.1		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	12		1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	1.0	J	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW1-061711 Lab Sample ID: 240-1267-2

Matrix: Water Lab File ID: UXM7289.D

Analysis Method: 8260B Date Collected: 06/17/2011 11:00

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2011 20:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		74-115
1868-53-7	Dibromofluoromethane (Surr)	95		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW1-061711 | Lab Sample ID: 240-1267-2

Matrix: Water | Lab File ID: UXM7289.D

Analysis Method: 8260B | Date Collected: 06/17/2011 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2011 20:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6415 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 1.6

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.64	1.6	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW2-061711 | Lab Sample ID: 240-1267-3

Matrix: Water | Lab File ID: UXM7290.D

Analysis Method: 8260B | Date Collected: 06/17/2011 13:20

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2011 21:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6415 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	1.6	J	10	1.1
71-43-2	Benzene	0.19	J	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW2-061711 | Lab Sample ID: 240-1267-3

Matrix: Water | Lab File ID: UXM7290.D

Analysis Method: 8260B | Date Collected: 06/17/2011 13:20

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2011 21:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6415 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	0.19	J	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW2-061711 Lab Sample ID: 240-1267-3

Matrix: Water Lab File ID: UXM7290.D

Analysis Method: 8260B Date Collected: 06/17/2011 13:20

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2011 21:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-115
1868-53-7	Dibromofluoromethane (Surr)	93		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW2-061711 Lab Sample ID: 240-1267-3

Matrix: Water Lab File ID: UXM7290.D

Analysis Method: 8260B Date Collected: 06/17/2011 13:20

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2011 21:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6415 Units: ug/L

Number TICs Found: 1 TIC Result Total: 1.5

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.64	1.5	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW3-061711 | Lab Sample ID: 240-1267-4

Matrix: Water | Lab File ID: UXM7291.D

Analysis Method: 8260B | Date Collected: 06/17/2011 15:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2011 21:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6415 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	0.62	J	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	3.6	J	10	1.1
71-43-2	Benzene	0.16	J	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW3-061711 | Lab Sample ID: 240-1267-4

Matrix: Water | Lab File ID: UXM7291.D

Analysis Method: 8260B | Date Collected: 06/17/2011 15:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2011 21:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6415 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	0.17	J	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW3-061711 | Lab Sample ID: 240-1267-4

Matrix: Water | Lab File ID: UXM7291.D

Analysis Method: 8260B | Date Collected: 06/17/2011 15:05

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2011 21:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6415 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		74-115
1868-53-7	Dibromofluoromethane (Surr)	93		75-121
460-00-4	4-Bromofluorobenzene (Surr)	88		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton	Job No.: 240-1267-1
SDG No.:	
Client Sample ID: GSP-MW3-061711	Lab Sample ID: 240-1267-4
Matrix: Water	Lab File ID: UXM7291.D
Analysis Method: 8260B	Date Collected: 06/17/2011 15:05
Sample wt/vol: 5(mL)	Date Analyzed: 06/28/2011 21:38
Soil Aliquot Vol:	Dilution Factor: 1
Soil Extract Vol.:	GC Column: DB-624 ID: 0.18(mm)
% Moisture:	Level: (low/med) Low
Analysis Batch No.: 6415	Units: ug/L
Number TICs Found: 0	TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: TB-061711 Lab Sample ID: 240-1267-1

Matrix: Water Lab File ID: UXM7288.D

Analysis Method: 8260B Date Collected: 06/17/2011 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2011 20:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	2.1	J	10	1.1
71-43-2	Benzene	0.29	J	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: TB-061711 Lab Sample ID: 240-1267-1

Matrix: Water Lab File ID: UXM7288.D

Analysis Method: 8260B Date Collected: 06/17/2011 00:00

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2011 20:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	0.26	J	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: TB-061711 | Lab Sample ID: 240-1267-1

Matrix: Water | Lab File ID: UXM7288.D

Analysis Method: 8260B | Date Collected: 06/17/2011 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2011 20:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6415 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		74-115
1868-53-7	Dibromofluoromethane (Surr)	98		75-121
460-00-4	4-Bromofluorobenzene (Surr)	86		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: TB-061711 | Lab Sample ID: 240-1267-1

Matrix: Water | Lab File ID: UXM7288.D

Analysis Method: 8260B | Date Collected: 06/17/2011 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2011 20:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6415 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW1-061711 | Lab Sample ID: 240-1267-2

Matrix: Water | Lab File ID: 1267I2A.D

Analysis Method: 8270D | Date Collected: 06/17/2011 11:00

Extract. Method: 3510C | Date Extracted: 06/21/2011 08:58

Sample wt/vol: 1040(mL) | Date Analyzed: 07/22/2011 20:35

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9503 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.19	U	0.19	0.096
208-96-8	Acenaphthylene	0.19	U	0.19	0.096
98-86-2	Acetophenone	0.96	U	0.96	0.33
120-12-7	Anthracene	0.19	U	0.19	0.096
1912-24-9	Atrazine	0.96	U	0.96	0.33
100-52-7	Benzaldehyde	0.96	U	0.96	0.37
56-55-3	Benzo[a]anthracene	0.19	U	0.19	0.096
50-32-8	Benzo[a]pyrene	0.19	U	0.19	0.096
205-99-2	Benzo[b]fluoranthene	0.19	U	0.19	0.096
191-24-2	Benzo[g,h,i]perylene	0.19	U	0.19	0.096
207-08-9	Benzo[k]fluoranthene	0.19	U	0.19	0.096
92-52-4	1,1'-Biphenyl	0.96	U	0.96	0.77
111-91-1	Bis(2-chloroethoxy)methane	0.96	U	0.96	0.31
111-44-4	Bis(2-chloroethyl)ether	0.96	U	0.96	0.096
117-81-7	Bis(2-ethylhexyl) phthalate	1.9	U	1.9	0.77
101-55-3	4-Bromophenyl phenyl ether	1.9	U	1.9	0.77
85-68-7	Butyl benzyl phthalate	0.96	U	0.96	0.77
105-60-2	Caprolactam	0.77	J	4.8	0.77
86-74-8	Carbazole	0.96	U	0.96	0.27
106-47-8	4-Chloroaniline	1.9	U	1.9	0.77
59-50-7	4-Chloro-3-methylphenol	1.9	U	1.9	0.77
91-58-7	2-Chloronaphthalene	0.96	U	0.96	0.096
95-57-8	2-Chlorophenol	0.96	U	0.96	0.28
7005-72-3	4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29
218-01-9	Chrysene	0.19	U	0.19	0.096
53-70-3	Dibenzo(a,h)anthracene	0.19	U	0.19	0.096
132-64-9	Dibenzofuran	0.96	U	0.96	0.096
91-94-1	3,3'-Dichlorobenzidine	4.8	U	4.8	0.36
120-83-2	2,4-Dichlorophenol	1.9	U	1.9	0.77
84-66-2	Diethyl phthalate	0.96	U	0.96	0.58
105-67-9	2,4-Dimethylphenol	1.9	U	1.9	0.77
131-11-3	Dimethyl phthalate	0.96	U	0.96	0.28
84-74-2	Di-n-butyl phthalate	0.96	U	0.96	0.64
534-52-1	4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW1-061711 | Lab Sample ID: 240-1267-2

Matrix: Water | Lab File ID: 1267I2A.D

Analysis Method: 8270D | Date Collected: 06/17/2011 11:00

Extract. Method: 3510C | Date Extracted: 06/21/2011 08:58

Sample wt/vol: 1040(mL) | Date Analyzed: 07/22/2011 20:35

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9503 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	4.8	U	4.8	2.3
121-14-2	2,4-Dinitrotoluene	4.8	U	4.8	0.26
606-20-2	2,6-Dinitrotoluene	4.8	U	4.8	0.77
117-84-0	Di-n-octyl phthalate	0.96	U	0.96	0.77
206-44-0	Fluoranthene	0.19	U	0.19	0.096
86-73-7	Fluorene	0.19	U	0.19	0.096
118-74-1	Hexachlorobenzene	0.19	U	0.19	0.096
87-68-3	Hexachlorobutadiene	0.96	U	0.96	0.26
77-47-4	Hexachlorocyclopentadiene	9.6	U	9.6	0.77
67-72-1	Hexachloroethane	0.96	U	0.96	0.77
193-39-5	Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.096
78-59-1	Isophorone	0.96	U	0.96	0.26
91-57-6	2-Methylnaphthalene	0.19	U	0.19	0.096
95-48-7	2-Methylphenol	0.96	U	0.96	0.77
123-91-1	1,4-Dioxane	0.96	U	0.96	0.47
15831-10-4	3 & 4 Methylphenol	1.9	U	1.9	0.72
91-20-3	Naphthalene	0.19	U	0.19	0.096
88-74-4	2-Nitroaniline	1.9	U	1.9	0.77
99-09-2	3-Nitroaniline	1.9	U	1.9	0.27
100-01-6	4-Nitroaniline	1.9	U	1.9	0.77
98-95-3	Nitrobenzene	0.96	U	0.96	0.038
88-75-5	2-Nitrophenol	1.9	U	1.9	0.27
100-02-7	4-Nitrophenol	4.8	U	4.8	2.3
621-64-7	N-Nitrosodi-n-propylamine	0.96	U	0.96	0.77
86-30-6	N-Nitrosodiphenylamine	0.96	U	0.96	0.30
108-60-1	2,2'-oxybis[1-chloropropane]	0.96	U	0.96	0.38
87-86-5	Pentachlorophenol	4.8	U	4.8	2.3
85-01-8	Phenanthrene	0.19	U	0.19	0.096
108-95-2	Phenol	0.96	U	0.96	0.58
129-00-0	Pyrene	0.19	U	0.19	0.096
95-95-4	2,4,5-Trichlorophenol	4.8	U	4.8	0.29
88-06-2	2,4,6-Trichlorophenol	4.8	U	4.8	0.77
62-75-9	N-Nitrosodimethylamine	0.96	U	0.96	0.30

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW1-061711 | Lab Sample ID: 240-1267-2

Matrix: Water | Lab File ID: 1267I2A.D

Analysis Method: 8270D | Date Collected: 06/17/2011 11:00

Extract. Method: 3510C | Date Extracted: 06/21/2011 08:58

Sample wt/vol: 1040(mL) | Date Analyzed: 07/22/2011 20:35

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9503 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	55		28-110
367-12-4	2-Fluorophenol (Surr)	59		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		27-111
4165-62-2	Phenol-d5 (Surr)	61		10-110
1718-51-0	Terphenyl-d14 (Surr)	67		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	67		22-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW2-061711 | Lab Sample ID: 240-1267-3

Matrix: Water | Lab File ID: 1267I3A.D

Analysis Method: 8270D | Date Collected: 06/17/2011 13:20

Extract. Method: 3510C | Date Extracted: 06/21/2011 08:58

Sample wt/vol: 1020(mL) | Date Analyzed: 07/22/2011 20:54

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9503 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.20	U	0.20	0.098
208-96-8	Acenaphthylene	0.20	U	0.20	0.098
98-86-2	Acetophenone	0.98	U	0.98	0.33
120-12-7	Anthracene	0.20	U	0.20	0.098
1912-24-9	Atrazine	0.98	U	0.98	0.33
100-52-7	Benzaldehyde	0.98	U	0.98	0.38
56-55-3	Benzo[a]anthracene	0.20	U	0.20	0.098
50-32-8	Benzo[a]pyrene	0.20	U	0.20	0.098
205-99-2	Benzo[b]fluoranthene	0.20	U	0.20	0.098
191-24-2	Benzo[g,h,i]perylene	0.20	U	0.20	0.098
207-08-9	Benzo[k]fluoranthene	0.20	U	0.20	0.098
92-52-4	1,1'-Biphenyl	0.98	U	0.98	0.78
111-91-1	Bis(2-chloroethoxy)methane	0.98	U	0.98	0.31
111-44-4	Bis(2-chloroethyl)ether	0.98	U	0.98	0.098
117-81-7	Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.78
101-55-3	4-Bromophenyl phenyl ether	2.0	U	2.0	0.78
85-68-7	Butyl benzyl phthalate	0.98	U	0.98	0.78
105-60-2	Caprolactam	4.9	U	4.9	0.78
86-74-8	Carbazole	0.98	U	0.98	0.27
106-47-8	4-Chloroaniline	2.0	U	2.0	0.78
59-50-7	4-Chloro-3-methylphenol	2.0	U	2.0	0.78
91-58-7	2-Chloronaphthalene	0.98	U	0.98	0.098
95-57-8	2-Chlorophenol	0.98	U	0.98	0.28
7005-72-3	4-Chlorophenyl phenyl ether	2.0	U	2.0	0.29
218-01-9	Chrysene	0.20	U	0.20	0.098
53-70-3	Dibenzo(a,h)anthracene	0.20	U	0.20	0.098
132-64-9	Dibenzofuran	0.98	U	0.98	0.098
91-94-1	3,3'-Dichlorobenzidine	4.9	U	4.9	0.36
120-83-2	2,4-Dichlorophenol	2.0	U	2.0	0.78
84-66-2	Diethyl phthalate	0.98	U	0.98	0.59
105-67-9	2,4-Dimethylphenol	2.0	U	2.0	0.78
131-11-3	Dimethyl phthalate	0.98	U	0.98	0.28
84-74-2	Di-n-butyl phthalate	0.98	U	0.98	0.66
534-52-1	4,6-Dinitro-2-methylphenol	4.9	U	4.9	2.4

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW2-061711 | Lab Sample ID: 240-1267-3

Matrix: Water | Lab File ID: 1267I3A.D

Analysis Method: 8270D | Date Collected: 06/17/2011 13:20

Extract. Method: 3510C | Date Extracted: 06/21/2011 08:58

Sample wt/vol: 1020(mL) | Date Analyzed: 07/22/2011 20:54

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9503 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	4.9	U	4.9	2.4
121-14-2	2,4-Dinitrotoluene	4.9	U	4.9	0.26
606-20-2	2,6-Dinitrotoluene	4.9	U	4.9	0.78
117-84-0	Di-n-octyl phthalate	0.98	U	0.98	0.78
206-44-0	Fluoranthene	0.20	U	0.20	0.098
86-73-7	Fluorene	0.20	U	0.20	0.098
118-74-1	Hexachlorobenzene	0.20	U	0.20	0.098
87-68-3	Hexachlorobutadiene	0.98	U	0.98	0.26
77-47-4	Hexachlorocyclopentadiene	9.8	U	9.8	0.78
67-72-1	Hexachloroethane	0.98	U	0.98	0.78
193-39-5	Indeno[1,2,3-cd]pyrene	0.20	U	0.20	0.098
78-59-1	Isophorone	0.98	U	0.98	0.26
91-57-6	2-Methylnaphthalene	0.20	U	0.20	0.098
95-48-7	2-Methylphenol	0.98	U	0.98	0.78
123-91-1	1,4-Dioxane	0.98	U	0.98	0.48
15831-10-4	3 & 4 Methylphenol	2.0	U	2.0	0.74
91-20-3	Naphthalene	0.20	U	0.20	0.098
88-74-4	2-Nitroaniline	2.0	U	2.0	0.78
99-09-2	3-Nitroaniline	2.0	U	2.0	0.27
100-01-6	4-Nitroaniline	2.0	U	2.0	0.78
98-95-3	Nitrobenzene	0.98	U	0.98	0.039
88-75-5	2-Nitrophenol	2.0	U	2.0	0.27
100-02-7	4-Nitrophenol	4.9	U	4.9	2.4
621-64-7	N-Nitrosodi-n-propylamine	0.98	U	0.98	0.78
86-30-6	N-Nitrosodiphenylamine	0.98	U	0.98	0.30
108-60-1	2,2'-oxybis[1-chloropropane]	0.98	U	0.98	0.39
87-86-5	Pentachlorophenol	4.9	U	4.9	2.4
85-01-8	Phenanthrene	0.20	U	0.20	0.098
108-95-2	Phenol	0.98	U	0.98	0.59
129-00-0	Pyrene	0.20	U	0.20	0.098
95-95-4	2,4,5-Trichlorophenol	4.9	U	4.9	0.29
88-06-2	2,4,6-Trichlorophenol	4.9	U	4.9	0.78
62-75-9	N-Nitrosodimethylamine	0.98	U	0.98	0.30

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW2-061711 | Lab Sample ID: 240-1267-3

Matrix: Water | Lab File ID: 1267I3A.D

Analysis Method: 8270D | Date Collected: 06/17/2011 13:20

Extract. Method: 3510C | Date Extracted: 06/21/2011 08:58

Sample wt/vol: 1020(mL) | Date Analyzed: 07/22/2011 20:54

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9503 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	49		28-110
367-12-4	2-Fluorophenol (Surr)	57		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	58		27-111
4165-62-2	Phenol-d5 (Surr)	57		10-110
1718-51-0	Terphenyl-d14 (Surr)	75		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	62		22-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW3-061711 Lab Sample ID: 240-1267-4

Matrix: Water Lab File ID: 1267I4A.D

Analysis Method: 8270D Date Collected: 06/17/2011 15:05

Extract. Method: 3510C Date Extracted: 06/21/2011 08:58

Sample wt/vol: 1030(mL) Date Analyzed: 07/22/2011 21:13

Con. Extract Vol.: 2.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 9503 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.19	U	0.19	0.097
208-96-8	Acenaphthylene	0.19	U	0.19	0.097
98-86-2	Acetophenone	0.97	U	0.97	0.33
120-12-7	Anthracene	0.19	U	0.19	0.097
1912-24-9	Atrazine	0.97	U	0.97	0.33
100-52-7	Benzaldehyde	0.97	U	0.97	0.38
56-55-3	Benzo[a]anthracene	0.19	U	0.19	0.097
50-32-8	Benzo[a]pyrene	0.19	U	0.19	0.097
205-99-2	Benzo[b]fluoranthene	0.19	U	0.19	0.097
191-24-2	Benzo[g,h,i]perylene	0.19	U	0.19	0.097
207-08-9	Benzo[k]fluoranthene	0.19	U	0.19	0.097
92-52-4	1,1'-Biphenyl	0.97	U	0.97	0.78
111-91-1	Bis(2-chloroethoxy)methane	0.97	U	0.97	0.31
111-44-4	Bis(2-chloroethyl)ether	0.97	U	0.97	0.097
117-81-7	Bis(2-ethylhexyl) phthalate	0.99	J	1.9	0.78
101-55-3	4-Bromophenyl phenyl ether	1.9	U	1.9	0.78
85-68-7	Butyl benzyl phthalate	0.97	U	0.97	0.78
105-60-2	Caprolactam	4.9	U	4.9	0.78
86-74-8	Carbazole	0.97	U	0.97	0.27
106-47-8	4-Chloroaniline	1.9	U	1.9	0.78
59-50-7	4-Chloro-3-methylphenol	1.9	U	1.9	0.78
91-58-7	2-Chloronaphthalene	0.97	U	0.97	0.097
95-57-8	2-Chlorophenol	0.97	U	0.97	0.28
7005-72-3	4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29
218-01-9	Chrysene	0.19	U	0.19	0.097
53-70-3	Dibenzo(a,h)anthracene	0.19	U	0.19	0.097
132-64-9	Dibenzofuran	0.97	U	0.97	0.097
91-94-1	3,3'-Dichlorobenzidine	4.9	U	4.9	0.36
120-83-2	2,4-Dichlorophenol	1.9	U	1.9	0.78
84-66-2	Diethyl phthalate	0.97	U	0.97	0.58
105-67-9	2,4-Dimethylphenol	1.9	U	1.9	0.78
131-11-3	Dimethyl phthalate	0.97	U	0.97	0.28
84-74-2	Di-n-butyl phthalate	0.97	U	0.97	0.65
534-52-1	4,6-Dinitro-2-methylphenol	4.9	U	4.9	2.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW3-061711 | Lab Sample ID: 240-1267-4

Matrix: Water | Lab File ID: 1267I4A.D

Analysis Method: 8270D | Date Collected: 06/17/2011 15:05

Extract. Method: 3510C | Date Extracted: 06/21/2011 08:58

Sample wt/vol: 1030(mL) | Date Analyzed: 07/22/2011 21:13

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9503 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	4.9	U	4.9	2.3
121-14-2	2,4-Dinitrotoluene	4.9	U	4.9	0.26
606-20-2	2,6-Dinitrotoluene	4.9	U	4.9	0.78
117-84-0	Di-n-octyl phthalate	0.97	U	0.97	0.78
206-44-0	Fluoranthene	0.19	U	0.19	0.097
86-73-7	Fluorene	0.19	U	0.19	0.097
118-74-1	Hexachlorobenzene	0.19	U	0.19	0.097
87-68-3	Hexachlorobutadiene	0.97	U	0.97	0.26
77-47-4	Hexachlorocyclopentadiene	9.7	U	9.7	0.78
67-72-1	Hexachloroethane	0.97	U	0.97	0.78
193-39-5	Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.097
78-59-1	Isophorone	0.97	U	0.97	0.26
91-57-6	2-Methylnaphthalene	0.19	U	0.19	0.097
95-48-7	2-Methylphenol	0.97	U	0.97	0.78
123-91-1	1,4-Dioxane	0.97	U	0.97	0.48
15831-10-4	3 & 4 Methylphenol	1.9	U	1.9	0.73
91-20-3	Naphthalene	0.19	U	0.19	0.097
88-74-4	2-Nitroaniline	1.9	U	1.9	0.78
99-09-2	3-Nitroaniline	1.9	U	1.9	0.27
100-01-6	4-Nitroaniline	1.9	U	1.9	0.78
98-95-3	Nitrobenzene	0.97	U	0.97	0.039
88-75-5	2-Nitrophenol	1.9	U	1.9	0.27
100-02-7	4-Nitrophenol	4.9	U	4.9	2.3
621-64-7	N-Nitrosodi-n-propylamine	0.97	U	0.97	0.78
86-30-6	N-Nitrosodiphenylamine	0.97	U	0.97	0.30
108-60-1	2,2'-oxybis[1-chloropropane]	0.97	U	0.97	0.39
87-86-5	Pentachlorophenol	4.9	U	4.9	2.3
85-01-8	Phenanthrene	0.19	U	0.19	0.097
108-95-2	Phenol	0.97	U	0.97	0.58
129-00-0	Pyrene	0.19	U	0.19	0.097
95-95-4	2,4,5-Trichlorophenol	4.9	U	4.9	0.29
88-06-2	2,4,6-Trichlorophenol	4.9	U	4.9	0.78
62-75-9	N-Nitrosodimethylamine	0.97	U	0.97	0.30

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW3-061711 | Lab Sample ID: 240-1267-4

Matrix: Water | Lab File ID: 1267I4A.D

Analysis Method: 8270D | Date Collected: 06/17/2011 15:05

Extract. Method: 3510C | Date Extracted: 06/21/2011 08:58

Sample wt/vol: 1030(mL) | Date Analyzed: 07/22/2011 21:13

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9503 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	54		28-110
367-12-4	2-Fluorophenol (Surr)	61		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		27-111
4165-62-2	Phenol-d5 (Surr)	61		10-110
1718-51-0	Terphenyl-d14 (Surr)	70		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	64		22-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW1-061711 Lab Sample ID: 240-1267-2

Matrix: Water Lab File ID: YF062821.D

Analysis Method: 8015B Date Collected: 06/17/2011 11:00

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 02:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	51	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	105		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW2-061711 Lab Sample ID: 240-1267-3

Matrix: Water Lab File ID: YF062824.D

Analysis Method: 8015B Date Collected: 06/17/2011 13:20

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 03:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	40	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	105		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW3-061711 Lab Sample ID: 240-1267-4

Matrix: Water Lab File ID: YF062825.D

Analysis Method: 8015B Date Collected: 06/17/2011 15:05

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 04:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	41	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	83		10-150

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW1-061711 Lab Sample ID: 240-1267-2

Matrix: Water Lab File ID: P14F0000013.D

Analysis Method: 8015B Date Collected: 06/17/2011 11:00

Extraction Method: 3520C Date Extracted: 06/22/2011 09:21

Sample wt/vol: 1030(mL) Date Analyzed: 06/24/2011 18:38

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6024 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	310	J	490	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	32		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW2-061711 | Lab Sample ID: 240-1267-3

Matrix: Water | Lab File ID: P14F0000014.D

Analysis Method: 8015B | Date Collected: 06/17/2011 13:20

Extraction Method: 3520C | Date Extracted: 06/22/2011 09:21

Sample wt/vol: 1040(mL) | Date Analyzed: 06/24/2011 19:02

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6024 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	300	J	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	39		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW3-061711 | Lab Sample ID: 240-1267-4

Matrix: Water | Lab File ID: P14F0000015.D

Analysis Method: 8015B | Date Collected: 06/17/2011 15:05

Extraction Method: 3520C | Date Extracted: 06/22/2011 09:21

Sample wt/vol: 1020(mL) | Date Analyzed: 06/24/2011 19:26

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6024 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	360	J	490	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	37		10-110

TestAmerica North Canton

Client Sample ID: GSP-MW1-061711

General Chemistry

Lot-Sample #...: G1F210484-001 **Work Order #...:** MKEG3 **Matrix.....:** WATER
Date Sampled...: 06/17/11 **Date Received..:** 06/21/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

TestAmerica North Canton

Client Sample ID: GSP-MW2-061711

General Chemistry

Lot-Sample #...: G1F210484-002 **Work Order #...:** MKEHD **Matrix.....:** WATER
Date Sampled...: 06/17/11 **Date Received..:** 06/21/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

TestAmerica North Canton

Client Sample ID: GSP-MW3-061711

General Chemistry

Lot-Sample #...: G1F210484-003 **Work Order #...:** MKEHF **Matrix.....:** WATER
Date Sampled...: 06/17/11 **Date Received..:** 06/21/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW1-061711 Lab Sample ID: 240-1267-2

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG ID.:

Matrix: Water Date Sampled: 06/17/2011 11:00

Reporting Basis: WET Date Received: 06/18/2011 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.17	2.0	0.073	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.55	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	120	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.7	1.0	0.092	ug/L			1	6020
7440-43-9	Cadmium	0.30	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	5.1	2.0	0.11	ug/L		B	1	6020
7440-48-4	Cobalt	52	1.0	0.049	ug/L		B	1	6020
7440-50-8	Copper	35	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	1.1	1.0	0.024	ug/L		B	1	6020
7439-98-7	Molybdenum	0.56	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	77	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	1.1	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.47	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	0.25	10	0.16	ug/L	J	B	1	6020
7440-62-2	Vanadium	20	20	0.30	ug/L	U		1	6020
7440-66-6	Zinc	210	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW1-061711 Lab Sample ID: 240-1267-2

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG ID.:

Matrix: Water Date Sampled: 06/17/2011 11:00

Reporting Basis: WET Date Received: 06/18/2011 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.18	2.0	0.073	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.30	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	10	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	0.30	2.0	0.11	ug/L	J	B	1	6020
7440-48-4	Cobalt	11	1.0	0.049	ug/L		B	1	6020
7440-50-8	Copper	7.2	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	0.21	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	2.0	2.0	0.42	ug/L	U		1	6020
7440-02-0	Nickel	11	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.25	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	0.67	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	42	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW2-061711 Lab Sample ID: 240-1267-3

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG ID.:

Matrix: Water Date Sampled: 06/17/2011 13:20

Reporting Basis: WET Date Received: 06/18/2011 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.14	2.0	0.073	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.95	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	24	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	0.11	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	0.36	2.0	0.11	ug/L	J	B	1	6020
7440-48-4	Cobalt	16	1.0	0.049	ug/L		B	1	6020
7440-50-8	Copper	3.0	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	0.33	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	2.0	2.0	0.42	ug/L	U		1	6020
7440-02-0	Nickel	17	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.28	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	0.41	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	29	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW2-061711 Lab Sample ID: 240-1267-3

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG ID.:

Matrix: Water Date Sampled: 06/17/2011 13:20

Reporting Basis: WET Date Received: 06/18/2011 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.15	2.0	0.073	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.87	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	23	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	0.10	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	0.62	2.0	0.11	ug/L	J	B	1	6020
7440-48-4	Cobalt	16	1.0	0.049	ug/L		B	1	6020
7440-50-8	Copper	3.9	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	0.34	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	2.0	2.0	0.42	ug/L	U		1	6020
7440-02-0	Nickel	16	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.25	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.30	ug/L	U		1	6020
7440-66-6	Zinc	31	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW3-061711 | Lab Sample ID: 240-1267-4

Lab Name: TestAmerica Burlington | Job No.: 240-1267-1

SDG ID.:

Matrix: Water | Date Sampled: 06/17/2011 15:05

Reporting Basis: WET | Date Received: 06/18/2011 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.28	2.0	0.073	ug/L	J	B	1	6020
7440-38-2	Arsenic	11	5.0	0.092	ug/L			1	6020
7440-39-3	Barium	16	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	4.3	2.0	0.11	ug/L		B	1	6020
7440-48-4	Cobalt	11	1.0	0.049	ug/L		B	1	6020
7440-50-8	Copper	17	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	1.9	1.0	0.024	ug/L		B	1	6020
7439-98-7	Molybdenum	0.48	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	11	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.29	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	48	20	0.30	ug/L			1	6020
7440-66-6	Zinc	45	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW3-061711 Lab Sample ID: 240-1267-4

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG ID.:

Matrix: Water Date Sampled: 06/17/2011 15:05

Reporting Basis: WET Date Received: 06/18/2011 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.15	2.0	0.073	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.27	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	120	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.8	1.0	0.092	ug/L			1	6020
7440-43-9	Cadmium	0.36	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	4.7	2.0	0.11	ug/L		B	1	6020
7440-48-4	Cobalt	54	1.0	0.049	ug/L		B	1	6020
7440-50-8	Copper	36	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	1.2	1.0	0.024	ug/L		B	1	6020
7439-98-7	Molybdenum	2.0	2.0	0.42	ug/L	U		1	6020
7440-02-0	Nickel	79	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	0.35	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.39	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.30	ug/L	U		1	6020
7440-66-6	Zinc	220	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

Appendix C

Support Documentation

CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: MSA Greater Strawberry Point PH. II 2011

Report Number: 240-1267-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/18/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was C.

Multiple TestAmerica laboratories were used to support this project. Narrative for TestAmerica West Sacramento (Perchlorate) is provided in the lab's report in the Subcontract section of this report. TestAmerica Burlington's narrative for ICP/MS Metals is incorporated herein. See the Method Summary for additional information.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples TB-061711 (240-1267-1), GSP-MW1-061711 (240-1267-2), GSP-MW2-061711 (240-1267-3) and GSP-MW3-061711 (240-1267-4) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/28/2011.

tert-Butyl alcohol failed the recovery criteria low for LCS 240-6415/4. Refer to the QC report for details.

No other difficulties were encountered during the volatiles analyses. All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples GSP-MW1-061711 (240-1267-2), GSP-MW2-061711 (240-1267-3) and GSP-MW3-061711 (240-1267-4) were analyzed for semivolatiles in accordance with EPA SW 8270D. The samples were analyzed on 07/22/2011.

No difficulties were encountered during the semivolatiles analyses. All quality control parameters were within the acceptance limits.

GRO (C6-C10)

Samples GSP-MW1-061711 (240-1267-2), GSP-MW2-061711 (240-1267-3) and GSP-MW3-061711 (240-1267-4) were analyzed for gas range organics in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 06/29/2011.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-6402/19 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DRO (C10-C32)

Samples GSP-MW1-061711 (240-1267-2), GSP-MW2-061711 (240-1267-3) and GSP-MW3-061711 (240-1267-4) were analyzed for Diesel Range Organics (DRO) in accordance with EPA Method 8015B. The samples were analyzed on 06/24/2011.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

No difficulties were encountered during the Diesel Range Organics (DRO) analyses. All quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)

Samples GSP-MW1-061711 (240-1267-2), GSP-MW2-061711 (240-1267-3) and GSP-MW3-061711 (240-1267-4) were analyzed for metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 07/16/2011.

The serial dilution performed for the following samples were outside control limits for Pb: (240-1267-4 SD), GSP-MW3-061711 (240-1267-4)

The internal standard for As, Mo, and Se were reassociated from Y to In for analytical sequence 080111-06b, due to the presence of isobaric interference on the Y line. Data flags in batch 21765 for Y internal standard failures were removed. All results in the batch for As, Mo, and Se are based on internal standard responses for Indium.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL METALS (ICPMS)

Samples GSP-MW1-061711 (240-1267-2), GSP-MW2-061711 (240-1267-3) and GSP-MW3-061711 (240-1267-4) were analyzed for total metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 07/16/2011.

Several analytes were detected in method blank MB 200-20966/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

A deviation from the Standard Operating Procedure (SOP) occurred. Eleven injections were analyzed between CCB26 and CCV38. Bracketing CCV/CCB were within control limits. The eleventh sample was not reported from this batch 21675. The proceeding ten samples were reported. Samples reported in this job include: (240-1267-4 SD), (CCV 200-21675/38), GSP-MW1-061711 (240-1267-2), GSP-MW2-061711 (240-1267-3) and GSP-MW3-061711 (240-1267-4)

The internal standard for As, Mo, and Se were reassociated from Y to In for analytical sequence 080111-06b, due to the presence of isobaric interference on the Y line. Data flags in batch 21765 for Y internal standard failures were removed. All results in the batch for As, Mo, and Se are based on internal standard responses for Indium.

The serial dilution performed for the following sample(s) was outside control limits for Pb and Zinc in batch 21675: (240-1267-4 SD)

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)

Samples GSP-MW1-061711 (240-1267-2), GSP-MW2-061711 (240-1267-3) and GSP-MW3-061711 (240-1267-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/08/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples GSP-MW1-061711 (240-1267-2), GSP-MW2-061711 (240-1267-3) and GSP-MW3-061711 (240-1267-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/08/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-1267-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-1267-1TB	TB-061711	Water	06/17/2011 0000	06/18/2011 1000
240-1267-2	GSP-MW1-061711	Water	06/17/2011 1100	06/18/2011 1000
240-1267-3	GSP-MW2-061711	Water	06/17/2011 1320	06/18/2011 1000
240-1267-4	GSP-MW3-061711	Water	06/17/2011 1505	06/18/2011 1000

METHOD SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-1267-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Purge and Trap	TAL NC		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Liquid-Liquid Extraction (Separatory Funnel)			SW846 3510C
Gasoline Range Organics - (GC)	TAL NC	SW846 8015B	
Purge and Trap	TAL NC		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL NC	SW846 8015B	
Liquid-Liquid Extraction (Continuous)			SW846 3520C
Metals (ICP/MS)	TAL BUR	SW846 6020	
Preparation, Total Metals			SW846 3010A
Metals (ICP/MS)	TAL BUR	SW846 6020	
Preparation, Total Metals			SW846 3010A
Sample Filtration, Field			FIELD_FLTRD
Mercury (CVAA)	TAL BUR	SW846 7470A	
Preparation, Mercury			SW846 7470A
Mercury (CVAA)	TAL BUR	SW846 7470A	
Preparation, Mercury			SW846 7470A
Sample Filtration, Field			FIELD_FLTRD
EPA 314.0 Perchlorate	TAL WSC	EPA 314.0	

Lab References:

TAL BUR = TestAmerica Burlington

TAL NC = TestAmerica North Canton

TAL WSC = TestAmerica West Sacramento

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech NUS	Client Project Manager: Tony Bonanno	Site Contact: Walt Ryon	Lab Contact: Pat O'Meara	COC No: 010139
Address: 20251 Century Blvd	Telephone: 301 528-3021	Telephone: (301) 881-3514	Telephone: 330 497-9396	1 of 1 COCs
City/State/Zip: Germantown MD 20874	Email:	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: (301) 528-3075		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client: ☐ Lab pickup: ☐ Lab sampling: ☐
Project Name: GSP Groundwater Sampling	Method of Shipment/Carrier: Fed Ex			Job/SDG No:
Project Number: 112IC03305-04	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C/ Grab=G	VOCs	Total metals	Diss metals	SVOCs / 1,4 Dioxane	TPH DRO	TPH GRO	Perchlorate	Sample Specific Notes / Special Instructions:
TB-061711	6-17-11	—		X						X					N	G	X							
GSP-MW1-061711	↓	1100		X				2	2	5			3		↓	↓	X	X	X	X	X	X	X	
GSP-MW2-061711		1320		X				2	2	5			3				X	X	X	X	X	X	X	
GSP-MW3-061711		1505		X				2	2	5			3				X	X	X	X	X	X	X	

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Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

	Company	Date/Time		Company	Date/Time
Relinquished by: Walt Ryon	Tt NUS	6-17-11 / 1545	Received by: M Hocker	TestAmerica	6-17-11 1600
Relinquished by: M Hocker	TestAmerica	6-17-11 1630	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Dennis Burns	Company: TA	Date/Time: 6/18/11 1000

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TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 240-1267
North Canton Facility

Client Tetra Tech Project GSP GW Samp By: _____ (Signature)
Cooler Received on 6/18/11 Opened on 6-20-11
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # _____ Multiple Coolers ☒ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☑ No ☐ Intact? Yes ☑ No ☐ NA ☐
   If YES, Quantity 1 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☑ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt _____ °C See back of form for multiple coolers/temps ☒
   METHOD: IR ☒ Other ☐ _____
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☑ No ☐ NA ☐
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☑ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☑ No ☐ Were VOAs on the COC? Yes ☑ No ☐

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 100110-HNO_3; *Sulfuric Acid Lot#* 110410-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN$/*NaOH*. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
1	≤2 ≤2 ≤2 ≤2	6-20-11	
2	≤2 ≤2 ≤2 ≤2	"	
3	≤2 ≤2 ≤2 ≤2	"	

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Login Sample Receipt Checklist

Client: Tetra Tech NUS Inc

Job Number: 240-1267-1

Login Number: 1267
List Number: 1
Creator: Burns, Terry

List Source: TestAmerica North Canton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	2.7 2.2
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech NUS Inc

Job Number: 240-1267-1

Login Number: 1267
List Number: 1
Creator: Marion, Greg T

List Source: TestAmerica Burlington
List Creation: 07/06/11 02:23 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	939993, 992
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	24.2°C IR GUN ID 96/CF=0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	Check done at department level as required.

PROJ_NO 03279

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1267-1	PCL	UG/L	GSP-MW3-061711	240-1267-4	NM	06/17/2011	07/11/2011	07/11/2011	24	0	24
240-1267-1	PCL	UG/L	GSP-MW2-061711	240-1267-3	NM	06/17/2011	07/11/2011	07/11/2011	24	0	24
240-1267-1	PCL	UG/L	GSP-MW1-061711MSD	240-1267-2	MSD	06/17/2011	07/11/2011	07/11/2011	24	0	24
240-1267-1	PCL	UG/L	GSP-MW1-061711MS	240-1267-2	MS	06/17/2011	07/11/2011	07/11/2011	24	0	24
240-1267-1	PCL	UG/L	GSP-MW1-061711	240-1267-2	NM	06/17/2011	07/11/2011	07/11/2011	24	0	24

PROJ_NO 03279

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1267-1	HG	UG/L	GSP-MW2-061711	240-1267-3	NM	06/17/2011	07/07/2011	07/08/2011	20	1	21
240-1267-1	HG	UG/L	GSP-MW3-061711	240-1267-4	NM	06/17/2011	07/07/2011	07/08/2011	20	1	21
240-1267-1	HG	UG/L	GSP-MW1-061711	240-1267-2	NM	06/17/2011	07/07/2011	07/08/2011	20	1	21
240-1267-1	M	UG/L	GSP-MW1-061711	240-1267-2	NM	06/17/2011	07/07/2011	07/16/2011	20	9	29
240-1267-1	M	UG/L	GSP-MW2-061711	240-1267-3	NM	06/17/2011	07/07/2011	07/16/2011	20	9	29
240-1267-1	M	UG/L	GSP-MW3-061711	240-1267-4	NM	06/17/2011	07/07/2011	07/16/2011	20	9	29
240-1267-1	HGF	UG/L	GSP-MW3-061711	240-1267-4	NM	06/17/2011	07/07/2011	07/08/2011	20	1	21
240-1267-1	HGF	UG/L	GSP-MW1-061711	240-1267-2	NM	06/17/2011	07/07/2011	07/08/2011	20	1	21
240-1267-1	HGF	UG/L	GSP-MW2-061711	240-1267-3	NM	06/17/2011	07/07/2011	07/08/2011	20	1	21
240-1267-1	MF	UG/L	GSP-MW2-061711	240-1267-3	NM	06/17/2011	07/07/2011	07/16/2011	20	9	29
240-1267-1	MF	UG/L	GSP-MW3-061711	240-1267-4	NM	06/17/2011	07/07/2011	07/16/2011	20	9	29
240-1267-1	MF	UG/L	GSP-MW1-061711	240-1267-2	NM	06/17/2011	07/07/2011	07/16/2011	20	9	29
240-1267-1	OS	UG/L	GSP-MW2-061711	240-1267-3	NM	06/17/2011	06/21/2011	07/22/2011	4	31	35
240-1267-1	OS	UG/L	GSP-MW1-061711	240-1267-2	NM	06/17/2011	06/21/2011	07/22/2011	4	31	35
240-1267-1	OS	UG/L	GSP-MW3-061711	240-1267-4	NM	06/17/2011	06/21/2011	07/22/2011	4	31	35
240-1267-1	OV	UG/L	GSP-MW1-061711	240-1267-2	NM	06/17/2011	06/28/2011	06/28/2011	11	0	11

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1267-1	OV	UG/L	TB-061711	240-1267-1	TB	06/17/2011	06/28/2011	06/28/2011	11	0	11
240-1267-1	OV	UG/L	TB-061711	240-1267-1	NM	06/17/2011	06/28/2011	06/28/2011	11	0	11
240-1267-1	OV	UG/L	GSP-MW3-061711	240-1267-4	NM	06/17/2011	06/28/2011	06/28/2011	11	0	11
240-1267-1	OV	UG/L	GSP-MW2-061711	240-1267-3	NM	06/17/2011	06/28/2011	06/28/2011	11	0	11
240-1267-1	DRO	UG/L	GSP-MW1-061711	240-1267-2	NM	06/17/2011	06/22/2011	06/24/2011	5	2	7
240-1267-1	DRO	UG/L	GSP-MW3-061711	240-1267-4	NM	06/17/2011	06/22/2011	06/24/2011	5	2	7
240-1267-1	DRO	UG/L	GSP-MW2-061711	240-1267-3	NM	06/17/2011	06/22/2011	06/24/2011	5	2	7
240-1267-1	GRO	UG/L	GSP-MW3-061711	240-1267-4	NM	06/17/2011	06/29/2011	06/29/2011	12	0	12
240-1267-1	GRO	UG/L	GSP-MW1-061711	240-1267-2	NM	06/17/2011	06/29/2011	06/29/2011	12	0	12
240-1267-1	GRO	UG/L	GSP-MW2-061711	240-1267-3	NM	06/17/2011	06/29/2011	06/29/2011	12	0	12
240-1267-1	TPH	UG/L	GSP-MW1-061711	240-1267-2	NM	06/17/2011	06/29/2011	06/29/2011	12	0	12
240-1267-1	TPH	UG/L	GSP-MW2-061711	240-1267-3	NM	06/17/2011	06/29/2011	06/29/2011	12	0	12
240-1267-1	TPH	UG/L	GSP-MW2-061711	240-1267-3	NM	06/17/2011	06/22/2011	06/24/2011	5	2	7
240-1267-1	TPH	UG/L	GSP-MW3-061711	240-1267-4	NM	06/17/2011	06/22/2011	06/24/2011	5	2	7
240-1267-1	TPH	UG/L	GSP-MW3-061711	240-1267-4	NM	06/17/2011	06/29/2011	06/29/2011	12	0	12
240-1267-1	TPH	UG/L	GSP-MW1-061711	240-1267-2	NM	06/17/2011	06/22/2011	06/24/2011	5	2	7

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab File ID: BFB1887.D BFB Injection Date: 05/29/2011

Instrument ID: A3UX16 BFB Injection Time: 12:02

Analysis Batch No.: 3007

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	47.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.3	(0.5)1
174	50.0 - 120.00 % of mass 95	71.3	
175	5.0 - 9.0 % of mass 174	4.9	(6.9)1
176	95.0 - 101.0 % of mass 174	69.0	(96.7)1
177	5.0 - 9.0 % of mass 176	4.4	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-3007/2	UXM6500.D	05/29/2011	13:00
	STD8260 240-3007/3	UXM6501.D	05/29/2011	13:22
	STD8260 240-3007/4	UXM6502.D	05/29/2011	13:45
	STD8260 240-3007/5	UXM6503.D	05/29/2011	14:08
	STD8260 240-3007/6	UXM6504.D	05/29/2011	14:31
	STD8260 240-3007/7	UXM6505.D	05/29/2011	14:53
	STD1 240-3007/8	UXM6506.D	05/29/2011	15:15
	STD2 240-3007/9	UXM6507.D	05/29/2011	15:37
	STD3 240-3007/10	UXM6508.D	05/29/2011	16:00
	STD4 240-3007/11	UXM6509.D	05/29/2011	16:22
	STD5 240-3007/12	UXM6510.D	05/29/2011	16:44
	STD6 240-3007/13	UXM6511.D	05/29/2011	17:06
	ICV 240-3007/14	UXM6512.D	05/29/2011	17:29

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-3007/7	UXM6505.D
Level 2	STD8260 240-3007/6	UXM6504.D
Level 3	STD8260 240-3007/5	UXM6503.D
Level 4	STD8260 240-3007/4	UXM6502.D
Level 5	STD8260 240-3007/3	UXM6501.D
Level 6	STD8260 240-3007/2	UXM6500.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6																
Dichlorodifluoromethane	0.2983	0.2259	0.2557	0.2725	0.2800	Ave		0.2718				10.0		15.0			
	0.2987																
Chloromethane	0.4717	0.4631	0.4296	0.4483	0.4355	Ave		0.4459			0.1000	4.1		15.0			
	0.4273																
Vinyl chloride	0.3635	0.3493	0.3371	0.3600	0.3637	Ave		0.3570				3.3		15.0			
	0.3682																
Bromomethane	0.1931	0.1968	0.1783	0.1775	0.1548	Ave		0.1731				13.0		15.0			
	0.1378																
Chloroethane	0.2242	0.2258	0.2110	0.2245	0.2145	Ave		0.2175				4.0		15.0			
	0.2050																
Trichlorofluoromethane	0.3760	0.3088	0.3169	0.3442	0.3390	Ave		0.3382				7.0		15.0			
	0.3443																
Acrolein	0.0455	0.0447	0.0464	0.0479	0.0493	Ave		0.0471				4.0		15.0			
	0.0489																
1,1-Dichloroethene	0.2757	0.2770	0.2629	0.2753	0.2892	Ave		0.2779				3.4		15.0			
	0.2875																
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.2129	0.1837	0.1542	0.1941	0.2092	Ave		0.1941				12.0		15.0			
	0.2106																
Acetone	0.1255	0.1071	0.0959	0.0954	0.0917	Ave		0.1009				13.0		15.0			
	0.0899																
Iodomethane	0.4663	0.4523	0.4463	0.4664	0.4894	Ave		0.4669				3.5		15.0			
	0.4805																
Carbon disulfide	0.9270	0.9205	0.8948	0.9696	1.0483	Ave		0.9697				7.1		15.0			
	1.0581																
Acetonitrile	0.0415	0.0396	0.0408	0.0418	0.0422	Ave		0.0412				2.2		15.0			
	0.0416																
Methyl acetate	0.2173	0.2329	0.2302	0.2353	0.2392	Ave		0.2317				3.3		15.0			
	0.2352																
Methylene Chloride	0.6813	0.4832	0.3847	0.3689	0.3638	Lin1	0.3012	0.3454							0.9990		0.9900
	0.3553																

NT
NT

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0264 0.0247	0.0242	0.0238	0.0245	0.0252	Ave		0.0248				3.7		15.0			
Acrylonitrile	0.0962 0.1129	0.1089	0.1081	0.1133	0.1132	Ave		0.1088				6.0		15.0			
Methyl tert-butyl ether	0.9052 0.9780	0.9338	0.9084	0.9445	0.9844	Ave		0.9424				3.6		15.0			
trans-1,2-Dichloroethene	0.3245 0.3425	0.3127	0.3206	0.3283	0.3449	Ave		0.3289				3.8		15.0			
Hexane	0.0574 0.0546	0.0465	0.0392	0.0472	0.0530	Ave		0.0496				13.0		15.0			
1,1-Dichloroethane	0.5912 0.6319	0.5979	0.5673	0.5881	0.6272	Ave		0.6006			0.1000	4.1		15.0			
Vinyl acetate	0.0271 0.0446	0.0328	0.0324	0.0372	0.0413	Lin1	-0.02	0.0433							0.9950		0.9900
2,2-Dichloropropane	0.4458 0.4655	0.4225	0.4110	0.4480	0.4683	Ave		0.4435				5.2		15.0			
cis-1,2-Dichloroethene	0.3377 0.3558	0.3482	0.3265	0.3398	0.3653	Ave		0.3455				4.0		15.0			
2-Butanone	0.1477 0.1193	0.1256	0.1190	0.1218	0.1226	Ave		0.1260				8.6		15.0			
Bromochloromethane	0.1519 0.1533	0.1391	0.1375	0.1459	0.1561	Ave		0.1473				5.3		15.0			
Tetrahydrofuran	0.1188 0.0832	0.0981	0.0900	0.0884	0.0887	Ave		0.0945				14.0		15.0			
Chloroform	0.5079 0.5578	0.5235	0.5114	0.5209	0.5580	Ave		0.5299				4.2		15.0			
1,1,1-Trichloroethane	0.4542 0.5081	0.4748	0.4473	0.4767	0.5115	Ave		0.4788				5.6		15.0			
Cyclohexane	0.5872 0.6036	0.5268	0.4580	0.5415	0.5932	Ave		0.5517				10.0		15.0			
1,1-Dichloropropene	0.3780 0.4190	0.3872	0.3615	0.3885	0.4165	Ave		0.3918				5.7		15.0			
Carbon tetrachloride	0.3498 0.4050	0.3346	0.3134	0.3616	0.3954	Ave		0.3600				9.8		15.0			
Benzene	1.1885 1.2941	1.1806	1.1616	1.1888	1.2727	Ave		1.2144				4.5		15.0			
1,2-Dichloroethane	0.4012 0.4187	0.3969	0.4003	0.3960	0.4222	Ave		0.4059				2.8		15.0			
Trichloroethene	0.2726 0.2968	0.2781	0.2630	0.2758	0.2977	Ave		0.2807				4.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.4041 0.4413	0.3619	0.3155	0.3931	0.4327	Ave		0.3914				12.0		15.0			
1,2-Dichloropropane	0.2862 0.3080	0.2814	0.2805	0.2874	0.3119	Ave		0.2926				4.7		15.0			
1,4-Dioxane	0.0021 0.0021	0.0023	0.0021	0.0022	0.0023	Ave		0.0022	NT			4.4		15.0			
Dibromomethane	0.1486 0.1541	0.1402	0.1421	0.1456	0.1554	Ave		0.1477				4.2		15.0			
Bromodichloromethane	0.3040 0.3742	0.3188	0.3252	0.3357	0.3691	Ave		0.3378				8.3		15.0			
2-Chloroethyl vinyl ether	0.1335 0.1558	0.1465	0.1474	0.1533	0.1571	Ave		0.1489				5.8		15.0			
cis-1,3-Dichloropropene	0.3859 0.4653	0.3988	0.4046	0.4229	0.4617	Ave		0.4232				7.9		15.0			
4-Methyl-2-pentanone	0.2679 0.2843	0.2669	0.2713	0.2799	0.2828	Ave		0.2755				2.8		15.0			
Toluene	1.5641 1.7880	1.6375	1.5242	1.5822	1.7296	Ave		1.6376				6.3		15.0			
trans-1,3-Dichloropropene	0.4247 0.5457	0.4551	0.4630	0.4839	0.5337	Ave		0.4843				9.7		15.0			
Ethyl methacrylate	0.4338 0.4841	0.4601	0.4409	0.4595	0.4880	Ave		0.4611				4.8		15.0			
1,1,2-Trichloroethane	0.2610 0.2902	0.2789	0.2660	0.2758	0.2945	Ave		0.2777				4.7		15.0			
Tetrachloroethene	0.2358 0.2884	0.2605	0.2400	0.2608	0.2832	Ave		0.2614				8.2		15.0			
1,3-Dichloropropane	0.5032 0.5479	0.5202	0.5003	0.5080	0.5463	Ave		0.5210				4.1		15.0			
2-Hexanone	0.2134 0.2464	0.2440	0.2362	0.2476	0.2471	Ave		0.2391				5.6		15.0			
Dibromochloromethane	0.2625 0.3293	0.2576	0.2688	0.2857	0.3228	Ave		0.2878				11.0		15.0			
1,2-Dibromoethane	0.2702 0.3017	0.2701	0.2713	0.2837	0.3012	Ave		0.2830				5.4		15.0			
Chlorobenzene	1.0004 1.1167	1.0557	0.9994	1.0369	1.1122	Ave		1.0535			0.3000	4.9		15.0			
1,1,1,2-Tetrachloroethane	0.2985 0.3953	0.3346	0.3315	0.3568	0.3907	Ave		0.3512				11.0		15.0			
Ethylbenzene	0.5345 0.6104	0.5740	0.5356	0.5610	0.6145	Ave		0.5717				6.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.6665 0.7839	0.7201	0.6698	0.7001	0.7639	Ave		0.7174				6.8		15.0			
o-Xylene	0.6583 0.7725	0.7135	0.6995	0.7111	0.7659	Ave		0.7201				6.0		15.0			
Styrene	1.0634 1.3324	1.1543	1.1303	1.2121	1.3135	Ave		1.2010				8.8		15.0			
Bromoform	0.1308 0.1929	0.1340	0.1432	0.1571	0.1829	Lin1	-0.099	0.1879			0.1000				0.9950		0.9900
Isopropylbenzene	1.6254 2.0021	1.7462	1.6256	1.7661	1.9411	Ave		1.7844				8.8		15.0			
1,1,2,2-Tetrachloroethane	0.6390 0.6966	0.6787	0.6513	0.6576	0.7273	Ave		0.6751			0.3000	4.9		15.0			
Bromobenzene	0.7531 0.8119	0.7794	0.7596	0.7729	0.8537	Ave		0.7884				4.8		15.0			
1,2,3-Trichloropropane	0.2246 0.2221	0.2190	0.2110	0.2231	0.2352	Ave		0.2225				3.5		15.0			
trans-1,4-Dichloro-2-butene	0.2199 0.2389	0.2152	0.2195	0.2249	0.2430	Ave		0.2269				5.0		15.0			
n-Propylbenzene	0.7601 0.8719	0.8284	0.7668	0.8249	0.9068	Ave		0.8265				6.9		15.0			
2-Chlorotoluene	0.7619 0.8073	0.7608	0.7421	0.7472	0.8400	Ave		0.7766				5.0		15.0			
1,3,5-Trimethylbenzene	2.4884 2.9700	2.6808	2.5164	2.6630	2.9838	Ave		2.7171				7.9		15.0			
4-Chlorotoluene	0.7733 0.8393	0.8006	0.7549	0.7759	0.8529	Ave		0.7995				4.9		15.0			
tert-Butylbenzene	1.9919 2.3648	2.1154	1.9687	2.0834	2.3571	Ave		2.1469				8.1		15.0			
1,2,4-Trimethylbenzene	2.6390 3.0675	2.7872	2.6804	2.7942	3.1249	Ave		2.8489				7.1		15.0			
sec-Butylbenzene	2.6740 3.2749	2.9419	2.7072	2.8937	3.3051	Ave		2.9661				9.2		15.0			
1,3-Dichlorobenzene	1.4339 1.5710	1.5438	1.4621	1.4650	1.6137	Ave		1.5149				4.7		15.0			
p-Isopropyltoluene	2.1764 2.7349	2.4137	2.3047	2.4106	2.7549	Ave		2.4659				9.4		15.0			
1,4-Dichlorobenzene	1.4372 1.6450	1.5618	1.4977	1.5279	1.6788	Ave		1.5581				5.8		15.0			
n-Butylbenzene	1.9146 2.3749	2.0057	1.9329	2.1117	2.3793	Ave		2.1199				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.4100 1.5390	1.4793	1.4452	1.4677	1.6050	Ave		1.4910				4.7		15.0			
1,2-Dibromo-3-Chloropropane	0.0991 0.1150	0.0887	0.1000	0.1027	0.1188	Ave		0.1041				11.0		15.0			
1,3,5-Trichlorobenzene	0.7981 0.8925	0.8453	0.8411	0.8652	0.9607	Ave		0.8672				6.4		15.0			
1,2,4-Trichlorobenzene	0.6536 0.7565	0.7392	0.7075	0.7687	0.8329	Ave		0.7431				8.1		15.0			
Hexachlorobutadiene	0.3005 0.3020	0.3307	0.2846	0.3101	0.3393	Ave		0.3112				6.6		15.0			
Naphthalene	1.7625 1.8222	1.8352	1.8166	1.8796	2.0718	Ave		1.8646				5.8		15.0			
1,2,3-Trichlorobenzene	0.6252 0.5752	0.6791	0.6212	0.6414	0.6905	Ave		0.6388				6.6		15.0			
Dibromofluoromethane (Surr)	0.2556 0.2697	0.2553	0.2446	0.2602	0.2726	Ave		0.2597				4.0		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3101 0.3312	0.3104	0.3075	0.3261	0.3266	Ave		0.3187				3.3		15.0			
Toluene-d8 (Surr)	1.1941 1.4113	1.2886	1.2333	1.2912	1.3622	Ave		1.2968				6.2		15.0			
4-Bromofluorobenzene (Surr)	0.5076 0.5645	0.5380	0.5245	0.5444	0.5560	Ave		0.5392				3.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 15:15 Calibration End Date: 05/29/2011 17:06 Calibration ID: 1185

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD6 240-3007/13	UXM6511.D
Level 2	STD5 240-3007/12	UXM6510.D
Level 3	STD4 240-3007/11	UXM6509.D
Level 4	STD3 240-3007/10	UXM6508.D
Level 5	STD2 240-3007/9	UXM6507.D
Level 6	STD1 240-3007/8	UXM6506.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.5506 0.5039	0.4715	0.4922	0.5507	0.4990	Ave		0.5113				6.3		15.0			
Ethyl ether	0.2645 0.2910	0.2573	0.2901	0.2942	0.2830	Ave		0.2800				5.5		15.0			
3-Chloro-1-propene	0.1610 0.1968	0.1599	0.1826	0.1978	0.1860	Ave		0.1807				9.3		15.0			
Diisopropyl ether	0.2920 0.3140	0.2674	0.3008	0.3155	0.2989	Ave		0.2981				5.9		15.0			
2-Chloro-1,3-butadiene	0.5362 0.6149	0.5201	0.5813	0.6137	0.5969	Ave		0.5772				7.0		15.0			
Ethyl-t-butyl ether (ETBE)	1.0807 1.2661	1.0264	1.1669	1.2348	1.1744	Ave		1.1582				7.8		15.0			
Ethyl acetate	0.2291 0.2469	0.2277	0.2426	0.2442	0.2437	Ave		0.2390				3.5		15.0			
Propionitrile	0.0377 0.0394	0.0378	0.0379	0.0380	0.0386	Ave		0.0382 NT				1.7		15.0			
Methacrylonitrile	0.2028 0.1856	0.1619	0.1719	0.1786	0.1788	Ave		0.1799				7.7		15.0			
Isobutyl alcohol	0.0093 0.0090	0.0082	0.0092	0.0095	0.0092	Ave		0.0091 NT				5.0		15.0			
Tert-amyl-methyl ether (TAME)	0.8566 1.0053	0.8277	0.9356	0.9832	0.9465	Ave		0.9258				7.6		15.0			
n-Heptane	0.0283 0.0446	0.0370	0.0385	0.0426	0.0547	Qua	-0.073	0.0626	0						0.9930		0.9900
n-Butanol	0.0086 0.0070	0.0074	0.0073	0.0075	0.0076	Ave		0.0076 NT				7.1		15.0			
Methyl methacrylate	0.2355 0.2558	0.2383	0.2548	0.2603	0.2538	Ave		0.2498				4.1		15.0			
2-Nitropropane	0.0716 0.0766	0.0638	0.0733	0.0740	0.0749	Ave		0.0724				6.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 15:15 Calibration End Date: 05/29/2011 17:06 Calibration ID: 1185

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
n-Butyl acetate	0.4001 0.4652	0.3923	0.4438	0.4817	0.4611	Ave		0.4407				8.3		15.0			
Cyclohexanone	0.0637 0.0656	0.0601	0.0705	0.0773	0.0733	Ave		0.0684				9.4		15.0			
1,2,3-Trimethylbenzene	2.7648 3.2728	2.6215	2.8961	3.0823	3.0301	Ave		2.9446				7.9		15.0			
2-Methylnaphthalene	0.7633 0.5362	0.7935	0.7843	0.8634	0.8467	Ave		0.7646				15.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab File ID: BFB1927.D BFB Injection Date: 06/28/2011

Instrument ID: A3UX16 BFB Injection Time: 14:03

Analysis Batch No.: 6415

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.9	
75	30.0 - 60.0 % of mass 95	47.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	5.9	
173	Less than 2.0 % of mass 174	0.2	(0.2)1
174	50.0 - 120.00 % of mass 95	79.8	
175	5.0 - 9.0 % of mass 174	5.4	(6.8)1
176	95.0 - 101.0 % of mass 174	78.6	(98.6)1
177	5.0 - 9.0 % of mass 176	4.5	(5.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-6415/2	UXM7272.D	06/28/2011	14:29
	CCV 240-6415/3	UXM7273.D	06/28/2011	14:52
	LCS 240-6415/4	UXM7274.D	06/28/2011	15:15
	MB 240-6415/5	UXM7275.D	06/28/2011	15:38
TB-061711	240-1267-1	UXM7288.D	06/28/2011	20:31
GSP-MW1-061711	240-1267-2	UXM7289.D	06/28/2011	20:53
GSP-MW2-061711	240-1267-3	UXM7290.D	06/28/2011	21:16
GSP-MW3-061711	240-1267-4	UXM7291.D	06/28/2011	21:38

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCVIS 240-6415/2 Calibration Date: 06/28/2011 14:29

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7272.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2718	0.3046		11.2	10.0	12.1	50.0
Chloromethane	Ave	0.4459	0.4693	0.1000	10.5	10.0	5.2	50.0
Vinyl chloride	Ave	0.3570	0.3559		9.97	10.0	-0.3	20.0
Bromomethane	Ave	0.1731	0.1548		8.95	10.0	-10.5	50.0
Chloroethane	Ave	0.2175	0.1858		8.54	10.0	-14.6	50.0
Trichlorofluoromethane	Ave	0.3382	0.4562		13.5	10.0	34.9	50.0
Acrolein	Ave	0.0471	0.0264 NT		56.0	100	-44.0 NT	50.0
1,1-Dichloroethene	Ave	0.2779	0.2732		9.83	10.0	-1.7	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1941	0.2266		11.7	10.0	16.7	50.0
Acetone	Ave	0.1009	0.0781		15.5	20.0	-22.6	50.0
Iodomethane	Ave	0.4669	0.4951		10.6	10.0	6.0	50.0
Carbon disulfide	Ave	0.9697	0.7630		7.87	10.0	-21.3	50.0
Acetonitrile	Ave	0.0412	0.0338 NT		81.9	100	-18.1	50.0
Methyl acetate	Ave	0.2317	0.2187		18.9	20.0	-5.6	50.0
Methylene Chloride	Lin1		0.3384		8.92	10.0	-10.8	50.0
tert-Butyl alcohol	Ave	0.0248	0.0172		138	200	-30.9	50.0
Acrylonitrile	Ave	0.1088	0.0909		16.7	20.0	-16.5	50.0
Methyl tert-butyl ether	Ave	0.9424	0.7829		8.31	10.0	-16.9	50.0
trans-1,2-Dichloroethene	Ave	0.3289	0.3269		9.94	10.0	-0.6	50.0
Hexane	Ave	0.0496	0.0563		11.3	10.0	13.4	20.0
1,1-Dichloroethane	Ave	0.6006	0.6015	0.1000	10.0	10.0	0.1	50.0
Vinyl acetate	Lin1		0.0304		7.57	10.0	-24.3	50.0
2,2-Dichloropropane	Ave	0.4435	0.3871		8.73	10.0	-12.7	50.0
cis-1,2-Dichloroethene	Ave	0.3455	0.3543		10.3	10.0	2.5	50.0
2-Butanone	Ave	0.1260	0.1094		17.4	20.0	-13.2	50.0
Bromochloromethane	Ave	0.1473	0.1600		10.9	10.0	8.6	50.0
Tetrahydrofuran	Ave	0.0945	0.0761		8.06	10.0	-19.4	50.0
Chloroform	Ave	0.5299	0.5677		10.7	10.0	7.1	20.0
1,1,1-Trichloroethane	Ave	0.4788	0.4943		10.3	10.0	3.2	50.0
Cyclohexane	Ave	0.5517	0.5823		10.6	10.0	5.5	50.0
1,1-Dichloropropene	Ave	0.3918	0.4288		10.9	10.0	9.5	50.0
Carbon tetrachloride	Ave	0.3600	0.4033		11.2	10.0	12.0	50.0
Benzene	Ave	1.214	1.210		9.96	10.0	-0.4	50.0
1,2-Dichloroethane	Ave	0.4059	0.4483		11.0	10.0	10.5	50.0
Trichloroethene	Ave	0.2807	0.3249		11.6	10.0	15.8	50.0
Methylcyclohexane	Ave	0.3914	0.4067		10.4	10.0	3.9	50.0
1,2-Dichloropropane	Ave	0.2926	0.2932		10.0	10.0	0.2	20.0
1,4-Dioxane	Ave	0.0022	0.0018 NT		408	500	-18.5	50.0
Dibromomethane	Ave	0.1477	0.1449		9.81	10.0	-1.9	50.0
Bromodichloromethane	Ave	0.3378	0.3240		9.59	10.0	-4.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCVIS 240-6415/2 Calibration Date: 06/28/2011 14:29

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7272.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1489	0.0851		11.4	20.0	-42.9	50.0
cis-1,3-Dichloropropene	Ave	0.4232	0.3559		8.41	10.0	-15.9	50.0
4-Methyl-2-pentanone	Ave	0.2755	0.2388		17.3	20.0	-13.3	50.0
Toluene	Ave	1.638	1.663		10.2	10.0	1.6	20.0
trans-1,3-Dichloropropene	Ave	0.4843	0.3864		7.98	10.0	-20.2	50.0
Ethyl methacrylate	Ave	0.4611	0.4040		8.76	10.0	-12.4	50.0
1,1,2-Trichloroethane	Ave	0.2777	0.2727		9.82	10.0	-1.8	50.0
Tetrachloroethene	Ave	0.2614	0.3160		12.1	10.0	20.9	50.0
1,3-Dichloropropane	Ave	0.5210	0.4946		9.49	10.0	-5.1	50.0
2-Hexanone	Ave	0.2391	0.2055		17.2	20.0	-14.0	50.0
Dibromochloromethane	Ave	0.2878	0.2511		8.73	10.0	-12.7	50.0
1,2-Dibromoethane	Ave	0.2830	0.2677		9.46	10.0	-5.4	50.0
Chlorobenzene	Ave	1.054	1.131	0.3000	10.7	10.0	7.3	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3512	0.3738		10.6	10.0	6.4	50.0
Ethylbenzene	Ave	0.5717	0.6057		10.6	10.0	6.0	20.0
m-Xylene & p-Xylene	Ave	0.7174	0.7481		20.9	20.0	4.3	50.0
o-Xylene	Ave	0.7201	0.7573		10.5	10.0	5.2	50.0
Styrene	Ave	1.201	1.241		10.3	10.0	3.3	50.0
Bromoform	Lin1		0.1197	0.1000	6.90	10.0	-31.0	50.0
Isopropylbenzene	Ave	1.784	1.865		10.5	10.0	4.5	50.0
1,1,2,2-Tetrachloroethane	Ave	0.6751	0.5794	0.3000	8.58	10.0	-14.2	50.0
Bromobenzene	Ave	0.7884	0.8329		10.6	10.0	5.6	50.0
1,2,3-Trichloropropane	Ave	0.2225	0.2000		8.99	10.0	-10.1	50.0
trans-1,4-Dichloro-2-butene	Ave	0.2269	0.1380		6.08	10.0	-39.2 NT	50.0
n-Propylbenzene	Ave	0.8265	0.8813		10.7	10.0	6.6	50.0
2-Chlorotoluene	Ave	0.7766	0.8300		10.7	10.0	6.9	50.0
1,3,5-Trimethylbenzene	Ave	2.717	2.798		10.3	10.0	3.0	50.0
4-Chlorotoluene	Ave	0.7995	0.8477		10.6	10.0	6.0	50.0
tert-Butylbenzene	Ave	2.147	2.306		10.7	10.0	7.4	50.0
1,2,4-Trimethylbenzene	Ave	2.849	2.948		10.3	10.0	3.5	50.0
sec-Butylbenzene	Ave	2.966	3.092		10.4	10.0	4.3	50.0
1,3-Dichlorobenzene	Ave	1.515	1.633		10.8	10.0	7.8	50.0
p-Isopropyltoluene	Ave	2.466	2.712		11.0	10.0	10.0	50.0
1,4-Dichlorobenzene	Ave	1.558	1.673		10.7	10.0	7.3	50.0
n-Butylbenzene	Ave	2.120	2.159		10.2	10.0	1.9	50.0
1,2-Dichlorobenzene	Ave	1.491	1.544		10.4	10.0	3.6	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1041	0.0722		6.94	10.0	-30.6	50.0
1,3,5-Trichlorobenzene	Ave	0.8672	0.9092		10.5	10.0	4.8	50.0
1,2,4-Trichlorobenzene	Ave	0.7431	0.6873		9.25	10.0	-7.5	50.0
Hexachlorobutadiene	Ave	0.3112	0.3251		10.4	10.0	4.5	50.0
Naphthalene	Ave	1.865	1.268		6.80	10.0	-32.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCVIS 240-6415/2 Calibration Date: 06/28/2011 14:29

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7272.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.6388	0.5077		7.95	10.0	-20.5	50.0
Dibromofluoromethane (Surr)	Ave	0.2597	0.2709		10.7	10.2	4.3	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3187	0.3411		10.9	10.2	7.0	50.0
Toluene-d8 (Surr)	Ave	1.297	1.312		10.3	10.2	1.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5392	0.4995		9.46	10.2	-7.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCV 240-6415/3 Calibration Date: 06/28/2011 14:52

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7273.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2597	0.2534		9.96	10.2	-2.4	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3187	0.3305		10.6	10.2	3.7	50.0
Toluene-d8 (Surr)	Ave	1.297	1.248		9.83	10.2	-3.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5392	0.4833		9.15	10.2	-10.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCV 240-6415/3 Calibration Date: 06/28/2011 14:52

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 17:06

Lab File ID: UXM7273.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5113	0.4496		8.79	10.0	-12.1	50.0
Ethyl ether	Ave	0.2800	0.2388		8.53	10.0	-14.7	50.0
3-Chloro-1-propene	Ave	0.1807	0.1272		7.04	10.0	-29.6 NT	50.0
Diisopropyl ether	Ave	0.2981	0.2647		44.4	50.0	-11.2	50.0
2-Chloro-1,3-butadiene	Ave	0.5772	0.5673		9.83	10.0	-1.7	50.0
Ethyl-t-butyl ether (ETBE)	Ave	1.158	0.9243		7.98	10.0	-20.2	50.0
Ethyl acetate	Ave	0.2390	0.2244		18.8	20.0	-6.1	50.0
Propionitrile	Ave	0.0382	0.0318 NT		16.6	20.0	-16.9	50.0
Methacrylonitrile	Ave	0.1799	0.1658		9.22	10.0	-7.8	50.0
Isobutyl alcohol	Ave	0.0091	0.0082 NT		181	200	-9.4	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.9258	0.6861		7.41	10.0	-25.9	50.0
n-Heptane	Qua		0.0431 NT		8.52	10.0	-14.8	50.0
n-Butanol	Ave	0.0076	0.0045 NT		120	200	-40.1 NT	50.0
Methyl methacrylate	Ave	0.2498	0.2354		9.42	10.0	-5.8	50.0
2-Nitropropane	Ave	0.0724	0.0363 NT		10.0	20.0	-49.9 NT	50.0
Cyclohexanone	Ave	0.0684	0.0451 NT		65.9	100	-34.1 NT	50.0
1,2,3-Trimethylbenzene	Ave	2.945	2.635		8.95	10.0	-10.5	50.0
2-Methylnaphthalene	Ave	0.7646	0.2578		6.74	20.0	-66.3* NT	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab File ID: UXM7275.D Lab Sample ID: MB 240-6415/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 06/28/2011 15:38

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-6415/4	UXM7274.D	06/28/2011 15:15
TB-061711	240-1267-1	UXM7288.D	06/28/2011 20:31
GSP-MW1-061711	240-1267-2	UXM7289.D	06/28/2011 20:53
GSP-MW2-061711	240-1267-3	UXM7290.D	06/28/2011 21:16
GSP-MW3-061711	240-1267-4	UXM7291.D	06/28/2011 21:38

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-6415/5

Matrix: Water Lab File ID: UXM7275.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2011 15:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6415/5

Matrix: Water | Lab File ID: UXM7275.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2011 15:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6415 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-6415/5

Matrix: Water Lab File ID: UXM7275.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2011 15:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		74-115
1868-53-7	Dibromofluoromethane (Surr)	92		75-121
460-00-4	4-Bromofluorobenzene (Surr)	85		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-6415/5

Matrix: Water Lab File ID: UXM7275.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/28/2011 15:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6415 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM	#	DCA	#	TOL	#	BFB	#
TB-061711	240-1267-1	98		107		103		86	
GSP-MW1-061711	240-1267-2	95		109		100		87	
GSP-MW2-061711	240-1267-3	93		105		97		87	
GSP-MW3-061711	240-1267-4	93		106		98		88	
	MB 240-6415/5	92		106		99		85	
	LCS 240-6415/4	100		100		96		90	

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7274.D

Lab ID: LCS 240-6415/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	9.06	91	72-116	
1,1,1-Trichloroethane	10.0	9.18	92	74-118	
1,1,2,2-Tetrachloroethane	10.0	7.51	75	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	10.8	108	74-151	
1,1-Dichloroethane	10.0	9.28	93	82-115	
1,1-Dichloroethene	10.0	8.89	89	78-131	
1,1-Dichloropropene	10.0	9.69	97	83-114	
1,2,3-Trichlorobenzene	10.0	7.10	71	54-126	
1,2,3-Trichloropropane	10.0	8.38	84	73-129	
1,2,3-Trimethylbenzene	10.0	8.95	90	70-130	
1,2,4-Trichlorobenzene	10.0	7.63	76	48-135	
1,2,4-Trimethylbenzene	10.0	8.82	88	76-120	
1,2-Dibromo-3-Chloropropane	10.0	5.68	57	42-136	
1,2-Dichlorobenzene	10.0	8.86	89	81-110	
1,2-Dichloroethane	10.0	10.4	104	71-127	
1,2-Dichloropropane	10.0	9.15	92	81-115	
1,3-Dichlorobenzene	10.0	9.20	92	80-110	
1,3-Dichloropropane	10.0	9.07	91	79-116	
1,4-Dichlorobenzene	10.0	9.06	91	82-110	
2,2-Dichloropropane	10.0	7.33	73	50-129	
2-Butanone	20.0	18.3	92	60-126	
2-Chloroethyl vinyl ether	10.0	5.44 J	54	52-131	
2-Chlorotoluene	10.0	8.81	88	76-116	
2-Hexanone	20.0	18.1	91	55-133	
4-Chlorotoluene	10.0	9.24	92	77-115	
p-Isopropyltoluene	10.0	9.33	93	74-120	
4-Methyl-2-pentanone	20.0	18.1	91	63-128	
Acetone	20.0	15.6	78	43-136	
Benzene	10.0	8.83	88	83-112	
Bromobenzene	10.0	9.27	93	76-115	
Bromoform	10.0	6.02	60	40-131	
Bromomethane	10.0	6.20	62	11-185	
Carbon disulfide	10.0	6.93	69	62-142	
Carbon tetrachloride	10.0	9.81	98	66-128	
Chlorobenzene	10.0	9.62	96	85-110	
Dibromochloromethane	10.0	7.84	78	64-119	
Chloroethane	10.0	6.42	64	25-153	
Chloroform	10.0	9.69	97	79-117	
Chloromethane	10.0	7.76	78	44-126	
cis-1,2-Dichloroethene	10.0	9.24	92	80-113	
cis-1,3-Dichloropropene	10.0	7.22	72	61-115	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7274.D

Lab ID: LCS 240-6415/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dibromomethane	10.0	9.56	96	81-120	
Bromochloromethane	10.0	9.83	98	77-120	
Dichlorodifluoromethane	10.0	5.85	59	19-129	
Bromodichloromethane	10.0	8.38	84	72-121	
tert-Butyl alcohol	200	133	66	70-130	*
Ethylbenzene	10.0	9.09	91	83-112	
Hexachlorobutadiene	10.0	7.99	80	36-134	
Diisopropyl ether	10.0	8.62 J	86	77-118	
Isopropylbenzene	10.0	9.04	90	75-114	
Methyl tert-butyl ether	10.0	7.63	76	52-144	
Methylene Chloride	10.0	8.27	83	66-131	
m-Xylene & p-Xylene	20.0	18.2	91	83-113	
Naphthalene	10.0	6.10	61	32-141	
n-Butylbenzene	10.0	8.48	85	66-125	
n-Propylbenzene	10.0	8.94	89	74-121	
o-Xylene	10.0	9.19	92	83-113	
sec-Butylbenzene	10.0	8.39	84	70-117	
Styrene	10.0	9.37	94	79-114	
Tetrachloroethene	10.0	10.7	107	79-114	
Toluene	10.0	9.02	90	84-111	
trans-1,2-Dichloroethene	10.0	8.85	89	83-117	
trans-1,3-Dichloropropene	10.0	7.07	71	58-117	
Trichloroethene	10.0	10.1	101	76-117	
Trichlorofluoromethane	10.0	11.0	110	49-157	
Vinyl acetate	10.0	8.52	85	46-161	
Vinyl chloride	10.0	7.35	74	53-127	
tert-Butylbenzene	10.0	9.03	90	71-115	
1,2-Dibromoethane	10.0	8.78	88	79-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Sample No.: STD8260 240-3007/4 Date Analyzed: 05/29/2011 13:45

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM6502.D Heated Purge: (Y/N) N

Calibration ID: 1183

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1300312	5.72	996322	8.41	544167	10.65
UPPER LIMIT		2600624	6.22	1992644	8.91	1088334	11.15
LOWER LIMIT		650156	5.22	498161	7.91	272084	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-3007/14		1244035	5.72	939144	8.41	496491	10.65
CCVIS 240-6415/2		1068435	5.72	819049	8.41	448153	10.65

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Sample No.: CCVIS 240-6415/2 Date Analyzed: 06/28/2011 14:29

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM7272.D Heated Purge: (Y/N) N

Calibration ID: 1185

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1068435	5.72	819049	8.41	448153	10.65
UPPER LIMIT		2136870	6.22	1638098	8.91	896306	11.15
LOWER LIMIT		534218	5.22	409525	7.91	224077	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-6415/3		1060940	5.72	820215	8.41	443201	10.65
LCS 240-6415/4		1104626	5.72	859413	8.41	488099	10.65
MB 240-6415/5		1071146	5.72	854549	8.41	449456	10.65
240-1267-1	TB-061711	1069653	5.72	811025	8.41	421979	10.65
240-1267-2	GSP-MW1-061711	1070507	5.72	835241	8.41	430548	10.65
240-1267-3	GSP-MW2-061711	1077445	5.72	823864	8.41	432594	10.65
240-1267-4	GSP-MW3-061711	1052070	5.72	812227	8.41	429716	10.65

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab File ID: 9DF0721.D DFTPP Injection Date: 07/21/2011

Instrument ID: A4HP9 DFTPP Injection Time: 11:09

Analysis Batch No.: 9362

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.6	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	76.9	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	56.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	24.0	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	11.0	
442	40.0 - 110.0% of mass 198	67.6	
443	15.0 - 24.0% of mass 442	13.2	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-9362/10	9SMH0721.D	07/21/2011	11:26
	STD5 240-9362/2	9SMM0721.D	07/21/2011	11:51
	STD4 240-9362/3	9SM0721.D	07/21/2011	12:10
	STD3 240-9362/4	9SML0721.D	07/21/2011	12:30
	STD2 240-9362/5	9SL0721.D	07/21/2011	12:49
	STD1 240-9362/6	9SLL0721.D	07/21/2011	13:08
	STD7 240-9362/9	9SH0721.D	07/21/2011	13:28
	STD8 240-9362/8	9SHH0721.D	07/21/2011	13:47
	STD9 240-9362/7	9HHH0721.D	07/21/2011	14:07
	ICV 240-9362/11	9TCLICV.D	07/21/2011	14:26

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-9362/6	9SLL0721.D
Level 2	STD2 240-9362/5	9SL0721.D
Level 3	STD3 240-9362/4	9SML0721.D
Level 4	STD4 240-9362/3	9SM0721.D
Level 5	STD5 240-9362/2	9SMM0721.D
Level 6	STD6 240-9362/10	9SMH0721.D
Level 7	STD7 240-9362/9	9SH0721.D
Level 8	STD8 240-9362/8	9SHH0721.D
Level 9	STD9 240-9362/7	9HHH0721.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,4-Dioxane		0.8650	0.8556	0.8432	0.7826	Ave		0.8081				4.9		20.0			
	0.7934	0.7847	0.7688	0.7714													
N-Nitrosodimethylamine		1.5655	1.4194	1.5572	1.4302	Ave		1.4901				3.6		20.0			
	1.4911	1.4965	1.4551	1.5057													
Pyridine		2.4043	2.2376	2.4188	2.2488	Ave		2.3340				3.0		20.0			
	2.3127	2.3190	2.3338	2.3968													
Ethyl methacrylate		2.1987	2.0505	2.2585	2.0730	Ave		2.1407				3.1		20.0			
	2.1398	2.1317	2.1185	2.1547													
3-Chloropropionitrile		0.9752	0.8425	0.9644	0.8651	Ave		0.9103				5.1		20.0			
	0.8940	0.9392	0.9017	0.9005													
Malononitrile		2.5733	2.5011	2.6823	2.4945	Ave		2.5191				3.9		20.0			
	2.5669	2.5519	2.4219	2.3607													
Benzaldehyde		2.1017	2.0183	2.0638	1.8591	Qua	-0.406	2.4864	-0.088		0.0100				0.9970		0.9900
	1.6211	1.1297	+++++														
Phenol		2.5641	2.5828	2.6371	2.4160	Ave		2.5195			0.8000	3.1		20.0			
	2.4260	2.5086	2.4793	2.5422													
Aniline		3.1074	3.2243	3.3249	3.0048	Ave		3.1718				3.6		20.0			
	3.0614	3.2280	3.1333	3.2908													
Bis(2-chloroethyl)ether		2.1318	2.2165	2.0774	1.9206	Ave		2.0079			0.7000	5.9		20.0			
	1.9019	1.9388	1.9071	1.9693													
2-Chlorophenol		1.5698	1.4884	1.5410	1.3732	Ave		1.4592			0.8000	4.9		20.0			
	1.3872	1.4536	1.4068	1.4535													
1,3-Dichlorobenzene		1.4270	1.4737	1.4955	1.3633	Ave		1.4195				3.4		20.0			
	1.3710	1.4117	1.3754	1.4384													
1,4-Dichlorobenzene		1.5150	1.5410	1.5796	1.4272	Ave		1.4867				3.9		20.0			
	1.4116	1.4731	1.4451	1.5010													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzyl alcohol		1.1478	1.1621	1.1659	1.0986	Ave		1.1349				2.5		20.0			
	1.0941	1.1411	1.1150	1.1546													
1,2-Dichlorobenzene		1.3627	1.4645	1.3962	1.3051	Ave		1.3613				4.1		20.0			
	1.2977	1.3661	1.3169	1.3814													
2-Methylphenol		1.5992	1.6396	1.6846	1.5554	Ave		1.6111			0.7000	2.9		20.0			
	1.5542	1.6285	1.5788	1.6486													
2,2'-oxybis[1-chloropropane]		1.9586	1.9756	1.8702	1.7618	Ave		1.8312				5.3		20.0			
	1.7018	1.8231	1.7575	1.8013													
3 & 4 Methylphenol		1.7175	1.7860	1.7932	1.6895	Ave		1.7202				3.1		20.0			
	1.6388	1.7246	1.6738	1.7380													
N-Nitrosodi-n-propylamine		1.8689	1.9461	1.9356	1.8044	Ave		1.8571			0.5000	3.2		20.0			
	1.7934	1.8409	1.8016	1.8658													
Acetophenone		2.4682	2.6480	2.5655	2.4096	Ave		2.4966			0.0100	3.8		20.0			
	2.3621	2.5193	2.4374	2.5630													
Hexachloroethane		0.6481	0.6902	0.6983	0.6566	Ave		0.6699			0.3000	2.9		20.0			
	0.6551	0.6747	0.6518	0.6839													
Nitrobenzene		0.6860	0.6869	0.6973	0.6523	Ave		0.6853			0.2000	2.5		20.0			
	0.6783	0.6906	0.6803	0.7107													
Isophorone		1.1176	1.1808	1.2056	1.1448	Ave		1.1877			0.4000	3.9		20.0			
	1.1650	1.2117	1.2077	1.2682													
2-Nitrophenol		0.1975	0.2002	0.2022	0.1917	Ave		0.1993			0.1000	2.5		20.0			
	0.1950	0.2013	0.1987	0.2080													
2,4-Dimethylphenol		0.4741	0.5104	0.5112	0.4964	Ave		0.5068			0.2000	4.0		20.0			
	0.4949	0.5139	0.5091	0.5444													
1,3,5-Trichlorobenzene		0.3035	0.3089	0.3120	0.2919	Ave		0.3102				4.8		20.0			
	0.2978	0.3081	0.3181	0.3410													
Bis(2-chloroethoxy)methane		0.6011	0.6131	0.6030	0.5759	Ave		0.5933			0.3000	2.9		20.0			
	0.5706	0.5937	0.5764	0.6127													
Benzoic acid		0.1574	0.1808	0.2020	0.2690	Qua	-0.188	0.2741	0.0014						0.9980		0.9900
	0.2938	0.3261	0.3119	0.3473													
2,4-Dichlorophenol		0.2570	0.2757	0.2865	0.2667	Ave		0.2768			0.2000	4.0		20.0			
	0.2787	0.2781	0.2793	0.2924													
1,2,4-Trichlorobenzene		0.3173	0.3021	0.3086	0.2908	Ave		0.3040				3.3		20.0			
	0.2940	0.3008	0.3004	0.3177													
Naphthalene	1.3248	1.1098	1.1454	1.1284	1.0493	Ave		1.1395			0.7000	6.8		20.0			
	1.0818	1.1286	1.1305	1.1573													
4-Chloroaniline		0.4806	0.4667	0.4968	0.4591	Ave		0.4744			0.0100	2.6		20.0			
	0.4662	0.4728	0.4670	0.4863													
Hexachlorobutadiene		0.1695	0.1818	0.1718	0.1715	Ave		0.1787			0.0100	4.5		20.0			
	0.1774	0.1811	0.1823	0.1941													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,2,3-Trichlorobenzene	0.2759	0.2818 0.2804	0.2866 0.2811	0.2905 0.2971	0.2698	Ave		0.2829				3.0		20.0			
1,1'-Biphenyl	+++++ 1.4941	1.5333 1.5562	1.5833 1.6517	1.5592 1.8117	1.4219	Ave		1.5764			0.0100	7.4		20.0			
2-Chloronaphthalene	+++++ 1.0547	1.0996 1.0721	1.1180 1.0971	1.1153 1.1729	1.0448	Ave		1.0968			0.8000	3.7		20.0			
Caprolactam	0.1460	0.1378 0.1527	0.1481 0.1501	0.1428 0.1593	0.1448	Ave		0.1477			0.0100	4.4		20.0			
4-Chloro-3-methylphenol	0.4368	0.4019 0.4497	0.4297 0.4371	0.4342 0.4635	0.4198	Ave		0.4341			0.2000	4.3		20.0			
2-Methylnaphthalene	0.6665 0.5622	0.5544 0.5809	0.5947 0.5738	0.5792 0.6192	0.5600	Ave		0.5879			0.4000	6.0		20.0			
1-Methylnaphthalene	0.7711 0.6399	0.6806 0.6735	0.6792 0.6642	0.6782 0.7085	0.6398	Ave		0.6817				5.8		20.0			
1,2,3,5-Tetrachlorobenzene	0.5034	0.5190 0.5120	0.5134 0.5382	0.5236 0.5857	0.4868	Ave		0.5228				5.6		20.0			
Hexachlorocyclopentadiene	0.3839	0.3435 0.3922	0.3287 0.4151	0.3544 0.4517	0.3529	Ave		0.3778			0.0500	11.0		20.0			
2,4,6-Trichlorophenol	0.3750	0.3208 0.3516	0.3668 0.3619	0.3740 0.3929	0.3479	Ave		0.3614			0.2000	6.0		20.0			
2,4,5-Trichlorophenol	0.3783	0.3671 0.3863	0.3727 0.3979	0.3801 0.4131	0.3700	Ave		0.3832			0.2000	4.1		20.0			
Dibenzofuran	+++++ 1.6518	1.7119 1.6886	1.6530 1.7252	1.6993 1.8675	1.6037	Ave		1.7001			0.8000	4.6		20.0			
2,4-Toluene diamine	0.2289	0.3008	0.2748	0.3045	0.1694	Ave		0.2557				22.0		20.0			
1,2,3,4 -Tetrachlorobenzene	0.4767	0.4965 0.4936	0.4884 0.5183	0.4841 0.5639	0.4645	Ave		0.4983				6.2		20.0			
2-Nitroaniline	0.6170	0.6350 0.6270	0.6286 0.6566	0.6654 0.6786	0.6105	Ave		0.6398			0.0100	3.8		20.0			
Dimethyl phthalate	1.2914	1.3194 1.3340	1.3287 1.3484	1.3512 1.4239	1.2946	Ave		1.3364			0.0100	3.1		20.0			
2,6-Dinitrotoluene	0.2906	0.2663 0.2866	0.2719 0.2999	0.2925 0.3167	0.2833	Ave		0.2885				5.5		20.0			
1,2-Dinitrobenzene	0.1512	0.1323 0.1559	0.1451 0.1591	0.1565 0.1661	0.1516	Ave		0.1522				6.7		20.0			
Acenaphthylene	2.1768 1.8929	1.9248 1.9492	1.9198 2.0139	1.9876 2.1337	1.8570	Ave		1.9840			0.9000	5.5		20.0			
3-Nitroaniline	0.3518	0.3182 0.3523	0.3225 0.3576	0.3519 0.3734	0.3389	Ave		0.3458			0.0100	5.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 / LVL 6	LVL 2 / LVL 7	LVL 3 / LVL 8	LVL 4 / LVL 9	LVL 5		B	M1	M2								
Acenaphthene	1.4348 / 1.1713	1.2248 / 1.2021	1.2110 / 1.2504	1.2464 / 1.3190	1.1536	Ave		1.2459			0.9000	6.9		20.0			
2,4-Dinitrophenol	0.2530	0.1437 / 0.2650	0.1627 / 0.2740	0.2028 / 0.2908	0.2284	Qua	-0.118	0.2311	0.0012		0.0100				1.0000		0.9900
4-Nitrophenol	0.3245	0.2643 / 0.3233	0.3045 / 0.3297	0.3143 / 0.3386	0.3083	Ave		0.3134				7.3		20.0			
2,4-Dinitrotoluene	0.3940	0.3756 / 0.3988	0.3796 / 0.4138	0.3983 / 0.4337	0.3988	Ave		0.3991			0.2000	4.6		20.0			
2,3,5,6-Tetrachlorophenol	0.3222	0.3128 / 0.3268	0.2980 / 0.3262	0.3103 / 0.3545	0.3017	Ave		0.3191				5.6		20.0			
Diethyl phthalate	1.4395	1.4496 / 1.4691	1.4587 / 1.5032	1.4658 / 1.6247	1.4217	Ave		1.4790			0.0100	4.3		20.0			
4-Chlorophenyl phenyl ether	0.6237	0.6139 / 0.6310	0.6417 / 0.6613	0.6481 / 0.7006	0.6118	Ave		0.6415			0.4000	4.6		20.0			
4-Nitroaniline	0.3737	0.3376 / 0.3839	0.3576 / 0.3931	0.3839 / 0.4146	0.3670	Ave		0.3764			0.0100	6.2		20.0			
Fluorene	1.4074 / 1.2824	1.3190 / 1.3000	1.3061 / 1.3425	1.3214 / 1.4526	1.2291	Ave		1.3289			0.9000	5.0		20.0			
4,6-Dinitro-2-methylphenol	0.1516	0.1100 / 0.1584	0.1189 / 0.1571	0.1399 / 0.1650	0.1414	Ave		0.1428			0.0100	14.0		20.0			
N-Nitrosodiphenylamine	0.5617	0.5786 / 0.5668	0.5664 / 0.5839	0.5898 / 0.6310	0.5578	Ave		0.5795			0.0100	4.1		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.5060	1.4555 / 1.5526	1.5425 / 1.5569	1.5692 / 1.4728	1.5009	Ave		1.5197				2.8		20.0			
Azobenzene	1.5062	1.4557 / 1.5528	1.5425 / 1.5569	1.5692 / 1.4728	1.5012	Ave		1.5197				2.8		20.0			
4-Bromophenyl phenyl ether	0.1923	0.1939 / 0.1946	0.1964 / 0.1972	0.1969 / 0.2081	0.1905	Ave		0.1962			0.1000	2.7		20.0			
Hexachlorobenzene	0.2005 / 0.1876	0.1972 / 0.1950	0.2077 / 0.1934	0.1978 / 0.2060	0.1870	Ave		0.1969			0.1000	3.6		20.0			
Atrazine	0.2008	0.2090 / 0.1942	0.2181 / 0.1980	0.2113 / 0.2007	0.2044	Ave		0.2045			0.0100	3.8		20.0			
Pentachlorophenol	0.1501	0.1152 / 0.1584	0.1271 / 0.1613	0.1323 / 0.1704	0.1424	Ave		0.1447			0.0500	13.0		20.0			
Phenanthrene	1.2994 / 1.0582	1.0964 / 1.1165	1.1167 / 1.1222	1.1456 / 1.2033	1.0486	Ave		1.1341			0.7000	6.8		20.0			
Anthracene	1.2956 / 1.0670	1.0810 / 1.1245	1.0873 / 1.1459	1.1183 / 1.2441	1.0695	Ave		1.1370			0.7000	7.1		20.0			
Carbazole	1.0726	1.0505 / 1.1132	1.0811 / 1.1222	1.0944 / 1.2053	1.0388	Ave		1.0973			0.0100	4.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Di-n-butyl phthalate	1.4042	1.3057 1.4562	1.3646 1.3957	1.4014 1.3187	1.3894	Ave		1.3795			0.0100	3.5		20.0			
Fluoranthene	1.2888 1.1563	1.1198 1.2306	1.1681 1.2504	1.1743 1.3401	1.1511	Ave		1.2088			0.6000	6.0		20.0			
Benzidine	0.6413	0.5247 0.6739	0.5614 0.7024	0.6229 0.7191	0.6146	Ave		0.6325				11.0		20.0			
Pyrene	1.3265 1.2043	1.1784 1.2362	1.2179 1.2550	1.2068 1.2999	1.1725	Ave		1.2330			0.6000	4.3		20.0			
Butyl benzyl phthalate	0.6083	0.5364 0.6120	0.5692 0.6038	0.6318 0.6608	0.5965	Ave		0.6023			0.0100	6.2		20.0			
3,3'-Dimethoxybenzidine	0.2525	0.2172 0.2818	0.2106 0.2729	0.2732 0.2822	0.2544	Ave		0.2556				11.0		20.0			
Bis(2-ethylhexyl) phthalate	0.8530	0.7628 0.8639	0.7993 0.8756	0.8287 0.9289	0.8181	Ave		0.8413			0.0100	6.0		20.0			
4,4'-Methylene bis(2-chloroaniline)	0.2280	0.1858 0.2376	0.2072 0.2415	0.2239 0.2567	0.2155	Ave		0.2245				9.8		20.0			
3,3'-Dichlorobenzidine	0.4261	0.3736 0.4429	0.3912 0.4461	0.4300 0.4817	0.4065	Ave		0.4248			0.0100	8.0		20.0			
Benzo[a]anthracene	1.3976 1.1536	1.1773 1.1442	1.0753 1.1671	1.1273 1.2618	1.0858	Ave		1.1767			0.8000	8.4		20.0			
Chrysene	1.3615 1.0697	1.0521 1.1461	1.0901 1.1285	1.1094 1.1929	1.0466	Ave		1.1330			0.7000	8.6		20.0			
Di-n-octyl phthalate	1.7057	1.3566 1.7786	1.4502 1.7754	1.5689 1.9221	1.6447	Ave		1.6503			0.0100	11.0		20.0			
Benzo[b]fluoranthene	1.2817 1.3971	1.1349 1.3870	1.1158 1.3192	1.2341 1.5942	1.3320	Ave		1.3107			0.7000	11.0		20.0			
Benzo[k]fluoranthene	1.6231 1.2380	1.2680 1.3138	1.3660 1.4003	1.2531 1.3423	1.2332	Ave		1.3375			0.7000	9.1		20.0			
Benzo[a]pyrene	1.1887 1.1873	1.0781 1.2141	1.1154 1.2143	1.1374 1.3054	1.1480	Ave		1.1765			0.7000	5.7		20.0			
Indeno[1,2,3-cd]pyrene	1.1855 1.3052	1.0996 1.3402	1.1603 1.3418	1.2330 1.4219	1.2555	Ave		1.2603			0.5000	8.1		20.0			
Dibenzo(a,h)anthracene	1.0821 1.0520	0.8534 1.1068	0.9577 1.1141	0.9859 1.2020	1.0151	Ave		1.0410			0.4000	9.8		20.0			
Benzo[g,h,i]perylene	1.0398 1.0535	0.9680 1.0914	0.9634 1.0728	1.0029 1.1334	1.0373	Ave		1.0403			0.5000	5.4		20.0			
2-Fluorophenol (Surr)	1.4943	1.4688 1.5169	1.5366 1.4900	1.5892 1.5757	1.4943	Ave		1.5207				2.8		20.0			
Phenol-d5 (Surr)	2.1602	2.2184 2.2253	2.2887 2.1609	2.2631 2.2441	2.1140	Ave		2.2093				2.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Nitrobenzene-d5 (Surr)	0.7096 0.6759	0.6221 0.6257	0.6474 0.6233	0.6622 0.6648	0.6594	Ave		0.6545				4.4		20.0			
2-Fluorobiphenyl (Surr)	1.4465 1.2840	1.3483 1.2975	1.3545 1.3480	1.3538 1.4490	1.2528	Ave		1.3483				5.0		20.0			
2,4,6-Tribromophenol (Surr)	 0.1525	0.1560 0.1600	0.1508 0.1612	0.1553 0.1717	0.1485	Ave		0.1570				4.7		20.0			
Terphenyl-d14 (Surr)	0.8214 0.7162	0.6809 0.7373	0.7083 0.7433	0.7127 0.8109	0.6927	Ave		0.7360				6.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab File ID: 9DF0722.D DFTPP Injection Date: 07/22/2011

Instrument ID: A4HP9 DFTPP Injection Time: 09:52

Analysis Batch No.: 9503

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	78.2	
70	Less than 2.0% of mass 69	0.5	(0.7)1
127	25.0 - 75.0% of mass 198	58.2	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	25.2	
365	Greater than 0.75% of mass 198	3.3	
441	Present, but less than mass 443	11.5	
442	40.0 - 110.0% of mass 198	69.6	
443	15.0 - 24.0% of mass 442	12.9	(18.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-9503/2	9SMH0722.D	07/22/2011	10:09
	CCV 240-9503/3	9AMH0722.D	07/22/2011	10:36
	ICV 240-9503/12	9THLICV.D	07/22/2011	13:40
	MB 240-5441/1-A	MB5441.D	07/22/2011	15:15
	LCS 240-5441/2-A	LCS5441.D	07/22/2011	15:34
GSP-MW1-061711	240-1267-2	1267I2A.D	07/22/2011	20:35
GSP-MW2-061711	240-1267-3	1267I3A.D	07/22/2011	20:54
GSP-MW3-061711	240-1267-4	1267I4A.D	07/22/2011	21:13

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCV 240-9503/2 Calibration Date: 07/22/2011 10:09

Instrument ID: A4HP9 Calib Start Date: 07/21/2011 11:26

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/21/2011 14:07

Lab File ID: 9SMH0722.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8081	0.8185		10.1	10.0	1.3	20.0
N-Nitrosodimethylamine	Ave	1.490	1.538		10.3	10.0	3.2	20.0
Pyridine	Ave	2.334	2.330		9.98	10.0	-0.2	20.0
Ethyl methacrylate	Ave	2.141	2.225		10.4	10.0	3.9	20.0
3-Chloropropionitrile	Ave	0.9103	0.9365		10.3	10.0	2.9	20.0
Malononitrile	Ave	2.519	2.674		10.6	10.0	6.1	20.0
Benzaldehyde	Qua		1.561	0.0100	9.92	10.0	-0.8	20.0
Phenol	Ave	2.520	2.512	0.8000	9.97	10.0	-0.3	20.0
Aniline	Ave	3.172	3.178		10.0	10.0	0.2	20.0
Bis(2-chloroethyl)ether	Ave	2.008	1.945	0.7000	9.69	10.0	-3.1	20.0
2-Chlorophenol	Ave	1.459	1.443	0.8000	9.89	10.0	-1.1	20.0
1,3-Dichlorobenzene	Ave	1.420	1.391		9.80	10.0	-2.0	20.0
1,4-Dichlorobenzene	Ave	1.487	1.426		9.59	10.0	-4.1	20.0
Benzyl alcohol	Ave	1.135	1.089		9.59	10.0	-4.1	20.0
1,2-Dichlorobenzene	Ave	1.361	1.307		9.60	10.0	-4.0	20.0
2-Methylphenol	Ave	1.611	1.580	0.7000	9.81	10.0	-1.9	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.831	1.856		10.1	10.0	1.3	20.0
3 & 4 Methylphenol	Ave	1.720	1.684		9.79	10.0	-2.1	20.0
N-Nitrosodi-n-propylamine	Ave	1.857	1.835	0.5000	9.88	10.0	-1.2	20.0
Acetophenone	Ave	2.497	2.452	0.0100	9.82	10.0	-1.8	20.0
Hexachloroethane	Ave	0.6699	0.6715	0.3000	10.0	10.0	0.2	20.0
Nitrobenzene	Ave	0.6853	0.6733	0.2000	9.82	10.0	-1.8	20.0
Isophorone	Ave	1.188	1.191	0.4000	10.0	10.0	0.3	20.0
2-Nitrophenol	Ave	0.1993	0.1984	0.1000	9.95	10.0	-0.5	20.0
1,3,5-Trichlorobenzene	Ave	0.3102	0.2921		9.42	10.0	-5.8	20.0
2,4-Dimethylphenol	Ave	0.5068	0.4955	0.2000	9.78	10.0	-2.2	20.0
Bis(2-chloroethoxy)methane	Ave	0.5933	0.5822	0.3000	9.81	10.0	-1.9	20.0
Benzoic acid	Qua		0.2546		17.6	20.0	-12.0	20.0
2,4-Dichlorophenol	Ave	0.2768	0.2668	0.2000	9.64	10.0	-3.6	20.0
1,2,4-Trichlorobenzene	Ave	0.3040	0.2882		9.48	10.0	-5.2	20.0
Naphthalene	Ave	1.140	1.099	0.7000	9.65	10.0	-3.5	20.0
4-Chloroaniline	Ave	0.4744	0.4634	0.0100	9.77	10.0	-2.3	20.0
Hexachlorobutadiene	Ave	0.1787	0.1699	0.0100	9.51	10.0	-4.9	20.0
1,2,3-Trichlorobenzene	Ave	0.2829	0.2709		9.57	10.0	-4.3	20.0
Caprolactam	Ave	0.1477	0.1466	0.0100	9.93	10.0	-0.7	20.0
4-Chloro-3-methylphenol	Ave	0.4341	0.4282	0.2000	9.86	10.0	-1.4	20.0
2-Methylnaphthalene	Ave	0.5879	0.5662	0.4000	9.63	10.0	-3.7	20.0
1-Methylnaphthalene	Ave	0.6817	0.6446		9.46	10.0	-5.4	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5228	0.4960		9.49	10.0	-5.1	20.0
Hexachlorocyclopentadiene	Ave	0.3778	0.3564	0.0500	9.43	10.0	-5.7	20.0
2,4,6-Trichlorophenol	Ave	0.3614	0.3525	0.2000	9.75	10.0	-2.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCV 240-9503/2 Calibration Date: 07/22/2011 10:09

Instrument ID: A4HP9 Calib Start Date: 07/21/2011 11:26

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/21/2011 14:07

Lab File ID: 9SMH0722.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3832	0.3759	0.2000	9.81	10.0	-1.9	20.0
2,4-Toluene diamine	Ave	0.2557	0.1912		7.48	10.0	-25.2*	20.0
1,1'-Biphenyl	Ave	1.576	1.480	0.0100	9.39	10.0	-6.1	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4983	0.4709		9.45	10.0	-5.5	20.0
2-Chloronaphthalene	Ave	1.097	1.067	0.8000	9.73	10.0	-2.7	20.0
2-Nitroaniline	Ave	0.6398	0.6461	0.0100	10.1	10.0	1.0	20.0
Dimethyl phthalate	Ave	1.336	1.296	0.0100	9.70	10.0	-3.0	20.0
2,6-Dinitrotoluene	Ave	0.2885	0.2965		10.3	10.0	2.8	20.0
1,2-Dinitrobenzene	Ave	0.1522	0.1541		10.1	10.0	1.2	20.0
Acenaphthylene	Ave	1.984	1.890	0.9000	9.53	10.0	-4.7	20.0
3-Nitroaniline	Ave	0.3458	0.3529	0.0100	10.2	10.0	2.0	20.0
2,4-Dinitrophenol	Qua		0.2392	0.0100	19.3	20.0	-3.5	20.0
Acenaphthene	Ave	1.246	1.169	0.9000	9.38	10.0	-6.2	20.0
4-Nitrophenol	Ave	0.3134	0.3032		9.67	10.0	-3.3	20.0
2,4-Dinitrotoluene	Ave	0.3991	0.3994	0.2000	10.0	10.0	0.0	20.0
Dibenzofuran	Ave	1.700	1.636	0.8000	9.62	10.0	-3.8	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3191	0.3066		9.61	10.0	-3.9	20.0
Diethyl phthalate	Ave	1.479	1.426	0.0100	9.64	10.0	-3.6	20.0
4-Chlorophenyl phenyl ether	Ave	0.6415	0.6278	0.4000	9.79	10.0	-2.1	20.0
4-Nitroaniline	Ave	0.3764	0.3731	0.0100	9.91	10.0	-0.9	20.0
Fluorene	Ave	1.329	1.257	0.9000	9.46	10.0	-5.4	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1428	0.1448	0.0100	10.1	10.0	1.4	20.0
N-Nitrosodiphenylamine	Ave	0.5795	0.5691	0.0100	9.82	10.0	-1.8	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.520	1.545		10.2	10.0	1.6	20.0
Azobenzene	Ave	1.520	1.545		10.2	10.0	1.6	20.0
4-Bromophenyl phenyl ether	Ave	0.1962	0.1913	0.1000	9.75	10.0	-2.5	20.0
Hexachlorobenzene	Ave	0.1969	0.1823	0.1000	9.26	10.0	-7.4	20.0
Atrazine	Ave	0.2045	0.2044	0.0100	10.0	10.0	-0.0	20.0
Pentachlorophenol	Ave	0.1447	0.1386	0.0500	19.2	20.0	-4.2	20.0
Phenanthrene	Ave	1.134	1.061	0.7000	9.35	10.0	-6.5	20.0
Anthracene	Ave	1.137	1.094	0.7000	9.62	10.0	-3.8	20.0
Carbazole	Ave	1.097	1.086	0.0100	9.90	10.0	-1.0	20.0
Di-n-butyl phthalate	Ave	1.380	1.423	0.0100	10.3	10.0	3.2	20.0
Fluoranthene	Ave	1.209	1.156	0.6000	9.56	10.0	-4.4	20.0
Benzidine	Ave	0.6325	0.6731		10.6	10.0	6.4	20.0
Pyrene	Ave	1.233	1.226	0.6000	9.94	10.0	-0.6	20.0
Butyl benzyl phthalate	Ave	0.6023	0.6145	0.0100	10.2	10.0	2.0	20.0
3,3'-Dimethoxybenzidine	Ave	0.2556	0.2490		9.74	10.0	-2.6	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8413	0.8753	0.0100	10.4	10.0	4.0	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2245	0.2302		10.3	10.0	2.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCV 240-9503/2 Calibration Date: 07/22/2011 10:09

Instrument ID: A4HP9 Calib Start Date: 07/21/2011 11:26

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/21/2011 14:07

Lab File ID: 9SMH0722.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4248	0.4301	0.0100	10.1	10.0	1.3	20.0
Benzo[a]anthracene	Ave	1.177	1.166	0.8000	9.91	10.0	-0.9	20.0
Chrysene	Ave	1.133	1.119	0.7000	9.88	10.0	-1.2	20.0
Di-n-octyl phthalate	Ave	1.650	1.733	0.0100	10.5	10.0	5.0	20.0
Benzo[b]fluoranthene	Ave	1.311	1.356	0.7000	10.3	10.0	3.4	20.0
Benzo[k]fluoranthene	Ave	1.338	1.321	0.7000	9.88	10.0	-1.2	20.0
Benzo[a]pyrene	Ave	1.177	1.204	0.7000	10.2	10.0	2.3	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.260	1.291	0.5000	10.2	10.0	2.4	20.0
Dibenzo(a,h)anthracene	Ave	1.041	1.075	0.4000	10.3	10.0	3.3	20.0
Benzo[g,h,i]perylene	Ave	1.040	1.069	0.5000	10.3	10.0	2.7	20.0
2-Fluorophenol (Surr)	Ave	1.521	1.544		10.2	10.0	1.5	20.0
Phenol-d5 (Surr)	Ave	2.209	2.190		9.91	10.0	-0.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6545	0.6338		9.68	10.0	-3.2	20.0
2-Fluorobiphenyl (Surr)	Ave	1.348	1.287		9.54	10.0	-4.6	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1570	0.1497		9.54	10.0	-4.6	20.0
Terphenyl-d14 (Surr)	Ave	0.7360	0.7156		9.72	10.0	-2.8	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Lab File ID: MB5441.D | Lab Sample ID: MB 240-5441/1-A

Matrix: Water | Date Extracted: 06/21/2011 08:58

Instrument ID: A4HP9 | Date Analyzed: 07/22/2011 15:15

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-5441/2-A	LCS5441.D	07/22/2011 15:34
GSP-MW1-061711	240-1267-2	1267I2A.D	07/22/2011 20:35
GSP-MW2-061711	240-1267-3	1267I3A.D	07/22/2011 20:54
GSP-MW3-061711	240-1267-4	1267I4A.D	07/22/2011 21:13

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5441/1-A

Matrix: Water | Lab File ID: MB5441.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/21/2011 08:58

Sample wt/vol: 1000(mL) | Date Analyzed: 07/22/2011 15:15

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9503 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.20	U	0.20	0.10
208-96-8	Acenaphthylene	0.20	U	0.20	0.10
98-86-2	Acetophenone	1.0	U	1.0	0.34
120-12-7	Anthracene	0.20	U	0.20	0.10
1912-24-9	Atrazine	1.0	U	1.0	0.34
100-52-7	Benzaldehyde	1.0	U	1.0	0.39
56-55-3	Benzo[a]anthracene	0.20	U	0.20	0.10
50-32-8	Benzo[a]pyrene	0.20	U	0.20	0.10
205-99-2	Benzo[b]fluoranthene	0.20	U	0.20	0.10
191-24-2	Benzo[g,h,i]perylene	0.20	U	0.20	0.10
207-08-9	Benzo[k]fluoranthene	0.20	U	0.20	0.10
92-52-4	1,1'-Biphenyl	1.0	U	1.0	0.80
111-91-1	Bis(2-chloroethoxy)methane	1.0	U	1.0	0.32
111-44-4	Bis(2-chloroethyl)ether	1.0	U	1.0	0.10
117-81-7	Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80
101-55-3	4-Bromophenyl phenyl ether	2.0	U	2.0	0.80
85-68-7	Butyl benzyl phthalate	1.0	U	1.0	0.80
105-60-2	Caprolactam	5.0	U	5.0	0.80
86-74-8	Carbazole	1.0	U	1.0	0.28
106-47-8	4-Chloroaniline	2.0	U	2.0	0.80
59-50-7	4-Chloro-3-methylphenol	2.0	U	2.0	0.80
91-58-7	2-Chloronaphthalene	1.0	U	1.0	0.10
95-57-8	2-Chlorophenol	1.0	U	1.0	0.29
7005-72-3	4-Chlorophenyl phenyl ether	2.0	U	2.0	0.30
218-01-9	Chrysene	0.20	U	0.20	0.10
53-70-3	Dibenzo(a,h)anthracene	0.20	U	0.20	0.10
132-64-9	Dibenzofuran	1.0	U	1.0	0.10
91-94-1	3,3'-Dichlorobenzidine	5.0	U	5.0	0.37
120-83-2	2,4-Dichlorophenol	2.0	U	2.0	0.80
84-66-2	Diethyl phthalate	1.0	U	1.0	0.60
105-67-9	2,4-Dimethylphenol	2.0	U	2.0	0.80
131-11-3	Dimethyl phthalate	1.0	U	1.0	0.29
84-74-2	Di-n-butyl phthalate	1.0	U	1.0	0.67
534-52-1	4,6-Dinitro-2-methylphenol	5.0	U	5.0	2.4

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5441/1-A

Matrix: Water | Lab File ID: MB5441.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/21/2011 08:58

Sample wt/vol: 1000(mL) | Date Analyzed: 07/22/2011 15:15

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9503 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	5.0	U	5.0	2.4
121-14-2	2,4-Dinitrotoluene	5.0	U	5.0	0.27
606-20-2	2,6-Dinitrotoluene	5.0	U	5.0	0.80
117-84-0	Di-n-octyl phthalate	1.0	U	1.0	0.80
206-44-0	Fluoranthene	0.20	U	0.20	0.10
86-73-7	Fluorene	0.20	U	0.20	0.10
118-74-1	Hexachlorobenzene	0.20	U	0.20	0.10
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.27
77-47-4	Hexachlorocyclopentadiene	10	U	10	0.80
67-72-1	Hexachloroethane	1.0	U	1.0	0.80
193-39-5	Indeno[1,2,3-cd]pyrene	0.20	U	0.20	0.10
78-59-1	Isophorone	1.0	U	1.0	0.27
91-57-6	2-Methylnaphthalene	0.20	U	0.20	0.10
95-48-7	2-Methylphenol	1.0	U	1.0	0.80
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49
15831-10-4	3 & 4 Methylphenol	2.0	U	2.0	0.75
91-20-3	Naphthalene	0.20	U	0.20	0.10
88-74-4	2-Nitroaniline	2.0	U	2.0	0.80
99-09-2	3-Nitroaniline	2.0	U	2.0	0.28
100-01-6	4-Nitroaniline	2.0	U	2.0	0.80
98-95-3	Nitrobenzene	1.0	U	1.0	0.040
88-75-5	2-Nitrophenol	2.0	U	2.0	0.28
100-02-7	4-Nitrophenol	5.0	U	5.0	2.4
621-64-7	N-Nitrosodi-n-propylamine	1.0	U	1.0	0.80
86-30-6	N-Nitrosodiphenylamine	1.0	U	1.0	0.31
108-60-1	2,2'-oxybis[1-chloropropane]	1.0	U	1.0	0.40
87-86-5	Pentachlorophenol	5.0	U	5.0	2.4
85-01-8	Phenanthrene	0.20	U	0.20	0.10
108-95-2	Phenol	1.0	U	1.0	0.60
129-00-0	Pyrene	0.20	U	0.20	0.10
95-95-4	2,4,5-Trichlorophenol	5.0	U	5.0	0.30
88-06-2	2,4,6-Trichlorophenol	5.0	U	5.0	0.80
62-75-9	N-Nitrosodimethylamine	1.0	U	1.0	0.31

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP	#	PHL	#	NBZ	#	FBP	#	TBP	#	TPH	#
GSP-MW1-061711	240-1267-2	59		61		55		55		67		67	
GSP-MW2-061711	240-1267-3	57		57		58		49		62		75	
GSP-MW3-061711	240-1267-4	61		61		62		54		64		70	
	MB 240-5441/1-A	67		69		67		67		69		81	
	LCS 240-5441/2-A	70		73		71		68		77		81	

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	10-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	27-111
FBP = 2-Fluorobiphenyl (Surr)	28-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
TPH = Terphenyl-d14 (Surr)	37-119

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Matrix: Water Level: Low Lab File ID: LCS5441.D

Lab ID: LCS 240-5441/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Acenaphthene	20.0	14.2	71	40-110	
Acenaphthylene	20.0	14.0	70	43-110	
Acetophenone	20.0	14.6	73	50-130	
Anthracene	20.0	14.2	71	54-114	
Atrazine	20.0	15.7	79	50-130	
Benzaldehyde	20.0	18.2	91	10-130	
Benzo[a]anthracene	20.0	14.4	72	55-115	
Benzo[a]pyrene	20.0	12.7	64	43-116	
Benzo[b]fluoranthene	20.0	13.3	66	43-122	
Benzo[g,h,i]perylene	20.0	15.3	77	45-120	
Benzo[k]fluoranthene	20.0	16.5	82	43-124	
1,1'-Biphenyl	20.0	13.5	68	50-130	
Bis(2-chloroethoxy)methane	20.0	15.0	75	39-110	
Bis(2-chloroethyl)ether	20.0	14.8	74	34-113	
Bis(2-ethylhexyl) phthalate	20.0	12.8	64	36-163	
4-Bromophenyl phenyl ether	20.0	14.7	74	51-114	
Butyl benzyl phthalate	20.0	15.2	76	53-126	
Caprolactam	20.0	16.4	82	50-130	
Carbazole	20.0	14.7	73	53-120	
4-Chloroaniline	20.0	12.3	61	10-110	
4-Chloro-3-methylphenol	20.0	14.7	73	39-110	
2-Chloronaphthalene	20.0	14.4	72	39-110	
2-Chlorophenol	20.0	14.2	71	27-110	
4-Chlorophenyl phenyl ether	20.0	15.2	76	50-115	
Chrysene	20.0	14.7	74	55-115	
Dibenzo(a,h)anthracene	20.0	15.3	77	46-122	
Dibenzofuran	20.0	14.8	74	46-111	
3,3'-Dichlorobenzidine	20.0	8.68	43	19-110	
2,4-Dichlorophenol	20.0	14.2	71	33-110	
Diethyl phthalate	20.0	15.1	76	33-134	
2,4-Dimethylphenol	20.0	11.4	57	12-110	
Dimethyl phthalate	20.0	15.4	77	15-143	
Di-n-butyl phthalate	20.0	16.0	80	55-122	
4,6-Dinitro-2-methylphenol	20.0	14.2	71	28-112	
2,4-Dinitrophenol	20.0	11.5	58	17-112	
2,4-Dinitrotoluene	20.0	16.1	81	52-123	
2,6-Dinitrotoluene	20.0	16.3	81	52-119	
Di-n-octyl phthalate	20.0	11.8	59	44-128	
Fluoranthene	20.0	15.2	76	54-122	
Fluorene	20.0	14.6	73	47-112	
Hexachlorobenzene	20.0	15.1	75	51-112	
Hexachlorobutadiene	20.0	14.2	71	13-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Matrix: Water Level: Low Lab File ID: LCS5441.D

Lab ID: LCS 240-5441/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Hexachlorocyclopentadiene	20.0	6.42 J	32	10-110	
Hexachloroethane	20.0	13.8	69	12-110	
Indeno[1,2,3-cd]pyrene	20.0	15.7	78	46-121	
Isophorone	20.0	14.4	72	44-128	
2-Methylnaphthalene	20.0	16.6	83	35-110	
2-Methylphenol	20.0	14.1	71	30-110	
1,4-Dioxane	20.0	11.9	60	10-110	
3 & 4 Methylphenol	40.0	28.2	71	32-110	
Naphthalene	20.0	14.2	71	31-110	
2-Nitroaniline	20.0	14.4	72	43-130	
3-Nitroaniline	20.0	14.6	73	45-116	
4-Nitroaniline	20.0	15.0	75	45-120	
Nitrobenzene	20.0	14.7	74	37-115	
2-Nitrophenol	20.0	14.3	72	29-110	
4-Nitrophenol	20.0	14.7	74	12-130	
N-Nitrosodi-n-propylamine	20.0	14.9	75	37-121	
N-Nitrosodiphenylamine	20.0	13.7	69	53-113	
2,2'-oxybis[1-chloropropane]	20.0	14.8	74	25-128	
Pentachlorophenol	20.0	13.6	68	26-110	
Phenanthrene	20.0	13.9	70	52-114	
Phenol	20.0	14.8	74	14-112	
Pyrene	20.0	14.7	73	55-120	
2,4,5-Trichlorophenol	20.0	14.7	74	39-110	
2,4,6-Trichlorophenol	20.0	13.9	70	35-110	
N-Nitrosodimethylamine	20.0	14.0	70	10-130	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Sample No.: STD6 240-9362/10 Date Analyzed: 07/21/2011 11:26

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0721.D Heated Purge: (Y/N) N

Calibration ID: 2606

	DCB		NPT		ANT	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	203436	3.74	781219	4.71	438992	6.00
UPPER LIMIT	406872	4.24	1562438	5.21	877984	6.50
LOWER LIMIT	101718	3.24	390610	4.21	219496	5.50
LAB SAMPLE ID CLIENT SAMPLE ID						
ICV 240-9362/11	247327	3.75	937908	4.71	537789	6.00
CCV 240-9503/2 CCVIS	202748	3.73	790030	4.69	443389	5.99
CCV 240-9503/3	202704	3.73	820218	4.69	458753	5.99

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Sample No.: STD6 240-9362/10 Date Analyzed: 07/21/2011 11:26

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0721.D Heated Purge: (Y/N) N

Calibration ID: 2606

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		765456	7.08	790789	9.04	654809	10.35
UPPER LIMIT		1530912	7.58	1581578	9.54	1309618	10.85
LOWER LIMIT		382728	6.58	395395	8.54	327405	9.85
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-9362/11		934068	7.09	967513	9.05	798075	10.36
CCV 240-9503/2 CCVIS		768604	7.07	779317	9.02	641260	10.33
CCV 240-9503/3		793454	7.07	797830	9.06	663767	10.37

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Sample No.: CCV 240-9503/2 Date Analyzed: 07/22/2011 10:09

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0722.D Heated Purge: (Y/N) N

Calibration ID: 2602

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		202748	3.73	790030	4.69	443389	5.99
UPPER LIMIT		405496	4.23	1580060	5.19	886778	6.49
LOWER LIMIT		101374	3.23	395015	4.19	221695	5.49
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-9503/3		202704	3.73	820218	4.69	458753	5.99
MB 240-5441/1-A		191043	3.73	732229	4.69	407029	5.99
LCS 240-5441/2-A		188102	3.73	740221	4.69	434126	5.99
240-1267-2	GSP-MW1-061711	187345	3.73	771617	4.70	421619	5.99
240-1267-3	GSP-MW2-061711	194095	3.73	727225	4.70	416118	5.99
240-1267-4	GSP-MW3-061711	224058	3.73	825975	4.70	475566	5.99

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Sample No.: CCV 240-9503/2 Date Analyzed: 07/22/2011 10:09

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0722.D Heated Purge: (Y/N) N

Calibration ID: 2602

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		768604	7.07	779317	9.02	641260	10.33
UPPER LIMIT		1537208	7.57	1558634	9.52	1282520	10.83
LOWER LIMIT		384302	6.57	389659	8.52	320630	9.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-9503/3		793454	7.07	797830	9.06	663767	10.37
MB 240-5441/1-A		741672	7.07	769920	9.02	633838	10.32
LCS 240-5441/2-A		787078	7.07	815807	9.03	666762	10.33
240-1267-2	GSP-MW1-061711	770375	7.07	837257	9.02	695089	10.33
240-1267-3	GSP-MW2-061711	782906	7.07	830505	9.02	686497	10.33
240-1267-4	GSP-MW3-061711	903479	7.07	941283	9.02	787820	10.33

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Instrument ID: YPID Start Date: 06/22/2011 14:07

Analysis Batch Number: 5655 End Date: 06/23/2011 03:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-5655/4 IC		06/22/2011 14:07	1	YF062204.D	RTX-VRX 0.45(mm)
STD2 240-5655/5 IC		06/22/2011 14:47	1	YF062205.D	RTX-VRX 0.45(mm)
STD3 240-5655/6 IC		06/22/2011 15:27	1	YF062206.D	RTX-VRX 0.45(mm)
STD4 240-5655/7 ICRT		06/22/2011 16:07	1	YF062207.D	RTX-VRX 0.45(mm)
STD5 240-5655/8 IC		06/22/2011 16:48	1	YF062208.D	RTX-VRX 0.45(mm)
STD6 240-5655/9 IC		06/22/2011 17:30	1	YF062209.D	RTX-VRX 0.45(mm)
ICV 240-5655/10		06/22/2011 18:11	1	YF062210.D	RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 18:52	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 19:32	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 20:54	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 21:34	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 22:14	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 22:54	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 23:34	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 00:13	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 00:53	1		RTX-VRX 0.45(mm)
CCV 240-5655/21		06/23/2011 01:33	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 02:12	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 02:52	1		RTX-VRX 0.45(mm)
CCV 240-5655/24		06/23/2011 03:32	1		RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Instrument ID: YPID Start Date: 06/28/2011 14:15

Analysis Batch Number: 6402 End Date: 06/29/2011 17:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/28/2011 14:15	1		RTX-VRX 0.45(mm)
CCVRT 240-6402/5		06/28/2011 15:37	1	YF062805.D	RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 16:17	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 16:59	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 17:39	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 18:19	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 18:58	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 19:39	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 20:19	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 20:58	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 21:36	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 22:14	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 22:52	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 23:30	1		RTX-VRX 0.45(mm)
CCV 240-6402/18		06/29/2011 00:08	1	YF062818.D	RTX-VRX 0.45(mm)
MB 240-6402/19		06/29/2011 00:46	1	YF062819.D	RTX-VRX 0.45(mm)
LCS 240-6402/20		06/29/2011 01:24	1	YF062820.D	RTX-VRX 0.45(mm)
240-1267-2	GSP-MW1-061711	06/29/2011 02:02	1	YF062821.D	RTX-VRX 0.45(mm)
240-1267-2 MS	GSP-MW1-061711 MS	06/29/2011 02:40	1	YF062822.D	RTX-VRX 0.45(mm)
240-1267-2 MSD	GSP-MW1-061711 MSD	06/29/2011 03:18	1	YF062823.D	RTX-VRX 0.45(mm)
240-1267-3	GSP-MW2-061711	06/29/2011 03:56	1	YF062824.D	RTX-VRX 0.45(mm)
240-1267-4	GSP-MW3-061711	06/29/2011 04:35	1	YF062825.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 05:13	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 05:51	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 06:29	1		RTX-VRX 0.45(mm)
CCV 240-6402/29		06/29/2011 07:07	1	YF062829.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 07:45	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 08:24	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 09:02	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 09:40	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 10:19	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 10:58	1		RTX-VRX 0.45(mm)
CCV 240-6402/36		06/29/2011 11:36	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 15:21	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 15:59	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 16:37	1		RTX-VRX 0.45(mm)
CCV 240-6402/40		06/29/2011 17:16	1		RTX-VRX 0.45(mm)

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
Total Petroleum Hydrocarbons (C6-C10)	11.358	11.358	11.358	11.358	11.358	11.358	4.298 - 18.418	11.358
C6-C12	13.046	13.046	13.046	13.046	13.046	13.046	4.398 - 21.695	13.046
Trifluorotoluene (Surr)	9.254	9.254	9.250	9.249	9.245	9.236	8.998 - 9.498	9.248

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	302470 208450	252295 210278	214454	228347	Ave		236048.859				15.0		20.0			
C6-C12	346250 223395	277091 226126	233001	247805	Ave		258944.938				18.0		20.0			
Trifluorotoluene (Surr)	211649 226938	171207 226738	185123	251863	Ave		212253.083				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: ICV 240-5655/10 Calibration Date: 06/22/2011 18:11

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062210.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	221204		750	800	-6.3	20.0
C6-C12	Ave	258945	242972		751	800	-6.2	20.0
Trifluorotoluene (Surr)	Ave	212253	193830		9.13	10.0	-8.7	20.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: ICV 240-5655/10 Calibration Date: 06/22/2011 18:11

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062210.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Total Petroleum Hydrocarbons (C6-C10)	11.36	4.30	18.42
C6-C12	13.05	4.40	21.70
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCVRT 240-6402/5 Calibration Date: 06/28/2011 15:37

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062805.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	256102		868	800	8.5	15.0
C6-C12	Ave	258945	276136		853	800	6.6	15.0
Trifluorotoluene (Surr)	Ave	212253	262086		12.3	10.0	23.5*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCVRT 240-6402/5 Calibration Date: 06/28/2011 15:37

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062805.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Total Petroleum Hydrocarbons (C6-C10)	11.36	4.30	18.44
C6-C12	13.07	4.40	21.74
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCV 240-6402/18 Calibration Date: 06/29/2011 00:08

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062818.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	250694		850	800	6.2	15.0
C6-C12	Ave	258945	272441		842	800	5.2	15.0
Trifluorotoluene (Surr)	Ave	212253	273225		12.9	10.0	28.7*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCV 240-6402/18 | Calibration Date: 06/29/2011 00:08

Instrument ID: YPID | Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) | Calib End Date: 06/22/2011 17:30

Lab File ID: YF062818.D | Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Total Petroleum Hydrocarbons (C6-C10)	11.36	4.30	18.44
C6-C12	13.07	4.40	21.74
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCV 240-6402/29 Calibration Date: 06/29/2011 07:07

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062829.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	256472		869	800	8.7	15.0
C6-C12	Ave	258945	274665		849	800	6.1	15.0
Trifluorotoluene (Surr)	Ave	212253	258853		12.2	10.0	22.0*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCV 240-6402/29 Calibration Date: 06/29/2011 07:07

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062829.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Total Petroleum Hydrocarbons (C6-C10)	11.34	4.30	18.44
C6-C12	13.07	4.40	21.74
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: MB 240-6402/19

Matrix: Water Date Extracted: 06/29/2011 00:46

Lab File ID:(1) YF062819.D Lab File ID:(2)

Date Analyzed:(1) 06/29/2011 00:46 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-6402/20	06/29/2011 01:24	
GSP-MW1-061711	240-1267-2	06/29/2011 02:02	
GSP-MW1-061711 MS	240-1267-2 MS	06/29/2011 02:40	
GSP-MW1-061711 MSD	240-1267-2 MSD	06/29/2011 03:18	
GSP-MW2-061711	240-1267-3	06/29/2011 03:56	
GSP-MW3-061711	240-1267-4	06/29/2011 04:35	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-6402/19

Matrix: Water Lab File ID: YF062819.D

Analysis Method: 8015B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 00:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	37.9	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	110		10-150

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1	#
GSP-MW1-061711	240-1267-2	105	
GSP-MW2-061711	240-1267-3	105	
GSP-MW3-061711	240-1267-4	83	
	MB 240-6402/19	110	
	LCS 240-6402/20	128	
GSP-MW1-061711 MS	240-1267-2 MS	125	
GSP-MW1-061711 MSD	240-1267-2 MSD	132	

	QC LIMITS
TFT = Trifluorotoluene (Surr)	10-150

Column to be used to flag recovery values

FORM II 8015B

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF062820.D

Lab ID: LCS 240-6402/20 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	936	117	72-140	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF062822.D

Lab ID: 240-1267-2 MS Client ID: GSP-MW1-061711 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	51 J	948	112	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF062823.D

Lab ID: 240-1267-2 MSD Client ID: GSP-MW1-061711 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	954	113	1	20	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Sample No.: CCVRT 240-6402/5 Date Analyzed: 06/28/2011 15:37

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF062805.D Heated Purge: (Y/N) N

Calibration ID: 1594

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #
CONTINUING CALIBRATION SURROGATE				9.25
UPPER LIMIT				9.35
LOWER LIMIT				9.15
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID	
CCVRT 240-6402/5		06/28/2011 15:37	YF062805.D	9.25
CCV 240-6402/18		06/29/2011 00:08	YF062818.D	9.25
MB 240-6402/19		06/29/2011 00:46	YF062819.D	9.26
LCS 240-6402/20		06/29/2011 01:24	YF062820.D	9.25
240-1267-2	GSP-MW1-061711	06/29/2011 02:02	YF062821.D	9.26
240-1267-2 MS	GSP-MW1-061711 MS	06/29/2011 02:40	YF062822.D	9.25
240-1267-2 MSD	GSP-MW1-061711 MSD	06/29/2011 03:18	YF062823.D	9.26
240-1267-3	GSP-MW2-061711	06/29/2011 03:56	YF062824.D	9.25
240-1267-4	GSP-MW3-061711	06/29/2011 04:35	YF062825.D	9.26
CCV 240-6402/29		06/29/2011 07:07	YF062829.D	9.25

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Instrument ID: A2HP14F Start Date: 05/19/2011 12:01

Analysis Batch Number: 2166 End Date: 05/19/2011 14:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-2166/4 IC		05/19/2011 12:01	1	P14F0000004.D	RTX-5 0.53(mm)
STD2 240-2166/5 IC		05/19/2011 12:25	1	P14F0000005.D	RTX-5 0.53(mm)
STD3 240-2166/6 IC		05/19/2011 12:49	1	P14F0000006.D	RTX-5 0.53(mm)
STD4 240-2166/7 IC		05/19/2011 13:14	1	P14F0000007.D	RTX-5 0.53(mm)
STD5 240-2166/8 IC		05/19/2011 13:38	1	P14F0000008.D	RTX-5 0.53(mm)
ICV 240-2166/9		05/19/2011 14:02	1	P14F0000009.D	RTX-5 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Instrument ID: A2HP14F Start Date: 06/24/2011 14:58

Analysis Batch Number: 6024 End Date: 06/24/2011 21:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-6024/4		06/24/2011 14:58	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 15:22	5		RTX-5 0.53(mm)
RINSE 240-6024/6		06/24/2011 15:47	1		RTX-5 0.53(mm)
CCV 240-6024/7		06/24/2011 16:11	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 16:36	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 17:00	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 17:25	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 17:49	1		RTX-5 0.53(mm)
CCVRT 240-6024/12		06/24/2011 18:13	1	P14F0000012.D	RTX-5 0.53(mm)
240-1267-2	GSP-MW1-061711	06/24/2011 18:38	1	P14F0000013.D	RTX-5 0.53(mm)
240-1267-3	GSP-MW2-061711	06/24/2011 19:02	1	P14F0000014.D	RTX-5 0.53(mm)
240-1267-4	GSP-MW3-061711	06/24/2011 19:26	1	P14F0000015.D	RTX-5 0.53(mm)
ZZZZZ		06/24/2011 19:51	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 20:15	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 20:39	1		RTX-5 0.53(mm)
MB 240-5625/7-A		06/24/2011 21:03	1	P14F0000019.D	RTX-5 0.53(mm)
LCS 240-5625/8-A		06/24/2011 21:27	1	P14F0000020.D	RTX-5 0.53(mm)
CCV 240-6024/21		06/24/2011 21:51	1	P14F0000021.D	RTX-5 0.53(mm)

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 2166

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2166/4	P14F0000004.D
Level 2	STD2 240-2166/5	P14F0000005.D
Level 3	STD3 240-2166/6	P14F0000006.D
Level 4	STD4 240-2166/7	P14F0000007.D
Level 5	STD5 240-2166/8	P14F0000008.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT WINDOW	AVG RT
Diesel	8.122	8.122	8.122	8.122	8.122	3.590 - 12.654	8.122
n-Nonane	1.752	1.753	1.757	1.755	1.757	1.702 - 1.802	1.755

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 2166

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2166/4	P14F0000004.D
Level 2	STD2 240-2166/5	P14F0000005.D
Level 3	STD3 240-2166/6	P14F0000006.D
Level 4	STD4 240-2166/7	P14F0000007.D
Level 5	STD5 240-2166/8	P14F0000008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	705763 336646	515461	435657	351683	Lin	44348394.0	314402.704							0.9980		0.9900
n-Nonane	413140 382989	431927	436350	381033	Ave		409087.891				6.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 2166

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2166/4	P14F0000004.D
Level 2	STD2 240-2166/5	P14F0000005.D
Level 3	STD3 240-2166/6	P14F0000006.D
Level 4	STD4 240-2166/7	P14F0000007.D
Level 5	STD5 240-2166/8	P14F0000008.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel	Lin	70576281	103092243	217828353	351682761	673292607	100	200	500	1000	2000
n-Nonane	Ave	4131403	8638546	21817505	38103250	76597851	10.0	20.0	50.0	100	200

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: ICV 240-2166/9 Calibration Date: 05/19/2011 14:02

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		411800		514	500	2.8	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: ICV 240-2166/9 Calibration Date: 05/19/2011 14:02

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000009.D

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Diesel	8.12	3.59	12.65

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCVRT 240-6024/12 Calibration Date: 06/24/2011 18:13

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000012.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		425639		536	500	7.2	15.0
n-Nonane	Ave	409088	416429		50.9	50.0	1.8	15.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCVRT 240-6024/12 Calibration Date: 06/24/2011 18:13

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000012.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.10	3.56	12.64
n-Nonane	1.74	1.68	1.78

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCV 240-6024/21 Calibration Date: 06/24/2011 21:51

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000021.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		416689		522	500	4.3	15.0
n-Nonane	Ave	409088	423908		51.8	50.0	3.6	15.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: CCV 240-6024/21 Calibration Date: 06/24/2011 21:51

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000021.D

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Diesel	8.10	3.56	12.64
n-Nonane	1.73	1.68	1.78

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Lab Sample ID: MB 240-5625/7-A

Matrix: Water Date Extracted: 06/22/2011 09:21

Lab File ID:(1) P14F0000019.D Lab File ID:(2)

Date Analyzed:(1) 06/24/2011 21:03 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-MW1-061711	240-1267-2	06/24/2011 18:38	
GSP-MW2-061711	240-1267-3	06/24/2011 19:02	
GSP-MW3-061711	240-1267-4	06/24/2011 19:26	
	LCS 240-5625/8-A	06/24/2011 21:27	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-5625/7-A

Matrix: Water Lab File ID: P14F0000019.D

Analysis Method: 8015B Date Collected:

Extraction Method: 3520C Date Extracted: 06/22/2011 09:21

Sample wt/vol: 1000(mL) Date Analyzed: 06/24/2011 21:03

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6024 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	36		10-110

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	C91	#
GSP-MW1-061711	240-1267-2	32	
GSP-MW2-061711	240-1267-3	39	
GSP-MW3-061711	240-1267-4	37	
	MB 240-5625/7-A	36	
	LCS 240-5625/8-A	26	

	QC LIMITS
C9 = n-Nonane	10-110

Column to be used to flag recovery values

FORM II 8015B

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F0000020.D

Lab ID: LCS 240-5625/8-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	1460	59	36-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-1267-1

SDG No.:

Sample No.: CCVRT 240-6024/12 Date Analyzed: 06/24/2011 18:13

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P14F0000012.D Heated Purge: (Y/N) N

Calibration ID: 1051

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9 RT #
CONTINUING CALIBRATION SURROGATE				1.74
UPPER LIMIT				1.84
LOWER LIMIT				1.64
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID	
CCVRT 240-6024/12		06/24/2011 18:13	P14F0000012.D	1.74
240-1267-2	GSP-MW1-061711	06/24/2011 18:38	P14F0000013.D	1.73
240-1267-3	GSP-MW2-061711	06/24/2011 19:02	P14F0000014.D	1.73
240-1267-4	GSP-MW3-061711	06/24/2011 19:26	P14F0000015.D	1.73
MB 240-5625/7-A		06/24/2011 21:03	P14F0000019.D	1.73
LCS 240-5625/8-A		06/24/2011 21:27	P14F0000020.D	1.73
CCV 240-6024/21		06/24/2011 21:51	P14F0000021.D	1.73

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

COVER PAGE
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1267-1

SDG No.:

Project: MSA Greater Strawberry Point PH. II 2011

Client Sample ID	Lab Sample ID
GSP-MW1-061711	240-1267-2
GSP-MW2-061711	240-1267-3
GSP-MW3-061711	240-1267-4

Comments:

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

Instrument ID: METICPMS2 Method: 6020

Start Date: 07/16/2011 00:11 End Date: 07/16/2011 12:46

Lab Sample ID	D/F	Type	Time	Analytes																
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn
ITUNE 200-21675/1			00:11																	
STD0 200-21675/2 IC	1		00:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STDLL2 200-21675/3 IC	1		00:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD1 200-21675/4 IC	1		00:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD2 200-21675/5 IC	1		00:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD3 200-21675/6 IC	1		00:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 200-21675/7	1		00:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICBIS 200-21675/8	1		01:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSA 200-21675/9	1		01:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 200-21675/10	1		01:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-21675/11	1		01:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/12	1		01:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-21675/13	1		09:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/14	1		09:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MB 200-20966/1-A	1	T	09:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 200-20966/2-A	1	T	09:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			09:36																	
240-1267-2	1	T	09:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1267-3	1	T	09:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1267-4	1	T	09:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1267-4 SD	5	T	10:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			10:10																	
ZZZZZZ			10:17																	
ZZZZZZ			10:23																	
CCV 200-21675/25	1		10:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/26	1		10:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			10:44																	
ZZZZZZ			10:51																	
ZZZZZZ			10:58																	
ZZZZZZ			11:04																	
240-1267-2	1	D	11:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1267-3	1	D	11:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1267-4	1	D	11:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1267-4 SD	5	D	11:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			11:38																	
ZZZZZZ			11:45																	
ZZZZZZ			11:51																	
CCV 200-21675/38	1		11:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/39	1		12:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			12:12																	
ZZZZZZ			12:19																	
ZZZZZZ			12:26																	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

Instrument ID: METICPMS2 Method: 6020

Start Date: 07/16/2011 00:11 End Date: 07/16/2011 12:46

Lab Sample ID	D/F	Type	Time	Analytes
ZZZZZZ			12:32	
CCV 200-21675/44			12:39	
CCB 200-21675/45			12:46	

Prep Types

D = Dissolved

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

Instrument ID: MEPCV3 II Method: 7470A

Start Date: 07/08/2011 12:41 End Date: 07/08/2011 13:48

Lab Sample ID	D/F	Type	Time	Analytes: Hg
IC 200-20991/1-A			12:41	X
IC 200-20991/2-A			12:43	X
IC 200-20991/3-A			12:45	X
IC 200-20991/4-A			12:47	X
IC 200-20991/5-A			12:49	X
IC 200-20991/6-A			12:51	X
ICV 200-20991/7-A	1		12:54	X
ICB 200-20991/8-A	1		12:56	X
CCV 200-20991/9-A	1		12:58	X
CCB 200-20991/10-A	1		13:00	X
MB 200-20991/11-A	1	T	13:02	X
LCS 200-20991/12-A	1	T	13:04	X
ZZZZZZ			13:06	
ZZZZZZ			13:08	
ZZZZZZ			13:10	
ZZZZZZ			13:12	
ZZZZZZ			13:14	
ZZZZZZ			13:16	
240-1267-2	1	T	13:19	X
CCV 200-20991/9-A	1		13:22	X
CCB 200-20991/10-A	1		13:23	X
240-1267-2	1	D	13:25	X
240-1267-3	1	T	13:28	X
240-1267-3	1	D	13:30	X
240-1267-4	1	T	13:32	X
240-1267-4	1	D	13:35	X
ZZZZZZ			13:37	
ZZZZZZ			13:39	
ZZZZZZ			13:41	
ZZZZZZ			13:43	
CCV 200-20991/9-A	1		13:46	X
CCB 200-20991/10-A	1		13:48	X

Prep Types

D = Dissolved

T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	ICV 200-21675/7 07/16/2011 00:59				CCV 200-21675/11 07/16/2011 01:37				CCV 200-21675/13 07/16/2011 09:08			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	45.5		50.0	91	20.2		20.0	101	20.0		20.0	100
Arsenic	25.6		25.0	102	9.88		10.0	99	9.55		10.0	95
Barium	1300		1250	104	254		250	101	253		250	101
Beryllium	26.9		25.0	108	9.81		10.0	98	10.6		10.0	106
Cadmium	25.5		25.0	102	10.1		10.0	101	10.0		10.0	100
Chromium	51.1		50.0	102	20.0		20.0	100	20.0		20.0	100
Cobalt	126		125	101	49.7		50.0	99	48.9		50.0	98
Copper	51.8		50.0	104	20.5		20.0	103	20.3		20.0	101
Lead	24.5		25.0	98	9.77		10.0	98	9.77		10.0	98
Molybdenum	262		250	105	101		100	101	98.8		100	99
Nickel	50.9		50.0	102	20.4		20.0	102	20.0		20.0	100
Selenium	26.4		25.0	106	9.88		10.0	99	9.61		10.0	96
Silver	25.2		25.0	101	9.98		10.0	100	9.94		10.0	99
Thallium	24.3		25.0	97	9.60		10.0	96	9.62		10.0	96
Tungsten	25.2		25.0	101	9.97	J	10.0	100	9.95	J	10.0	99
Vanadium	50.9		50.0	102	19.7	J	20.0	99	19.2	J	20.0	96
Zinc	51.9		50.0	104	20.8		20.0	104	20.6		20.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	CCV 200-21675/25 07/16/2011 10:30				CCV 200-21675/38 07/16/2011 11:58							
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	19.9		20.0	100	19.9		20.0	99				
Arsenic	9.71		10.0	97	9.78		10.0	98				
Barium	252		250	101	251		250	100				
Beryllium	10.6		10.0	106	10.2		10.0	102				
Cadmium	10.1		10.0	101	10.2		10.0	102				
Chromium	19.8		20.0	99	20.0		20.0	100				
Cobalt	49.0		50.0	98	48.8		50.0	98				
Copper	20.4		20.0	102	20.3		20.0	101				
Lead	9.70		10.0	97	9.73		10.0	97				
Molybdenum	98.6		100	99	98.7		100	99				
Nickel	20.1		20.0	101	20.1		20.0	100				
Selenium	9.43		10.0	94	9.57		10.0	96				
Silver	9.98		10.0	100	9.91		10.0	99				
Thallium	9.57		10.0	96	9.51		10.0	95				
Tungsten	9.82	J	10.0	98	9.79	J	10.0	98				
Vanadium	19.6	J	20.0	98	19.8	J	20.0	99				
Zinc	20.7		20.0	104	20.6		20.0	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

ICV Source: MEHGICVw_00010 Concentration Units: ug/L

CCV Source: MEHGCCVw_00282

	ICV 200-20991/7-A 07/08/2011 12:54				CCV 200-20991/9-A 07/08/2011 12:58				CCV 200-20991/9-A 07/08/2011 13:22			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.83		3.00	94	5.14		5.00	103	5.29		5.00	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

ICV Source: MEHGICVw_00010 Concentration Units: ug/L

CCV Source: MEHGCCVw_00282

	CCV 200-20991/9-A 07/08/2011 13:46											
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.34		5.00	107								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

Concentration Units: ug/L

		ICBIS 200-21675/8 07/16/2011 01:09		CCB 200-21675/12 07/16/2011 01:47		CCB 200-21675/14 07/16/2011 09:15		CCB 200-21675/26 07/16/2011 10:37	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.343	J	0.131	J	0.108	J	0.113	J
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	0.200	J	0.201	J	0.236	J	0.228	J
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	0.161	J	0.160	J	0.165	J	0.166	J
Molybdenum	2.0	0.475	J	0.619	J	2.0	U	2.0	U
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.225	J	0.228	J	0.233	J	0.230	J
Tungsten	10	0.338	J	10	U	0.185	J	10	U
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

Concentration Units: ug/L

		CCB 200-21675/39 07/16/2011 12:05							
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.121	J						
Arsenic	5.0	5.0	U						
Barium	5.0	5.0	U						
Beryllium	1.0	1.0	U						
Cadmium	1.0	1.0	U						
Chromium	2.0	2.0	U						
Cobalt	1.0	0.243	J						
Copper	2.0	2.0	U						
Lead	1.0	0.169	J						
Molybdenum	2.0	2.0	U						
Nickel	2.0	2.0	U						
Selenium	5.0	5.0	U						
Silver	1.0	1.0	U						
Thallium	2.0	0.229	J						
Tungsten	10	10	U						
Vanadium	20	20	U						
Zinc	20	20	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

Concentration Units: ug/L

		ICB 200-20991/8-A 07/08/2011 12:56		CCB 200-20991/10-A 07/08/2011 13:00		CCB 200-20991/10-A 07/08/2011 13:23		CCB 200-20991/10-A 07/08/2011 13:48	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 200-20966/1-A

Instrument Code: METICPMS2 Batch No.: 21675

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.0910	J		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	5.0	U		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	0.281	J		6020
7440-48-4	Cobalt	0.192	J		6020
7440-50-8	Copper	2.0	U		6020
7439-92-1	Lead	0.176	J		6020
7439-98-7	Molybdenum	2.0	U		6020
7440-02-0	Nickel	2.0	U		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	0.225	J		6020
7440-33-7	Tungsten	0.172	J		6020
7440-62-2	Vanadium	20	U		6020
7440-66-6	Zinc	0.851	J		6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 200-20991/11-A

Instrument Code: MEPCV3 II Batch No.: 21100

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

Lab Sample ID: ICSA 200-21675/9 Instrument ID: METICPMS2

Lab File ID: 071511-04B.xml ICS Source: MEMSICSAW_00022

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.487**	
Arsenic		**0.358**	
Barium		**0.160**	
Beryllium		**-0.187**	
Cadmium		**0.568**	
Chromium		**0.644**	
Cobalt		**0.302**	
Copper		**0.786**	
Lead		**0.293**	
Molybdenum	**2000**	**2331**	**117**
Nickel		**-1.18**	
Selenium		**-0.241**	
Silver		**0.0360**	
Thallium		**0.236**	
Tungsten		**0.363**	
Vanadium		**-0.205**	
Zinc		**-2.14**	
Aluminum	*100000*	*99390*	*99*
Boron		*4.67*	
Calcium	*100000*	*105167*	*105*
Iron	*100000*	*101100*	*101*
Magnesium	*100000*	*106400*	*106*
Manganese		*0.188*	
Potassium	*100000*	*107367*	*107*
Sodium	*100000*	*105100*	*105*
Th		*0.371*	
U		*0.276*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

Lab Sample ID: ICSAB 200-21675/10 Instrument ID: METICPMS2

Lab File ID: 071511-04B.xml ICS Source: MEMSABw_00026

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**96.5**	**97**
Arsenic	**20.0**	**18.8**	**94**
Barium	**500**	**517**	**103**
Beryllium	**20.0**	**18.5**	**92**
Cadmium	**20.0**	**19.3**	**96**
Chromium	**40.0**	**39.9**	**100**
Cobalt	**50.0**	**46.4**	**93**
Copper	**100**	**89.5**	**89**
Lead	**20.0**	**20.5**	**103**
Molybdenum	**2000**	**2295**	**115**
Nickel	**100**	**90.7**	**91**
Selenium	**20.0**	**18.2**	**91**
Silver	**20.0**	**17.7**	**88**
Thallium	**20.0**	**20.0**	**100**
Tungsten	**20.0**	**21.3**	**106**
Vanadium	**40.0**	**38.6**	**96**
Zinc	**100**	**88.5**	**89**
Aluminum	*100000*	*97913*	*98*
Boron	*200*	*203*	*102*
Calcium	*100000*	*105067*	*105*
Iron	*100000*	*101300*	*101*
Magnesium	*100000*	*107700*	*108*
Manganese	*40.0*	*40.4*	*101*
Potassium	*100000*	*109733*	*110*
Sodium	*100000*	*106767*	*107*
Th	*20.0*	*20.8*	*104*
U	*20.0*	*22.0*	*110*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-20966/2-A

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

Sample Matrix: Water LCS Source: MEICPMSICVi_00018

Water(ug/L)

Analyte	True	Found	C	%R	Limits		Q	Method
Antimony	50.0	50.2		100	80	120		6020
Arsenic	25.0	23.9		96	80	120		6020
Barium	1250	1410		113	80	120		6020
Beryllium	25.0	25.7		103	80	120		6020
Cadmium	25.0	25.2		101	80	120		6020
Chromium	50.0	54.1		108	80	120		6020
Cobalt	125	133		106	80	120		6020
Copper	50.0	53.1		106	80	120		6020
Lead	25.0	26.5		106	80	120		6020
Molybdenum	250	286		115	80	120		6020
Nickel	50.0	52.7		105	80	120		6020
Selenium	25.0	21.4		86	80	120		6020
Silver	25.0	26.1		105	80	120		6020
Thallium	25.0	25.6		102	80	120		6020
Tungsten	25.0	25.8		103	80	120		6020
Vanadium	50.0	52.5		105	80	120		6020
Zinc	50.0	48.6		97	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-20991/12-A

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

Sample Matrix: Water LCS Source: MEHGCCVw_00282

Analyte	Water(ug/L) True	Found	C	%R	Limits		Q	Method
Mercury	1.00	1.08		108	85	115		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 240-1267-4

SDG No:

Lab Name: TestAmerica Burlington Job No: 240-1267-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.28	J	0.710	J	NC		6020
Arsenic	11		11.6	J	6.5		6020
Barium	16		17.4	J	NC		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	1.0	U	5.0	U	NC		6020
Chromium	4.3		4.53	J	NC		6020
Cobalt	11		11.6		10		6020
Copper	17		17.2		1.3		6020
Lead	1.9		2.53	J	34	V	6020
Molybdenum	0.48	J	10	U	NC		6020
Nickel	11		10.5		NC		6020
Selenium	5.0	U	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.29	J	1.20	J	NC		6020
Tungsten	10	U	50	U	NC		6020
Vanadium	48		48.3	J	1.3		6020
Zinc	45		62.1	J	39	V	6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-1267-4

SDG No:

Lab Name: TestAmerica Burlington Job No: 240-1267-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.15	J	0.600	J	NC		6020
Arsenic	0.27	J	25	U	NC		6020
Barium	120		119		0.25		6020
Beryllium	1.8		1.20	J	NC		6020
Cadmium	0.36	J	5.0	U	NC		6020
Chromium	4.7		5.11	J	NC		6020
Cobalt	54		56.4		4.7		6020
Copper	36		38.3		6.2		6020
Lead	1.2		1.99	J	65	V	6020
Molybdenum	2.0	U	10	U	NC		6020
Nickel	79		82.8		5.0		6020
Selenium	0.35	J	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.39	J	1.26	J	NC		6020
Tungsten	10	U	50	U	NC		6020
Vanadium	20	U	100	U	NC		6020
Zinc	220		269		22		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1267-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 MDL Date: 08/06/2010 10:09

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.014
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1267-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 XMDL Date: 08/06/2010 10:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.14
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1267-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 MDL Date: 08/06/2010 10:09

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.014
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1267-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 XMDL Date: 08/06/2010 10:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.14
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1267-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A MDL Date: 05/05/2011 17:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury		0.2	0.066

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1267-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A XMDL Date: 05/05/2011 17:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.066

FORM IX - IN

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1267-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A MDL Date: 05/05/2011 17:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury		0.2	0.066

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1267-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A XMDL Date: 05/05/2011 17:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.066

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 240-1267-1

SDG No.:

Instrument ID: METICPMS2 Date: 05/07/2011 00:00

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Antimony		500	6020
Arsenic		500	6020
Barium		12500	6020
Beryllium		500	6020
Cadmium		500	6020
Chromium		1000	6020
Cobalt		2500	6020
Copper		1000	6020
Lead		100	6020
Molybdenum		5000	6020
Nickel		1000	6020
Selenium		500	6020
Silver		500	6020
Thallium		500	6020
Tungsten		500	6020
Vanadium		1000	6020
Zinc		500	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 240-1267-1

SDG No.:

Instrument ID: MEPCV3 II Date: 01/01/2011 09:52

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Mercury	10	10	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-20966/1-A	07/07/2011 09:34	20966		100	100
LCS 200-20966/2-A	07/07/2011 09:34	20966		100	100
240-1267-2	07/07/2011 09:34	20966		100	100
240-1267-3	07/07/2011 09:34	20966		100	100
240-1267-4	07/07/2011 09:34	20966		100	100
240-1267-2	07/07/2011 09:34	20966		100	100
240-1267-3	07/07/2011 09:34	20966		100	100
240-1267-4	07/07/2011 09:34	20966		100	100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-20991/11-A	07/07/2011 11:15	20991		50	50
LCS 200-20991/12-A	07/07/2011 11:15	20991		50	50
240-1267-2	07/07/2011 11:15	20991		50	50
240-1267-2	07/07/2011 11:15	20991		50	50
240-1267-3	07/07/2011 11:15	20991		50	50
240-1267-3	07/07/2011 11:15	20991		50	50
240-1267-4	07/07/2011 11:15	20991		50	50
240-1267-4	07/07/2011 11:15	20991		50	50

14-IN
ICP-MS TUNE
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Analysis Date: 07/16/11

Lab ID: ITUNE 200-21675/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Li-6	6.0051	0.82	1.986	
Be-9	8.9422	0.82	1.206	
Mg-24	23.965	0.82	1.466	
Mg-25	24.9758	0.81	2.437	
Mg-26	25.9826	0.81	0.650	
Al-27	26.9815	0.80	0.260	
Sc-45	44.9659	0.80	0.660	
V-51	50.944	0.80	1.020	
Co-59	58.9232	0.81	0.443	
Y-89	88.8959	0.81	0.257	
In-113	112.9041	0.81	1.500	
In-115	114.9039	0.81	0.233	
Ba-137	136.8958	0.83	1.047	
Ce-140	139.8954	0.84	0.208	
Tb-159	158.9154	0.84	0.293	
Pb-206	205.9845	0.85	0.271	
Pb-207	206.9759	0.85	0.491	
Pb-208	207.9766	0.85	0.523	
Th-232	232.0681	0.84	0.471	
U-238	238.0708	0.85	0.638	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 07/16/2011 End Date: 07/16/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element In-115	Q	Element Tb-159	Q
STD0 200-21675/2 IC	00:21	100		100		100		100		100	
STDLL2 200-21675/3	00:28	102		99		99		99		99	
STD1 200-21675/4 IC	00:35	99		101		101		101		100	
STD2 200-21675/5 IC	00:41	98		102		102		101		100	
STD3 200-21675/6 IC	00:49	102		100		99		97		98	
ICV 200-21675/7	00:59	98		101		100		99		99	
ICBIS 200-21675/8	01:09	97		97		97		97		96	
ICSA 200-21675/9	01:15	90		93		90		90		91	
ICSAB 200-21675/10	01:26	85		90		90		91		93	
CCV 200-21675/11	01:37	96		99		102		102		103	
CCB 200-21675/12	01:47	95		97		100		101		101	
CCV 200-21675/13	09:08	99		104		106		106		107	
CCB 200-21675/14	09:15	100		101		103		103		103	
MB 200-20966/1-A	09:21	100		105		105		103		103	
LCS 200-20966/2-A	09:28	103		105		103		100		102	
240-1267-2	09:43	98		105		124		99		102	
240-1267-3	09:50	97		107		108		105		105	
240-1267-4	09:56	98		105		108		103		104	
240-1267-4 SD	10:03	95		94		98		97		99	
CCV 200-21675/25	10:30	97		100		101		101		101	
CCB 200-21675/26	10:37	97		97		97		97		97	
240-1267-2	11:11	92		94		94		94		96	
240-1267-3	11:18	98		100		100		98		99	
240-1267-4	11:25	97		99		119		96		100	
240-1267-4 SD	11:31	88		88		96		93		96	
CCV 200-21675/38	11:58	102		99		100		100		102	
CCB 200-21675/39	12:05	97		97		98		97		99	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 07/16/2011 End Date: 07/16/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Bi-209	Q	Element	Q	Element	Q	Element	Q	Element	Q
STD0 200-21675/2 IC	00:21	100									
STDLL2 200-21675/3	00:28	99									
STD1 200-21675/4 IC	00:35	99									
STD2 200-21675/5 IC	00:41	98									
STD3 200-21675/6 IC	00:49	91									
ICV 200-21675/7	00:59	94									
ICBIS 200-21675/8	01:09	95									
ICSA 200-21675/9	01:15	80									
ICSAB 200-21675/10	01:26	81									
CCV 200-21675/11	01:37	101									
CCB 200-21675/12	01:47	100									
CCV 200-21675/13	09:08	103									
CCB 200-21675/14	09:15	101									
MB 200-20966/1-A	09:21	98									
LCS 200-20966/2-A	09:28	92									
240-1267-2	09:43	90									
240-1267-3	09:50	99									
240-1267-4	09:56	96									
240-1267-4 SD	10:03	96									
CCV 200-21675/25	10:30	98									
CCB 200-21675/26	10:37	95									
240-1267-2	11:11	92									
240-1267-3	11:18	93									
240-1267-4	11:25	89									
240-1267-4 SD	11:31	93									
CCV 200-21675/38	11:58	99									
CCB 200-21675/39	12:05	97									

Client: Tetra Tech NUS Inc

Job Number: 240-1267-1

Method Blank - Batch: 200-20966

Method: 6020
Preparation: 3010A

Lab Sample ID:	MB 200-20966/1-A	Analysis Batch:	200-21675	Instrument ID:	METICPMS2
Client Matrix:	Water	Prep Batch:	200-20966	Lab File ID:	071511-04B.xml
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	07/16/2011 0921	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 0934				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Antimony	0.0910	J	0.073	2.0
Arsenic	5.0	U	0.092	5.0
Barium	5.0	U	0.42	5.0
Beryllium	1.0	U	0.092	1.0
Cadmium	1.0	U	0.046	1.0
Chromium	0.281	J	0.11	2.0
Cobalt	0.192	J	0.049	1.0
Copper	2.0	U	0.23	2.0
Lead	0.176	J	0.024	1.0
Molybdenum	2.0	U	0.42	2.0
Nickel	2.0	U	0.63	2.0
Selenium	5.0	U	0.32	5.0
Silver	1.0	U	0.014	1.0
Thallium	0.225	J	0.079	2.0
Tungsten	0.172	J	0.16	10
Vanadium	20	U	0.30	20
Zinc	0.851	J	0.50	20

Client: Tetra Tech NUS Inc

Job Number: 240-1267-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-20966					
LCS 200-20966/2-A	Lab Control Sample	T	Water	3010A	
MB 200-20966/1-A	Method Blank	T	Water	3010A	
240-1267-2	GSP-MW1-061711	D	Water	3010A	
240-1267-2	GSP-MW1-061711	T	Water	3010A	
240-1267-3	GSP-MW2-061711	D	Water	3010A	
240-1267-3	GSP-MW2-061711	T	Water	3010A	
240-1267-4	GSP-MW3-061711	D	Water	3010A	
240-1267-4	GSP-MW3-061711	T	Water	3010A	
Prep Batch: 200-20991					
LCS 200-20991/12-A	Lab Control Sample	T	Water	7470A	
MB 200-20991/11-A	Method Blank	T	Water	7470A	
240-1267-2	GSP-MW1-061711	D	Water	7470A	
240-1267-2	GSP-MW1-061711	T	Water	7470A	
240-1267-3	GSP-MW2-061711	D	Water	7470A	
240-1267-3	GSP-MW2-061711	T	Water	7470A	
240-1267-4	GSP-MW3-061711	D	Water	7470A	
240-1267-4	GSP-MW3-061711	T	Water	7470A	
Analysis Batch:200-21100					
LCS 200-20991/12-A	Lab Control Sample	T	Water	7470A	200-20991
MB 200-20991/11-A	Method Blank	T	Water	7470A	200-20991
240-1267-2	GSP-MW1-061711	D	Water	7470A	200-20991
240-1267-2	GSP-MW1-061711	T	Water	7470A	200-20991
240-1267-3	GSP-MW2-061711	D	Water	7470A	200-20991
240-1267-3	GSP-MW2-061711	T	Water	7470A	200-20991
240-1267-4	GSP-MW3-061711	D	Water	7470A	200-20991
240-1267-4	GSP-MW3-061711	T	Water	7470A	200-20991
Analysis Batch:200-21675					
LCS 200-20966/2-A	Lab Control Sample	T	Water	6020	200-20966
MB 200-20966/1-A	Method Blank	T	Water	6020	200-20966
240-1267-2	GSP-MW1-061711	D	Water	6020	200-20966
240-1267-2	GSP-MW1-061711	T	Water	6020	200-20966
240-1267-3	GSP-MW2-061711	D	Water	6020	200-20966
240-1267-3	GSP-MW2-061711	T	Water	6020	200-20966
240-1267-4	GSP-MW3-061711	D	Water	6020	200-20966
240-1267-4	GSP-MW3-061711	T	Water	6020	200-20966

Report Basis
D = Dissolved
T = Total

Case Narrative

TestAmerica West Sacramento Project Number G1F210484

General Comments
Samples 1-3 were received by the laboratory at 1 degrees C. Wet ice was used as the cooling agent.

Samples 15 & 16 were received by the laboratory at 25 degrees C. Wet ice was used as the cooling agent.

WATER, 314.0, Perchlorate
Sample(s): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
A mid continuing calibration blank had a positive result of 0.623 ug/L. Only sample 9 had a positive result for perchlorate. This sample was re-analyzed and the re-analysis results for this sample were reported.

Sample(s): 6, 13
These samples were analyzed at dilutions due to matrix interferences.

There were no other anomalies associated with this project.

Sample Summary

TestAmerica West Sacramento Project Number G1F210484

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
MKEG3	1	GSP-MW1-061711	6/17/2011 11:00 AM	6/21/2011 09:25 AM
MKEHD	2	GSP-MW2-061711	6/17/2011 01:20 PM	6/21/2011 09:25 AM
MKEHF	3	GSP-MW3-061711	6/17/2011 03:05 PM	6/21/2011 09:25 AM
MKF52	4	GSP-MW-4-062011	6/20/2011 10:55 AM	6/23/2011 08:40 AM
MKF55	5	GSP-MW-5-062011	6/20/2011 12:15 PM	6/23/2011 08:40 AM
MKF56	6	GSP-MW-6-062011	6/20/2011 02:55 PM	6/23/2011 08:40 AM
MKGVT	7	GSP-SB-WP-61-062211	6/22/2011 10:10 AM	6/24/2011 08:50 AM
MKGVV	8	GSP-SB-WP-50-062211	6/22/2011 01:10 PM	6/24/2011 08:50 AM
MKGVW	9	GSP-MW-7-062211	6/22/2011 01:20 PM	6/24/2011 08:50 AM
MKGVX	10	GSP-SB-WP-83-062211	6/22/2011 04:20 PM	6/24/2011 08:50 AM
MKJLX	11	GSP-SB-WP-84-062311	6/23/2011 12:40 PM	6/28/2011 09:15 AM
MKJL1	12	GSP-SB-WP-89-062311	6/23/2011 10:40 AM	6/28/2011 09:15 AM
MKJL2	13	GSP-SB-WP-66-062311	6/23/2011 08:45 AM	6/28/2011 09:15 AM
MKJL3	14	GSP-MW-8-062311	6/23/2011 10:10 AM	6/28/2011 09:15 AM
MKK78	15	GSP-SB-WP-54-062111	6/21/2011 11:30 AM	6/27/2011 09:00 AM
MKK79	16	GSP-SB-WP-71-062111	6/21/2011 02:20 PM	6/27/2011 09:00 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica North Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: O'Meara, Patrick J	Carrier Tracking No(s):	COC No: 240-509.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: patrick.omeara@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 240-1267-1
Address: 880 Riverside Parkway,	Due Date Requested: 7/6/2011			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel)	PO #:			
Email:	WO #:			
Project Name: MSA Greater Strawberry Point PH. II 2011	Project #: 24005910			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ Perchlorate-West Sacramento	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
GSP-MW1-061711 (240-1267-2)	6/17/11	11:00 Eastern		Water			X	1	
GSP-MW2-061711 (240-1267-3)	6/17/11	13:20 Eastern		Water			X	1	
GSP-MW3-061711 (240-1267-4)	6/17/11	15:05 Eastern		Water			X	1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/20/11 1200	TA NC	Cheng Vue	6/21/11 - 1025	TAL

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT AL-N. Canton PM VD LOG # 71259

LOT# (QUANTIMS ID) G1F210484 QUOTE# 88936 LOCATION W23A

Checked (✓)

DATE RECEIVED 6/21/11 TIME RECEIVED 0925 ☑

DELIVERED BY ☑ FEDEX ☐ ON TRAC ☐ OTHER

☐ GOLDENSTATE ☐ UPS ☐ EZ PARCEL

☐ TAL COURIER ☐ TAL SF ☐ CLIENT ☑

SHIPPPING CONTAINER(S) ☑ TAL ☐ CLIENT ☐ N/A ☑

CUSTODY SEAL STATUS ☑ INTACT ☐ BROKEN ☐ N/A ☑

CUSTODY SEAL #(S) 162398

COC #(S) 240-509.1 ☑

TEMPERATURE BLANK Observed: 0 Corrected: 1

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 0.0,0 Average 0 Corrected Average 1

LABORATORY THERMOMETER ID:

IR UNIT: #4 ☑ #5 ☐ ☐ OTHER ☑

Initials: VN Date: 6/21/11

---

pH MEASURED ☐ YES ☐ ANOMALY ☑ N/A ☑

LABELED BY ☑

LABELS CHECKED BY ☑

PEER REVIEW ☑ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING ☑

WETCHEM ☑ N/A ☑

VOA-ENCORES ☑ N/A ☑

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☑ N/A ☑

☐ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☑ N/A ☑

☑ CLOUSEAU ☑ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☐ N/A

☑ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☑ PM NOTIFIED

Initials: VN Date: 21 Jun 11

Notes

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT TAL - N. Canton PM KD LOG # 71294

LOT# (QUANTIMS ID) G1F210484 QUOTE# 88936 LOCATION W23A

Checked (✓)

DATE RECEIVED 6/23/11 TIME RECEIVED 0840 ☑

DELIVERED BY ☑ FEDEX ☐ ON TRAC ☐ OTHER

☐ GOLDENSTATE ☐ UPS ☐ EZ PARCEL

☐ TAL COURIER ☐ TAL SF ☐ CLIENT ☑

SHIPPPING CONTAINER(S) ☑ TAL ☐ CLIENT ☐ N/A ☑

CUSTODY SEAL STATUS ☑ INTACT ☐ BROKEN ☐ N/A ☑

CUSTODY SEAL #(S) 162427

COC #(S) 240-528.1 ☑

TEMPERATURE BLANK Observed: NA Corrected:

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 1, 0, 2 Average 1 Corrected Average 2

LABORATORY THERMOMETER ID:

IR UNIT: #4 ☑ #5 ☐ ☐ OTHER ☑

LN 6/23/11
Initials Date

==========

pH MEASURED ☐ YES ☐ ANOMALY ☑ N/A ☑

LABELED BY ☑

LABELS CHECKED BY ☑

PEER REVIEW ☑ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING ☑

WETCHEM ☑ N/A ☑

VOA-ENCORES ☑ N/A ☑

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☑ N/A ☑

☑ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A ☑

☐ CLOUSEAU ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☑ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED

LN 6/23/11
Initials Date

Notes Additional Samples (240-1287-2,3,4).

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT TAL N. Canton PM KD LOG # 71376

LOT# (QUANTIMS ID) G1F210484 QUOTE# 88936 LOCATION W23A

Checked (✓)

DATE RECEIVED 6/24/11 TIME RECEIVED 0850 ☑

DELIVERED BY ☒ FEDEX ☐ ON TRAC ☐ OTHER

☐ GOLDENSTATE ☐ UPS ☐ EZ PARCEL

☐ TAL COURIER ☐ TAL SF ☐ CLIENT ☑

SHIPPPING CONTAINER(S) ☒ TAL ☐ CLIENT ☐ N/A ☑

CUSTODY SEAL STATUS ☐ INTACT ☐ BROKEN ☒ N/A ☑

CUSTODY SEAL #(S) NA

COC #(S) 240-566.1 ☑

TEMPERATURE BLANK Observed: NA Corrected:

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 2, 1, 2 Average 2 Corrected Average 2

LABORATORY THERMOMETER ID:

IR UNIT: #4 ☒ #5 ☐ ☐ OTHER ☑

CV Initials 6/24/11 Date

---

pH MEASURED ☐ YES ☐ ANOMALY ☒ N/A ☐

LABELED BY..... ☑

LABELS CHECKED BY..... ☑

PEER REVIEW ☒ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING ☑

WETCHEM ☒ N/A ☑

VOA-ENCORES ☒ N/A ☑

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☒ N/A ☑

☐ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☒ N/A ☑

☒ CLOUSEAU ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☐ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☒ PM NOTIFIED

CV Initials 6/24/11 Date

Notes COC not relinquished (240-1365-1,2,3,6) - additional samples.

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT TAL North Canton PM KD LOG # 71392

LOT# (QUANTIMS ID) G1F27 G1F210484 QUOTE# 88936 LOCATION W23a

Checked (✓)

DATE RECEIVED 6-27-11 TIME RECEIVED 9:00 ☑

DELIVERED BY ☑ FEDEX ☐ ON TRAC ☐ OTHER

☐ GOLDENSTATE ☐ UPS ☐ EZ PARCEL

☐ TAL COURIER ☐ TAL SF ☐ CLIENT ☑

SHIPPPING CONTAINER(S) ☐ TAL ☐ CLIENT ☑ N/A ☑

CUSTODY SEAL STATUS ☑ INTACT ☐ BROKEN ☐ N/A ☑

CUSTODY SEAL #(S) 162456

COC #(S) 240-55411 ☑

TEMPERATURE BLANK Observed: NA Corrected: NA

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 2.6, 2.4, 2.6 Average 2.5 Corrected Average 2.5

LABORATORY THERMOMETER ID:

IR UNIT: #4 ☑ #5 ☐ ☐ OTHER ☑

Initials Date

---

pH MEASURED ☐ YES ☐ ANOMALY ☑ N/A ☑

LABELED BY ☑

LABELS CHECKED BY ☑

PEER REVIEW ☑ N/A

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING ☑

WETCHEM ☑ N/A ☑

VOA-ENCORES ☑ N/A ☑

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☑ N/A ☑

☐ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☑ N/A ☑

☑ CLOUSEAU ☑ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☐ N/A

☑ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☑ PM NOTIFIED

Initials Date

Notes Melted Ice

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT TAL North Canton PM KP LOG # 71373

LOT# (QUANTIMS ID) G1F210484 QUOTE# 88936 LOCATION W23A

Checked (✓)

DATE RECEIVED 6-28-11 TIME RECEIVED 9:45 ✓

DELIVERED BY ☑ FEDEX ☐ ON TRAC ☐ OTHER

☐ GOLDENSTATE ☐ UPS ☐ EZ PARCEL

☐ TAL COURIER ☐ TAL SF ☐ CLIENT ✓

SHIPPPING CONTAINER(S) ☑ TAL ☐ CLIENT ☐ N/A ✓

CUSTODY SEAL STATUS ☑ INTACT ☐ BROKEN ☐ N/A ✓

CUSTODY SEAL #(S) 239895

COC #(S) 240606.1 ✓

TEMPERATURE BLANK Observed: NA Corrected: NA

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 2.2 3 Average 2 Corrected Average 2

LABORATORY THERMOMETER ID:

IR UNIT: #4 ☑ #5 ☐ ☐ OTHER ✓

BF 6-28-11
Initials Date

---

pH MEASURED ☐ YES ☐ ANOMALY ☑ N/A ✓

LABELED BY ✓

LABELS CHECKED BY ✓

PEER REVIEW ☑ N/A

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING ✓

WETCHEM ☑ N/A ✓

VOA-ENCORES ☑ N/A ✓

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☑ N/A ✓

☑ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A ✓

☐ CLOUSEAU ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☑ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED

Initials Date 28/06/11

Notes

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Bottle Lot Inventory

Lot ID: G1F210484

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
VOAh*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
AGB																				
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
____AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
____CGJ																				
500CGJ																				
250CGJ																				
125CGJ																				
PJ																				
PJn																				
500PJ																				
500PJn																				
500PJna																				
500PJzn/na																				
250PJ	1/	1/	1/	1/	1/	1/	1/	1/	1/	1/	1	1	1	1	1	1				
250PJn																				
250PJna																				
250PJzn/na																				
Acetate Tube																				
_____"CT																				
Encore																				
Folder/filter																				
PUF																				
Petri/Filter																				
XAD Trap																				
Ziploc																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

h = hydrochloric acid **s** = sulfuric acid **na** = sodium hydroxide **n** = nitric acid **zn** = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

QA-185 5/05 EM

Page 3

METHOD BLANK REPORT

General Chemistry

Client Lot #...: G1F210484 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		Work Order #: MKTP71AA		MB Lot-Sample #:	G1G110000-193	
	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		Work Order #: MKTP71AC	LCS Lot-Sample#: G1G110000-193		
	98	(85 - 115)	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate			Work Order #: MKTP71AC	LCS Lot-Sample#: G1G110000-193			
	50.0	49.2	ug/L	98	MCAWW 314.0	07/11/11	1192193
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER
Date Sampled...: 06/17/11 **Date Received..:** 06/21/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		WO#: MKEG31AC-MS/MKEG31AD-MSD				MS Lot-Sample #: G1F210484-001	
	104	(80 - 120)			MCAWW 314.0	07/11/11	1192193
	104	(80 - 120)	0.11	(0-20)	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER
Date Sampled...: 06/17/11 **Date Received..:** 06/21/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate			WO#: MKEG31AC-MS/MKEG31AD-MSD		MS Lot-Sample #: G1F210484-001				
	ND	50.0	52.1	ug/L	104		MCAWW 314.0	07/11/11	1192193
	ND	50.0	52.1	ug/L	104	0.11	MCAWW 314.0	07/11/11	1192193
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE 1 OF

CLIENT	JOB NUMBER		
MSA - Greater Strawberry Point	SDG 240-1267-1		
SUBJECT: Sample Calculations			
BASED ON	DRAWING NUMBER		
BY: Ann Cognetti	CHECKED BY	APPROVED BY	DATE: Aug. 23, 2011

I. VOC; Sample GSP-MW1-061711; Trichloroethene

$$\frac{345997}{1070507} * 1 * \frac{10\ ug/L}{0.2807} = 11.5\ ug/L$$

II. SVOC; Sample GSP-MW3-061711; Bis(2-ethylhexyl) phthalate

$$\frac{101005}{94128\ 3} * \frac{2mL}{1030mL} * \frac{4\ ng/uL}{0.8413} * 1000 = 0.99\ ug/L$$

III. GRO; Sample GSP-MW1-061711

$$\frac{12034593}{236048.859} = 50.9\ ug/L$$

Sample Calculation

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW1-061711 | Lab Sample ID: 240-1267-2

Matrix: Water | Lab File ID: UXM7289.D

Analysis Method: 8260B | Date Collected: 06/17/2011 11:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/28/2011 20:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6415 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	2.1		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	0.71	J	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	0.33	J	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.1		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	12		1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	1.0	J	2.0	0.28

Sample Calculation

Report Date: 29-Jun-2011 16:05:05 Chrom Revision: 1.2 27-Jun-2011 14:36:06

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX16\20110628-1448.b\UXM7289.D		
Lims ID:	240-1267-C-2	Client ID:	GSP-MW1-061711
Inject. Date:	28-Jun-2011 20:53:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0001448-019		
Misc. Info.:	M10628A,8260LLUX16,,1644		
Operator:	1644	Instrument ID:	A3UX16
Vol. Injected:	1.0000	ALS Bottle#:	18
Lims Batch ID:	6415	Lims Sample ID:	19
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX16\20110628-1448.b\8260_16.m		
Last Update:	29-Jun-2011 16:04:54	Calib Date:	29-May-2011 17:06:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A3UX16\20110529-720.b\UXM6511.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-17		

First Level Reviewer: williamsla Date: 29-Jun-2011 10:38:31

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.716	5.716	0.0	98	1070507	10.0	
* 2 Chlorobenzene-d5	117	8.407	8.408	-0.001	86	835241	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.649	10.649	0.0	95	430548	10.0	
$ 5 Dibromofluoromethane (Surr)	113	5.135	5.135	0.0	57	269124	9.68	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	5.431	5.431	0.0	0	379907	11.1	
$ 7 Toluene-d8 (Surr)	98	7.091	7.091	0.0	93	1105477	10.2	
$ 131 4-Bromofluorobenzene (Surr)	95	9.522	9.522	0.0	87	401529	8.92	
12 Dichlorodifluoromethane	85		1.636					
13 Chloromethane	50		1.791					
14 Vinyl chloride	62		1.921					
15 Bromomethane	94		2.265					
16 Chloroethane	64		2.372					
18 Trichlorofluoromethane	101		2.621					
21 1,1-Dichloroethene	96	3.130	3.131	-0.001	73	13488	0.4533	
23 1,1,2-Trichloro-1,2,2-trifluoroethane	151		3.142					
22 Acetone	43	3.190	3.190	0.0	93	74789	6.92	
26 Carbon disulfide	76		3.344					
30 Methylene Chloride	84		3.593					
31 2-Methyl-2-propanol	59		3.688					
34 Methyl tert-butyl ether	73		3.830					
33 trans-1,2-Dichloroethene	96	3.830	3.830	0.0	54	4371	0.1241	
36 1,1-Dichloroethane	63		4.210					
37 Vinyl acetate	86		4.257					
38 Isopropyl ether	87		4.257					
40 Tert-butyl ethyl ether	59		4.577					
43 2,2-Dichloropropane	77		4.720					
42 cis-1,2-Dichloroethene	96	4.720	4.720	0.0	70	77599	2.10	
41 2-Butanone (MEK)	43		4.731					
47 Chlorobromomethane	128		4.933					
49 Chloroform	83		4.992					
50 1,1,1-Trichloroethane	97		5.158					

Report Date: 29-Jun-2011 16:05:05 Chrom Revision: 1.2 27-Jun-2011 14:36:06
Data File: \\Ncchrom\ChromData\A3UX16\20110628-1448.b\UXM7289.D

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
52 1,1-Dichloropropene	75		5.301					
53 Carbon tetrachloride	117		5.301					
55 Benzene	78	5.478	5.479	0.0	54	45918	0.3532	
56 1,2-Dichloroethane	62		5.490					
57 Tert-amyl methyl ether	73		5.550					
60 Trichloroethene	130	6.024	6.024	0.0	92	345997	11.5	
62 1,2-Dichloropropane	63		6.226					
65 Dibromomethane	93		6.332					
67 Dichlorobromomethane	83		6.463					
69 2-Chloroethyl vinyl ether	63		6.700					
70 cis-1,3-Dichloropropene	75		6.842					
71 4-Methyl-2-pentanone (MIBK)	43		6.973					
72 Toluene	91	7.150	7.151	-0.001	91	143843	1.05	
73 trans-1,3-Dichloropropene	75		7.340					
77 Tetrachloroethene	164		7.649					
76 1,3-Dichloropropane	76		7.660					
78 2-Hexanone	43		7.720					
79 Chlorodibromomethane	129		7.874					
123 Ethylene Dibromide	107		7.993					
82 Chlorobenzene	112		8.443					
83 1,1,1,2-Tetrachloroethane	131		8.514					
84 Ethylbenzene	106	8.526	8.526	0.0	62	6636	0.1390	
10 m-Xylene & p-Xylene	106	8.633	8.633	0.0	95	42455	0.7085	
85 o-Xylene	106	9.012	9.012	0.0	86	20072	0.3337	
86 Styrene	104		9.024					
87 Bromoform	173		9.226					
88 Isopropylbenzene	105		9.356					
90 1,1,2,2-Tetrachloroethane	83		9.653					
91 Bromobenzene	156		9.676					
92 1,2,3-Trichloropropane	110		9.700					
94 N-Propylbenzene	120		9.759					
95 2-Chlorotoluene	126		9.854					
104 4-Chlorotoluene	126		9.961					
97 tert-Butylbenzene	119		10.246					
98 1,2,4-Trimethylbenzene	105	10.293	10.293	0.0	75	31585	0.2575	
99 sec-Butylbenzene	105		10.459					
100 1,3-Dichlorobenzene	146		10.590					
101 4-Isopropyltoluene	119		10.601					
102 1,4-Dichlorobenzene	146		10.673					
103 1,2,3-Trimethylbenzene	105		10.720					
105 n-Butylbenzene	91		11.005					
106 1,2-Dichlorobenzene	146		11.052					
107 1,2-Dibromo-3-Chloropropane	157		11.835					
109 1,2,4-Trichlorobenzene	180		12.653					
110 Hexachlorobutadiene	225		12.819					
111 Naphthalene	128		12.914					
112 1,2,3-Trichlorobenzene	180		13.175					
S 114 Xylenes, Total	106				0		1.04	

Sample Calculation

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0264 0.0247	0.0242	0.0238	0.0245	0.0252	Ave		0.0248				3.7		15.0			
Acrylonitrile	0.0962 0.1129	0.1089	0.1081	0.1133	0.1132	Ave		0.1088				6.0		15.0			
Methyl tert-butyl ether	0.9052 0.9780	0.9338	0.9084	0.9445	0.9844	Ave		0.9424				3.6		15.0			
trans-1,2-Dichloroethene	0.3245 0.3425	0.3127	0.3206	0.3283	0.3449	Ave		0.3289				3.8		15.0			
Hexane	0.0574 0.0546	0.0465	0.0392	0.0472	0.0530	Ave		0.0496				13.0		15.0			
1,1-Dichloroethane	0.5912 0.6319	0.5979	0.5673	0.5881	0.6272	Ave		0.6006			0.1000	4.1		15.0			
Vinyl acetate	0.0271 0.0446	0.0328	0.0324	0.0372	0.0413	Lin1	-0.024	0.0433							0.9950		0.9900
2,2-Dichloropropane	0.4458 0.4655	0.4225	0.4110	0.4480	0.4683	Ave		0.4435				5.2		15.0			
cis-1,2-Dichloroethene	0.3377 0.3558	0.3482	0.3265	0.3398	0.3653	Ave		0.3455				4.0		15.0			
2-Butanone	0.1477 0.1193	0.1256	0.1190	0.1218	0.1226	Ave		0.1260				8.6		15.0			
Bromochloromethane	0.1519 0.1533	0.1391	0.1375	0.1459	0.1561	Ave		0.1473				5.3		15.0			
Tetrahydrofuran	0.1188 0.0832	0.0981	0.0900	0.0884	0.0887	Ave		0.0945				14.0		15.0			
Chloroform	0.5079 0.5578	0.5235	0.5114	0.5209	0.5580	Ave		0.5299				4.2		15.0			
1,1,1-Trichloroethane	0.4542 0.5081	0.4748	0.4473	0.4767	0.5115	Ave		0.4788				5.6		15.0			
Cyclohexane	0.5872 0.6036	0.5268	0.4580	0.5415	0.5932	Ave		0.5517				10.0		15.0			
1,1-Dichloropropene	0.3780 0.4190	0.3872	0.3615	0.3885	0.4165	Ave		0.3918				5.7		15.0			
Carbon tetrachloride	0.3498 0.4050	0.3346	0.3134	0.3616	0.3954	Ave		0.3600				9.8		15.0			
Benzene	1.1885 1.2941	1.1806	1.1616	1.1888	1.2727	Ave		1.2144				4.5		15.0			
1,2-Dichloroethane	0.4012 0.4187	0.3969	0.4003	0.3960	0.4222	Ave		0.4059				2.8		15.0			
Trichloroethene	0.2726 0.2968	0.2781	0.2630	0.2758	0.2977	Ave		0.2807				4.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Sample Calculation

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1267-1

SDG No.:

Client Sample ID: GSP-MW3-061711
Lab Sample ID: 240-1267-4

Matrix: Water
Lab File ID: 1267I4A.D

Analysis Method: 8270D
Date Collected: 06/17/2011 15:05

Extract. Method: 3510C
Date Extracted: 06/21/2011 08:58

Sample wt/vol: 1030(mL)
Date Analyzed: 07/22/2011 21:13

Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1

Injection Volume: 1(uL)
Level: (low/med) Low

% Moisture:
GPC Cleanup:(Y/N) N

Analysis Batch No.: 9503
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.19	U	0.19	0.097
208-96-8	Acenaphthylene	0.19	U	0.19	0.097
98-86-2	Acetophenone	0.97	U	0.97	0.33
120-12-7	Anthracene	0.19	U	0.19	0.097
1912-24-9	Atrazine	0.97	U	0.97	0.33
100-52-7	Benzaldehyde	0.97	U	0.97	0.38
56-55-3	Benzo[a]anthracene	0.19	U	0.19	0.097
50-32-8	Benzo[a]pyrene	0.19	U	0.19	0.097
205-99-2	Benzo[b]fluoranthene	0.19	U	0.19	0.097
191-24-2	Benzo[g,h,i]perylene	0.19	U	0.19	0.097
207-08-9	Benzo[k]fluoranthene	0.19	U	0.19	0.097
92-52-4	1,1'-Biphenyl	0.97	U	0.97	0.78
111-91-1	Bis(2-chloroethoxy)methane	0.97	U	0.97	0.31
111-44-4	Bis(2-chloroethyl)ether	0.97	U	0.97	0.097
117-81-7	Bis(2-ethylhexyl) phthalate	0.99	J	1.9	0.78
101-55-3	4-Bromophenyl phenyl ether	1.9	U	1.9	0.78
85-68-7	Butyl benzyl phthalate	0.97	U	0.97	0.78
105-60-2	Caprolactam	4.9	U	4.9	0.78
86-74-8	Carbazole	0.97	U	0.97	0.27
106-47-8	4-Chloroaniline	1.9	U	1.9	0.78
59-50-7	4-Chloro-3-methylphenol	1.9	U	1.9	0.78
91-58-7	2-Chloronaphthalene	0.97	U	0.97	0.097
95-57-8	2-Chlorophenol	0.97	U	0.97	0.28
7005-72-3	4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29
218-01-9	Chrysene	0.19	U	0.19	0.097
53-70-3	Dibenzo(a,h)anthracene	0.19	U	0.19	0.097
132-64-9	Dibenzofuran	0.97	U	0.97	0.097
91-94-1	3,3'-Dichlorobenzidine	4.9	U	4.9	0.36
120-83-2	2,4-Dichlorophenol	1.9	U	1.9	0.78
84-66-2	Diethyl phthalate	0.97	U	0.97	0.58
105-67-9	2,4-Dimethylphenol	1.9	U	1.9	0.78
131-11-3	Dimethyl phthalate	0.97	U	0.97	0.28
84-74-2	Di-n-butyl phthalate	0.97	U	0.97	0.65
534-52-1	4,6-Dinitro-2-methylphenol	4.9	U	4.9	2.3

Sample Calculation

Report Date: 23-Jul-2011 11:19:11 Chrom Revision: 1.2 13-Jul-2011 10:43:06

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A4HP9\20110723-2100.b\1267I4A.D		
Lims ID:	240-1267-I-4-A	Client ID:	GSP-MW3-061711
Inject. Date:	22-Jul-2011 21:13:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	1267i4a,10722a.b,8270c-625,1-827042d.sub		
Misc. Info.:			
Operator:	001574	Instrument ID:	A4HP9
Vol. Injected:	1.0000	ALS Bottle#:	36
Lims Batch ID:	9503	Lims Sample ID:	36
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A4HP9\20110723-2100.b\8270 _9.m		
Last Update:	23-Jul-2011 11:18:57	Calib Date:	22-Jul-2011 13:22:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A4HP9\20110723-2100.b\9THH0722.D		
Limit Group:	MSS 8270D ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-15		

First Level Reviewer: ulmanm Date: 23-Jul-2011 09:19:01

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.734	3.733	0.001	88	224058	4.00	
* 2 Naphthalene-d8	136	4.696	4.695	0.001	98	825975	4.00	
* 3 Acenaphthene-d10	164	5.988	5.987	0.001	75	475566	4.00	
* 4 Phenanthrene-d10	188	7.073	7.072	0.001	96	903479	4.00	
* 5 Chrysene-d12	240	9.023	9.027	-0.004	76	941283	4.00	
* 6 Perylene-d12	264	10.332	10.331	0.001	89	787820	4.00	
$ 7 2-Fluorophenol	112	2.735	2.730	0.005	94	774314	9.09	
$ 8 Phenol-d5	99	3.424	3.419	0.005	0	1123815	9.08	
$ 9 Nitrobenzene-d5	82	4.145	4.146	-0.001	83	837084	6.19	
$ 10 2-Fluorobiphenyl (Surr)	172	5.481	5.481	0.0	99	864372	5.39	
$ 11 2,4,6-Tribromophenol	330	6.565	6.560	0.005	77	179391	9.61	
$ 12 Terphenyl-d14	244	8.211	8.211	0.0	98	1216427	7.02	
25 1,4-Dioxane	88		1.645					
26 N-Nitrosodimethylamine	74		1.827					
41 Benzaldehyde	77		3.398					
43 Phenol	94		3.430					
69 Bis(2-chloroethyl)ether	93		3.510					
46 2-Chlorophenol	128		3.574					
51 2-Methylphenol	108		3.895					
53 2,2'-oxybis[1-chloropropane]	45		3.916					
21 3 & 4 Methylphenol	108		4.007					
57 N-Nitrosodi-n-propylamine	70		4.023					
58 Acetophenone	105		4.028					
61 Hexachloroethane	117		4.124					
62 Nitrobenzene	77		4.162					
64 Isophorone	82		4.338					
66 2-Nitrophenol	139		4.402					
65 2,4-Dimethylphenol	107		4.413					
70 Bis(2-chloroethoxy)methane	93		4.482					
73 2,4-Dichlorophenol	162		4.578					
75 Naphthalene	128		4.712					

Sample Calculation

Report Date: 23-Jul-2011 11:19:11 Chrom Revision: 1.2 13-Jul-2011 10:43:06
Data File: \\Ncchrom\ChromData\A4HP9\20110723-2100.b\1267I4A.D

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
76 4-Chloroaniline	127		4.733					
79 Hexachlorobutadiene	225		4.797					
84 Caprolactam	113	4.979	4.995	-0.016	56	4685	0.1536	
86 4-Chloro-3-methylphenol	107		5.080					
87 2-Methylnaphthalene	142		5.219					
89 Hexachlorocyclopentadiene	237		5.337					
92 2,4,6-Trichlorophenol	196		5.422					
93 2,4,5-Trichlorophenol	196		5.449					
98 1,1'-Biphenyl	154		5.556					
100 2-Chloronaphthalene	162		5.583					
102 2-Nitroaniline	65		5.641					
105 Dimethyl phthalate	163		5.759					
107 2,6-Dinitrotoluene	165		5.807					
109 Acenaphthylene	152		5.887					
110 3-Nitroaniline	138		5.941					
111 2,4-Dinitrophenol	184		6.015					
112 Acenaphthene	153		6.015					
113 4-Nitrophenol	109		6.042					
114 2,4-Dinitrotoluene	165		6.106					
116 Dibenzofuran	168		6.138					
121 Diethyl phthalate	149		6.266					
123 4-Chlorophenyl phenyl ether	204		6.368					
125 4-Nitroaniline	138		6.384					
126 Fluorene	166		6.389					
128 4,6-Dinitro-2-methylphenol	198		6.405					
131 N-Nitrosodiphenylamine	169		6.453					
139 4-Bromophenyl phenyl ether	248		6.726					
141 Hexachlorobenzene	284		6.795					
142 Atrazine	200		6.822					
143 Pentachlorophenol	266		6.929					
148 Phenanthrene	178		7.089					
149 Anthracene	178		7.127					
151 Carbazole	167		7.228					
154 Di-n-butyl phthalate	149		7.442					
159 Fluoranthene	202		7.955					
161 Pyrene	202		8.125					
168 Butyl benzyl phthalate	149		8.542					
173 Bis(2-ethylhexyl) phthalate	149	8.953	8.959	-0.006	93	101005	0.5102	
175 3,3'-Dichlorobenzidine	252		8.975					
177 Benzo[a]anthracene	228		9.018					
178 Chrysene	228		9.044					
180 Di-n-octyl phthalate	149		9.456					
182 Benzo[b]fluoranthene	252		9.931					
183 Benzo[k]fluoranthene	252		9.952					
184 Benzo[a]pyrene	252		10.273					
188 Indeno[1,2,3-cd]pyrene	276		11.721					
189 Dibenz(a,h)anthracene	278		11.726					
190 Benzo[g,h,i]perylene	276		12.143					

Sample Calculation

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Di-n-butyl phthalate		1.3057	1.3646	1.4014	1.3894	Ave		1.3795			0.0100	3.5		20.0			
	1.4042	1.4562	1.3957	1.3187													
Fluoranthene	1.2888	1.1198	1.1681	1.1743	1.1511	Ave		1.2088			0.6000	6.0		20.0			
	1.1563	1.2306	1.2504	1.3401													
Benzidine		0.5247	0.5614	0.6229	0.6146	Ave		0.6325				11.0		20.0			
	0.6413	0.6739	0.7024	0.7191													
Pyrene	1.3265	1.1784	1.2179	1.2068	1.1725	Ave		1.2330			0.6000	4.3		20.0			
	1.2043	1.2362	1.2550	1.2999													
Butyl benzyl phthalate		0.5364	0.5692	0.6318	0.5965	Ave		0.6023			0.0100	6.2		20.0			
	0.6083	0.6120	0.6038	0.6608													
3,3'-Dimethoxybenzidine		0.2172	0.2106	0.2732	0.2544	Ave		0.2556				11.0		20.0			
	0.2525	0.2818	0.2729	0.2822													
Bis(2-ethylhexyl) phthalate		0.7628	0.7993	0.8287	0.8181	Ave		0.8413			0.0100	6.0		20.0			
	0.8530	0.8639	0.8756	0.9289													
4,4'-Methylene bis(2-chloroaniline)		0.1858	0.2072	0.2239	0.2155	Ave		0.2245				9.8		20.0			
	0.2280	0.2376	0.2415	0.2567													
3,3'-Dichlorobenzidine		0.3736	0.3912	0.4300	0.4065	Ave		0.4248			0.0100	8.0		20.0			
	0.4261	0.4429	0.4461	0.4817													
Benzo[a]anthracene	1.3976	1.1773	1.0753	1.1273	1.0858	Ave		1.1767			0.8000	8.4		20.0			
	1.1536	1.1442	1.1671	1.2618													
Chrysene	1.3615	1.0521	1.0901	1.1094	1.0466	Ave		1.1330			0.7000	8.6		20.0			
	1.0697	1.1461	1.1285	1.1929													
Di-n-octyl phthalate		1.3566	1.4502	1.5689	1.6447	Ave		1.6503			0.0100	11.0		20.0			
	1.7057	1.7786	1.7754	1.9221													
Benzo[b]fluoranthene	1.2817	1.1349	1.1158	1.2341	1.3320	Ave		1.3107			0.7000	11.0		20.0			
	1.3971	1.3870	1.3192	1.5942													
Benzo[k]fluoranthene	1.6231	1.2680	1.3660	1.2531	1.2332	Ave		1.3375			0.7000	9.1		20.0			
	1.2380	1.3138	1.4003	1.3423													
Benzo[a]pyrene	1.1887	1.0781	1.1154	1.1374	1.1480	Ave		1.1765			0.7000	5.7		20.0			
	1.1873	1.2141	1.2143	1.3054													
Indeno[1,2,3-cd]pyrene	1.1855	1.0996	1.1603	1.2330	1.2555	Ave		1.2603			0.5000	8.1		20.0			
	1.3052	1.3402	1.3418	1.4219													
Dibenzo(a,h)anthracene	1.0821	0.8534	0.9577	0.9859	1.0151	Ave		1.0410			0.4000	9.8		20.0			
	1.0520	1.1068	1.1141	1.2020													
Benzo[g,h,i]perylene	1.0398	0.9680	0.9634	1.0029	1.0373	Ave		1.0403			0.5000	5.4		20.0			
	1.0535	1.0914	1.0728	1.1334													
2-Fluorophenol (Surr)		1.4688	1.5366	1.5892	1.4943	Ave		1.5207				2.8		20.0			
	1.4943	1.5169	1.4900	1.5757													
Phenol-d5 (Surr)		2.2184	2.2887	2.2631	2.1140	Ave		2.2093				2.7		20.0			
	2.1602	2.2253	2.1609	2.2441													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Sample Calculation

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1267-1
SDG No.:
Client Sample ID: GSP-MW1-061711
Lab Sample ID: 240-1267-2
Matrix: Water
Lab File ID: YF062821.D
Analysis Method: 8015B
Date Collected: 06/17/2011 11:00
Sample wt/vol: 5(mL)
Date Analyzed: 06/29/2011 02:02
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 6402
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	51	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	105		10-150

Sample Calculation

Report Date: 30-Jun-2011 09:10:51 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\YPID\20110628-1447.b\YF062821.D		
Lims ID:	240-1267-E-2	Client ID:	GSP-MW1-061711
Inject. Date:	29-Jun-2011 02:02:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0001447-021		
Misc. Info.:			
Operator:	004275	Instrument ID:	YPID
Vol. Injected:	1.0000	ALS Bottle#:	1
Lims Batch ID:	6402	Lims Sample ID:	21
Detector 1 :	GC ELC2B		
Detector 2 :	GC FID1A		
Method:	\\Ncchrom\ChromData\YPID\20110628-1447.b\Y80158021.m		
Last Update:	30-Jun-2011 09:10:48	Calib Date:	22-Jun-2011 17:30:51
Quant Method:	Internal/External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\YPID\20110622-1279.b\YF062209.D		
Limit Group:	GCV 8015B GRO ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-15		

Compound	Det	RT	ADJ RT	DLT RT	Response	On-Col Amt ug/l	Flags
6 2-Methylpentane	2	4.568	4.569	-0.001	30616	0	
12 Methyl tert-butyl ether	1	5.790	5.113	0.677	5127	0	
3 Benzene	1	9.316	8.004	1.312	4861	0	
$ 16 Trifluorotoluene (Surr)	2	9.255	9.251	0.004	2226673	10.5	
$ 18 a,a,a-Trifluorotoluene (pid)	1	9.903	9.254	0.649	4085	0	
* 15 Fluorobenzene	1	11.876	11.095	0.781	3786	0	
A 5 C6-C10	2	11.336	4.298 -	18.442	12034593	51.0	
A 1 C6-C12	2	13.066	4.398 -	21.735	17048890	65.8	
4 o-Xylene	1	17.899	14.005	3.894	3338	0	
A 11 GRO	2	14.325	5.080 -	23.124	22595417	0	
10 1,3,5-Trimethylbenzene	1	20.582	19.321	1.261	3098	0	
14 Dodecane	2	21.450	21.458	-0.008	10231	0	
9 Naphthalene							

Sample Calculation

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1267-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	302470 208450	252295 210278	214454	228347	Ave		236048.859				15.0		20.0			
C6-C12	346250 223395	277091 226126	233001	247805	Ave		258944.938				18.0		20.0			
Trifluorotoluene (Surr)	211649 226938	171207 226738	185123	251863	Ave		212253.083				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

Sample Calculation

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW1-061711 Lab Sample ID: 240-1267-2

Lab Name: TestAmerica Burlington Job No.: 240-1267-1

SDG ID.:

Matrix: Water Date Sampled: 06/17/2011 11:00

Reporting Basis: WET Date Received: 06/18/2011 10:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.17	2.0	0.073	ug/L	J	B	1	6020
7440-38-2	Arsenic	0.55	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	120	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.7	1.0	0.092	ug/L			1	6020
7440-43-9	Cadmium	0.30	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	5.1	2.0	0.11	ug/L		B	1	6020
7440-48-4	Cobalt	52	1.0	0.049	ug/L		B	1	6020
7440-50-8	Copper	35	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	1.1	1.0	0.024	ug/L		B	1	6020
7439-98-7	Molybdenum	0.56	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	77	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	1.1	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.47	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	0.25	10	0.16	ug/L	J	B	1	6020
7440-62-2	Vanadium	20	20	0.30	ug/L	U		1	6020
7440-66-6	Zinc	210	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

Sample Concentration

240-1267-G-2-A 07/16/2011 09:43:26 AM GSP-MW1-061711

User Pre-dilution: 1.000

Run	Time	6Li	7Li	9Be	11B	13C	23Na	24Mg	25Mg	26Mg	27Al	31P	33S	39K	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	09:44:28	T 93.899%	0.000	1.785	42.410	0.000	TM 50530.000	T 5381.000	T 5377.000	T 5383.000	T 844.900	0.000	T 0.000	T 2136.000	11410.000	103.154%	0.000	-2
2	09:45:32	T 97.993%	0.000	1.766	41.570	0.000	TM 49000.000	T 5198.000	T 5217.000	T 5211.000	T 828.800	0.000	T 0.000	T 2078.000	11310.000	105.047%	0.000	-2
3	09:46:35	102.560%	0.000	1.658	38.850	0.000	TM 47930.000	T 5123.000	T 5068.000	T 5107.000	T 858.400	0.000	T 0.000	T 2055.000	11570.000	106.156%	0.000	-2
x		T 98.151%	0.000	1.736	40.940	0.000	TM 49150.000	T 5234.000	T 5221.000	T 5234.000	T 844.100	0.000	T 0.000	T 2090.000	11430.000	104.786%	0.000	-2
σ		T 4.332%	0.000	0.069	1.857	0.000	TM 1307.000	T 132.800	T 154.700	T 139.100	T 14.830	0.000	T 0.000	T 41.580	130.700	1.518%	0.000	0
%RSD		T 4.414	0.000	3.946	4.535	0.000	TM 2.658	T 2.537	T 2.964	T 2.658	T 1.757	0.000	T 0.000	T 1.990	1.143	1.449	0.000	8

Run	Time	52Cr	53Cl O	54Fe	55Mn	56Fe	59Co	60Ni	62Ni	65Cu	66Zn	67Zn	68Zn	75As	78Se	82Se	89Y	9
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	09:44:28	5.131	163.700	3209.000	M 152.200	T 3133.000	51.730	76.150	73.880	34.190	M 205.300	M 144.100	M 158.800	0.527	0.379	0.854	120.612%	2
2	09:45:32	5.078	163.000	3176.000	M 151.000	T 3157.000	51.060	76.060	75.830	34.300	M 205.100	M 144.800	M 157.900	0.584	0.631	1.091	124.668%	1
3	09:46:35	5.189	164.200	3236.000	M 154.100	T 3194.000	52.030	77.910	76.020	35.160	M 209.200	M 147.300	M 159.000	0.530	0.534	1.291	125.595%	1
x		5.133	163.600	3207.000	M 152.400	T 3162.000	51.610	76.700	75.250	34.550	M 206.500	M 145.400	M 158.500	0.547	0.515	1.079	123.625%	1
σ		0.056	0.621	30.110	M 1.576	T 30.630	0.497	1.041	1.184	0.531	M 2.309	M 1.665	M 0.588	0.032	0.127	0.219	2.650%	0
%RSD		1.083	0.380	0.939	M 1.034	T 0.969	0.963	1.357	1.573	1.536	M 1.118	M 1.145	M 0.371	5.823	24.670	20.280	2.144	7

Run	Time	98Mo	107Ag	108Mo O	109Ag	111Cd	114Cd	115In	121Sb	123Sb	135Ba	137Ba	159Tb	182W	184W	205Tl	206Pb	20
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	09:44:28	0.803	0.003	0.032	0.007	0.290	0.325	96.651%	0.183	0.166	119.800	118.300	100.526%	0.290	0.293	0.492	1.089	1
2	09:45:32	0.404	0.005	0.040	0.005	0.298	0.315	100.570%	0.181	0.163	117.400	115.300	102.708%	0.222	0.221	0.460	1.073	1
3	09:46:35	0.474	0.011	0.028	0.011	0.303	0.329	100.449%	0.195	0.175	120.900	120.200	103.201%	0.224	0.219	0.459	1.118	1
x		0.560	0.006	0.034	0.008	0.297	0.323	99.223%	0.186	0.168	119.400	117.900	102.145%	0.245	0.244	0.470	1.094	1
σ		0.213	0.004	0.006	0.003	0.006	0.007	2.228%	0.008	0.006	1.774	2.455	1.423%	0.039	0.042	0.019	0.023	0
%RSD		38.040	68.140	17.590	42.760	2.155	2.315	2.246	4.188	3.861	1.486	2.081	1.393	15.810	17.320	3.979	2.073	0

Run	Time	208Pb	209Bi	220Bkg	232Th	238U
		ppb	ppb	ppb	ppb	ppb
1	09:44:28	1.127	88.881%	0.000	0.410	0.948
2	09:45:32	1.118	90.753%	0.000	0.385	0.943
3	09:46:35	1.153	91.041%	0.000	0.381	0.965
x		1.132	90.225%	0.000	0.392	0.952
σ		0.018	1.173%	0.000	0.016	0.011
%RSD		1.617	1.300	0.000	4.028	1.175

240-1267-G-3-A 07/16/2011 09:50:06 AM

User Pre-dilution: 1.000

Run	Time	6Li	7Li	9Be	11B	13C	23Na	24Mg	25Mg	26Mg	27Al	31P	33S	39K	44Ca	45Sc	47Ti	51V
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:51:09	T 96.048%	0.000	-0.095	24.690	0.000	T 3522.000	T 587.900	592.700	578.000	T 86.240	0.000	T 0.000	T 418.500	1052.000	105.688%	0.000	0.407
2	09:52:12	T 96.977%	0.000	-0.092	24.330	0.000	T 3528.000	T 590.300	602.500	578.400	T 83.850	0.000	T 0.000	T 419.900	1069.000	106.523%	0.000	0.609
3	09:53:15	T 99.309%	0.000	-0.055	23.510	0.000	T 3535.000	T 586.400	591.200	572.900	T 86.860	0.000	T 0.000	T 421.800	1065.000	108.816%	0.000	0.213
x		T 97.445%	0.000	-0.081	24.180	0.000	T 3528.000	T 588.200	595.500	576.400	T 85.650	0.000	T 0.000	T 420.100	1062.000	107.009%	0.000	0.410
σ		T 1.680%	0.000	0.022	0.604	0.000	T 6.250	T 1.962	6.120	3.053	T 1.591	0.000	T 0.000	T 1.657	8.586	1.620%	0.000	0.198
%RSD		T 1.724	0.000	27.340	2.498	0.000	T 0.177	T 0.334	1.028	0.530	T 1.857	0.000	T 0.000	T 0.395	0.809	1.514	0.000	48.360

Run	Time	52Cr	53Cl O	54Fe	55Mn	56Fe	59Co	60Ni	62Ni	65Cu	66Zn	67Zn	68Zn	75As	78Se	82Se	89Y	95Mo
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:51:09	0.359	126.800	654.100	28.480	T 647.900	16.120	16.610	16.220	2.958	28.960	22.000	22.870	0.838	0.260	-0.411	106.661%	1.428
2	09:52:12	0.353	134.100	667.700	28.950	T 657.700	16.340	16.630	16.220	3.069	29.520	21.130	23.020	0.928	0.181	-0.352	108.665%	1.416
3	09:53:15	0.359	137.200	667.700	28.450	T 648.700	16.110	16.410	16.430	2.889	29.120	21.600	22.600	1.075	0.449	-0.234	109.071%	1.423
x		0.357	132.700	663.200	28.630	T 651.400	16.190	16.550	16.290	2.972	29.200	21.580	22.830	0.947	0.296	-0.332	108.132%	1.423
σ		0.004	5.370	7.834	0.279	T 5.420	0.131	0.121	0.121	0.090	0.290	0.438	0.212	0.120	0.138	0.090	1.290%	0.006

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**A. APANAVAGE**	**DATE:**	**SEPTEMBER 1, 2011**
FROM:	**LEANNE GANSER**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION - VOC/SVOC/TPH (GASOLINE & DIESEL)**
MARTIN STATE AIRPORT – GREATER STRAWBERRY POINT
SAMPLE DELIVERY GROUP (SDG) – 240-1287-1

SAMPLES: 4/Water/VOC/

GSP-MW-4-062011 GSP-MW-5-062011 GSP-MW-6-062011 TB-062011

3/Water/SVOC/TPH

GSP-MW-4-062011 GSP-MW-5-062011 GSP-MW-6-062011

Overview

The sample set for Greater Strawberry Point, SDG 240-1287-1 consisted of three (3) aqueous environmental samples analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and total petroleum hydrocarbons (TPHs) gasoline and diesel. One (1) trip blank was analyzed for VOCs.

The samples were collected on June 20, 2011 and analyzed by Test America Laboratories Inc. All analyses were conducted in accordance with SW-846 Methods 8260B for VOCs, 8270D for SVOCs, and 8015B for TPH (gasoline and diesel) analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The VOC initial calibration relative response factors (RRFs) for tert-butyl alcohol and vinyl acetate were less than the 0.05 quality control limit on 05/29/2011 for instrument A3UX16 and the continuing calibrations on 05/29/2011 at 17:29 and 6/29/2011 at12:41. The nondetected tert-butyl alcohol and vinyl acetate results were qualified as rejected (UR) in all samples.

Minor

- VOC continuing calibration percent difference (%D) was >20% (but <50%) for acetone on 06/29/2011 at 12:41 affecting all samples. Positive results were qualified as estimated, "J". No action was taken for nondetected results.

- TPH as gasoline was present in the laboratory method blank the following maximum concentration:

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
TPH as gasoline	30.9	155

An action level of 5x the maximum concentration of contaminant was used in order to evaluate the affected samples. Positive results less than the action limit were qualified as (B) due to blank contamination.

- Positive results reported below the quantitation limit but above the method detection limit (MDL) were qualified as estimated, (J).

Notes

Form 1s of the VOC Tentatively Identified Compounds (TICs) identified by the laboratory are included in this SDG in Appendix B. TICs were qualified as presumptively present.

In the VOC continuing calibration %Ds for 2-chloroethyl vinyl ether, bromoform, bromomethane, methyl tert-butyl ether, 2,2-dichloropropane, 1,2-dibromo-3-chloropropane, 1,2,4-trichlorobenzene, naphthalene, and 1,2,3-trichlorobenzene were >20% (but <50%) on 06/29/2011 at 12:41. No action was taken as all results were nondetects.

In the VOC continuing calibration %Ds for ethyl tert-butyl ether and tert-amyl methyl ether were >20% (but <50%) on 06/29/2011 at 13;04. No action was taken as all results were nondetects.

The following VOC contaminant was detected in the laboratory method blanks at the following maximum concentration:

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
Naphthalene	0.264	1.32

Five times the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. No action was necessary as all results for naphthalene were nondetects.

The laboratory control sample (LCS) had a percent recovery (%R) less than the lower quality control limit for tert-buyl alcohol. No action was taken as the results were qualified as rejected due to calibration noncompliance.

Matrix spike and matrix spike duplicate percent recovery was 0% for 2-chloroethyl vinyl ether and less than quality control limits for tert-butyl alcohol. No action was taken because the sample analyzed was not included in this SDG.

Nondetected results are reported to the method detection limit (MDL).

Executive Summary

Laboratory Performance: The VOC RRFs for tert-butyl alcohol and vinyl acetate were less than the quality control limit resulting in the rejection of nondetected results. TPH as gasoline results were qualified due to method blank contamination. Continuing calibration verification percent differences exceeded quality control limits in the VOC fraction for acetone resulting in the qualification data.

Other Factors Affecting Data Quality: Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Leanne Ganser
Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS-GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279	NSAMPLE	GSP-MW-4-062011			GSP-MW-5-062011			GSP-MW-6-062011			TB-062011		
SDG: 240-1287-1	LAB_ID	240-1287-2			240-1287-3			240-1287-4			240-1287-1		
FRACTION: OV	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011			6/20/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		0.57	U		0.57	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U		0.32	U		0.32	U	
ACETONE		1.5	J	CP	2	J	CP	2.6	J	CP	1.1	U	
BENZENE		0.13	J	P	0.13	U		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-4-062011	GSP-MW-5-062011	GSP-MW-6-062011	TB-062011
SDG: 240-1287-1	LAB_ID	240-1287-2	240-1287-3	240-1287-4	240-1287-1
FRACTION: OV	SAMP_DATE	6/20/2011	6/20/2011	6/20/2011	6/20/2011
MEDIA: WATER	QC_TYPE	NM	NM	NM	NM
	UNITS	UG/L	UG/L	UG/L	UG/L
	PCT_SOLIDS	0.0	0.0	0.0	0.0
	DUP_OF				

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE	0.13	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE	0.13	U		2.6			0.13	U		0.13	U	
CHLOROBENZENE	0.15	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE	0.18	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE	0.29	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM	0.16	U		0.92	J	P	0.16	U		0.16	U	
CHLOROMETHANE	0.3	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE	1.6			0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE	0.14	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE	0.28	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE	0.31	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER	1.5	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER	0.11	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE	0.17	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE	0.3	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE	0.13	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES	0.24	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER	0.17	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE	0.33	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE	0.24	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE	0.12	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE	0.14	U		0.14	U		0.14	U		0.14	U	
O-XYLENE	0.14	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE	0.13	U		0.13	U		0.13	U		0.13	U	
STYRENE	0.11	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER	0.067	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE	0.13	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL	3.9	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE	0.29	U		0.29	U		0.29	U		0.29	U	
TOLUENE	0.13	J	P	0.13	U		0.13	U		0.13	U	
TOTAL XYLENES	0.28	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE	0.19	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE	0.19	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE	6			0.17	U		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE	0.21	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-4-062011			GSP-MW-5-062011			GSP-MW-6-062011			TB-062011		
SDG: 240-1287-1	LAB_ID	240-1287-2			240-1287-3			240-1287-4			240-1287-1		
FRACTION: OV	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011			6/20/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.66	J	P	0.22	U		0.22	U		0.22	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-4-062011			GSP-MW-5-062011			GSP-MW-6-062011		
SDG: 240-1287-1	LAB_ID	240-1287-2			240-1287-3			240-1287-4		
FRACTION: TICOV	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1-PROPENE, 2-METHYL-					1.4	NJ	Z1			
SILANOL, DIMETHYL(1,1,2-TRIMETHYLPROPYL)		1.6	NJ	Z1						
SILANOL, TRIMETHYL-					1.1	NJ	Z1			
TERT-BUTYLDIMETHYLSILANOL								3	NJ	Z1

PROJ_NO: 03279 SDG: 240-1287-1 FRACTION: OS MEDIA: WATER	NSAMPLE	GSP-MW-4-062011			GSP-MW-5-062011			GSP-MW-6-062011		
	LAB_ID	240-1287-2			240-1287-3			240-1287-4		
	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011		
	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		0.76	U		0.8	U		0.76	U	
1,4-DIOXANE		0.47	U		0.49	U		0.47	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		0.38	U		0.4	U		0.38	U	
2,4,5-TRICHLOROPHENOL		0.29	U		0.3	U		0.29	U	
2,4,6-TRICHLOROPHENOL		0.76	U		0.8	U		0.76	U	
2,4-DICHLOROPHENOL		0.76	U		0.8	U		0.76	U	
2,4-DIMETHYLPHENOL		0.76	U		0.8	U		0.76	U	
2,4-DINITROPHENOL		2.3	U		2.4	U		2.3	U	
2,4-DINITROTOLUENE		0.26	U		0.27	U		0.26	U	
2,6-DINITROTOLUENE		0.76	U		0.8	U		0.76	U	
2-CHLORONAPHTHALENE		0.095	U		0.1	U		0.095	U	
2-CHLOROPHENOL		0.28	U		0.29	U		0.28	U	
2-METHYLNAPHTHALENE		0.095	U		0.1	U		0.095	U	
2-METHYLPHENOL		0.76	U		0.8	U		0.76	U	
2-NITROANILINE		0.76	U		0.8	U		0.76	U	
2-NITROPHENOL		0.27	U		0.28	U		0.27	U	
3&4-METHYLPHENOL		0.71	U		0.75	U		0.71	U	
3,3'-DICHLOROBENZIDINE		0.35	U		0.37	U		0.35	U	
3-NITROANILINE		0.27	U		0.28	U		0.27	U	
4,6-DINITRO-2-METHYLPHENOL		2.3	U		2.4	U		2.3	U	
4-BROMOPHENYL PHENYL ETHER		0.76	U		0.8	U		0.76	U	
4-CHLORO-3-METHYLPHENOL		0.76	U		0.8	U		0.76	U	
4-CHLOROANILINE		0.76	U		0.8	U		0.76	U	
4-CHLOROPHENYL PHENYL ETHER		0.29	U		0.3	U		0.29	U	
4-NITROANILINE		0.76	U		0.8	U		0.76	U	
4-NITROPHENOL		2.3	U		2.4	U		2.3	U	
ACENAPHTHENE		0.095	U		0.1	U		0.095	U	
ACENAPHTHYLENE		0.095	U		0.1	U		0.095	U	
ACETOPHENONE		0.32	U		0.34	U		0.32	U	
ANTHRACENE		0.095	U		0.1	U		0.095	U	
ATRAZINE		0.32	U		0.34	U		0.32	U	
BENZALDEHYDE		0.37	U		0.39	U		0.37	U	
BENZO(A)ANTHRACENE		0.095	U		0.1	U		0.095	U	
BENZO(A)PYRENE		0.095	U		0.1	U		0.095	U	
BENZO(B)FLUORANTHENE		0.095	U		0.1	U		0.095	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-4-062011			GSP-MW-5-062011			GSP-MW-6-062011		
SDG: 240-1287-1	LAB_ID	240-1287-2			240-1287-3			240-1287-4		
FRACTION: OS	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		0.095	U		0.1	U		0.095	U	
BENZO(K)FLUORANTHENE		0.095	U		0.1	U		0.095	U	
BIS(2-CHLOROETHOXY)METHANE		0.3	U		0.32	U		0.3	U	
BIS(2-CHLOROETHYL)ETHER		0.095	U		0.1	U		0.095	U	
BIS(2-ETHYLHEXYL)PHTHALATE		0.76	U		0.8	U		0.76	U	
BUTYL BENZYL PHTHALATE		0.76	U		0.8	U		0.76	U	
CAPROLACTAM		0.76	U		0.8	U		0.76	U	
CARBAZOLE		0.27	U		0.28	U		0.27	U	
CHRYSENE		0.095	U		0.1	U		0.095	U	
DIBENZO(A,H)ANTHRACENE		0.095	U		0.1	U		0.095	U	
DIBENZOFURAN		0.095	U		0.1	U		0.095	U	
DIETHYL PHTHALATE		0.57	U		0.6	U		0.57	U	
DIMETHYL PHTHALATE		0.28	U		0.29	U		0.28	U	
DI-N-BUTYL PHTHALATE		0.64	U		0.67	U		0.64	U	
DI-N-OCTYL PHTHALATE		0.76	U		0.8	U		0.76	U	
FLUORANTHENE		0.095	U		0.1	U		0.095	U	
FLUORENE		0.095	U		0.1	U		0.095	U	
HEXACHLOROBENZENE		0.095	U		0.1	U		0.095	U	
HEXACHLOROBUTADIENE		0.26	U		0.27	U		0.26	U	
HEXACHLOROCYCLOPENTADIENE		0.76	U		0.8	U		0.76	U	
HEXACHLOROETHANE		0.76	U		0.8	U		0.76	U	
INDENO(1,2,3-CD)PYRENE		0.095	U		0.1	U		0.095	U	
ISOPHORONE		0.26	U		0.27	U		0.26	U	
NAPHTHALENE		0.095	U		0.1	U		0.095	U	
NITROBENZENE		0.038	U		0.04	U		0.038	U	
N-NITROSODIMETHYLAMINE		0.3	U		0.31	U		0.3	U	
N-NITROSO-DI-N-PROPYLAMINE		0.76	U		0.8	U		0.76	U	
N-NITROSODIPHENYLAMINE		0.3	U		0.31	U		0.3	U	
PENTACHLOROPHENOL		2.3	U		2.4	U		2.3	U	
PHENANTHRENE		0.095	U		0.1	U		0.095	U	
PHENOL		0.57	U		0.6	U		0.57	U	
PYRENE		0.095	U		0.1	U		0.095	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-4-062011			GSP-MW-5-062011			GSP-MW-6-062011		
SDG: 240-1287-1	LAB_ID	240-1287-2			240-1287-3			240-1287-4		
FRACTION: PET	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		230	U		1400			1600		
GASOLINE RANGE ORGANICS		36	B	A	37	B	A	32	B	A

Appendix B

Results as Reported by the Laboratory

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-4-062011**

Lab Sample ID: 240-1287-2
Client Matrix: Water

Date Sampled: 06/20/2011 1055
Date Received: 06/21/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-6573	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7332.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/29/2011 1543			Final Weight/Volume:	5 mL
Prep Date:	06/29/2011 1543				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	2.0	U	0.67	2.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	10	U	0.57	10
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	10	U	0.41	10
4-Chlorotoluene	1.0	U	0.18	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
4-Methyl-2-pentanone	10	U	0.32	10
Acetone	1.5	J	1.1	10
Benzene	0.13	J	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.6		0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromomethane	1.0	U	0.28	1.0
Bromochloromethane	1.0	U	0.29	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Bromodichloromethane	1.0	U	0.15	1.0
tert-Butyl alcohol	50	U	3.9	50

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: GSP-MW-4-062011

Lab Sample ID: 240-1287-2

Client Matrix: Water

Date Sampled: 06/20/2011 1055

Date Received: 06/21/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-6573	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7332.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/29/2011 1543			Final Weight/Volume:	5 mL
Prep Date:	06/29/2011 1543				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Diisopropyl ether	10	U	1.5	10
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	0.13	J	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	6.0		0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	0.66	J	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
tert-Butylbenzene	1.0	U	0.13	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	108		74 - 115
Dibromofluoromethane (Surr)	83		75 - 121
4-Bromofluorobenzene (Surr)	89		66 - 117
1,2-Dichloroethane-d4 (Surr)	88		63 - 129

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-4-062011**

Lab Sample ID: 240-1287-2
Client Matrix: Water

Date Sampled: 06/20/2011 1055
Date Received: 06/21/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-6573	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7332.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/29/2011 1543			Final Weight/Volume:	5 mL
Prep Date:	06/29/2011 1543				

Tentatively Identified Compounds **Number TIC's Found:** 1

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
55644-10-5	Silanol, dimethyl(1,1,2-trimethylpropyl)	4.64	1.6	T J N

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-5-062011**

Lab Sample ID: 240-1287-3
Client Matrix: Water

Date Sampled: 06/20/2011 1215
Date Received: 06/21/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-6573	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7333.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/29/2011 1606			Final Weight/Volume:	5 mL
Prep Date:	06/29/2011 1606				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	2.0	U	0.67	2.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	10	U	0.57	10
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	10	U	0.41	10
4-Chlorotoluene	1.0	U	0.18	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
4-Methyl-2-pentanone	10	U	0.32	10
Acetone	2.0	J	1.1	10
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	2.6		0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	0.92	J	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromomethane	1.0	U	0.28	1.0
Bromochloromethane	1.0	U	0.29	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Bromodichloromethane	1.0	U	0.15	1.0
tert-Butyl alcohol	50	U	3.9	50

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-5-062011**

Lab Sample ID: 240-1287-3
Client Matrix: Water

Date Sampled: 06/20/2011 1215
Date Received: 06/21/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-6573	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7333.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/29/2011 1606			Final Weight/Volume:	5 mL
Prep Date:	06/29/2011 1606				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Diisopropyl ether	10	U	1.5	10
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
tert-Butylbenzene	1.0	U	0.13	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	104		74 - 115
Dibromofluoromethane (Surr)	85		75 - 121
4-Bromofluorobenzene (Surr)	87		66 - 117
1,2-Dichloroethane-d4 (Surr)	88		63 - 129

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-5-062011**

Lab Sample ID: 240-1287-3
Client Matrix: Water

Date Sampled: 06/20/2011 1215
Date Received: 06/21/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-6573	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7333.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/29/2011 1606			Final Weight/Volume:	5 mL
Prep Date:	06/29/2011 1606				

Tentatively Identified Compounds **Number TIC's Found:** 2

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
115-11-7	1-Propene, 2-methyl-	1.89	1.4	T J N
1066-40-6	Silanol, trimethyl-	4.64	1.1	T J N

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: GSP-MW-6-062011

Lab Sample ID: 240-1287-4
Client Matrix: Water

Date Sampled: 06/20/2011 1455
Date Received: 06/21/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-6573	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7334.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/29/2011 1629			Final Weight/Volume:	5 mL
Prep Date:	06/29/2011 1629				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	2.0	U	0.67	2.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	10	U	0.57	10
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	10	U	0.41	10
4-Chlorotoluene	1.0	U	0.18	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
4-Methyl-2-pentanone	10	U	0.32	10
Acetone	2.6	J	1.1	10
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromomethane	1.0	U	0.28	1.0
Bromochloromethane	1.0	U	0.29	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Bromodichloromethane	1.0	U	0.15	1.0
tert-Butyl alcohol	50	U	3.9	50

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-6-062011**

Lab Sample ID: 240-1287-4
Client Matrix: Water

Date Sampled: 06/20/2011 1455
Date Received: 06/21/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-6573	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7334.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/29/2011 1629			Final Weight/Volume:	5 mL
Prep Date:	06/29/2011 1629				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Diisopropyl ether	10	U	1.5	10
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
tert-Butylbenzene	1.0	U	0.13	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	106		74 - 115
Dibromofluoromethane (Surr)	85		75 - 121
4-Bromofluorobenzene (Surr)	87		66 - 117
1,2-Dichloroethane-d4 (Surr)	92		63 - 129

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-6-062011**

Lab Sample ID: 240-1287-4
Client Matrix: Water

Date Sampled: 06/20/2011 1455
Date Received: 06/21/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-6573	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7334.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/29/2011 1629			Final Weight/Volume:	5 mL
Prep Date:	06/29/2011 1629				

Tentatively Identified Compounds **Number TIC's Found:** 1

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
18173-64-3	tert-Butyldimethylsilanol	4.64	3.0	T J N

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **TB-062011**

Lab Sample ID: 240-1287-1TB
Client Matrix: Water

Date Sampled: 06/20/2011 0000
Date Received: 06/21/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-6573	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7331.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/29/2011 1521			Final Weight/Volume:	5 mL
Prep Date:	06/29/2011 1521				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.0	U	0.23	1.0
1,1,1-Trichloroethane	1.0	U	0.22	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.18	1.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.15	1.0
1,1-Dichloroethene	1.0	U	0.19	1.0
1,1-Dichloropropene	1.0	U	0.13	1.0
1,2,3-Trichlorobenzene	1.0	U	0.17	1.0
1,2,3-Trichloropropane	1.0	U	0.43	1.0
1,2,3-Trimethylbenzene	5.0	U	0.0059	5.0
1,2,4-Trichlorobenzene	1.0	U	0.15	1.0
1,2,4-Trimethylbenzene	1.0	U	0.12	1.0
1,2-Dibromo-3-Chloropropane	2.0	U	0.67	2.0
1,2-Dichlorobenzene	1.0	U	0.13	1.0
1,2-Dichloroethane	1.0	U	0.22	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.14	1.0
1,3-Dichloropropane	1.0	U	0.16	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
2,2-Dichloropropane	1.0	U	0.13	1.0
2-Butanone	10	U	0.57	10
2-Chloroethyl vinyl ether	10	U	0.99	10
2-Chlorotoluene	1.0	U	0.11	1.0
2-Hexanone	10	U	0.41	10
4-Chlorotoluene	1.0	U	0.18	1.0
p-Isopropyltoluene	1.0	U	0.12	1.0
4-Methyl-2-pentanone	10	U	0.32	10
Acetone	10	U	1.1	10
Benzene	1.0	U	0.13	1.0
Bromobenzene	1.0	U	0.13	1.0
Bromoform	1.0	U	0.64	1.0
Bromomethane	1.0	U	0.41	1.0
Carbon disulfide	1.0	U	0.13	1.0
Carbon tetrachloride	1.0	U	0.13	1.0
Chlorobenzene	1.0	U	0.15	1.0
Dibromochloromethane	1.0	U	0.18	1.0
Chloroethane	1.0	U	0.29	1.0
Chloroform	1.0	U	0.16	1.0
Chloromethane	1.0	U	0.30	1.0
cis-1,2-Dichloroethene	1.0	U	0.17	1.0
cis-1,3-Dichloropropene	1.0	U	0.14	1.0
Dibromomethane	1.0	U	0.28	1.0
Bromochloromethane	1.0	U	0.29	1.0
Dichlorodifluoromethane	1.0	U	0.31	1.0
Bromodichloromethane	1.0	U	0.15	1.0
tert-Butyl alcohol	50	U	3.9	50

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **TB-062011**

Lab Sample ID: 240-1287-1TB

Client Matrix: Water

Date Sampled: 06/20/2011 0000

Date Received: 06/21/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-6573	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7331.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/29/2011 1521			Final Weight/Volume:	5 mL
Prep Date:	06/29/2011 1521				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylbenzene	1.0	U	0.17	1.0
Hexachlorobutadiene	1.0	U	0.30	1.0
Diisopropyl ether	10	U	1.5	10
Isopropylbenzene	1.0	U	0.13	1.0
Methyl tert-butyl ether	5.0	U	0.17	5.0
Methylene Chloride	1.0	U	0.33	1.0
m-Xylene & p-Xylene	2.0	U	0.24	2.0
Naphthalene	1.0	U	0.24	1.0
n-Butylbenzene	1.0	U	0.12	1.0
n-Propylbenzene	1.0	U	0.14	1.0
o-Xylene	1.0	U	0.14	1.0
sec-Butylbenzene	1.0	U	0.13	1.0
Styrene	1.0	U	0.11	1.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.067	5.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.11	5.0
Tetrachloroethene	1.0	U	0.29	1.0
Toluene	1.0	U	0.13	1.0
trans-1,2-Dichloroethene	1.0	U	0.19	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.17	1.0
Trichlorofluoromethane	1.0	U	0.21	1.0
Vinyl acetate	2.0	U	0.19	2.0
Vinyl chloride	1.0	U	0.22	1.0
Xylenes, Total	2.0	U	0.28	2.0
tert-Butylbenzene	1.0	U	0.13	1.0
1,2-Dibromoethane	1.0	U	0.24	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	107		74 - 115
Dibromofluoromethane (Surr)	85		75 - 121
4-Bromofluorobenzene (Surr)	88		66 - 117
1,2-Dichloroethane-d4 (Surr)	88		63 - 129

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **TB-062011**

Lab Sample ID: 240-1287-1TB
Client Matrix: Water

Date Sampled: 06/20/2011 0000
Date Received: 06/21/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-6573	Instrument ID:	A3UX16
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXM7331.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/29/2011 1521			Final Weight/Volume:	5 mL
Prep Date:	06/29/2011 1521				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: GSP-MW-4-062011

Lab Sample ID: 240-1287-2
Client Matrix: Water

Date Sampled: 06/20/2011 1055
Date Received: 06/21/2011 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-6711	Instrument ID:	A4HP10
Prep Method:	3510C	Prep Batch:	240-5615	Lab File ID:	0630008.D
Dilution:	1.0			Initial Weight/Volume:	1050 mL
Analysis Date:	06/30/2011 1240			Final Weight/Volume:	2.00 mL
Prep Date:	06/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acenaphthene	0.19	U	0.095	0.19
Acenaphthylene	0.19	U	0.095	0.19
Acetophenone	0.95	U	0.32	0.95
Anthracene	0.19	U	0.095	0.19
Atrazine	0.95	U	0.32	0.95
Benzaldehyde	0.95	U	0.37	0.95
Benzo[a]anthracene	0.19	U	0.095	0.19
Benzo[a]pyrene	0.19	U	0.095	0.19
Benzo[b]fluoranthene	0.19	U	0.095	0.19
Benzo[g,h,i]perylene	0.19	U	0.095	0.19
Benzo[k]fluoranthene	0.19	U	0.095	0.19
1,1'-Biphenyl	0.95	U	0.76	0.95
Bis(2-chloroethoxy)methane	0.95	U	0.30	0.95
Bis(2-chloroethyl)ether	0.95	U	0.095	0.95
Bis(2-ethylhexyl) phthalate	1.9	U	0.76	1.9
4-Bromophenyl phenyl ether	1.9	U	0.76	1.9
Butyl benzyl phthalate	0.95	U	0.76	0.95
Caprolactam	4.8	U	0.76	4.8
Carbazole	0.95	U	0.27	0.95
4-Chloroaniline	1.9	U	0.76	1.9
4-Chloro-3-methylphenol	1.9	U	0.76	1.9
2-Chloronaphthalene	0.95	U	0.095	0.95
2-Chlorophenol	0.95	U	0.28	0.95
4-Chlorophenyl phenyl ether	1.9	U	0.29	1.9
Chrysene	0.19	U	0.095	0.19
Dibenzo(a,h)anthracene	0.19	U	0.095	0.19
Dibenzofuran	0.95	U	0.095	0.95
3,3'-Dichlorobenzidine	4.8	U	0.35	4.8
2,4-Dichlorophenol	1.9	U	0.76	1.9
Diethyl phthalate	0.95	U	0.57	0.95
2,4-Dimethylphenol	1.9	U	0.76	1.9
Dimethyl phthalate	0.95	U	0.28	0.95
Di-n-butyl phthalate	0.95	U	0.64	0.95
4,6-Dinitro-2-methylphenol	4.8	U	2.3	4.8
2,4-Dinitrophenol	4.8	U	2.3	4.8
2,4-Dinitrotoluene	4.8	U	0.26	4.8
2,6-Dinitrotoluene	4.8	U	0.76	4.8
Di-n-octyl phthalate	0.95	U	0.76	0.95
Fluoranthene	0.19	U	0.095	0.19
Fluorene	0.19	U	0.095	0.19
Hexachlorobenzene	0.19	U	0.095	0.19
Hexachlorobutadiene	0.95	U	0.26	0.95
Hexachlorocyclopentadiene	9.5	U	0.76	9.5
Hexachloroethane	0.95	U	0.76	0.95
Indeno[1,2,3-cd]pyrene	0.19	U	0.095	0.19
Isophorone	0.95	U	0.26	0.95

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-4-062011**

Lab Sample ID: 240-1287-2
Client Matrix: Water

Date Sampled: 06/20/2011 1055
Date Received: 06/21/2011 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-6711	Instrument ID:	A4HP10
Prep Method:	3510C	Prep Batch:	240-5615	Lab File ID:	0630008.D
Dilution:	1.0			Initial Weight/Volume:	1050 mL
Analysis Date:	06/30/2011 1240			Final Weight/Volume:	2.00 mL
Prep Date:	06/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Methylnaphthalene	0.19	U	0.095	0.19
2-Methylphenol	0.95	U	0.76	0.95
1,4-Dioxane	0.95	U	0.47	0.95
3 & 4 Methylphenol	1.9	U	0.71	1.9
Naphthalene	0.19	U	0.095	0.19
2-Nitroaniline	1.9	U	0.76	1.9
3-Nitroaniline	1.9	U	0.27	1.9
4-Nitroaniline	1.9	U	0.76	1.9
Nitrobenzene	0.95	U	0.038	0.95
2-Nitrophenol	1.9	U	0.27	1.9
4-Nitrophenol	4.8	U	2.3	4.8
N-Nitrosodi-n-propylamine	0.95	U	0.76	0.95
N-Nitrosodiphenylamine	0.95	U	0.30	0.95
2,2'-oxybis[1-chloropropane]	0.95	U	0.38	0.95
Pentachlorophenol	4.8	U	2.3	4.8
Phenanthrene	0.19	U	0.095	0.19
Phenol	0.95	U	0.57	0.95
Pyrene	0.19	U	0.095	0.19
2,4,5-Trichlorophenol	4.8	U	0.29	4.8
2,4,6-Trichlorophenol	4.8	U	0.76	4.8
N-Nitrosodimethylamine	0.95	U	0.30	0.95

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	50		28 - 110
2-Fluorophenol (Surr)	52		10 - 110
Nitrobenzene-d5 (Surr)	50		27 - 111
Phenol-d5 (Surr)	55		10 - 110
Terphenyl-d14 (Surr)	58		37 - 119
2,4,6-Tribromophenol (Surr)	56		22 - 120

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-5-062011**

Lab Sample ID: 240-1287-3
Client Matrix: Water

Date Sampled: 06/20/2011 1215
Date Received: 06/21/2011 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-6435	Instrument ID:	A4HP10
Prep Method:	3510C	Prep Batch:	240-5615	Lab File ID:	0628012.D
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	06/28/2011 1844			Final Weight/Volume:	2.00 mL
Prep Date:	06/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acenaphthene	0.20	U	0.10	0.20
Acenaphthylene	0.20	U	0.10	0.20
Acetophenone	1.0	U	0.34	1.0
Anthracene	0.20	U	0.10	0.20
Atrazine	1.0	U	0.34	1.0
Benzaldehyde	1.0	U	0.39	1.0
Benzo[a]anthracene	0.20	U	0.10	0.20
Benzo[a]pyrene	0.20	U	0.10	0.20
Benzo[b]fluoranthene	0.20	U	0.10	0.20
Benzo[g,h,i]perylene	0.20	U	0.10	0.20
Benzo[k]fluoranthene	0.20	U	0.10	0.20
1,1'-Biphenyl	1.0	U	0.80	1.0
Bis(2-chloroethoxy)methane	1.0	U	0.32	1.0
Bis(2-chloroethyl)ether	1.0	U	0.10	1.0
Bis(2-ethylhexyl) phthalate	2.0	U	0.80	2.0
4-Bromophenyl phenyl ether	2.0	U	0.80	2.0
Butyl benzyl phthalate	1.0	U	0.80	1.0
Caprolactam	5.0	U	0.80	5.0
Carbazole	1.0	U	0.28	1.0
4-Chloroaniline	2.0	U	0.80	2.0
4-Chloro-3-methylphenol	2.0	U	0.80	2.0
2-Chloronaphthalene	1.0	U	0.10	1.0
2-Chlorophenol	1.0	U	0.29	1.0
4-Chlorophenyl phenyl ether	2.0	U	0.30	2.0
Chrysene	0.20	U	0.10	0.20
Dibenzo(a,h)anthracene	0.20	U	0.10	0.20
Dibenzofuran	1.0	U	0.10	1.0
3,3'-Dichlorobenzidine	5.0	U	0.37	5.0
2,4-Dichlorophenol	2.0	U	0.80	2.0
Diethyl phthalate	1.0	U	0.60	1.0
2,4-Dimethylphenol	2.0	U	0.80	2.0
Dimethyl phthalate	1.0	U	0.29	1.0
Di-n-butyl phthalate	1.0	U	0.67	1.0
4,6-Dinitro-2-methylphenol	5.0	U	2.4	5.0
2,4-Dinitrophenol	5.0	U	2.4	5.0
2,4-Dinitrotoluene	5.0	U	0.27	5.0
2,6-Dinitrotoluene	5.0	U	0.80	5.0
Di-n-octyl phthalate	1.0	U	0.80	1.0
Fluoranthene	0.20	U	0.10	0.20
Fluorene	0.20	U	0.10	0.20
Hexachlorobenzene	0.20	U	0.10	0.20
Hexachlorobutadiene	1.0	U	0.27	1.0
Hexachlorocyclopentadiene	10	U	0.80	10
Hexachloroethane	1.0	U	0.80	1.0
Indeno[1,2,3-cd]pyrene	0.20	U	0.10	0.20
Isophorone	1.0	U	0.27	1.0

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-5-062011**

Lab Sample ID: 240-1287-3
Client Matrix: Water

Date Sampled: 06/20/2011 1215
Date Received: 06/21/2011 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-6435	Instrument ID:	A4HP10
Prep Method:	3510C	Prep Batch:	240-5615	Lab File ID:	0628012.D
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Analysis Date:	06/28/2011 1844			Final Weight/Volume:	2.00 mL
Prep Date:	06/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Methylnaphthalene	0.20	U	0.10	0.20
2-Methylphenol	1.0	U	0.80	1.0
1,4-Dioxane	1.0	U	0.49	1.0
3 & 4 Methylphenol	2.0	U	0.75	2.0
Naphthalene	0.20	U	0.10	0.20
2-Nitroaniline	2.0	U	0.80	2.0
3-Nitroaniline	2.0	U	0.28	2.0
4-Nitroaniline	2.0	U	0.80	2.0
Nitrobenzene	1.0	U	0.040	1.0
2-Nitrophenol	2.0	U	0.28	2.0
4-Nitrophenol	5.0	U	2.4	5.0
N-Nitrosodi-n-propylamine	1.0	U	0.80	1.0
N-Nitrosodiphenylamine	1.0	U	0.31	1.0
2,2'-oxybis[1-chloropropane]	1.0	U	0.40	1.0
Pentachlorophenol	5.0	U	2.4	5.0
Phenanthrene	0.20	U	0.10	0.20
Phenol	1.0	U	0.60	1.0
Pyrene	0.20	U	0.10	0.20
2,4,5-Trichlorophenol	5.0	U	0.30	5.0
2,4,6-Trichlorophenol	5.0	U	0.80	5.0
N-Nitrosodimethylamine	1.0	U	0.31	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	51		28 - 110
2-Fluorophenol (Surr)	53		10 - 110
Nitrobenzene-d5 (Surr)	49		27 - 111
Phenol-d5 (Surr)	48		10 - 110
Terphenyl-d14 (Surr)	62		37 - 119
2,4,6-Tribromophenol (Surr)	61		22 - 120

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: GSP-MW-6-062011

Lab Sample ID: 240-1287-4
Client Matrix: Water

Date Sampled: 06/20/2011 1455
Date Received: 06/21/2011 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-6435	Instrument ID:	A4HP10
Prep Method:	3510C	Prep Batch:	240-5615	Lab File ID:	0628013.D
Dilution:	1.0			Initial Weight/Volume:	1050 mL
Analysis Date:	06/28/2011 1903			Final Weight/Volume:	2.00 mL
Prep Date:	06/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acenaphthene	0.19	U	0.095	0.19
Acenaphthylene	0.19	U	0.095	0.19
Acetophenone	0.95	U	0.32	0.95
Anthracene	0.19	U	0.095	0.19
Atrazine	0.95	U	0.32	0.95
Benzaldehyde	0.95	U	0.37	0.95
Benzo[a]anthracene	0.19	U	0.095	0.19
Benzo[a]pyrene	0.19	U	0.095	0.19
Benzo[b]fluoranthene	0.19	U	0.095	0.19
Benzo[g,h,i]perylene	0.19	U	0.095	0.19
Benzo[k]fluoranthene	0.19	U	0.095	0.19
1,1'-Biphenyl	0.95	U	0.76	0.95
Bis(2-chloroethoxy)methane	0.95	U	0.30	0.95
Bis(2-chloroethyl)ether	0.95	U	0.095	0.95
Bis(2-ethylhexyl) phthalate	1.9	U	0.76	1.9
4-Bromophenyl phenyl ether	1.9	U	0.76	1.9
Butyl benzyl phthalate	0.95	U	0.76	0.95
Caprolactam	4.8	U	0.76	4.8
Carbazole	0.95	U	0.27	0.95
4-Chloroaniline	1.9	U	0.76	1.9
4-Chloro-3-methylphenol	1.9	U	0.76	1.9
2-Chloronaphthalene	0.95	U	0.095	0.95
2-Chlorophenol	0.95	U	0.28	0.95
4-Chlorophenyl phenyl ether	1.9	U	0.29	1.9
Chrysene	0.19	U	0.095	0.19
Dibenzo(a,h)anthracene	0.19	U	0.095	0.19
Dibenzofuran	0.95	U	0.095	0.95
3,3'-Dichlorobenzidine	4.8	U	0.35	4.8
2,4-Dichlorophenol	1.9	U	0.76	1.9
Diethyl phthalate	0.95	U	0.57	0.95
2,4-Dimethylphenol	1.9	U	0.76	1.9
Dimethyl phthalate	0.95	U	0.28	0.95
Di-n-butyl phthalate	0.95	U	0.64	0.95
4,6-Dinitro-2-methylphenol	4.8	U	2.3	4.8
2,4-Dinitrophenol	4.8	U	2.3	4.8
2,4-Dinitrotoluene	4.8	U	0.26	4.8
2,6-Dinitrotoluene	4.8	U	0.76	4.8
Di-n-octyl phthalate	0.95	U	0.76	0.95
Fluoranthene	0.19	U	0.095	0.19
Fluorene	0.19	U	0.095	0.19
Hexachlorobenzene	0.19	U	0.095	0.19
Hexachlorobutadiene	0.95	U	0.26	0.95
Hexachlorocyclopentadiene	9.5	U	0.76	9.5
Hexachloroethane	0.95	U	0.76	0.95
Indeno[1,2,3-cd]pyrene	0.19	U	0.095	0.19
Isophorone	0.95	U	0.26	0.95

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-6-062011**

Lab Sample ID: 240-1287-4
Client Matrix: Water

Date Sampled: 06/20/2011 1455
Date Received: 06/21/2011 0940

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-6435	Instrument ID:	A4HP10
Prep Method:	3510C	Prep Batch:	240-5615	Lab File ID:	0628013.D
Dilution:	1.0			Initial Weight/Volume:	1050 mL
Analysis Date:	06/28/2011 1903			Final Weight/Volume:	2.00 mL
Prep Date:	06/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
2-Methylnaphthalene	0.19	U	0.095	0.19
2-Methylphenol	0.95	U	0.76	0.95
1,4-Dioxane	0.95	U	0.47	0.95
3 & 4 Methylphenol	1.9	U	0.71	1.9
Naphthalene	0.19	U	0.095	0.19
2-Nitroaniline	1.9	U	0.76	1.9
3-Nitroaniline	1.9	U	0.27	1.9
4-Nitroaniline	1.9	U	0.76	1.9
Nitrobenzene	0.95	U	0.038	0.95
2-Nitrophenol	1.9	U	0.27	1.9
4-Nitrophenol	4.8	U	2.3	4.8
N-Nitrosodi-n-propylamine	0.95	U	0.76	0.95
N-Nitrosodiphenylamine	0.95	U	0.30	0.95
2,2'-oxybis[1-chloropropane]	0.95	U	0.38	0.95
Pentachlorophenol	4.8	U	2.3	4.8
Phenanthrene	0.19	U	0.095	0.19
Phenol	0.95	U	0.57	0.95
Pyrene	0.19	U	0.095	0.19
2,4,5-Trichlorophenol	4.8	U	0.29	4.8
2,4,6-Trichlorophenol	4.8	U	0.76	4.8
N-Nitrosodimethylamine	0.95	U	0.30	0.95

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	54		28 - 110
2-Fluorophenol (Surr)	56		10 - 110
Nitrobenzene-d5 (Surr)	53		27 - 111
Phenol-d5 (Surr)	55		10 - 110
Terphenyl-d14 (Surr)	53		37 - 119
2,4,6-Tribromophenol (Surr)	64		22 - 120

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-4-062011**

Lab Sample ID: 240-1287-2
Client Matrix: Water

Date Sampled: 06/20/2011 1055
Date Received: 06/21/2011 0940

8015B Diesel Range Organics (DRO) (GC)

Analysis Method:	8015B	Analysis Batch:	240-6024	Instrument ID:	A2HP14F
Prep Method:	3520C	Prep Batch:	240-5625	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	5.00 mL
Analysis Date:	06/24/2011 1951			Injection Volume:	1 uL
Prep Date:	06/22/2011 0921			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)	480	U	230	480

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	37		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-4-062011**

Lab Sample ID: 240-1287-2
Client Matrix: Water

Date Sampled: 06/20/2011 1055
Date Received: 06/21/2011 0940

8015B Gasoline Range Organics - (GC)

Analysis Method:	8015B	Analysis Batch:	240-6019	Instrument ID:	YPID
Prep Method:	5030B		N/A	Initial Weight/Volume:	5 mL
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/24/2011 1830			Injection Volume:	
Prep Date:	06/24/2011 1830			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C6-C10)	36	J B	25	100

Surrogate	%Rec	Qualifier	Acceptance Limits
Trifluorotoluene (Surr)	71		10 - 150

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-5-062011**

Lab Sample ID: 240-1287-3
Client Matrix: Water

Date Sampled: 06/20/2011 1215
Date Received: 06/21/2011 0940

8015B Diesel Range Organics (DRO) (GC)

Analysis Method:	8015B	Analysis Batch:	240-6024	Instrument ID:	A2HP14F
Prep Method:	3520C	Prep Batch:	240-5625	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	5.00 mL
Analysis Date:	06/24/2011 2015			Injection Volume:	1 uL
Prep Date:	06/22/2011 0921			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)	1400		230	480

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	46		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-5-062011**

Lab Sample ID: 240-1287-3
Client Matrix: Water

Date Sampled: 06/20/2011 1215
Date Received: 06/21/2011 0940

8015B Gasoline Range Organics - (GC)

Analysis Method:	8015B	Analysis Batch:	240-6019	Instrument ID:	YPID
Prep Method:	5030B		N/A	Initial Weight/Volume:	5 mL
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/24/2011 2028			Injection Volume:	
Prep Date:	06/24/2011 2028			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C6-C10)	37	J B	25	100

Surrogate	%Rec	Qualifier	Acceptance Limits
Trifluorotoluene (Surr)	75		10 - 150

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-6-062011**

Lab Sample ID: 240-1287-4
Client Matrix: Water

Date Sampled: 06/20/2011 1455
Date Received: 06/21/2011 0940

8015B Diesel Range Organics (DRO) (GC)

Analysis Method:	8015B	Analysis Batch:	240-6024	Instrument ID:	A2HP14F
Prep Method:	3520C	Prep Batch:	240-5625	Initial Weight/Volume:	1050 mL
Dilution:	1.0			Final Weight/Volume:	5.00 mL
Analysis Date:	06/24/2011 2039			Injection Volume:	1 uL
Prep Date:	06/22/2011 0921			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)	1600		230	480

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	48		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-6-062011**

Lab Sample ID: 240-1287-4
Client Matrix: Water

Date Sampled: 06/20/2011 1455
Date Received: 06/21/2011 0940

8015B Gasoline Range Organics - (GC)

Analysis Method:	8015B	Analysis Batch:	240-6019	Instrument ID:	YPID
Prep Method:	5030B		N/A	Initial Weight/Volume:	5 mL
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/24/2011 2107			Injection Volume:	
Prep Date:	06/24/2011 2107			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C6-C10)	32	J B	25	100

Surrogate	%Rec	Qualifier	Acceptance Limits
Trifluorotoluene (Surr)	101		10 - 150

Appendix C

Support Documentation

HOLDTIM

PROJ_NO: 03279

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1287-1	HG	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	07/07/2011	07/08/2011	17	1	18
240-1287-1	HG	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	07/07/2011	07/08/2011	17	1	18
240-1287-1	HG	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	07/07/2011	07/08/2011	17	1	18
240-1287-1	M	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	07/07/2011	07/16/2011	17	9	26
240-1287-1	M	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	07/07/2011	07/16/2011	17	9	26
240-1287-1	M	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	07/07/2011	07/16/2011	17	9	26
240-1287-1	HGF	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	07/07/2011	07/08/2011	17	1	18
240-1287-1	HGF	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	07/07/2011	07/08/2011	17	1	18
240-1287-1	HGF	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	07/07/2011	07/08/2011	17	1	18
240-1287-1	MF	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	07/07/2011	07/16/2011	17	9	26
240-1287-1	MF	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	07/07/2011	08/04/2011	17	28	45
240-1287-1	MF	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	07/07/2011	07/16/2011	17	9	26
240-1287-1	OS	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	06/22/2011	06/28/2011	2	6	8
240-1287-1	OS	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	06/22/2011	06/30/2011	2	8	10
240-1287-1	OS	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	06/22/2011	06/28/2011	2	6	8
240-1287-1	OV	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	06/29/2011	06/29/2011	9	0	9

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1287-1	OV	UG/L	TB-062011	240-1287-1	TB	06/20/2011	06/29/2011	06/29/2011	9	0	9
240-1287-1	OV	UG/L	TB-062011	240-1287-1	NM	06/20/2011	06/29/2011	06/29/2011	9	0	9
240-1287-1	OV	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	06/29/2011	06/29/2011	9	0	9
240-1287-1	OV	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	06/29/2011	06/29/2011	9	0	9
240-1287-1	DRO	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	06/22/2011	06/24/2011	2	2	4
240-1287-1	DRO	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	06/22/2011	06/24/2011	2	2	4
240-1287-1	DRO	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	06/22/2011	06/24/2011	2	2	4
240-1287-1	GRO	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	06/24/2011	06/24/2011	4	0	4
240-1287-1	GRO	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	06/24/2011	06/24/2011	4	0	4
240-1287-1	GRO	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	06/24/2011	06/24/2011	4	0	4
240-1287-1	TPH	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	06/24/2011	06/24/2011	4	0	4
240-1287-1	TPH	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	06/24/2011	06/24/2011	4	0	4
240-1287-1	TPH	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	06/22/2011	06/24/2011	2	2	4
240-1287-1	TPH	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	06/22/2011	06/24/2011	2	2	4
240-1287-1	TPH	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	06/24/2011	06/24/2011	4	0	4
240-1287-1	TPH	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	06/22/2011	06/24/2011	2	2	4

CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: MSA Greater Strawberry Point PH. II 2011

Report Number: 240-1287-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/21/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6 C.

Multiple TestAmerica laboratories were used to support this project. Narrative for TestAmerica West Sacramento (Perchlorate) is provided in the lab's report in the Subcontract section of this report. TestAmerica Burlington's narrative for ICP/MS Metals is incorporated herein. See the Method Summary for additional information.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples TB-062011 (240-1287-1), GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/29/2011.

Naphthalene was detected in method blank MB 240-6573/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The laboratory control sample for batch 240-6573/4 failed the recovery criteria low for tert-Butyl alcohol, and exceeded control limits for 2Methyl-2propanol. 2Methyl-2propanol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for this analyte. These results have been reported and qualified. Refer to the QC report for details.

No other difficulties were encountered during the volatiles analyses. All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for Semivolates in accordance with EPA SW 8270D. The samples were analyzed on 06/28/2011 and 06/30/2011.

There was no client requested matrix spike/matrix spike duplicate (MS/MSD) for batch 5615.

No other difficulties were encountered during the semi-volatiles analyses. All quality control parameters were within the acceptance limits.

GRO (C6-C10)
Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for gas range organics in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 06/24/2011.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-6019/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DRO (C10-C32)
Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for Diesel Range Organics (DRO) in accordance with EPA Method 8015B. The samples were analyzed on 06/24/2011.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

There was no client requested matrix spike/matrix spike duplicate (MS/MSD) for batch 5625.

No other difficulties were encountered during the Diesel Range Organics (DRO) analyses. All quality control parameters were within the acceptance limits.

METALS (ICPMS)
Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 07/16/2011 and 08/04/2011.

The internal standard for As, Mo, and Se were re-associated from Y to In for analytical sequence 080111-06b, due to the presence of isobaric interference on the Y line. All results in the batch for As, Mo, and Se are based on internal standard responses for Indium.

A deviation from the Standard Operating Procedure (SOP) occurred. Eleven injections were analyzed between CCB26 and CCV38. Bracketing CCV/CCB were within control limits. The eleventh sample was not reported from this batch 21675. The proceeding ten (10) samples were reported. The following samples were reported in this job: GSP-MW-6-062011 (240-1287-4 SD), (CCV 200-21675/38), GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4)

The internal standard for As, Mo, and Se were re-associated from Y to In for analytical sequence 080111-06b, due to the presence of isobaric interference on the Y line. Data flags in batch 21765 for Y internal standard failures were removed. All results in the batch for As, Mo, and Se are based on internal standard responses for Indium.

A negative result was observed at the magnitude of the RL for Nickel in sample GSP-MW-6-062011 (240-1287-4).

The internal standard In was associated with As, Mo, and Se in analytical sequence 080411-02E. All injections results for As, Mo, and Se in the sequence, 080411-02E, and LIMS batch, 22993, were calculated based upon the Indium internal standard response. Yttrium was disassociated to sample results for these elements due to the possibility of isobaric interference

No other difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL METALS (ICPMS)
Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for total metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 07/16/2011.

Several analytes were detected in method blank MB 200-20966/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)
Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/08/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/08/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 010140
Address: 20251 Century Blvd Ste 200	Telephone: (301) 528-5552	Telephone: (703) 342-8389	Telephone: (330) 497-9396	1 of 1 COCs
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@tetratech.com			
Phone: (301) 528-5552				
Project Name: GSP GW Sampling	Method of Shipment/Carrier:			
Project Number: 112IC03279-04	Shipping/Tracking No:			
PO #				

Analysis Turnaround Time (in BUS days)
TAT if different from below _____
☐ 3 weeks
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

For lab use only
Walk-in client ☐
Lab pickup ☐
Lab sampling ☐
Job/SDG No.

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C/Grab=G	Analyses: VOCs	Total Metals	Dissolved Metals	SVOCs, +1,4-Dioxane	TPH-GRO	TPH-DRO	Perchlorate	Mercury			Sample Specific Notes / Special Instructions:
TB-062011				X						2							X										
GSP-MW-4-062011	6-20-11	1055		X				2	2	5			3				X	X	X	X	X	X	X	X			
GSP-MW-5-062011	↓	1215		X				2	2	5			3				X	X	X	X	X	X	X	X			
GSP-MW-6-062011	↓	1455		X				2	2	5			3				X	X	X	X	X	X	X	X			

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	6/20/11 - 1550	M. Hocke	TestAmerica	6-20-11 1554
M. Hocke	TestAmerica	6-20-11 1652			
			Received in Laboratory by: Jill Clark	TAL	6-21-11 0940

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TAL 0018-1 (04/10)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Instrument ID: A3UX16 Start Date: 05/29/2011 12:02

Analysis Batch Number: 3007 End Date: 05/29/2011 17:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-3007/1		05/29/2011 12:02	1	BFB1887.D	DB-624 0.18(mm)
STD8260 240-3007/2 IC		05/29/2011 13:00	1	UXM6500.D	DB-624 0.18(mm)
STD8260 240-3007/3 IC		05/29/2011 13:22	1	UXM6501.D	DB-624 0.18(mm)
STD8260 240-3007/4 ICIS		05/29/2011 13:45	1	UXM6502.D	DB-624 0.18(mm)
STD8260 240-3007/5 IC		05/29/2011 14:08	1	UXM6503.D	DB-624 0.18(mm)
STD8260 240-3007/6 IC		05/29/2011 14:31	1	UXM6504.D	DB-624 0.18(mm)
STD8260 240-3007/7 IC		05/29/2011 14:53	1	UXM6505.D	DB-624 0.18(mm)
STD1 240-3007/8 IC		05/29/2011 15:15	1	UXM6506.D	DB-624 0.18(mm)
STD2 240-3007/9 IC		05/29/2011 15:37	1	UXM6507.D	DB-624 0.18(mm)
STD3 240-3007/10 IC		05/29/2011 16:00	1	UXM6508.D	DB-624 0.18(mm)
STD4 240-3007/11 IC		05/29/2011 16:22	1	UXM6509.D	DB-624 0.18(mm)
STD5 240-3007/12 IC		05/29/2011 16:44	1	UXM6510.D	DB-624 0.18(mm)
STD6 240-3007/13 IC		05/29/2011 17:06	1	UXM6511.D	DB-624 0.18(mm)
ICV 240-3007/14		05/29/2011 17:29	1	UXM6512.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Instrument ID: A3UX16 Start Date: 06/29/2011 12:01

Analysis Batch Number: 6573 End Date: 06/29/2011 22:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-6573/1		06/29/2011 12:01	1	BFB1929.D	DB-624 0.18 (mm)
CCVIS 240-6573/2		06/29/2011 12:41	1	UXM7324.D	DB-624 0.18 (mm)
CCV 240-6573/3		06/29/2011 13:04	1	UXM7325.D	DB-624 0.18 (mm)
LCS 240-6573/4		06/29/2011 13:27	1	UXM7326.D	DB-624 0.18 (mm)
MB 240-6573/5		06/29/2011 13:50	1	UXM7327.D	DB-624 0.18 (mm)
ZZZZZ		06/29/2011 14:12	1		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 14:35	1		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 14:58	1		DB-624 0.18 (mm)
240-1287-1	TB-062011	06/29/2011 15:21	1	UXM7331.D	DB-624 0.18 (mm)
240-1287-2	GSP-MW-4-062011	06/29/2011 15:43	1	UXM7332.D	DB-624 0.18 (mm)
240-1287-3	GSP-MW-5-062011	06/29/2011 16:06	1	UXM7333.D	DB-624 0.18 (mm)
240-1287-4	GSP-MW-6-062011	06/29/2011 16:29	1	UXM7334.D	DB-624 0.18 (mm)
ZZZZZ		06/29/2011 16:52	1		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 17:15	1		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 17:37	1		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 18:00	1		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 18:22	16.67		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 18:44	1		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 19:07	1		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 19:29	8333.33		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 19:51	7142.86		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 20:14	25		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 20:36	714.28		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 20:59	555.56		DB-624 0.18 (mm)
ZZZZZ		06/29/2011 21:21	1		DB-624 0.18 (mm)
240-1438-H-4 MS		06/29/2011 21:43	1	UXM7348.D	DB-624 0.18 (mm)
240-1438-I-4 MSD		06/29/2011 22:06	1	UXM7349.D	DB-624 0.18 (mm)

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab File ID: BFB1887.D BFB Injection Date: 05/29/2011

Instrument ID: A3UX16 BFB Injection Time: 12:02

Analysis Batch No.: 3007

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	47.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.3	(0.5)1
174	50.0 - 120.00 % of mass 95	71.3	
175	5.0 - 9.0 % of mass 174	4.9	(6.9)1
176	95.0 - 101.0 % of mass 174	69.0	(96.7)1
177	5.0 - 9.0 % of mass 176	4.4	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-3007/2	UXM6500.D	05/29/2011	13:00
	STD8260 240-3007/3	UXM6501.D	05/29/2011	13:22
	STD8260 240-3007/4	UXM6502.D	05/29/2011	13:45
	STD8260 240-3007/5	UXM6503.D	05/29/2011	14:08
	STD8260 240-3007/6	UXM6504.D	05/29/2011	14:31
	STD8260 240-3007/7	UXM6505.D	05/29/2011	14:53
	STD1 240-3007/8	UXM6506.D	05/29/2011	15:15
	STD2 240-3007/9	UXM6507.D	05/29/2011	15:37
	STD3 240-3007/10	UXM6508.D	05/29/2011	16:00
	STD4 240-3007/11	UXM6509.D	05/29/2011	16:22
	STD5 240-3007/12	UXM6510.D	05/29/2011	16:44
	STD6 240-3007/13	UXM6511.D	05/29/2011	17:06
	ICV 240-3007/14	UXM6512.D	05/29/2011	17:29

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-3007/7	UXM6505.D
Level 2	STD8260 240-3007/6	UXM6504.D
Level 3	STD8260 240-3007/5	UXM6503.D
Level 4	STD8260 240-3007/4	UXM6502.D
Level 5	STD8260 240-3007/3	UXM6501.D
Level 6	STD8260 240-3007/2	UXM6500.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2983 0.2987	0.2259	0.2557	0.2725	0.2800	Ave		0.2718				10.0		15.0			
Chloromethane	0.4717 0.4273	0.4631	0.4296	0.4483	0.4355	Ave		0.4459			0.1000	4.1		15.0			
Vinyl chloride	0.3635 0.3682	0.3493	0.3371	0.3600	0.3637	Ave		0.3570				3.3		15.0			
Bromomethane	0.1931 0.1378	0.1968	0.1783	0.1775	0.1548	Ave		0.1731				13.0		15.0			
Chloroethane	0.2242 0.2050	0.2258	0.2110	0.2245	0.2145	Ave		0.2175				4.0		15.0			
Trichlorofluoromethane	0.3760 0.3443	0.3088	0.3169	0.3442	0.3390	Ave		0.3382				7.0		15.0			
Acrolein	0.0455 0.0489	0.0447	0.0464	0.0479	0.0493	Ave		0.0471				4.0		15.0			
1,1-Dichloroethene	0.2757 0.2875	0.2770	0.2629	0.2753	0.2892	Ave		0.2779				3.4		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.2129 0.2106	0.1837	0.1542	0.1941	0.2092	Ave		0.1941				12.0		15.0			
Acetone	0.1255 0.0899	0.1071	0.0959	0.0954	0.0917	Ave		0.1009				13.0		15.0			
Iodomethane	0.4663 0.4805	0.4523	0.4463	0.4664	0.4894	Ave		0.4669				3.5		15.0			
Carbon disulfide	0.9270 1.0581	0.9205	0.8948	0.9696	1.0483	Ave		0.9697				7.1		15.0			
Acetonitrile	0.0415 0.0416	0.0396	0.0408	0.0418	0.0422	Ave		0.0412				2.2		15.0			
Methyl acetate	0.2173 0.2352	0.2329	0.2302	0.2353	0.2392	Ave		0.2317				3.3		15.0			
Methylene Chloride	0.6813 0.3553	0.4832	0.3847	0.3689	0.3638	Lin1	0.3012	0.3454							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0264 0.0247	0.0242	0.0238	0.0245	0.0252	Ave		0.0248				3.7		15.0			
Acrylonitrile	0.0962 0.1129	0.1089	0.1081	0.1133	0.1132	Ave		0.1088				6.0		15.0			
Methyl tert-butyl ether	0.9052 0.9780	0.9338	0.9084	0.9445	0.9844	Ave		0.9424				3.6		15.0			
trans-1,2-Dichloroethene	0.3245 0.3425	0.3127	0.3206	0.3283	0.3449	Ave		0.3289				3.8		15.0			
Hexane	0.0574 0.0546	0.0465	0.0392	0.0472	0.0530	Ave		0.0496				13.0		15.0			
1,1-Dichloroethane	0.5912 0.6319	0.5979	0.5673	0.5881	0.6272	Ave		0.6006			0.1000	4.1		15.0			
Vinyl acetate	0.0271 0.0446	0.0328	0.0324	0.0372	0.0413	Lin1	-0.024	0.0433							0.9950		0.9900
2,2-Dichloropropane	0.4458 0.4655	0.4225	0.4110	0.4480	0.4683	Ave		0.4435				5.2		15.0			
cis-1,2-Dichloroethene	0.3377 0.3558	0.3482	0.3265	0.3398	0.3653	Ave		0.3455				4.0		15.0			
2-Butanone	0.1477 0.1193	0.1256	0.1190	0.1218	0.1226	Ave		0.1260				8.6		15.0			
Bromochloromethane	0.1519 0.1533	0.1391	0.1375	0.1459	0.1561	Ave		0.1473				5.3		15.0			
Tetrahydrofuran	0.1188 0.0832	0.0981	0.0900	0.0884	0.0887	Ave		0.0945				14.0		15.0			
Chloroform	0.5079 0.5578	0.5235	0.5114	0.5209	0.5580	Ave		0.5299				4.2		15.0			
1,1,1-Trichloroethane	0.4542 0.5081	0.4748	0.4473	0.4767	0.5115	Ave		0.4788				5.6		15.0			
Cyclohexane	0.5872 0.6036	0.5268	0.4580	0.5415	0.5932	Ave		0.5517				10.0		15.0			
1,1-Dichloropropene	0.3780 0.4190	0.3872	0.3615	0.3885	0.4165	Ave		0.3918				5.7		15.0			
Carbon tetrachloride	0.3498 0.4050	0.3346	0.3134	0.3616	0.3954	Ave		0.3600				9.8		15.0			
Benzene	1.1885 1.2941	1.1806	1.1616	1.1888	1.2727	Ave		1.2144				4.5		15.0			
1,2-Dichloroethane	0.4012 0.4187	0.3969	0.4003	0.3960	0.4222	Ave		0.4059				2.8		15.0			
Trichloroethene	0.2726 0.2968	0.2781	0.2630	0.2758	0.2977	Ave		0.2807				4.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.4041 0.4413	0.3619	0.3155	0.3931	0.4327	Ave		0.3914				12.0		15.0			
1,2-Dichloropropane	0.2862 0.3080	0.2814	0.2805	0.2874	0.3119	Ave		0.2926				4.7		15.0			
1,4-Dioxane	0.0021 0.0021	0.0023	0.0021	0.0022	0.0023	Ave		0.0022				4.4		15.0			
Dibromomethane	0.1486 0.1541	0.1402	0.1421	0.1456	0.1554	Ave		0.1477				4.2		15.0			
Bromodichloromethane	0.3040 0.3742	0.3188	0.3252	0.3357	0.3691	Ave		0.3378				8.3		15.0			
2-Chloroethyl vinyl ether	0.1335 0.1558	0.1465	0.1474	0.1533	0.1571	Ave		0.1489				5.8		15.0			
cis-1,3-Dichloropropene	0.3859 0.4653	0.3988	0.4046	0.4229	0.4617	Ave		0.4232				7.9		15.0			
4-Methyl-2-pentanone	0.2679 0.2843	0.2669	0.2713	0.2799	0.2828	Ave		0.2755				2.8		15.0			
Toluene	1.5641 1.7880	1.6375	1.5242	1.5822	1.7296	Ave		1.6376				6.3		15.0			
trans-1,3-Dichloropropene	0.4247 0.5457	0.4551	0.4630	0.4839	0.5337	Ave		0.4843				9.7		15.0			
Ethyl methacrylate	0.4338 0.4841	0.4601	0.4409	0.4595	0.4880	Ave		0.4611				4.8		15.0			
1,1,2-Trichloroethane	0.2610 0.2902	0.2789	0.2660	0.2758	0.2945	Ave		0.2777				4.7		15.0			
Tetrachloroethene	0.2358 0.2884	0.2605	0.2400	0.2608	0.2832	Ave		0.2614				8.2		15.0			
1,3-Dichloropropane	0.5032 0.5479	0.5202	0.5003	0.5080	0.5463	Ave		0.5210				4.1		15.0			
2-Hexanone	0.2134 0.2464	0.2440	0.2362	0.2476	0.2471	Ave		0.2391				5.6		15.0			
Dibromochloromethane	0.2625 0.3293	0.2576	0.2688	0.2857	0.3228	Ave		0.2878				11.0		15.0			
1,2-Dibromoethane	0.2702 0.3017	0.2701	0.2713	0.2837	0.3012	Ave		0.2830				5.4		15.0			
Chlorobenzene	1.0004 1.1167	1.0557	0.9994	1.0369	1.1122	Ave		1.0535			0.3000	4.9		15.0			
1,1,1,2-Tetrachloroethane	0.2985 0.3953	0.3346	0.3315	0.3568	0.3907	Ave		0.3512				11.0		15.0			
Ethylbenzene	0.5345 0.6104	0.5740	0.5356	0.5610	0.6145	Ave		0.5717				6.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.6665 0.7839	0.7201	0.6698	0.7001	0.7639	Ave		0.7174				6.8		15.0			
o-Xylene	0.6583 0.7725	0.7135	0.6995	0.7111	0.7659	Ave		0.7201				6.0		15.0			
Styrene	1.0634 1.3324	1.1543	1.1303	1.2121	1.3135	Ave		1.2010				8.8		15.0			
Bromoform	0.1308 0.1929	0.1340	0.1432	0.1571	0.1829	Lin1	-0.099	0.1879			0.1000				0.9950		0.9900
Isopropylbenzene	1.6254 2.0021	1.7462	1.6256	1.7661	1.9411	Ave		1.7844				8.8		15.0			
1,1,2,2-Tetrachloroethane	0.6390 0.6966	0.6787	0.6513	0.6576	0.7273	Ave		0.6751			0.3000	4.9		15.0			
Bromobenzene	0.7531 0.8119	0.7794	0.7596	0.7729	0.8537	Ave		0.7884				4.8		15.0			
1,2,3-Trichloropropane	0.2246 0.2221	0.2190	0.2110	0.2231	0.2352	Ave		0.2225				3.5		15.0			
trans-1,4-Dichloro-2-butene	0.2199 0.2389	0.2152	0.2195	0.2249	0.2430	Ave		0.2269				5.0		15.0			
n-Propylbenzene	0.7601 0.8719	0.8284	0.7668	0.8249	0.9068	Ave		0.8265				6.9		15.0			
2-Chlorotoluene	0.7619 0.8073	0.7608	0.7421	0.7472	0.8400	Ave		0.7766				5.0		15.0			
1,3,5-Trimethylbenzene	2.4884 2.9700	2.6808	2.5164	2.6630	2.9838	Ave		2.7171				7.9		15.0			
4-Chlorotoluene	0.7733 0.8393	0.8006	0.7549	0.7759	0.8529	Ave		0.7995				4.9		15.0			
tert-Butylbenzene	1.9919 2.3648	2.1154	1.9687	2.0834	2.3571	Ave		2.1469				8.1		15.0			
1,2,4-Trimethylbenzene	2.6390 3.0675	2.7872	2.6804	2.7942	3.1249	Ave		2.8489				7.1		15.0			
sec-Butylbenzene	2.6740 3.2749	2.9419	2.7072	2.8937	3.3051	Ave		2.9661				9.2		15.0			
1,3-Dichlorobenzene	1.4339 1.5710	1.5438	1.4621	1.4650	1.6137	Ave		1.5149				4.7		15.0			
p-Isopropyltoluene	2.1764 2.7349	2.4137	2.3047	2.4106	2.7549	Ave		2.4659				9.4		15.0			
1,4-Dichlorobenzene	1.4372 1.6450	1.5618	1.4977	1.5279	1.6788	Ave		1.5581				5.8		15.0			
n-Butylbenzene	1.9146 2.3749	2.0057	1.9329	2.1117	2.3793	Ave		2.1199				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.4100 1.5390	1.4793	1.4452	1.4677	1.6050	Ave		1.4910				4.7		15.0			
1,2-Dibromo-3-Chloropropane	0.0991 0.1150	0.0887	0.1000	0.1027	0.1188	Ave		0.1041				11.0		15.0			
1,3,5-Trichlorobenzene	0.7981 0.8925	0.8453	0.8411	0.8652	0.9607	Ave		0.8672				6.4		15.0			
1,2,4-Trichlorobenzene	0.6536 0.7565	0.7392	0.7075	0.7687	0.8329	Ave		0.7431				8.1		15.0			
Hexachlorobutadiene	0.3005 0.3020	0.3307	0.2846	0.3101	0.3393	Ave		0.3112				6.6		15.0			
Naphthalene	1.7625 1.8222	1.8352	1.8166	1.8796	2.0718	Ave		1.8646				5.8		15.0			
1,2,3-Trichlorobenzene	0.6252 0.5752	0.6791	0.6212	0.6414	0.6905	Ave		0.6388				6.6		15.0			
Dibromofluoromethane (Surr)	0.2556 0.2697	0.2553	0.2446	0.2602	0.2726	Ave		0.2597				4.0		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3101 0.3312	0.3104	0.3075	0.3261	0.3266	Ave		0.3187				3.3		15.0			
Toluene-d8 (Surr)	1.1941 1.4113	1.2886	1.2333	1.2912	1.3622	Ave		1.2968				6.2		15.0			
4-Bromofluorobenzene (Surr)	0.5076 0.5645	0.5380	0.5245	0.5444	0.5560	Ave		0.5392				3.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 15:15 Calibration End Date: 05/29/2011 17:06 Calibration ID: 1185

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD6 240-3007/13	UXM6511.D
Level 2	STD5 240-3007/12	UXM6510.D
Level 3	STD4 240-3007/11	UXM6509.D
Level 4	STD3 240-3007/10	UXM6508.D
Level 5	STD2 240-3007/9	UXM6507.D
Level 6	STD1 240-3007/8	UXM6506.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.5506 0.5039	0.4715	0.4922	0.5507	0.4990	Ave		0.5113				6.3		15.0			
Ethyl ether	0.2645 0.2910	0.2573	0.2901	0.2942	0.2830	Ave		0.2800				5.5		15.0			
3-Chloro-1-propene	0.1610 0.1968	0.1599	0.1826	0.1978	0.1860	Ave		0.1807				9.3		15.0			
Diisopropyl ether	0.2920 0.3140	0.2674	0.3008	0.3155	0.2989	Ave		0.2981				5.9		15.0			
2-Chloro-1,3-butadiene	0.5362 0.6149	0.5201	0.5813	0.6137	0.5969	Ave		0.5772				7.0		15.0			
Ethyl-t-butyl ether (ETBE)	1.0807 1.2661	1.0264	1.1669	1.2348	1.1744	Ave		1.1582				7.8		15.0			
Ethyl acetate	0.2291 0.2469	0.2277	0.2426	0.2442	0.2437	Ave		0.2390				3.5		15.0			
Propionitrile	0.0377 0.0394	0.0378	0.0379	0.0380	0.0386	Ave		0.0382				1.7		15.0			
Methacrylonitrile	0.2028 0.1856	0.1619	0.1719	0.1786	0.1788	Ave		0.1799				7.7		15.0			
Isobutyl alcohol	0.0093 0.0090	0.0082	0.0092	0.0095	0.0092	Ave		0.0091				5.0		15.0			
Tert-amyl-methyl ether (TAME)	0.8566 1.0053	0.8277	0.9356	0.9832	0.9465	Ave		0.9258				7.6		15.0			
n-Heptane	0.0283 0.0446	0.0370	0.0385	0.0426	0.0547	Qua	-0.073	0.0626	0						0.9930		0.9900
n-Butanol	0.0086 0.0070	0.0074	0.0073	0.0075	0.0076	Ave		0.0076				7.1		15.0			
Methyl methacrylate	0.2355 0.2558	0.2383	0.2548	0.2603	0.2538	Ave		0.2498				4.1		15.0			
2-Nitropropane	0.0716 0.0766	0.0638	0.0733	0.0740	0.0749	Ave		0.0724				6.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 15:15 Calibration End Date: 05/29/2011 17:06 Calibration ID: 1185

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
n-Butyl acetate	0.4001 0.4652	0.3923	0.4438	0.4817	0.4611	Ave		0.4407				8.3		15.0			
Cyclohexanone	0.0637 0.0656	0.0601	0.0705	0.0773	0.0733	Ave		0.0684				9.4		15.0			
1,2,3-Trimethylbenzene	2.7648 3.2728	2.6215	2.8961	3.0823	3.0301	Ave		2.9446				7.9		15.0			
2-Methylnaphthalene	0.7633 0.5362	0.7935	0.7843	0.8634	0.8467	Ave		0.7646				15.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICV 240-3007/14 Calibration Date: 05/29/2011 17:29

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM6512.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2718	0.2761		10.2	10.0	1.5	50.0
Chloromethane	Ave	0.4459	0.4695	0.1000	10.5	10.0	5.3	50.0
Vinyl chloride	Ave	0.3570	0.3819		10.7	10.0	7.0	20.0
Bromomethane	Ave	0.1731	0.1589		9.18	10.0	-8.2	50.0
Chloroethane	Ave	0.2175	0.2234		10.3	10.0	2.7	50.0
Trichlorofluoromethane	Ave	0.3382	0.3653		10.8	10.0	8.0	50.0
Acrolein	Ave	0.0471	0.0452		28.8	30.0	-4.0	50.0
1,1-Dichloroethene	Ave	0.2779	0.3092		11.1	10.0	11.2	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1941	0.2146		11.1	10.0	10.6	50.0
Acetone	Ave	0.1009	0.0925		18.3	20.0	-8.4	50.0
Iodomethane	Ave	0.4669	0.5339		11.4	10.0	14.4	50.0
Carbon disulfide	Ave	0.9697	1.026		10.6	10.0	5.8	50.0
Acetonitrile	Ave	0.0412	0.0422		30.7	30.0	2.4	50.0
Methyl acetate	Ave	0.2317	0.2336		10.1	10.0	0.8	50.0
Methylene Chloride	Lin1		0.3901		10.4	10.0	4.0	50.0
tert-Butyl alcohol	Ave	0.0248	0.0261		210	200	5.2	50.0
Acrylonitrile	Ave	0.1088	0.1131		31.2	30.0	4.0	50.0
Methyl tert-butyl ether	Ave	0.9424	0.9824		10.4	10.0	4.3	50.0
trans-1,2-Dichloroethene	Ave	0.3289	0.3460		10.5	10.0	5.2	50.0
Hexane	Ave	0.0496	0.0530		10.7	10.0	6.8	20.0
1,1-Dichloroethane	Ave	0.6006	0.6336	0.1000	10.6	10.0	5.5	50.0
Vinyl acetate	Lin1		0.0395		9.67	10.0	-3.3	50.0
2,2-Dichloropropane	Ave	0.4435	0.4347		9.80	10.0	-2.0	50.0
cis-1,2-Dichloroethene	Ave	0.3455	0.3589		10.4	10.0	3.9	50.0
2-Butanone	Ave	0.1260	0.1144		18.2	20.0	-9.2	50.0
Bromochloromethane	Ave	0.1473	0.1552		10.5	10.0	5.3	50.0
Tetrahydrofuran	Ave	0.0945	0.0853		9.02	10.0	-9.8	50.0
Chloroform	Ave	0.5299	0.5511		10.4	10.0	4.0	20.0
1,1,1-Trichloroethane	Ave	0.4788	0.4939		10.3	10.0	3.2	50.0
Cyclohexane	Ave	0.5517	0.5637		10.2	10.0	2.2	50.0
1,1-Dichloropropene	Ave	0.3918	0.4040		10.3	10.0	3.1	50.0
Carbon tetrachloride	Ave	0.3600	0.3747		10.4	10.0	4.1	50.0
Benzene	Ave	1.214	1.217		10.0	10.0	0.3	50.0
1,2-Dichloroethane	Ave	0.4059	0.4114		10.1	10.0	1.4	50.0
Trichloroethene	Ave	0.2807	0.2770		9.87	10.0	-1.3	50.0
Methylcyclohexane	Ave	0.3914	0.3947		10.1	10.0	0.8	50.0
1,2-Dichloropropane	Ave	0.2926	0.3000		10.3	10.0	2.5	20.0
Dibromomethane	Ave	0.1477	0.1522		10.3	10.0	3.1	50.0
Bromodichloromethane	Ave	0.3378	0.3338		9.88	10.0	-1.2	50.0
2-Chloroethyl vinyl ether	Ave	0.1489	0.1528		10.3	10.0	2.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICV 240-3007/14 Calibration Date: 05/29/2011 17:29

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM6512.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Ave	0.4232	0.3961		9.36	10.0	-6.4	50.0
4-Methyl-2-pentanone	Ave	0.2755	0.2702		19.6	20.0	-1.9	50.0
Toluene	Ave	1.638	1.609		9.82	10.0	-1.8	20.0
trans-1,3-Dichloropropene	Ave	0.4843	0.4728		9.76	10.0	-2.4	50.0
1,1,2-Trichloroethane	Ave	0.2777	0.2807		10.1	10.0	1.1	50.0
Tetrachloroethene	Ave	0.2614	0.2645		10.1	10.0	1.2	50.0
1,3-Dichloropropane	Ave	0.5210	0.5138		9.86	10.0	-1.4	50.0
2-Hexanone	Ave	0.2391	0.2490		20.8	20.0	4.1	50.0
Dibromochloromethane	Ave	0.2878	0.2777		9.65	10.0	-3.5	50.0
1,2-Dibromoethane	Ave	0.2830	0.2757		9.74	10.0	-2.6	50.0
Chlorobenzene	Ave	1.054	1.038	0.3000	9.85	10.0	-1.5	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3512	0.3641		10.4	10.0	3.7	50.0
Ethylbenzene	Ave	0.5717	0.5641		9.87	10.0	-1.3	20.0
m-Xylene & p-Xylene	Ave	0.7174	0.7021		19.6	20.0	-2.1	50.0
o-Xylene	Ave	0.7201	0.7280		10.1	10.0	1.1	50.0
Styrene	Ave	1.201	1.176		9.79	10.0	-2.1	50.0
Bromoform	Lin1		0.1515	0.1000	8.59	10.0	-14.1	50.0
Isopropylbenzene	Ave	1.784	1.771		9.92	10.0	-0.8	50.0
1,1,2,2-Tetrachloroethane	Ave	0.6751	0.6869	0.3000	10.2	10.0	1.8	50.0
Bromobenzene	Ave	0.7884	0.7899		10.0	10.0	0.2	50.0
1,2,3-Trichloropropane	Ave	0.2225	0.2228		10.0	10.0	0.2	50.0
trans-1,4-Dichloro-2-butene	Ave	0.2269	0.2283		20.1	20.0	0.6	50.0
n-Propylbenzene	Ave	0.8265	0.8644		10.5	10.0	4.6	50.0
2-Chlorotoluene	Ave	0.7766	0.7709		9.93	10.0	-0.7	50.0
1,3,5-Trimethylbenzene	Ave	2.717	2.741		10.1	10.0	0.9	50.0
4-Chlorotoluene	Ave	0.7995	0.8112		10.1	10.0	1.5	50.0
tert-Butylbenzene	Ave	2.147	2.164		10.1	10.0	0.8	50.0
1,2,4-Trimethylbenzene	Ave	2.849	2.902		10.2	10.0	1.9	50.0
sec-Butylbenzene	Ave	2.966	2.956		9.97	10.0	-0.3	50.0
1,3-Dichlorobenzene	Ave	1.515	1.521		10.0	10.0	0.4	50.0
p-Isopropyltoluene	Ave	2.466	2.611		10.6	10.0	5.9	50.0
1,4-Dichlorobenzene	Ave	1.558	1.520		9.75	10.0	-2.5	50.0
n-Butylbenzene	Ave	2.120	2.173		10.3	10.0	2.5	50.0
1,2-Dichlorobenzene	Ave	1.491	1.506		10.1	10.0	1.0	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1041	0.1019		9.80	10.0	-2.0	50.0
1,2,4-Trichlorobenzene	Ave	0.7431	0.7506		10.1	10.0	1.0	50.0
Hexachlorobutadiene	Ave	0.3112	0.2681		8.62	10.0	-13.8	50.0
Naphthalene	Ave	1.865	1.741		9.34	10.0	-6.6	50.0
1,2,3-Trichlorobenzene	Ave	0.6388	0.5681		8.89	10.0	-11.1	50.0
Dibromofluoromethane (Surr)	Ave	0.2597	0.2584		9.95	10.0	-0.5	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3187	0.3179		9.98	10.0	-0.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICV 240-3007/14 Calibration Date: 05/29/2011 17:29

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM6512.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Toluene-d8 (Surr)	Ave	1.297	1.264		9.75	10.0	-2.5	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5392	0.5271		9.78	10.0	-2.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICV 240-3007/14 Calibration Date: 05/29/2011 17:29

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 17:06

Lab File ID: UXM6512.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.2800	0.2894		10.3	10.0	3.4	50.0
Diisopropyl ether	Ave	0.2981	0.3096		10.4	10.0	3.8	50.0
Isobutyl alcohol	Ave	0.0091	0.0089		489	500	-2.2	50.0
Cyclohexanone	Ave	0.0684	0.0231		67.6	200	-66.2*	50.0
1,2,3-Trimethylbenzene	Ave	2.945	3.155		10.7	10.0	7.1	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab File ID: BFB1929.D BFB Injection Date: 06/29/2011

Instrument ID: A3UX16 BFB Injection Time: 12:01

Analysis Batch No.: 6573

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.0	
75	30.0 - 60.0 % of mass 95	48.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	68.9	
175	5.0 - 9.0 % of mass 174	4.9	(7.0)1
176	95.0 - 101.0 % of mass 174	68.3	(99.1)1
177	5.0 - 9.0 % of mass 176	4.1	(5.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-6573/2	UXM7324.D	06/29/2011	12:41
	CCV 240-6573/3	UXM7325.D	06/29/2011	13:04
	LCS 240-6573/4	UXM7326.D	06/29/2011	13:27
	MB 240-6573/5	UXM7327.D	06/29/2011	13:50
TB-062011	240-1287-1	UXM7331.D	06/29/2011	15:21
GSP-MW-4-062011	240-1287-2	UXM7332.D	06/29/2011	15:43
GSP-MW-5-062011	240-1287-3	UXM7333.D	06/29/2011	16:06
GSP-MW-6-062011	240-1287-4	UXM7334.D	06/29/2011	16:29
	240-1438-H-4 MS	UXM7348.D	06/29/2011	21:43
	240-1438-I-4 MSD	UXM7349.D	06/29/2011	22:06

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCVIS 240-6573/2 Calibration Date: 06/29/2011 12:41

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7324.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2718	0.2517		9.26	10.0	-7.4	50.0
Chloromethane	Ave	0.4459	0.4449	0.1000	9.98	10.0	-0.2	50.0
Vinyl chloride	Ave	0.3570	0.3596		10.1	10.0	0.7	20.0
Bromomethane	Ave	0.1731	0.1354		7.82	10.0	-21.8	50.0
Chloroethane	Ave	0.2175	0.1791		8.23	10.0	-17.7	50.0
Trichlorofluoromethane	Ave	0.3382	0.3311		9.79	10.0	-2.1	50.0
Acrolein	Ave	0.0471	0.0345		73.3	100	-26.7	50.0
1,1-Dichloroethene	Ave	0.2779	0.2653		9.55	10.0	-4.5	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1941	0.1857		9.56	10.0	-4.4	50.0
Acetone	Ave	0.1009	0.0691		13.7	20.0	-31.5	50.0
Iodomethane	Ave	0.4669	0.4184		8.96	10.0	-10.4	50.0
Carbon disulfide	Ave	0.9697	0.8586		8.85	10.0	-11.5	50.0
Acetonitrile	Ave	0.0412	0.0335		81.2	100	-18.8	50.0
Methyl acetate	Ave	0.2317	0.1973		17.0	20.0	-14.8	50.0
Methylene Chloride	Lin1		0.3462		9.15	10.0	-8.5	50.0
tert-Butyl alcohol	Ave	0.0248	0.0136		109	200	-45.3	50.0
Acrylonitrile	Ave	0.1088	0.0888		16.3	20.0	-18.3	50.0
Methyl tert-butyl ether	Ave	0.9424	0.7107		7.54	10.0	-24.6	50.0
trans-1,2-Dichloroethene	Ave	0.3289	0.3163		9.62	10.0	-3.8	50.0
Hexane	Ave	0.0496	0.0588		11.8	10.0	18.4	20.0
1,1-Dichloroethane	Ave	0.6006	0.5652	0.1000	9.41	10.0	-5.9	50.0
Vinyl acetate	Lin1		0.0391		9.58	10.0	-4.2	50.0
2,2-Dichloropropane	Ave	0.4435	0.3274		7.38	10.0	-26.2	50.0
cis-1,2-Dichloroethene	Ave	0.3455	0.3332		9.64	10.0	-3.6	50.0
2-Butanone	Ave	0.1260	0.1066		16.9	20.0	-15.4	50.0
Bromochloromethane	Ave	0.1473	0.1328		9.02	10.0	-9.8	50.0
Tetrahydrofuran	Ave	0.0945	0.0704		7.45	10.0	-25.5	50.0
Chloroform	Ave	0.5299	0.4953		9.35	10.0	-6.5	20.0
1,1,1-Trichloroethane	Ave	0.4788	0.4013		8.38	10.0	-16.2	50.0
Cyclohexane	Ave	0.5517	0.5707		10.3	10.0	3.4	50.0
1,1-Dichloropropene	Ave	0.3918	0.4214		10.8	10.0	7.6	50.0
Carbon tetrachloride	Ave	0.3600	0.3018		8.38	10.0	-16.2	50.0
Benzene	Ave	1.214	1.292		10.6	10.0	6.4	50.0
1,2-Dichloroethane	Ave	0.4059	0.3620		8.92	10.0	-10.8	50.0
Trichloroethene	Ave	0.2807	0.2883		10.3	10.0	2.7	50.0
Methylcyclohexane	Ave	0.3914	0.4246		10.8	10.0	8.5	50.0
1,2-Dichloropropane	Ave	0.2926	0.3162		10.8	10.0	8.1	20.0
1,4-Dioxane	Ave	0.0022	0.0015		348	500	-30.5	50.0
Dibromomethane	Ave	0.1477	0.1370		9.28	10.0	-7.2	50.0
Bromodichloromethane	Ave	0.3378	0.2995		8.86	10.0	-11.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCVIS 240-6573/2 Calibration Date: 06/29/2011 12:41

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7324.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1489	0.0887		11.9	20.0	-40.4	50.0
cis-1,3-Dichloropropene	Ave	0.4232	0.3662		8.65	10.0	-13.5	50.0
4-Methyl-2-pentanone	Ave	0.2755	0.2283		16.6	20.0	-17.1	50.0
Toluene	Ave	1.638	1.852		11.3	10.0	13.1	20.0
trans-1,3-Dichloropropene	Ave	0.4843	0.3956		8.17	10.0	-18.3	50.0
Ethyl methacrylate	Ave	0.4611	0.4480		9.72	10.0	-2.8	50.0
1,1,2-Trichloroethane	Ave	0.2777	0.2923		10.5	10.0	5.3	50.0
Tetrachloroethene	Ave	0.2614	0.2790		10.7	10.0	6.7	50.0
1,3-Dichloropropane	Ave	0.5210	0.5609		10.8	10.0	7.7	50.0
2-Hexanone	Ave	0.2391	0.2088		17.5	20.0	-12.7	50.0
Dibromochloromethane	Ave	0.2878	0.2392		8.31	10.0	-16.9	50.0
1,2-Dibromoethane	Ave	0.2830	0.2740		9.68	10.0	-3.2	50.0
Chlorobenzene	Ave	1.054	1.101	0.3000	10.5	10.0	4.5	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3512	0.3316		9.44	10.0	-5.6	50.0
Ethylbenzene	Ave	0.5717	0.6209		10.9	10.0	8.6	20.0
m-Xylene & p-Xylene	Ave	0.7174	0.7745		21.6	20.0	8.0	50.0
o-Xylene	Ave	0.7201	0.7509		10.4	10.0	4.3	50.0
Styrene	Ave	1.201	1.262		10.5	10.0	5.1	50.0
Bromoform	Lin1		0.1007	0.1000	5.89	10.0	-41.1	50.0
Isopropylbenzene	Ave	1.784	1.821		10.2	10.0	2.1	50.0
1,1,2,2-Tetrachloroethane	Ave	0.6751	0.6862	0.3000	10.2	10.0	1.6	50.0
Bromobenzene	Ave	0.7884	0.8213		10.4	10.0	4.2	50.0
1,2,3-Trichloropropane	Ave	0.2225	0.2039		9.16	10.0	-8.4	50.0
trans-1,4-Dichloro-2-butene	Ave	0.2269	0.1014		4.47	10.0	-55.3*	50.0
n-Propylbenzene	Ave	0.8265	0.9614		11.6	10.0	16.3	50.0
2-Chlorotoluene	Ave	0.7766	0.8653		11.1	10.0	11.4	50.0
1,3,5-Trimethylbenzene	Ave	2.717	3.019		11.1	10.0	11.1	50.0
4-Chlorotoluene	Ave	0.7995	0.9033		11.3	10.0	13.0	50.0
tert-Butylbenzene	Ave	2.147	2.405		11.2	10.0	12.0	50.0
1,2,4-Trimethylbenzene	Ave	2.849	3.148		11.1	10.0	10.5	50.0
sec-Butylbenzene	Ave	2.966	3.389		11.4	10.0	14.3	50.0
1,3-Dichlorobenzene	Ave	1.515	1.550		10.2	10.0	2.3	50.0
p-Isopropyltoluene	Ave	2.466	2.790		11.3	10.0	13.1	50.0
1,4-Dichlorobenzene	Ave	1.558	1.569		10.1	10.0	0.7	50.0
n-Butylbenzene	Ave	2.120	2.425		11.4	10.0	14.4	50.0
1,2-Dichlorobenzene	Ave	1.491	1.482		9.94	10.0	-0.6	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1041	0.0607		5.83	10.0	-41.7	50.0
1,3,5-Trichlorobenzene	Ave	0.8672	0.7970		9.19	10.0	-8.1	50.0
1,2,4-Trichlorobenzene	Ave	0.7431	0.5868		7.90	10.0	-21.0	50.0
Hexachlorobutadiene	Ave	0.3112	0.2586		8.31	10.0	-16.9	50.0
Naphthalene	Ave	1.865	1.178		6.32	10.0	-36.8	50.0

FORM VII 8260B

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCVIS 240-6573/2 Calibration Date: 06/29/2011 12:41

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7324.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.6388	0.4040		6.32	10.0	-36.8	50.0
Dibromofluoromethane (Surr)	Ave	0.2597	0.2372		9.33	10.2	-8.7	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3187	0.2702		8.66	10.2	-15.2	50.0
Toluene-d8 (Surr)	Ave	1.297	1.423		11.2	10.2	9.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5392	0.4799		9.09	10.2	-11.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCV 240-6573/3 Calibration Date: 06/29/2011 13:04

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7325.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2597	0.2243		8.82	10.2	-13.6	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3187	0.2816		9.02	10.2	-11.6	50.0
Toluene-d8 (Surr)	Ave	1.297	1.356		10.7	10.2	4.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5392	0.4873		9.23	10.2	-9.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCV 240-6573/3 Calibration Date: 06/29/2011 13:04

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 17:06

Lab File ID: UXM7325.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5113	0.4861		9.51	10.0	-4.9	50.0
Ethyl ether	Ave	0.2800	0.2545		9.09	10.0	-9.1	50.0
3-Chloro-1-propene	Ave	0.1807	0.1411		7.81	10.0	-21.9	50.0
Diisopropyl ether	Ave	0.2981	0.2840		47.6	50.0	-4.7	50.0
2-Chloro-1,3-butadiene	Ave	0.5772	0.5220		9.04	10.0	-9.6	50.0
Ethyl-t-butyl ether (ETBE)	Ave	1.158	0.9212		7.95	10.0	-20.5	50.0
Ethyl acetate	Ave	0.2390	0.2327		19.5	20.0	-2.7	50.0
Propionitrile	Ave	0.0382	0.0311		16.3	20.0	-18.7	50.0
Methacrylonitrile	Ave	0.1799	0.1705		9.48	10.0	-5.2	50.0
Isobutyl alcohol	Ave	0.0091	0.0073		160	200	-19.8	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.9258	0.7041		7.61	10.0	-23.9	50.0
n-Heptane	Qua		0.0466		9.15	10.0	-8.5	50.0
n-Butanol	Ave	0.0076	0.0046		121	200	-39.7	50.0
Methyl methacrylate	Ave	0.2498	0.2388		9.56	10.0	-4.4	50.0
2-Nitropropane	Ave	0.0724	0.0356		9.84	20.0	-50.8*	50.0
Cyclohexanone	Ave	0.0684	0.0375		54.9	100	-45.1	50.0
1,2,3-Trimethylbenzene	Ave	2.945	3.093		10.5	10.0	5.0	50.0
2-Methylnaphthalene	Ave	0.7646	0.2119		5.54	20.0	-72.3*	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab File ID: UXM7327.D Lab Sample ID: MB 240-6573/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 06/29/2011 13:50

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-6573/4	UXM7326.D	06/29/2011 13:27
TB-062011	240-1287-1	UXM7331.D	06/29/2011 15:21
GSP-MW-4-062011	240-1287-2	UXM7332.D	06/29/2011 15:43
GSP-MW-5-062011	240-1287-3	UXM7333.D	06/29/2011 16:06
GSP-MW-6-062011	240-1287-4	UXM7334.D	06/29/2011 16:29
	240-1438-H-4 MS	UXM7348.D	06/29/2011 21:43
	240-1438-I-4 MSD	UXM7349.D	06/29/2011 22:06

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1287-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6573/5

Matrix: Water | Lab File ID: UXM7327.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 13:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1287-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6573/5

Matrix: Water | Lab File ID: UXM7327.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 13:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	0.264	J	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1287-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-6573/5
Matrix: Water
Lab File ID: UXM7327.D
Analysis Method: 8260B
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 06/29/2011 13:50
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 6573
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		74-115
1868-53-7	Dibromofluoromethane (Surr)	83		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton
Job No.: 240-1287-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-6573/5
Matrix: Water
Lab File ID: UXM7327.D
Analysis Method: 8260B
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 06/29/2011 13:50
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 6573
Units: ug/L
Number TICs Found: 0
TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM	#	DCA	#	TOL	#	BFB	#
TB-062011	240-1287-1	85		88		107		88	
GSP-MW-4-062011	240-1287-2	83		88		108		89	
GSP-MW-5-062011	240-1287-3	85		88		104		87	
GSP-MW-6-062011	240-1287-4	85		92		106		87	
	MB 240-6573/5	83		88		106		87	
	LCS 240-6573/4	88		87		108		92	
	240-1438-H-4 MS	90		88		110		96	
	240-1438-I-4 MSD	87		86		107		91	

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7326.D

Lab ID: LCS 240-6573/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	8.18	82	72-116	
1,1,1-Trichloroethane	10.0	7.48	75	74-118	
1,1,2,2-Tetrachloroethane	10.0	9.28	93	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	8.92	89	74-151	
1,1-Dichloroethane	10.0	8.83	88	82-115	
1,1-Dichloroethene	10.0	9.24	92	78-131	
1,1-Dichloropropene	10.0	9.60	96	83-114	
1,2,3-Trichlorobenzene	10.0	6.20	62	54-126	
1,2,3-Trichloropropane	10.0	8.60	86	73-129	
1,2,3-Trimethylbenzene	10.0	10.2	102	70-130	
1,2,4-Trichlorobenzene	10.0	7.02	70	48-135	
1,2,4-Trimethylbenzene	10.0	9.73	97	76-120	
1,2-Dibromo-3-Chloropropane	10.0	5.78	58	42-136	
1,2-Dichlorobenzene	10.0	9.03	90	81-110	
1,2-Dichloroethane	10.0	8.56	86	71-127	
1,2-Dichloropropane	10.0	9.78	98	81-115	
1,3-Dichlorobenzene	10.0	9.36	94	80-110	
1,3-Dichloropropane	10.0	9.85	99	79-116	
1,4-Dichlorobenzene	10.0	9.11	91	82-110	
2,2-Dichloropropane	10.0	6.37	64	50-129	
2-Butanone	20.0	16.7	84	60-126	
2-Chloroethyl vinyl ether	10.0	5.59 J	56	52-131	
2-Chlorotoluene	10.0	9.81	98	76-116	
2-Hexanone	20.0	17.6	88	55-133	
4-Chlorotoluene	10.0	10.1	101	77-115	
p-Isopropyltoluene	10.0	10.0	100	74-120	
4-Methyl-2-pentanone	20.0	16.2	81	63-128	
Acetone	20.0	13.6	68	43-136	
Benzene	10.0	9.78	98	83-112	
Bromobenzene	10.0	9.31	93	76-115	
Bromoform	10.0	5.08	51	40-131	
Bromomethane	10.0	6.36	64	11-185	
Carbon disulfide	10.0	7.65	77	62-142	
Carbon tetrachloride	10.0	7.50	75	66-128	
Chlorobenzene	10.0	9.39	94	85-110	
Dibromochloromethane	10.0	6.97	70	64-119	
Chloroethane	10.0	6.89	69	25-153	
Chloroform	10.0	9.06	91	79-117	
Chloromethane	10.0	7.46	75	44-126	
cis-1,2-Dichloroethene	10.0	8.83	88	80-113	
cis-1,3-Dichloropropene	10.0	7.26	73	61-115	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7326.D

Lab ID: LCS 240-6573/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dibromomethane	10.0	9.02	90	81-120	
Bromochloromethane	10.0	8.69	87	77-120	
Dichlorodifluoromethane	10.0	4.60	46	19-129	
Bromodichloromethane	10.0	7.79	78	72-121	
tert-Butyl alcohol	200	115	57	70-130	*
Ethylbenzene	10.0	9.42	94	83-112	
Hexachlorobutadiene	10.0	6.79	68	36-134	
Diisopropyl ether	10.0	8.44 J	84	77-118	
Isopropylbenzene	10.0	9.08	91	75-114	
Methyl tert-butyl ether	10.0	6.92	69	52-144	
Methylene Chloride	10.0	8.56	86	66-131	
m-Xylene & p-Xylene	20.0	18.9	95	83-113	
Naphthalene	10.0	6.21	62	32-141	
n-Butylbenzene	10.0	10.0	100	66-125	
n-Propylbenzene	10.0	10.5	105	74-121	
o-Xylene	10.0	9.54	95	83-113	
sec-Butylbenzene	10.0	9.96	100	70-117	
Styrene	10.0	9.33	93	79-114	
Tetrachloroethene	10.0	9.44	94	79-114	
Toluene	10.0	10.1	101	84-111	
trans-1,2-Dichloroethene	10.0	8.88	89	83-117	
trans-1,3-Dichloropropene	10.0	6.96	70	58-117	
Trichloroethene	10.0	9.37	94	76-117	
Trichlorofluoromethane	10.0	8.61	86	49-157	
Vinyl acetate	10.0	8.99	90	46-161	
Vinyl chloride	10.0	7.66	77	53-127	
tert-Butylbenzene	10.0	9.68	97	71-115	
1,2-Dibromoethane	10.0	8.72	87	79-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7348.D

Lab ID: 240-1438-H-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	1.0 U	8.29	83	64-118	
1,1,1-Trichloroethane	10.0	1.0 U	7.69	77	68-121	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	9.54	95	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	1.0 U	8.94	89	70-152	
1,1-Dichloroethane	10.0	1.0 U	8.85	89	79-116	
1,1-Dichloroethene	10.0	1.0 U	9.18	92	74-135	
1,1-Dichloropropene	10.0	1.0 U	9.57	96	80-114	
1,2,3-Trichlorobenzene	10.0	1.0 U	5.85	59	45-129	
1,2,3-Trichloropropane	10.0	1.0 U	8.86	89	67-132	
1,2,3-Trimethylbenzene	10.0	5.0 U	9.80	98	70-130	
1,2,4-Trichlorobenzene	10.0	1.0 U	6.55	66	38-138	
1,2,4-Trimethylbenzene	10.0	1.0 U	9.56	96	67-124	
1,2-Dibromo-3-Chloropropane	10.0	2.0 U	4.80	48	32-139	
1,2-Dichlorobenzene	10.0	1.0 U	8.82	88	75-111	
1,2-Dichloroethane	10.0	1.0 U	8.73	87	68-129	
1,2-Dichloropropane	10.0	1.0 U	9.79	98	78-115	
1,3-Dichlorobenzene	10.0	1.0 U	8.97	90	73-110	
1,3-Dichloropropane	10.0	1.0 U	10.2	102	74-118	
1,4-Dichlorobenzene	10.0	1.0 U	8.93	89	75-110	
2,2-Dichloropropane	10.0	1.0 U	5.62	56	38-127	
2-Butanone	20.0	10 U	16.8	84	54-129	
2-Chloroethyl vinyl ether	10.0	10 U	10 U	0	10-150	F
2-Chlorotoluene	10.0	1.0 U	9.56	96	69-117	
2-Hexanone	20.0	10 U	17.8	89	47-139	
4-Chlorotoluene	10.0	1.0 U	9.93	99	71-116	
p-Isopropyltoluene	10.0	1.0 U	9.53	95	64-122	
4-Methyl-2-pentanone	20.0	10 U	16.3	82	56-131	
Acetone	20.0	10 U	14.1	71	33-145	
Benzene	10.0	1.0 U	9.74	97	72-121	
Bromobenzene	10.0	1.0 U	9.33	93	71-116	
Bromoform	10.0	1.0 U	4.70	47	32-128	
Bromomethane	10.0	1.0 U	6.63	66	10-186	
Carbon disulfide	10.0	1.0 U	7.08	71	57-147	
Carbon tetrachloride	10.0	1.0 U	7.36	74	59-129	
Chlorobenzene	10.0	1.0 U	9.64	96	80-110	
Dibromochloromethane	10.0	1.0 U	6.62	66	56-118	
Chloroethane	10.0	1.0 U	7.12	71	21-165	
Chloroform	10.0	1.0 U	8.75	88	76-118	
Chloromethane	10.0	1.0 U	7.55	76	33-132	
cis-1,2-Dichloroethene	10.0	1.0 U	8.83	88	70-120	
cis-1,3-Dichloropropene	10.0	1.0 U	6.83	68	51-110	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7348.D

Lab ID: 240-1438-H-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dibromomethane	10.0	1.0 U	8.92	89	77-121	
Bromochloromethane	10.0	1.0 U	8.32	83	73-121	
Dichlorodifluoromethane	10.0	1.0 U	4.73	47	17-128	
Bromodichloromethane	10.0	1.0 U	7.55	76	67-120	
tert-Butyl alcohol	200	50 U	108	54	70-130	F
Ethylbenzene	10.0	1.0 U	9.80	98	75-116	
Hexachlorobutadiene	10.0	1.0 U	6.22	62	27-132	
Diisopropyl ether	10.0	10 U	8.50 J	85	73-118	
Isopropylbenzene	10.0	1.0 U	9.10	91	68-116	
Methyl tert-butyl ether	10.0	5.0 U	6.90	69	46-144	
Methylene Chloride	10.0	1.0 U	7.95	80	63-128	
m-Xylene & p-Xylene	20.0	2.0 U	18.8	94	75-117	
Naphthalene	10.0	1.0 U	5.85	59	15-158	
n-Butylbenzene	10.0	1.0 U	9.42	94	56-127	
n-Propylbenzene	10.0	1.0 U	10.3	103	64-124	
o-Xylene	10.0	1.0 U	9.54	95	76-116	
sec-Butylbenzene	10.0	1.0 U	9.62	96	60-119	
Styrene	10.0	1.0 U	9.46	95	71-117	
Tetrachloroethene	10.0	1.0 U	9.46	95	70-117	
Toluene	10.0	1.0 U	10.3	103	78-114	
trans-1,2-Dichloroethene	10.0	1.0 U	8.94	89	80-119	
trans-1,3-Dichloropropene	10.0	1.0 U	6.69	67	46-116	
Trichloroethene	10.0	1.0 U	9.08	91	66-120	
Trichlorofluoromethane	10.0	1.0 U	9.01	90	46-157	
Vinyl acetate	10.0	2.0 U	8.53	85	43-157	
Vinyl chloride	10.0	1.0 U	7.97	80	49-130	
tert-Butylbenzene	10.0	1.0 U	9.62	96	61-119	
1,2-Dibromoethane	10.0	1.0 U	8.87	89	74-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7349.D

Lab ID: 240-1438-I-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	8.03	80	3	30	64-118	
1,1,1-Trichloroethane	10.0	7.46	75	3	30	68-121	
1,1,2,2-Tetrachloroethane	10.0	9.70	97	2	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	8.39	84	6	30	70-152	
1,1-Dichloroethane	10.0	8.73	87	1	30	79-116	
1,1-Dichloroethene	10.0	9.19	92	0	30	74-135	
1,1-Dichloropropene	10.0	9.72	97	2	30	80-114	
1,2,3-Trichlorobenzene	10.0	6.56	66	11	30	45-129	
1,2,3-Trichloropropane	10.0	9.22	92	4	30	67-132	
1,2,3-Trimethylbenzene	10.0	10.1	101	3	30	70-130	
1,2,4-Trichlorobenzene	10.0	7.08	71	8	30	38-138	
1,2,4-Trimethylbenzene	10.0	10.0	100	4	30	67-124	
1,2-Dibromo-3-Chloropropane	10.0	5.31	53	10	30	32-139	
1,2-Dichlorobenzene	10.0	9.18	92	4	30	75-111	
1,2-Dichloroethane	10.0	8.50	85	3	30	68-129	
1,2-Dichloropropane	10.0	9.89	99	1	30	78-115	
1,3-Dichlorobenzene	10.0	9.29	93	4	30	73-110	
1,3-Dichloropropane	10.0	9.79	98	4	30	74-118	
1,4-Dichlorobenzene	10.0	9.30	93	4	30	75-110	
2,2-Dichloropropane	10.0	5.73	57	2	30	38-127	
2-Butanone	20.0	16.2	81	4	30	54-129	
2-Chloroethyl vinyl ether	10.0	10 U	0	NC	30	10-150	F
2-Chlorotoluene	10.0	9.96	100	4	30	69-117	
2-Hexanone	20.0	16.9	85	5	30	47-139	
4-Chlorotoluene	10.0	10.1	101	2	30	71-116	
p-Isopropyltoluene	10.0	10.0	100	5	30	64-122	
4-Methyl-2-pentanone	20.0	16.1	81	1	30	56-131	
Acetone	20.0	13.9	70	1	30	33-145	
Benzene	10.0	9.69	97	1	30	72-121	
Bromobenzene	10.0	9.46	95	1	30	71-116	
Bromoform	10.0	4.74	47	1	30	32-128	
Bromomethane	10.0	5.74	57	14	30	10-186	
Carbon disulfide	10.0	7.15	72	1	30	57-147	
Carbon tetrachloride	10.0	7.39	74	0	30	59-129	
Chlorobenzene	10.0	9.34	93	3	30	80-110	
Dibromochloromethane	10.0	6.59	66	0	30	56-118	
Chloroethane	10.0	6.69	67	6	30	21-165	
Chloroform	10.0	8.85	89	1	30	76-118	
Chloromethane	10.0	7.23	72	4	30	33-132	
cis-1,2-Dichloroethene	10.0	8.74	87	1	30	70-120	
cis-1,3-Dichloropropene	10.0	6.75	68	1	30	51-110	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7349.D

Lab ID: 240-1438-I-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dibromomethane	10.0	8.74	87	2	30	77-121	
Bromochloromethane	10.0	8.34	83	0	30	73-121	
Dichlorodifluoromethane	10.0	4.40	44	7	30	17-128	
Bromodichloromethane	10.0	7.52	75	0	30	67-120	
tert-Butyl alcohol	200	107	54	0	30	70-130	F
Ethylbenzene	10.0	9.64	96	2	30	75-116	
Hexachlorobutadiene	10.0	6.92	69	11	30	27-132	
Diisopropyl ether	10.0	8.35 J	84	2	30	73-118	
Isopropylbenzene	10.0	9.01	90	1	30	68-116	
Methyl tert-butyl ether	10.0	6.77	68	2	30	46-144	
Methylene Chloride	10.0	7.96	80	0	30	63-128	
m-Xylene & p-Xylene	20.0	18.6	93	1	30	75-117	
Naphthalene	10.0	6.44	64	10	30	15-158	
n-Butylbenzene	10.0	9.89	99	5	30	56-127	
n-Propylbenzene	10.0	10.6	106	3	30	64-124	
o-Xylene	10.0	9.20	92	4	30	76-116	
sec-Butylbenzene	10.0	10.0	100	4	30	60-119	
Styrene	10.0	9.22	92	3	30	71-117	
Tetrachloroethene	10.0	9.32	93	1	30	70-117	
Toluene	10.0	10.1	101	2	30	78-114	
trans-1,2-Dichloroethene	10.0	8.78	88	2	30	80-119	
trans-1,3-Dichloropropene	10.0	6.52	65	3	30	46-116	
Trichloroethene	10.0	9.20	92	1	30	66-120	
Trichlorofluoromethane	10.0	8.55	86	5	30	46-157	
Vinyl acetate	10.0	8.09	81	5	30	43-157	
Vinyl chloride	10.0	7.77	78	3	30	49-130	
tert-Butylbenzene	10.0	10.0	100	4	30	61-119	
1,2-Dibromoethane	10.0	8.49	85	4	30	74-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Sample No.: STD8260 240-3007/4 Date Analyzed: 05/29/2011 13:45

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM6502.D Heated Purge: (Y/N) N

Calibration ID: 1183

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1300312	5.72	996322	8.41	544167	10.65
UPPER LIMIT		2600624	6.22	1992644	8.91	1088334	11.15
LOWER LIMIT		650156	5.22	498161	7.91	272084	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-3007/14		1244035	5.72	939144	8.41	496491	10.65
CCVIS 240-6573/2		1251278	5.72	883745	8.41	424880	10.65

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Sample No.: CCVIS 240-6573/2 Date Analyzed: 06/29/2011 12:41

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM7324.D Heated Purge: (Y/N) N

Calibration ID: 1185

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1251278	5.72	883745	8.41	424880	10.65
UPPER LIMIT		2502556	6.22	1767490	8.91	849760	11.15
LOWER LIMIT		625639	5.22	441873	7.91	212440	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-6573/3		1186731	5.72	874451	8.41	405311	10.65
LCS 240-6573/4		1221014	5.72	875226	8.41	428882	10.65
MB 240-6573/5		1195601	5.72	858361	8.41	389001	10.65
240-1287-1	TB-062011	1177494	5.72	826964	8.41	385877	10.65
240-1287-2	GSP-MW-4-062011	1181821	5.72	841601	8.41	389116	10.65
240-1287-3	GSP-MW-5-062011	1210877	5.72	861144	8.41	410573	10.65
240-1287-4	GSP-MW-6-062011	1214090	5.72	878557	8.41	401710	10.66
240-1438-H-4 MS		1196480	5.72	851980	8.41	428238	10.65
240-1438-I-4 MSD		1210953	5.72	862468	8.41	407675	10.65

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Instrument ID: A4HP10 Start Date: 06/27/2011 17:37

Analysis Batch Number: 6156 End Date: 06/28/2011 02:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-6156/1		06/27/2011 17:37	1	0627001.D	DB-624 0.18(mm)
STD5 240-6156/2 IC		06/27/2011 17:56	1	0627002.D	DB-624 0.18(mm)
STD4 240-6156/3 IC		06/27/2011 18:14	1	0627003.D	DB-624 0.18(mm)
STD3 240-6156/4 IC		06/27/2011 18:33	1	0627004.D	DB-624 0.18(mm)
STD2 240-6156/5 IC		06/27/2011 18:52	1	0627005.D	DB-624 0.18(mm)
STD1 240-6156/6 IC		06/27/2011 19:11	1	0627006.D	DB-624 0.18(mm)
STD9 240-6156/7 IC		06/27/2011 19:29	1	0627007.D	DB-624 0.18(mm)
STD8 240-6156/8 IC		06/27/2011 19:48	1	0627008.D	DB-624 0.18(mm)
STD7 240-6156/9 IC		06/27/2011 20:07	1	0627009.D	DB-624 0.18(mm)
STD6 240-6156/10 ICIS		06/27/2011 20:25	1	0627010.D	DB-624 0.18(mm)
ICV 240-6156/13		06/27/2011 21:21	1	0627013.D	DB-624 0.18(mm)
STD9 240-6156/14 IC		06/27/2011 21:40	1		DB-624 0.18(mm)
STD8 240-6156/15 IC		06/27/2011 21:59	1		DB-624 0.18(mm)
STD7 240-6156/16 IC		06/27/2011 22:17	1		DB-624 0.18(mm)
STD6 240-6156/17 IC		06/27/2011 22:36	1		DB-624 0.18(mm)
STD5 240-6156/18 IC		06/27/2011 22:55	1		DB-624 0.18(mm)
STD4 240-6156/19 IC		06/27/2011 23:13	1		DB-624 0.18(mm)
STD3 240-6156/20 IC		06/27/2011 23:32	1		DB-624 0.18(mm)
STD2 240-6156/21 IC		06/27/2011 23:51	1		DB-624 0.18(mm)
ICV 240-6156/22		06/28/2011 00:10	1		DB-624 0.18(mm)
STD9 240-6156/23 IC		06/28/2011 00:28	1		DB-624 0.18(mm)
STD8 240-6156/24 IC		06/28/2011 00:47	1		DB-624 0.18(mm)
STD7 240-6156/25 IC		06/28/2011 01:06	1		DB-624 0.18(mm)
STD6 240-6156/26 IC		06/28/2011 01:24	1		DB-624 0.18(mm)
STD5 240-6156/27 IC		06/28/2011 01:43	1		DB-624 0.18(mm)
STD4 240-6156/28 IC		06/28/2011 02:02	1		DB-624 0.18(mm)
STD3 240-6156/29 IC		06/28/2011 02:20	1		DB-624 0.18(mm)
STD2 240-6156/30 IC		06/28/2011 02:39	1		DB-624 0.18(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Instrument ID: A4HP10 Start Date: 06/28/2011 15:19

Analysis Batch Number: 6435 End Date: 06/28/2011 19:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-6435/1		06/28/2011 15:19	1	0628001.D	DB-624 0.18(mm)
CCV 240-6435/2 CCVIS		06/28/2011 15:37	1	0628002.D	DB-624 0.18(mm)
MB 240-5615/6-A		06/28/2011 17:11	1	0628007.D	DB-624 0.18(mm)
LCS 240-5615/7-A		06/28/2011 17:30	1	0628008.D	DB-624 0.18(mm)
ZZZZZ		06/28/2011 18:26	1		DB-624 0.18(mm)
240-1287-3	GSP-MW-5-062011	06/28/2011 18:44	1	0628012.D	DB-624 0.18(mm)
240-1287-4	GSP-MW-6-062011	06/28/2011 19:03	1	0628013.D	DB-624 0.18(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Instrument ID: A4HP10 Start Date: 06/30/2011 10:18

Analysis Batch Number: 6711 End Date: 06/30/2011 12:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-6711/1		06/30/2011 10:18	1	0630001.D	DB-624 0.18(mm)
CCV 240-6711/2 CCVIS		06/30/2011 10:36	1	0630002.D	DB-624 0.18(mm)
240-1287-2	GSP-MW-4-062011	06/30/2011 12:40	1	0630008.D	DB-624 0.18(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Batch Number: 5615 Batch Start Date: 06/22/11 12:00 Batch Analyst: Coast, Chris

Batch Method: 3510C Batch End Date: 06/23/11 06:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	FirstAdjustpH	InitialAmount	FinalAmount	EXBNALCS1 00003	EXBNASURRW 00002
240-1287-K-2	GSP-MW-4-062011	3510C, 8270D	T	7 SU	2 SU	1050 mL	2.00 mL		1 mL
240-1287-K-3	GSP-MW-5-062011	3510C, 8270D	T	7 SU	2 SU	1000 mL	2.00 mL		1 mL
240-1287-L-4	GSP-MW-6-062011	3510C, 8270D	T	7 SU	2 SU	1050 mL	2.00 mL		1 mL
MB 240-5615/6		3510C, 8270D		7 SU	2 SU	1000 mL	2.00 mL		1 mL
LCS 240-5615/7		3510C, 8270D		7 SU	2 SU	1000 mL	2.00 mL	1 mL	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXRESTEKSPKW 00002
240-1287-K-2	GSP-MW-4-062011	3510C, 8270D	T	
240-1287-K-3	GSP-MW-5-062011	3510C, 8270D	T	
240-1287-L-4	GSP-MW-6-062011	3510C, 8270D	T	
MB 240-5615/6		3510C, 8270D		
LCS 240-5615/7		3510C, 8270D		1 mL

Batch Notes	
Acid used for pH adjust Lot #	010428
Batch Comment	SS CC/SE note: CLLE extraction
Concentration Start Time	032333
Person's name who did the concentration	lah/cc
Na2SO4 Lot Number	010356
Prep Solvent Lot #	057963

Basis	Basis Description
T	Total/NA

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab File ID: 0627001.D DFTPP Injection Date: 06/27/2011

Instrument ID: A4HP10 DFTPP Injection Time: 17:37

Analysis Batch No.: 6156

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	36.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	47.0	
70	Less than 2.0% of mass 69	0.2	(0.3)1
127	25.0 - 75.0% of mass 198	55.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	25.0	
365	Greater than 0.75% of mass 198	2.6	
441	Present, but less than mass 443	11.1	
442	40.0 - 110.0% of mass 198	68.8	
443	15.0 - 24.0% of mass 442	13.7	(19.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-6156/2	0627002.D	06/27/2011	17:56
	STD4 240-6156/3	0627003.D	06/27/2011	18:14
	STD3 240-6156/4	0627004.D	06/27/2011	18:33
	STD2 240-6156/5	0627005.D	06/27/2011	18:52
	STD1 240-6156/6	0627006.D	06/27/2011	19:11
	STD9 240-6156/7	0627007.D	06/27/2011	19:29
	STD8 240-6156/8	0627008.D	06/27/2011	19:48
	STD7 240-6156/9	0627009.D	06/27/2011	20:07
	STD6 240-6156/10	0627010.D	06/27/2011	20:25
	ICV 240-6156/13	0627013.D	06/27/2011	21:21

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab File ID: 0628001.D DFTPP Injection Date: 06/28/2011

Instrument ID: A4HP10 DFTPP Injection Time: 15:19

Analysis Batch No.: 6435

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.3	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	51.0	
70	Less than 2.0% of mass 69	0.1	(0.2)1
127	25.0 - 75.0% of mass 198	59.2	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.1	
275	10.0- 30.0% of mass 198	23.6	
365	Greater than 0.75% of mass 198	2.4	
441	Present, but less than mass 443	9.1	
442	40.0 - 110.0% of mass 198	58.2	
443	15.0 - 24.0% of mass 442	11.3	(19.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-6435/2	0628002.D	06/28/2011	15:37
	MB 240-5615/6-A	0628007.D	06/28/2011	17:11
	LCS 240-5615/7-A	0628008.D	06/28/2011	17:30
GSP-MW-5-062011	240-1287-3	0628012.D	06/28/2011	18:44
GSP-MW-6-062011	240-1287-4	0628013.D	06/28/2011	19:03

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab File ID: 0630001.D DFTPP Injection Date: 06/30/2011

Instrument ID: A4HP10 DFTPP Injection Time: 10:18

Analysis Batch No.: 6711

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	35.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	45.6	
70	Less than 2.0% of mass 69	0.3	(0.6)1
127	25.0 - 75.0% of mass 198	55.9	
197	Less than 1.0% of mass 198	0.5	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	24.3	
365	Greater than 0.75% of mass 198	2.4	
441	Present, but less than mass 443	10.5	
442	40.0 - 110.0% of mass 198	66.0	
443	15.0 - 24.0% of mass 442	13.2	(20.0)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-6711/2	0630002.D	06/30/2011	10:36
GSP-MW-4-062011	240-1287-2	0630008.D	06/30/2011	12:40

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6156/6	0627006.D
Level 2	STD2 240-6156/5	0627005.D
Level 3	STD3 240-6156/4	0627004.D
Level 4	STD4 240-6156/3	0627003.D
Level 5	STD5 240-6156/2	0627002.D
Level 6	STD6 240-6156/10	0627010.D
Level 7	STD7 240-6156/9	0627009.D
Level 8	STD8 240-6156/8	0627008.D
Level 9	STD9 240-6156/7	0627007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5316	0.5719 0.5597	0.5658 0.5338	0.5540 0.5771	0.5393	Ave		0.5541				3.2		20.0			
N-Nitrosodimethylamine	0.9379	0.9702 0.9510	0.9498 0.9409	0.9699 0.9792	0.9057	Ave		0.9506				2.5		20.0			
Pyridine	1.5344	1.4518 1.5750	1.4996 1.5653	1.5671 1.6430	1.5087	Ave		1.5431				3.8		20.0			
Ethyl methacrylate	1.2298	1.2703 1.2662	1.2703 1.2316	1.2807 1.3169	1.2379	Ave		1.2630				2.3		20.0			
3-Chloropropionitrile	0.7011	0.7358 0.6896	0.6866 0.6791	0.7014 0.7253	0.6689	Ave		0.6985				3.2		20.0			
Malononitrile	1.6535	1.6722 1.6840	1.6836 1.6344	1.7078 1.6198	1.5964	Ave		1.6565				2.3		20.0			
Benzoic acid	0.2186	+++++ 0.2782	+++++ 0.2957	0.1569 0.3102	0.2165	Qua	-0.353	0.2212	0.0020						0.9980		0.9900
Benzaldehyde	1.0688	1.2690 0.9448	1.2332 0.8660	1.2393 0.7296	1.0740	Ave		1.0531			0.0100	19.0		20.0			
Phenol	1.8179	1.8081 1.8761	1.8361 1.8792	1.8670 1.9467	1.7908	Ave		1.8527			0.8000	2.7		20.0			
Aniline	2.3553	2.2239 2.5007	2.2540 2.4272	2.3318 2.5670	2.3288	Ave		2.3736				5.0		20.0			
Bis(2-chloroethyl)ether	1.4641	1.6310 1.4267	1.5098 1.4904	1.5659 1.5038	1.3624	Ave		1.4943			0.7000	5.5		20.0			
2-Chlorophenol	1.4542	1.5161 1.4878	1.4573 1.5015	1.4936 1.5532	1.4375	Ave		1.4877			0.8000	2.5		20.0			
1,3-Dichlorobenzene	1.4454	1.5493 1.4797	1.5312 1.4558	1.5069 1.5141	1.4133	Ave		1.4870				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dichlorobenzene	1.5207	1.5083 1.5434	1.5510 1.5286	1.5621 1.5940	1.4924	Ave		1.5376				2.1		20.0			
Benzyl alcohol	0.8831	0.8703 0.8978	0.9148 0.9239	0.9513 0.9332	0.9075	Ave		0.9102				2.9		20.0			
1,2-Dichlorobenzene	1.3938	1.3997 1.4248	1.4330 1.4216	1.4464 1.4795	1.3863	Ave		1.4231				2.2		20.0			
2-Methylphenol	1.3326	1.3587 1.3877	1.3357 1.4059	1.4014 1.4574	1.3213	Ave		1.3751			0.7000	3.4		20.0			
2,2'-oxybis[1-chloropropane]	1.5387	1.5270 1.5279	1.5438 1.5346	1.6002 1.5804	1.4428	Ave		1.5369				3.0		20.0			
3 & 4 Methylphenol	1.3787	1.3332 1.4020	1.3982 1.4187	1.4475 1.4572	1.3671	Ave		1.4003				2.9		20.0			
N-Nitrosodi-n-propylamine	1.0734	1.0725 1.0912	1.1052 1.1029	1.0760 1.1283	1.0557	Ave		1.0882			0.5000	2.1		20.0			
Acetophenone	1.9328	1.8960 1.9527	1.9251 1.9705	1.9345 2.0274	1.8423	Ave		1.9352			0.0100	2.8		20.0			
Hexachloroethane	0.5414	0.5788 0.5488	0.5405 0.5502	0.5629 0.5721	0.5320	Ave		0.5533			0.3000	3.0		20.0			
Nitrobenzene	0.3975	0.3933 0.4010	0.3939 0.4000	0.4141 0.4237	0.3951	Ave		0.4023			0.2000	2.7		20.0			
2,4-Toluene diamine	0.1598	0.2640 0.1633	0.2331 +++++	0.1299 +++++	0.2195	Ave		0.1949				26.0	*	20.0			
Isophorone	0.7449	0.7406 0.7627	0.7430 0.7525	0.7817 0.7922	0.7388	Ave		0.7571			0.4000	2.7		20.0			
2,4-Dimethylphenol	0.3689	0.3637 0.3773	0.3738 0.3830	0.3824 0.4045	0.3631	Ave		0.3771			0.2000	3.6		20.0			
2-Nitrophenol	0.2107	0.1839 0.2141	0.1930 0.2170	0.2122 0.2279	0.2040	Ave		0.2078			0.1000	6.7		20.0			
1,3,5-Trichlorobenzene	0.3057	0.3041 0.3098	0.3133 0.3097	0.3195 0.3241	0.3069	Ave		0.3116				2.2		20.0			
Bis(2-chloroethoxy)methane	0.4235	0.4278 0.4292	0.4236 0.4277	0.4281 0.4594	0.4201	Ave		0.4299			0.3000	2.9		20.0			
2,4-Dichlorophenol	0.2834	0.2577 0.2915	0.2817 0.2930	0.2955 0.3034	0.2856	Ave		0.2865			0.2000	4.7		20.0			
1,2,4-Trichlorobenzene	0.3007	0.3150 0.3037	0.3114 0.2980	0.3041 0.3127	0.2967	Ave		0.3053				2.3		20.0			
Naphthalene	1.3322 1.1172	1.1267 1.1307	1.1441 1.1248	1.1650 1.1840	1.1094	Ave		1.1593			0.7000	6.0		20.0			
4-Chloroaniline	0.4641	0.4781 0.4909	0.4781 0.4957	0.5113 0.5208	0.5085	Ave		0.4934			0.0100	3.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	RRF					CURVE TYPE	COEFFICIENT		MIN RRF	%RSD	MAX %RSD	R^2 OR COD	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1 M2					
Hexachlorobutadiene		0.1470	0.1474	0.1497	0.1454	Ave		0.1469	0.0100	1.8	20.0		
	0.1442	0.1460	0.1440	0.1513									
1,2,3-Trichlorobenzene		0.2772	0.2832	0.2908	0.2764	Ave		0.2827		2.5	20.0		
	0.2773	0.2805	0.2802	0.2958									
Caprolactam		0.1026	0.1233	0.1267	0.1224	Ave		0.1222	0.0100	6.8	20.0		
	0.1224	0.1271	0.1242	0.1292									
4-Chloro-3-methylphenol		0.2983	0.3087	0.3159	0.3015	Ave		0.3107	0.2000	3.5	20.0		
	0.3092	0.3116	0.3070	0.3336									
2-Methylnaphthalene	0.6706	0.5854	0.5982	0.6076	0.5803	Ave		0.6034	0.4000	4.8	20.0		
	0.5786	0.5945	0.5909	0.6242									
1-Methylnaphthalene	0.8213	0.6725	0.6794	0.6851	0.6606	Ave		0.6950		7.1	20.0		
	0.6684	0.6789	0.6777	0.7115									
4-Nitrophenol		+++++	0.1272	0.1497	0.1489	Ave		0.1415		13.0	20.0		
	0.1190	0.1250	0.1541	0.1666									
1,2,3,5-Tetrachlorobenzene		0.4798	0.4721	0.5059	0.4660	Ave		0.4770		2.9	20.0		
	0.4698	0.4700	0.4651	0.4873									
Hexachlorocyclopentadiene		0.2321	0.2621	0.2991	0.2948	Ave		0.2802	0.0500	8.4	20.0		
	0.2792	0.2840	0.2861	0.3044									
2,4,6-Trichlorophenol		0.3097	0.3282	0.3474	0.3375	Ave		0.3352	0.2000	4.7	20.0		
	0.3234	0.3356	0.3379	0.3618									
2,4,5-Trichlorophenol		0.3398	0.3514	0.3820	0.3476	Ave		0.3588	0.2000	5.2	20.0		
	0.3546	0.3574	0.3451	0.3921									
1,1'-Biphenyl	1.5899	1.4428	1.4664	1.5401	1.4376	Ave		1.5000	0.0100	3.7	20.0		
	1.4753	1.4856	1.4891	1.5729									
1,2,3,4 -Tetrachlorobenzene		0.4530	0.4607	0.4797	0.4617	Ave		0.4567		2.6	20.0		
	0.4487	0.4478	0.4419	0.4598									
2-Chloronaphthalene	1.3108	1.0968	1.0991	1.1206	1.0662	Ave		1.1284	0.8000	6.5	20.0		
	1.0886	1.1030	1.1014	1.1693									
4,6-Dinitro-2-methylphenol		+++++	0.1034	0.1409	0.1524	Ave		0.1469	0.0100	15.0	20.0		
	0.1461	0.1524	0.1604	0.1730									
2-Nitroaniline		0.3307	0.3394	0.3423	0.3301	Ave		0.3423	0.0100	3.2	20.0		
	0.3395	0.3491	0.3434	0.3640									
Dimethyl phthalate		1.2406	1.2774	1.3129	1.2055	Ave		1.2629	0.0100	3.1	20.0		
	1.2270	1.2775	1.2473	1.3152									
2,6-Dinitrotoluene		0.2648	0.2608	0.2889	0.2780	Ave		0.2867		6.4	20.0		
	0.2910	0.2964	0.2977	0.3164									
1,2-Dinitrobenzene		0.1304	0.1373	0.1515	0.1453	Ave		0.1477		6.6	20.0		
	0.1482	0.1538	0.1547	0.1602									
Acenaphthylene	2.1337	1.8623	1.8425	1.9326	1.7933	Ave		1.8923	0.9000	5.4	20.0		
	1.8277	1.8519	1.8449	1.9413									

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
3-Nitroaniline		0.3306	0.3314	0.3535	0.3333	Ave		0.3441			0.0100	3.9		20.0			
	0.3373	0.3469	0.3503	0.3695													
2,4-Dinitrophenol		0.0778	0.1324	0.1885	0.2101	Qua	-0.097	0.1980	0.0010		0.0100				0.9990		0.9900
	0.2043	0.2311	0.2359	0.2483													
Acenaphthene	1.3487	1.1610	1.1484	1.2094	1.1152	Ave		1.1832			0.9000	5.8		20.0			
	1.1380	1.1709	1.1500	1.2072													
2,4-Dinitrotoluene		0.3335	0.3724	0.3865	0.3645	Ave		0.3792			0.2000	6.1		20.0			
	0.3829	0.3936	0.3886	0.4114													
Dibenzofuran	1.7973	1.5812	1.5635	1.6368	1.5125	Ave		1.5987			0.8000	5.3		20.0			
	1.5395	1.5693	1.5547	1.6339													
2,3,5,6-Tetrachlorophenol		0.2352	0.2463	0.2799	0.2676	Ave		0.2690				7.3		20.0			
	0.2699	0.2782	0.2794	0.2955													
Diethyl phthalate		1.2479	1.2429	1.2777	1.1804	Ave		1.2449			0.0100	3.0		20.0			
	1.2145	1.2584	1.2369	1.3003													
4-Chlorophenyl phenyl ether		0.5770	0.5729	0.6101	0.5540	Ave		0.5714			0.4000	3.4		20.0			
	0.5538	0.5620	0.5570	0.5841													
4-Nitroaniline		0.3310	0.3607	0.3848	0.3568	Ave		0.3700			0.0100	6.4		20.0			
	0.3529	0.3850	0.3842	0.4047													
Fluorene	1.5514	1.3248	1.3064	1.3672	1.2859	Ave		1.3489			0.9000	6.1		20.0			
	1.2889	1.3202	1.3172	1.3779													
N-Nitrosodiphenylamine		0.5994	0.6003	0.5943	0.5719	Ave		0.6078			0.0100	3.7		20.0			
	0.6072	0.6245	0.6179	0.6468													
Azobenzene		0.8795	0.8755	0.9124	0.8730	Ave		0.8976				2.9		20.0			
	0.8900	0.8957	0.9022	0.9527													
4-Bromophenyl phenyl ether		0.1967	0.1944	0.1995	0.1862	Ave		0.1932			0.1000	2.5		20.0			
	0.1902	0.1906	0.1897	0.1985													
Hexachlorobenzene	0.2194	0.1954	0.1865	0.1899	0.1799	Ave		0.1887			0.1000	6.8		20.0			
	0.1786	0.1807	0.1797	0.1880													
Atrazine		0.2155	0.2058	0.2116	0.2000	Ave		0.2007			0.0100	5.0		20.0			
	0.1983	0.1979	0.1848	0.1917													
Pentachlorophenol		0.0677	0.0837	0.1100	0.1283	Qua	-0.065	0.1253	0.0005		0.0500				1.0000		0.9900
	0.1284	0.1375	0.1424	0.1468													
Phenanthrene	1.3142	1.1248	1.1039	1.1651	1.0960	Ave		1.1449			0.7000	6.0		20.0			
	1.0965	1.1192	1.1155	1.1693													
Anthracene	1.3259	1.1044	1.1141	1.1587	1.1366	Ave		1.1608			0.7000	5.8		20.0			
	1.1256	1.1386	1.1521	1.1914													
Carbazole		1.0915	1.1131	1.1427	1.1034	Ave		1.1192			0.0100	2.3		20.0			
	1.0967	1.1193	1.1190	1.1680													
Di-n-butyl phthalate		1.2706	1.2958	1.3368	1.2927	Ave		1.3350			0.0100	3.8		20.0			
	1.3317	1.3599	1.3621	1.4308													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Fluoranthene	1.2531 1.1117	1.0970 1.1218	1.1413 1.1285	1.1636 1.1766	1.1065	Ave		1.1445			0.6000	4.2		20.0			
Benzidine	 0.6411	0.5094 0.6796	0.6033 0.6914	0.5914 0.7668	0.7180	Ave		0.6501				13.0		20.0			
Pyrene	1.4028 1.1726	1.1905 1.2038	1.2154 1.1872	1.2438 1.2550	1.1922	Ave		1.2293			0.6000	5.7		20.0			
Butyl benzyl phthalate	 0.5832	0.5679 0.5881	0.5675 0.5887	0.5920 0.6213	0.5730	Ave		0.5852			0.0100	3.0		20.0			
3,3'-Dimethoxybenzidine	 0.2241	0.2244 0.2241	0.2597 0.2508	0.2827 0.2679	0.2907	Ave		0.2531				11.0		20.0			
Bis(2-ethylhexyl) phthalate	 0.8324	0.8121 0.8553	0.8136 0.8531	0.8494 0.8966	0.8152	Ave		0.8410			0.0100	3.4		20.0			
4,4'-Methylene bis(2-chloroaniline)	 0.2039	0.1917 0.2079	0.1982 0.2062	0.2171 0.2229	0.2153	Ave		0.2079				5.0		20.0			
3,3'-Dichlorobenzidine	 0.4142	0.3936 0.4246	0.4074 0.4135	0.4421 0.4431	0.4215	Ave		0.4200			0.0100	4.0		20.0			
Benzo[a]anthracene	1.3445 1.0770	1.1241 1.0923	1.0917 1.0873	1.1454 1.1451	1.0767	Ave		1.1316			0.8000	7.4		20.0			
Chrysene	1.2534 1.0493	1.0525 1.0468	1.0837 1.0445	1.1034 1.1028	1.0349	Ave		1.0857			0.7000	6.3		20.0			
Di-n-octyl phthalate	 1.5792	1.5280 1.6522	1.5190 1.6538	1.5767 1.7651	1.5204	Ave		1.5993			0.0100	5.4		20.0			
Benzo[b]fluoranthene	1.5306 1.1608	1.1855 1.2295	1.1270 1.1801	1.1947 1.3648	1.2144	Ave		1.2430			0.7000	10.0		20.0			
Benzo[k]fluoranthene	1.4946 1.2883	1.2601 1.2834	1.3650 1.3155	1.3027 1.3167	1.2265	Ave		1.3170			0.7000	5.8		20.0			
Benzo[a]pyrene	1.3819 1.1411	1.1326 1.1643	1.1194 1.1457	1.1624 1.2222	1.1196	Ave		1.1766			0.7000	7.1		20.0			
Indeno[1,2,3-cd]pyrene	1.2529 1.2025	1.1647 1.2336	1.2000 1.2162	1.1973 1.2981	1.1858	Ave		1.2168			0.5000	3.3		20.0			
Dibenzo(a,h)anthracene	1.0779 1.0163	0.9680 1.0306	0.9717 1.0249	0.9915 1.1011	0.9884	Ave		1.0189			0.4000	4.5		20.0			
Benzo[g,h,i]perylene	1.2090 0.9817	0.9328 1.0096	0.9679 1.0012	0.9844 1.0715	0.9654	Ave		1.0137			0.5000	8.1		20.0			
2-Fluorophenol (Surr)	 1.2607	1.2873 1.3075	1.3148 1.2871	1.3124 1.3599	1.2658	Ave		1.2995				2.4		20.0			
Phenol-d5 (Surr)	 1.7130	1.6825 1.7663	1.7103 1.7483	1.7492 1.8212	1.6720	Ave		1.7328				2.8		20.0			
Nitrobenzene-d5 (Surr)	0.4676 0.4098	0.4120 0.4210	0.4140 0.4181	0.4270 0.4408	0.4054	Ave		0.4240				4.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Fluorobiphenyl (Surr)	1.3308 1.2397	1.2882 1.2603	1.2768 1.2545	1.3240 1.3278	1.2342	Ave		1.2818				3.0		20.0			
2,4,6-Tribromophenol (Surr)	 0.1169	0.1057 0.1217	0.1130 0.1187	0.1229 0.1284	0.1209	Ave		0.1185				5.8		20.0			
Terphenyl-d14 (Surr)	0.8320 0.6891	0.7148 0.6938	0.7205 0.6813	0.7391 0.7189	0.6895	Ave		0.7199				6.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICV 240-6156/13 Calibration Date: 06/27/2011 21:21

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0627013.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5541	0.5452		9.84	10.0	-1.6	30.0
N-Nitrosodimethylamine	Ave	0.9506	0.9496		9.99	10.0	-0.1	30.0
Pyridine	Ave	1.543	1.537		9.96	10.0	-0.4	30.0
Ethyl methacrylate	Ave	1.263	1.260		9.97	10.0	-0.3	30.0
3-Chloropropionitrile	Ave	0.6985	0.7011		10.0	10.0	0.4	30.0
Malononitrile	Ave	1.656	1.671		10.1	10.0	0.9	30.0
Benzaldehyde	Ave	1.053	1.068	0.0100	10.1	10.0	1.4	30.0
Phenol	Ave	1.853	1.839	0.8000	9.93	10.0	-0.7	30.0
Aniline	Ave	2.374	2.316		9.76	10.0	-2.4	30.0
Bis(2-chloroethyl)ether	Ave	1.494	1.484	0.7000	9.93	10.0	-0.7	30.0
2-Chlorophenol	Ave	1.488	1.455	0.8000	9.78	10.0	-2.2	30.0
1,3-Dichlorobenzene	Ave	1.487	1.448		9.74	10.0	-2.6	30.0
1,4-Dichlorobenzene	Ave	1.538	1.521		9.89	10.0	-1.1	30.0
Benzyl alcohol	Ave	0.9102	0.9028		9.92	10.0	-0.8	30.0
1,2-Dichlorobenzene	Ave	1.423	1.395		9.80	10.0	-2.0	30.0
2-Methylphenol	Ave	1.375	1.354	0.7000	9.85	10.0	-1.5	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.537	1.513		9.84	10.0	-1.6	30.0
3 & 4 Methylphenol	Ave	1.400	1.389		9.92	10.0	-0.8	30.0
N-Nitrosodi-n-propylamine	Ave	1.088	1.086	0.5000	9.98	10.0	-0.2	30.0
Acetophenone	Ave	1.935	1.908	0.0100	9.86	10.0	-1.4	30.0
Hexachloroethane	Ave	0.5533	0.5401	0.3000	9.76	10.0	-2.4	30.0
Nitrobenzene	Ave	0.4023	0.3922	0.2000	9.75	10.0	-2.5	30.0
Isophorone	Ave	0.7571	0.7495	0.4000	9.90	10.0	-1.0	30.0
2,4-Dimethylphenol	Ave	0.3771	0.3669	0.2000	9.73	10.0	-2.7	30.0
2-Nitrophenol	Ave	0.2078	0.2058	0.1000	9.90	10.0	-1.0	30.0
1,3,5-Trichlorobenzene	Ave	0.3116	0.3039		9.75	10.0	-2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.4299	0.4266	0.3000	9.92	10.0	-0.8	30.0
Benzoic acid	Qua		0.2585		21.0	20.0	5.0	30.0
2,4-Dichlorophenol	Ave	0.2865	0.2868	0.2000	10.0	10.0	0.1	30.0
1,2,4-Trichlorobenzene	Ave	0.3053	0.2940		9.63	10.0	-3.7	30.0
Naphthalene	Ave	1.159	1.100	0.7000	9.49	10.0	-5.1	30.0
4-Chloroaniline	Ave	0.4934	0.4621	0.0100	9.37	10.0	-6.3	30.0
Hexachlorobutadiene	Ave	0.1469	0.1437	0.0100	9.78	10.0	-2.2	30.0
1,2,3-Trichlorobenzene	Ave	0.2827	0.2733		9.67	10.0	-3.3	30.0
Caprolactam	Ave	0.1222	0.1233	0.0100	10.1	10.0	0.9	30.0
4-Chloro-3-methylphenol	Ave	0.3107	0.3164	0.2000	10.2	10.0	1.8	30.0
2-Methylnaphthalene	Ave	0.6034	0.5801	0.4000	9.61	10.0	-3.9	30.0
1-Methylnaphthalene	Ave	0.6950	0.6642		9.56	10.0	-4.4	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4770	0.4609		9.66	10.0	-3.4	30.0
Hexachlorocyclopentadiene	Ave	0.2802	0.2726	0.0500	9.73	10.0	-2.7	30.0
2,4,6-Trichlorophenol	Ave	0.3352	0.3226	0.2000	9.63	10.0	-3.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICV 240-6156/13 Calibration Date: 06/27/2011 21:21

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0627013.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3588	0.3524	0.2000	9.82	10.0	-1.8	30.0
2,4-Toluene diamine	Ave	0.1949	0.2053		10.5	10.0	5.3	30.0
1,1'-Biphenyl	Ave	1.500	1.454	0.0100	9.70	10.0	-3.0	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4567	0.4361		9.55	10.0	-4.5	30.0
2-Chloronaphthalene	Ave	1.128	1.068	0.8000	9.47	10.0	-5.3	30.0
2-Nitroaniline	Ave	0.3423	0.3408	0.0100	9.96	10.0	-0.4	30.0
Dimethyl phthalate	Ave	1.263	1.243	0.0100	9.84	10.0	-1.6	30.0
2,6-Dinitrotoluene	Ave	0.2867	0.2912		10.2	10.0	1.6	30.0
1,2-Dinitrobenzene	Ave	0.1477	0.1498		10.1	10.0	1.4	30.0
Acenaphthylene	Ave	1.892	1.789	0.9000	9.45	10.0	-5.5	30.0
3-Nitroaniline	Ave	0.3441	0.3364	0.0100	9.78	10.0	-2.2	30.0
2,4-Dinitrophenol	Qua		0.1960	0.0100	18.5	20.0	-7.5	30.0
Acenaphthene	Ave	1.183	1.127	0.9000	9.52	10.0	-4.8	30.0
4-Nitrophenol	Ave	0.1415	0.1351		9.55	10.0	-4.5	30.0
2,4-Dinitrotoluene	Ave	0.3792	0.3795	0.2000	10.0	10.0	0.0	30.0
Dibenzofuran	Ave	1.599	1.541	0.8000	9.64	10.0	-3.6	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.2690	0.2678		9.95	10.0	-0.5	30.0
Diethyl phthalate	Ave	1.245	1.228	0.0100	9.87	10.0	-1.3	30.0
4-Chlorophenyl phenyl ether	Ave	0.5714	0.5601	0.4000	9.80	10.0	-2.0	30.0
4-Nitroaniline	Ave	0.3700	0.3630	0.0100	9.81	10.0	-1.9	30.0
Fluorene	Ave	1.349	1.294	0.9000	9.59	10.0	-4.1	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1469	0.1400	0.0100	9.53	10.0	-4.7	30.0
N-Nitrosodiphenylamine	Ave	0.6078	0.6059	0.0100	9.97	10.0	-0.3	30.0
Azobenzene	Ave	0.8976	0.8861		9.87	10.0	-1.3	30.0
4-Bromophenyl phenyl ether	Ave	0.1932	0.1904	0.1000	9.85	10.0	-1.5	30.0
Hexachlorobenzene	Ave	0.1887	0.1782	0.1000	9.44	10.0	-5.6	30.0
Atrazine	Ave	0.2007	0.1957	0.0100	9.75	10.0	-2.5	30.0
Pentachlorophenol	Qua		0.1317	0.0500	20.1	20.0	0.5	30.0
Phenanthrene	Ave	1.145	1.103	0.7000	9.63	10.0	-3.7	30.0
Anthracene	Ave	1.161	1.113	0.7000	9.59	10.0	-4.1	30.0
Carbazole	Ave	1.119	1.102	0.0100	9.85	10.0	-1.5	30.0
Di-n-butyl phthalate	Ave	1.335	1.337	0.0100	10.0	10.0	0.2	30.0
Fluoranthene	Ave	1.144	1.112	0.6000	9.72	10.0	-2.8	30.0
Benzidine	Ave	0.6501	0.6273		9.65	10.0	-3.5	30.0
Pyrene	Ave	1.229	1.190	0.6000	9.68	10.0	-3.2	30.0
Butyl benzyl phthalate	Ave	0.5852	0.5769	0.0100	9.86	10.0	-1.4	30.0
3,3'-Dimethoxybenzidine	Ave	0.2531	0.2237		8.84	10.0	-11.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8410	0.8348	0.0100	9.93	10.0	-0.7	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2079	0.2061		9.91	10.0	-0.9	30.0
3,3'-Dichlorobenzidine	Ave	0.4200	0.4173	0.0100	9.93	10.0	-0.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICV 240-6156/13 Calibration Date: 06/27/2011 21:21

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0627013.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.132	1.088	0.8000	9.61	10.0	-3.9	30.0
Chrysene	Ave	1.086	1.029	0.7000	9.48	10.0	-5.2	30.0
Di-n-octyl phthalate	Ave	1.599	1.600	0.0100	10.0	10.0	0.0	30.0
Benzo[b]fluoranthene	Ave	1.243	1.176	0.7000	9.46	10.0	-5.4	30.0
Benzo[k]fluoranthene	Ave	1.317	1.263	0.7000	9.59	10.0	-4.1	30.0
Benzo[a]pyrene	Ave	1.177	1.126	0.7000	9.57	10.0	-4.3	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.217	1.192	0.5000	9.80	10.0	-2.0	30.0
Dibenzo(a,h)anthracene	Ave	1.019	1.011	0.4000	9.92	10.0	-0.8	30.0
Benzo[g,h,i]perylene	Ave	1.014	0.9922	0.5000	9.79	10.0	-2.1	30.0
2-Fluorophenol (Surr)	Ave	1.299	1.274		9.81	10.0	-1.9	30.0
Phenol-d5 (Surr)	Ave	1.733	1.734		10.0	10.0	0.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4240	0.4135		9.75	10.0	-2.5	30.0
2-Fluorobiphenyl (Surr)	Ave	1.282	1.226		9.57	10.0	-4.3	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1185	0.1186		10.0	10.0	0.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7199	0.6824		9.48	10.0	-5.2	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCV 240-6435/2 Calibration Date: 06/28/2011 15:37

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0628002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5541	0.5628		10.2	10.0	1.6	20.0
N-Nitrosodimethylamine	Ave	0.9506	0.9573		10.1	10.0	0.7	20.0
Pyridine	Ave	1.543	1.570		10.2	10.0	1.7	20.0
Ethyl methacrylate	Ave	1.263	1.270		10.1	10.0	0.6	20.0
3-Chloropropionitrile	Ave	0.6985	0.7097		10.2	10.0	1.6	20.0
Malononitrile	Ave	1.656	1.681		10.2	10.0	1.5	20.0
Benzaldehyde	Ave	1.053	0.9752	0.0100	9.26	10.0	-7.4	20.0
Phenol	Ave	1.853	1.837	0.8000	9.92	10.0	-0.8	20.0
Aniline	Ave	2.374	2.491		10.5	10.0	4.9	20.0
Bis(2-chloroethyl)ether	Ave	1.494	1.388	0.7000	9.29	10.0	-7.1	20.0
2-Chlorophenol	Ave	1.488	1.457	0.8000	9.80	10.0	-2.0	20.0
1,3-Dichlorobenzene	Ave	1.487	1.451		9.76	10.0	-2.4	20.0
1,4-Dichlorobenzene	Ave	1.538	1.510		9.82	10.0	-1.8	20.0
Benzyl alcohol	Ave	0.9102	0.8980		9.87	10.0	-1.3	20.0
1,2-Dichlorobenzene	Ave	1.423	1.406		9.88	10.0	-1.2	20.0
2-Methylphenol	Ave	1.375	1.362	0.7000	9.91	10.0	-0.9	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.537	1.523		9.91	10.0	-0.9	20.0
3 & 4 Methylphenol	Ave	1.400	1.381		9.86	10.0	-1.4	20.0
N-Nitrosodi-n-propylamine	Ave	1.088	1.043	0.5000	9.59	10.0	-4.1	20.0
Acetophenone	Ave	1.935	1.888	0.0100	9.76	10.0	-2.4	20.0
Hexachloroethane	Ave	0.5533	0.5364	0.3000	9.69	10.0	-3.1	20.0
Nitrobenzene	Ave	0.4023	0.4013	0.2000	9.98	10.0	-0.2	20.0
Isophorone	Ave	0.7571	0.7220	0.4000	9.54	10.0	-4.6	20.0
2,4-Dimethylphenol	Ave	0.3771	0.3801	0.2000	10.1	10.0	0.8	20.0
2-Nitrophenol	Ave	0.2078	0.2074	0.1000	9.98	10.0	-0.2	20.0
1,3,5-Trichlorobenzene	Ave	0.3116	0.3087		9.91	10.0	-0.9	20.0
Bis(2-chloroethoxy)methane	Ave	0.4299	0.4159	0.3000	9.67	10.0	-3.3	20.0
Benzoic acid	Qua		0.2502		20.5	20.0	2.5	20.0
2,4-Dichlorophenol	Ave	0.2865	0.2849	0.2000	9.95	10.0	-0.5	20.0
1,2,4-Trichlorobenzene	Ave	0.3053	0.2992		9.80	10.0	-2.0	20.0
Naphthalene	Ave	1.159	1.109	0.7000	9.56	10.0	-4.4	20.0
4-Chloroaniline	Ave	0.4934	0.4641	0.0100	9.41	10.0	-5.9	20.0
Hexachlorobutadiene	Ave	0.1469	0.1452	0.0100	9.88	10.0	-1.2	20.0
1,2,3-Trichlorobenzene	Ave	0.2827	0.2790		9.87	10.0	-1.3	20.0
Caprolactam	Ave	0.1222	0.1169	0.0100	9.56	10.0	-4.4	20.0
4-Chloro-3-methylphenol	Ave	0.3107	0.3079	0.2000	9.91	10.0	-0.9	20.0
2-Methylnaphthalene	Ave	0.6034	0.5711	0.4000	9.47	10.0	-5.3	20.0
1-Methylnaphthalene	Ave	0.6950	0.6513		9.37	10.0	-6.3	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4770	0.4917		10.3	10.0	3.1	20.0
Hexachlorocyclopentadiene	Ave	0.2802	0.2995	0.0500	10.7	10.0	6.9	20.0
2,4,6-Trichlorophenol	Ave	0.3352	0.3500	0.2000	10.4	10.0	4.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCV 240-6435/2 Calibration Date: 06/28/2011 15:37

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0628002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3588	0.3577	0.2000	9.97	10.0	-0.3	20.0
2,4-Toluene diamine	Ave	0.1949	0.2003		10.3	10.0	2.7	20.0
1,1'-Biphenyl	Ave	1.500	1.492	0.0100	9.94	10.0	-0.6	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4567	0.4660		10.2	10.0	2.0	20.0
2-Chloronaphthalene	Ave	1.128	1.105	0.8000	9.79	10.0	-2.1	20.0
2-Nitroaniline	Ave	0.3423	0.3488	0.0100	10.2	10.0	1.9	20.0
Dimethyl phthalate	Ave	1.263	1.254	0.0100	9.93	10.0	-0.7	20.0
2,6-Dinitrotoluene	Ave	0.2867	0.2918		10.2	10.0	1.8	20.0
1,2-Dinitrobenzene	Ave	0.1477	0.1491		10.1	10.0	1.0	20.0
Acenaphthylene	Ave	1.892	1.854	0.9000	9.80	10.0	-2.0	20.0
3-Nitroaniline	Ave	0.3441	0.3450	0.0100	10.0	10.0	0.2	20.0
2,4-Dinitrophenol	Qua		0.2374	0.0100	21.9	20.0	9.5	20.0
Acenaphthene	Ave	1.183	1.149	0.9000	9.71	10.0	-2.9	20.0
4-Nitrophenol	Ave	0.1415	0.1655		11.7	10.0	17.0	20.0
2,4-Dinitrotoluene	Ave	0.3792	0.3848	0.2000	10.1	10.0	1.5	20.0
Dibenzofuran	Ave	1.599	1.575	0.8000	9.85	10.0	-1.5	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.2690	0.2798		10.4	10.0	4.0	20.0
Diethyl phthalate	Ave	1.245	1.221	0.0100	9.81	10.0	-1.9	20.0
4-Chlorophenyl phenyl ether	Ave	0.5714	0.5709	0.4000	10.0	10.0	-0.0	20.0
4-Nitroaniline	Ave	0.3700	0.3757	0.0100	10.2	10.0	1.5	20.0
Fluorene	Ave	1.349	1.302	0.9000	9.65	10.0	-3.5	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1469	0.1595	0.0100	10.9	10.0	8.6	20.0
N-Nitrosodiphenylamine	Ave	0.6078	0.6030	0.0100	9.92	10.0	-0.8	20.0
Azobenzene	Ave	0.8976	0.8812		9.82	10.0	-1.8	20.0
4-Bromophenyl phenyl ether	Ave	0.1932	0.1920	0.1000	9.93	10.0	-0.7	20.0
Hexachlorobenzene	Ave	0.1887	0.1782	0.1000	9.45	10.0	-5.5	20.0
Atrazine	Ave	0.2007	0.2046	0.0100	10.2	10.0	1.9	20.0
Pentachlorophenol	Qua		0.1370	0.0500	20.8	20.0	4.0	20.0
Phenanthrene	Ave	1.145	1.111	0.7000	9.70	10.0	-3.0	20.0
Anthracene	Ave	1.161	1.134	0.7000	9.77	10.0	-2.3	20.0
Carbazole	Ave	1.119	1.108	0.0100	9.90	10.0	-1.0	20.0
Di-n-butyl phthalate	Ave	1.335	1.324	0.0100	9.92	10.0	-0.8	20.0
Fluoranthene	Ave	1.144	1.120	0.6000	9.79	10.0	-2.1	20.0
Benzidine	Ave	0.6501	0.7128		11.0	10.0	9.6	20.0
Pyrene	Ave	1.229	1.207	0.6000	9.82	10.0	-1.8	20.0
Butyl benzyl phthalate	Ave	0.5852	0.5741	0.0100	9.81	10.0	-1.9	20.0
3,3'-Dimethoxybenzidine	Ave	0.2531	0.2707		10.7	10.0	7.0	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8410	0.8308	0.0100	9.88	10.0	-1.2	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2079	0.2107		10.1	10.0	1.4	20.0
3,3'-Dichlorobenzidine	Ave	0.4200	0.4327	0.0100	10.3	10.0	3.0	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCV 240-6435/2 Calibration Date: 06/28/2011 15:37

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0628002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.132	1.137	0.8000	10.0	10.0	0.4	20.0
Chrysene	Ave	1.086	1.005	0.7000	9.25	10.0	-7.5	20.0
Di-n-octyl phthalate	Ave	1.599	1.586	0.0100	9.91	10.0	-0.9	20.0
Benzo[b]fluoranthene	Ave	1.243	1.315	0.7000	10.6	10.0	5.8	20.0
Benzo[k]fluoranthene	Ave	1.317	1.240	0.7000	9.42	10.0	-5.8	20.0
Benzo[a]pyrene	Ave	1.177	1.163	0.7000	9.88	10.0	-1.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.217	1.203	0.5000	9.89	10.0	-1.1	20.0
Dibenzo(a,h)anthracene	Ave	1.019	1.004	0.4000	9.85	10.0	-1.5	20.0
Benzo[g,h,i]perylene	Ave	1.014	0.9895	0.5000	9.76	10.0	-2.4	20.0
2-Fluorophenol (Surr)	Ave	1.299	1.298		10.0	10.0	-0.0	20.0
Phenol-d5 (Surr)	Ave	1.733	1.734		10.0	10.0	0.0	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4240	0.4112		9.70	10.0	-3.0	20.0
2-Fluorobiphenyl (Surr)	Ave	1.282	1.279		9.98	10.0	-0.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1185	0.1206		10.2	10.0	1.7	20.0
Terphenyl-d14 (Surr)	Ave	0.7199	0.6919		9.61	10.0	-3.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCV 240-6711/2 Calibration Date: 06/30/2011 10:36

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0630002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5541	0.5219		9.42	10.0	-5.8	20.0
N-Nitrosodimethylamine	Ave	0.9506	0.9249		9.73	10.0	-2.7	20.0
Pyridine	Ave	1.543	1.541		9.99	10.0	-0.1	20.0
Ethyl methacrylate	Ave	1.263	1.199		9.49	10.0	-5.1	20.0
3-Chloropropionitrile	Ave	0.6985	0.6729		9.63	10.0	-3.7	20.0
Malononitrile	Ave	1.656	1.631		9.85	10.0	-1.5	20.0
Benzaldehyde	Ave	1.053	1.023	0.0100	9.71	10.0	-2.9	20.0
Phenol	Ave	1.853	1.818	0.8000	9.81	10.0	-1.9	20.0
Aniline	Ave	2.374	2.390		10.1	10.0	0.7	20.0
Bis(2-chloroethyl)ether	Ave	1.494	1.408	0.7000	9.42	10.0	-5.8	20.0
2-Chlorophenol	Ave	1.488	1.451	0.8000	9.75	10.0	-2.5	20.0
1,3-Dichlorobenzene	Ave	1.487	1.448		9.74	10.0	-2.6	20.0
1,4-Dichlorobenzene	Ave	1.538	1.519		9.88	10.0	-1.2	20.0
Benzyl alcohol	Ave	0.9102	0.8715		9.57	10.0	-4.3	20.0
1,2-Dichlorobenzene	Ave	1.423	1.393		9.79	10.0	-2.1	20.0
2-Methylphenol	Ave	1.375	1.341	0.7000	9.75	10.0	-2.5	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.537	1.481		9.63	10.0	-3.7	20.0
3 & 4 Methylphenol	Ave	1.400	1.377		9.83	10.0	-1.7	20.0
N-Nitrosodi-n-propylamine	Ave	1.088	1.034	0.5000	9.50	10.0	-5.0	20.0
Acetophenone	Ave	1.935	1.903	0.0100	9.83	10.0	-1.7	20.0
Hexachloroethane	Ave	0.5533	0.5379	0.3000	9.72	10.0	-2.8	20.0
Nitrobenzene	Ave	0.4023	0.3923	0.2000	9.75	10.0	-2.5	20.0
Isophorone	Ave	0.7571	0.7238	0.4000	9.56	10.0	-4.4	20.0
2-Nitrophenol	Ave	0.2078	0.2069	0.1000	9.96	10.0	-0.4	20.0
2,4-Dimethylphenol	Ave	0.3771	0.3829	0.2000	10.2	10.0	1.5	20.0
1,3,5-Trichlorobenzene	Ave	0.3116	0.3115		10.0	10.0	-0.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4299	0.4196	0.3000	9.76	10.0	-2.4	20.0
Benzoic acid	Qua		0.2078		17.6	20.0	-12.0	20.0
2,4-Dichlorophenol	Ave	0.2865	0.2867	0.2000	10.0	10.0	0.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3053	0.3014		9.87	10.0	-1.3	20.0
Naphthalene	Ave	1.159	1.106	0.7000	9.54	10.0	-4.6	20.0
4-Chloroaniline	Ave	0.4934	0.4639	0.0100	9.40	10.0	-6.0	20.0
Hexachlorobutadiene	Ave	0.1469	0.1466	0.0100	9.98	10.0	-0.2	20.0
1,2,3-Trichlorobenzene	Ave	0.2827	0.2758		9.76	10.0	-2.4	20.0
Caprolactam	Ave	0.1222	0.1072	0.0100	8.77	10.0	-12.3	20.0
4-Chloro-3-methylphenol	Ave	0.3107	0.3089	0.2000	9.94	10.0	-0.6	20.0
2-Methylnaphthalene	Ave	0.6034	0.5827	0.4000	9.66	10.0	-3.4	20.0
1-Methylnaphthalene	Ave	0.6950	0.6610		9.51	10.0	-4.9	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4567	0.4766		10.4	10.0	4.4	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4770	0.4766		10.0	10.0	-0.0	20.0
Hexachlorocyclopentadiene	Ave	0.2802	0.2675	0.0500	9.55	10.0	-4.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCV 240-6711/2 Calibration Date: 06/30/2011 10:36

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0630002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,6-Trichlorophenol	Ave	0.3352	0.3384	0.2000	10.1	10.0	1.0	20.0
2,4,5-Trichlorophenol	Ave	0.3588	0.3678	0.2000	10.3	10.0	2.5	20.0
2,4-Toluene diamine	Ave	0.1949	0.1876		9.62	10.0	-3.8	20.0
1,1'-Biphenyl	Ave	1.500	1.473	0.0100	9.82	10.0	-1.8	20.0
2-Chloronaphthalene	Ave	1.128	1.093	0.8000	9.69	10.0	-3.1	20.0
2-Nitroaniline	Ave	0.3423	0.3365	0.0100	9.83	10.0	-1.7	20.0
4-Nitroaniline	Ave	0.3700	0.4147	0.0100	11.2	10.0	12.1	20.0
Dimethyl phthalate	Ave	1.263	1.245	0.0100	9.86	10.0	-1.4	20.0
2,6-Dinitrotoluene	Ave	0.2867	0.2917		10.2	10.0	1.7	20.0
1,2-Dinitrobenzene	Ave	0.1477	0.1513		10.2	10.0	2.5	20.0
Acenaphthylene	Ave	1.892	1.834	0.9000	9.69	10.0	-3.1	20.0
3-Nitroaniline	Ave	0.3441	0.3444	0.0100	10.0	10.0	0.0	20.0
2,4-Dinitrophenol	Qua		0.2148	0.0100	20.1	20.0	0.5	20.0
Acenaphthene	Ave	1.183	1.135	0.9000	9.60	10.0	-4.0	20.0
4-Nitrophenol	Ave	0.1415	0.1496		10.6	10.0	5.7	20.0
2,4-Dinitrotoluene	Ave	0.3792	0.3824	0.2000	10.1	10.0	0.8	20.0
Dibenzofuran	Ave	1.599	1.548	0.8000	9.68	10.0	-3.2	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.2690	0.2663		9.90	10.0	-1.0	20.0
Diethyl phthalate	Ave	1.245	1.224	0.0100	9.83	10.0	-1.7	20.0
4-Chlorophenyl phenyl ether	Ave	0.5714	0.5660	0.4000	9.91	10.0	-0.9	20.0
Fluorene	Ave	1.349	1.294	0.9000	9.59	10.0	-4.1	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1469	0.1470	0.0100	10.0	10.0	0.0	20.0
N-Nitrosodiphenylamine	Ave	0.6078	0.6135	0.0100	10.1	10.0	0.9	20.0
Azobenzene	Ave	0.8976	0.8762		9.76	10.0	-2.4	20.0
4-Bromophenyl phenyl ether	Ave	0.1932	0.1907	0.1000	9.87	10.0	-1.3	20.0
Hexachlorobenzene	Ave	0.1887	0.1830	0.1000	9.70	10.0	-3.0	20.0
Atrazine	Ave	0.2007	0.2029	0.0100	10.1	10.0	1.1	20.0
Pentachlorophenol	Qua		0.1306	0.0500	19.9	20.0	-0.5	20.0
Phenanthrene	Ave	1.145	1.108	0.7000	9.68	10.0	-3.2	20.0
Anthracene	Ave	1.161	1.139	0.7000	9.81	10.0	-1.9	20.0
Carbazole	Ave	1.119	1.108	0.0100	9.90	10.0	-1.0	20.0
Di-n-butyl phthalate	Ave	1.335	1.338	0.0100	10.0	10.0	0.2	20.0
Fluoranthene	Ave	1.144	1.134	0.6000	9.91	10.0	-0.9	20.0
Benzidine	Ave	0.6501	0.7501		11.5	10.0	15.4	20.0
Pyrene	Ave	1.229	1.206	0.6000	9.81	10.0	-1.9	20.0
Butyl benzyl phthalate	Ave	0.5852	0.5894	0.0100	10.1	10.0	0.7	20.0
3,3'-Dimethoxybenzidine	Ave	0.2531	0.2521		9.96	10.0	-0.4	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8410	0.8344	0.0100	9.92	10.0	-0.8	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2079	0.2057		9.89	10.0	-1.1	20.0
3,3'-Dichlorobenzidine	Ave	0.4200	0.4154	0.0100	9.89	10.0	-1.1	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCV 240-6711/2 Calibration Date: 06/30/2011 10:36

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0630002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.132	1.097	0.8000	9.69	10.0	-3.1	20.0
Chrysene	Ave	1.086	1.052	0.7000	9.69	10.0	-3.1	20.0
Di-n-octyl phthalate	Ave	1.599	1.619	0.0100	10.1	10.0	1.2	20.0
Benzo[b]fluoranthene	Ave	1.243	1.209	0.7000	9.72	10.0	-2.8	20.0
Benzo[k]fluoranthene	Ave	1.317	1.297	0.7000	9.85	10.0	-1.5	20.0
Benzo[a]pyrene	Ave	1.177	1.159	0.7000	9.85	10.0	-1.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.217	1.204	0.5000	9.90	10.0	-1.0	20.0
Dibenzo(a,h)anthracene	Ave	1.019	1.013	0.4000	9.94	10.0	-0.6	20.0
Benzo[g,h,i]perylene	Ave	1.014	1.009	0.5000	9.95	10.0	-0.5	20.0
2-Fluorophenol (Surr)	Ave	1.299	1.259		9.69	10.0	-3.1	20.0
Phenol-d5 (Surr)	Ave	1.733	1.705		9.84	10.0	-1.6	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4240	0.3910		9.22	10.0	-7.8	20.0
2-Fluorobiphenyl (Surr)	Ave	1.282	1.255		9.79	10.0	-2.1	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1185	0.1190		10.0	10.0	0.4	20.0
Terphenyl-d14 (Surr)	Ave	0.7199	0.6971		9.68	10.0	-3.2	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton
Job No.: 240-1287-1
SDG No.:
Lab File ID: 0628007.D
Lab Sample ID: MB 240-5615/6-A
Matrix: Water
Date Extracted: 06/22/2011 08:55
Instrument ID: A4HP10
Date Analyzed: 06/28/2011 17:11
Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-5615/7-A	0628008.D	06/28/2011 17:30
GSP-MW-5-062011	240-1287-3	0628012.D	06/28/2011 18:44
GSP-MW-6-062011	240-1287-4	0628013.D	06/28/2011 19:03
GSP-MW-4-062011	240-1287-2	0630008.D	06/30/2011 12:40

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1287-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5615/6-A

Matrix: Water | Lab File ID: 0628007.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/22/2011 08:55

Sample wt/vol: 1000(mL) | Date Analyzed: 06/28/2011 17:11

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6435 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.20	U	0.20	0.10
208-96-8	Acenaphthylene	0.20	U	0.20	0.10
98-86-2	Acetophenone	1.0	U	1.0	0.34
120-12-7	Anthracene	0.20	U	0.20	0.10
1912-24-9	Atrazine	1.0	U	1.0	0.34
100-52-7	Benzaldehyde	1.0	U	1.0	0.39
56-55-3	Benzo[a]anthracene	0.20	U	0.20	0.10
50-32-8	Benzo[a]pyrene	0.20	U	0.20	0.10
205-99-2	Benzo[b]fluoranthene	0.20	U	0.20	0.10
191-24-2	Benzo[g,h,i]perylene	0.20	U	0.20	0.10
207-08-9	Benzo[k]fluoranthene	0.20	U	0.20	0.10
92-52-4	1,1'-Biphenyl	1.0	U	1.0	0.80
111-91-1	Bis(2-chloroethoxy)methane	1.0	U	1.0	0.32
111-44-4	Bis(2-chloroethyl)ether	1.0	U	1.0	0.10
117-81-7	Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80
101-55-3	4-Bromophenyl phenyl ether	2.0	U	2.0	0.80
85-68-7	Butyl benzyl phthalate	1.0	U	1.0	0.80
105-60-2	Caprolactam	5.0	U	5.0	0.80
86-74-8	Carbazole	1.0	U	1.0	0.28
106-47-8	4-Chloroaniline	2.0	U	2.0	0.80
59-50-7	4-Chloro-3-methylphenol	2.0	U	2.0	0.80
91-58-7	2-Chloronaphthalene	1.0	U	1.0	0.10
95-57-8	2-Chlorophenol	1.0	U	1.0	0.29
7005-72-3	4-Chlorophenyl phenyl ether	2.0	U	2.0	0.30
218-01-9	Chrysene	0.20	U	0.20	0.10
53-70-3	Dibenzo(a,h)anthracene	0.20	U	0.20	0.10
132-64-9	Dibenzofuran	1.0	U	1.0	0.10
91-94-1	3,3'-Dichlorobenzidine	5.0	U	5.0	0.37
120-83-2	2,4-Dichlorophenol	2.0	U	2.0	0.80
84-66-2	Diethyl phthalate	1.0	U	1.0	0.60
105-67-9	2,4-Dimethylphenol	2.0	U	2.0	0.80
131-11-3	Dimethyl phthalate	1.0	U	1.0	0.29
84-74-2	Di-n-butyl phthalate	1.0	U	1.0	0.67
534-52-1	4,6-Dinitro-2-methylphenol	5.0	U	5.0	2.4

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1287-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5615/6-A

Matrix: Water | Lab File ID: 0628007.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/22/2011 08:55

Sample wt/vol: 1000(mL) | Date Analyzed: 06/28/2011 17:11

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6435 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	5.0	U	5.0	2.4
121-14-2	2,4-Dinitrotoluene	5.0	U	5.0	0.27
606-20-2	2,6-Dinitrotoluene	5.0	U	5.0	0.80
117-84-0	Di-n-octyl phthalate	1.0	U	1.0	0.80
206-44-0	Fluoranthene	0.20	U	0.20	0.10
86-73-7	Fluorene	0.20	U	0.20	0.10
118-74-1	Hexachlorobenzene	0.20	U	0.20	0.10
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.27
77-47-4	Hexachlorocyclopentadiene	10	U	10	0.80
67-72-1	Hexachloroethane	1.0	U	1.0	0.80
193-39-5	Indeno[1,2,3-cd]pyrene	0.20	U	0.20	0.10
78-59-1	Isophorone	1.0	U	1.0	0.27
91-57-6	2-Methylnaphthalene	0.20	U	0.20	0.10
95-48-7	2-Methylphenol	1.0	U	1.0	0.80
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49
15831-10-4	3 & 4 Methylphenol	2.0	U	2.0	0.75
91-20-3	Naphthalene	0.20	U	0.20	0.10
88-74-4	2-Nitroaniline	2.0	U	2.0	0.80
99-09-2	3-Nitroaniline	2.0	U	2.0	0.28
100-01-6	4-Nitroaniline	2.0	U	2.0	0.80
98-95-3	Nitrobenzene	1.0	U	1.0	0.040
88-75-5	2-Nitrophenol	2.0	U	2.0	0.28
100-02-7	4-Nitrophenol	5.0	U	5.0	2.4
621-64-7	N-Nitrosodi-n-propylamine	1.0	U	1.0	0.80
86-30-6	N-Nitrosodiphenylamine	1.0	U	1.0	0.31
108-60-1	2,2'-oxybis[1-chloropropane]	1.0	U	1.0	0.40
87-86-5	Pentachlorophenol	5.0	U	5.0	2.4
85-01-8	Phenanthrene	0.20	U	0.20	0.10
108-95-2	Phenol	1.0	U	1.0	0.60
129-00-0	Pyrene	0.20	U	0.20	0.10
95-95-4	2,4,5-Trichlorophenol	5.0	U	5.0	0.30
88-06-2	2,4,6-Trichlorophenol	5.0	U	5.0	0.80
62-75-9	N-Nitrosodimethylamine	1.0	U	1.0	0.31

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1287-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-5615/6-A
Matrix: Water
Lab File ID: 0628007.D
Analysis Method: 8270D
Date Collected:
Extract. Method: 3510C
Date Extracted: 06/22/2011 08:55
Sample wt/vol: 1000(mL)
Date Analyzed: 06/28/2011 17:11
Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 6435
Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	61		28-110
367-12-4	2-Fluorophenol (Surr)	65		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		27-111
4165-62-2	Phenol-d5 (Surr)	66		10-110
1718-51-0	Terphenyl-d14 (Surr)	71		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	60		22-120

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	2FP	#	PHL	#	NBZ	#	FBP	#	TBP	#	TPH	#
GSP-MW-4-062011	240-1287-2	52		55		50		50		56		58	
GSP-MW-5-062011	240-1287-3	53		48		49		51		61		62	
GSP-MW-6-062011	240-1287-4	56		55		53		54		64		53	
	MB 240-5615/6-A	65		66		62		61		60		71	
	LCS 240-5615/7-A	71		73		70		66		69		74	

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	10-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	27-111
FBP = 2-Fluorobiphenyl (Surr)	28-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
TPH = Terphenyl-d14 (Surr)	37-119

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0628008.D

Lab ID: LCS 240-5615/7-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Acenaphthene	20.0	13.0	65	40-110	
Acenaphthylene	20.0	13.2	66	43-110	
Acetophenone	20.0	14.5	73	50-130	
Anthracene	20.0	13.3	66	54-114	
Atrazine	20.0	14.8	74	50-130	
Benzaldehyde	20.0	17.1	85	10-130	
Benzo[a]anthracene	20.0	12.7	64	55-115	
Benzo[a]pyrene	20.0	10.9	55	43-116	
Benzo[b]fluoranthene	20.0	12.1	61	43-122	
Benzo[g,h,i]perylene	20.0	13.0	65	45-120	
Benzo[k]fluoranthene	20.0	13.8	69	43-124	
1,1'-Biphenyl	20.0	13.0	65	50-130	
Bis(2-chloroethoxy)methane	20.0	14.1	70	39-110	
Bis(2-chloroethyl)ether	20.0	14.2	71	34-113	
Bis(2-ethylhexyl) phthalate	20.0	10.2	51	36-163	
4-Bromophenyl phenyl ether	20.0	13.5	68	51-114	
Butyl benzyl phthalate	20.0	13.6	68	53-126	
Caprolactam	20.0	13.7	68	50-130	
Carbazole	20.0	13.3	66	53-120	
4-Chloroaniline	20.0	12.2	61	10-110	
4-Chloro-3-methylphenol	20.0	13.7	68	39-110	
2-Chloronaphthalene	20.0	13.2	66	39-110	
2-Chlorophenol	20.0	14.1	71	27-110	
4-Chlorophenyl phenyl ether	20.0	13.9	70	50-115	
Chrysene	20.0	13.7	69	55-115	
Dibenzo(a,h)anthracene	20.0	12.5	63	46-122	
Dibenzofuran	20.0	13.5	68	46-111	
3,3'-Dichlorobenzidine	20.0	8.28	41	19-110	
2,4-Dichlorophenol	20.0	13.9	69	33-110	
Diethyl phthalate	20.0	14.1	70	33-134	
2,4-Dimethylphenol	20.0	10.9	54	12-110	
Dimethyl phthalate	20.0	14.0	70	15-143	
Di-n-butyl phthalate	20.0	14.0	70	55-122	
4,6-Dinitro-2-methylphenol	20.0	12.7	63	28-112	
2,4-Dinitrophenol	20.0	10.7	54	17-112	
2,4-Dinitrotoluene	20.0	14.7	74	52-123	
2,6-Dinitrotoluene	20.0	15.0	75	52-119	
Di-n-octyl phthalate	20.0	9.54	48	44-128	
Fluoranthene	20.0	13.9	69	54-122	
Fluorene	20.0	13.2	66	47-112	
Hexachlorobenzene	20.0	13.4	67	51-112	
Hexachlorobutadiene	20.0	13.2	66	13-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 0628008.D

Lab ID: LCS 240-5615/7-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Hexachlorocyclopentadiene	20.0	6.68 J	33	10-110	
Hexachloroethane	20.0	13.0	65	12-110	
Indeno[1,2,3-cd]pyrene	20.0	12.4	62	46-121	
Isophorone	20.0	13.7	68	44-128	
2-Methylnaphthalene	20.0	15.9	80	35-110	
2-Methylphenol	20.0	13.6	68	30-110	
1,4-Dioxane	20.0	12.2	61	10-110	
3 & 4 Methylphenol	40.0	28.0	70	32-110	
Naphthalene	20.0	13.3	67	31-110	
2-Nitroaniline	20.0	13.9	69	43-130	
3-Nitroaniline	20.0	13.0	65	45-116	
4-Nitroaniline	20.0	13.7	68	45-120	
Nitrobenzene	20.0	14.2	71	37-115	
2-Nitrophenol	20.0	13.8	69	29-110	
4-Nitrophenol	20.0	13.6	68	12-130	
N-Nitrosodi-n-propylamine	20.0	14.3	72	37-121	
N-Nitrosodiphenylamine	20.0	12.7	63	53-113	
2,2'-oxybis[1-chloropropane]	20.0	15.1	75	25-128	
Pentachlorophenol	20.0	12.8	64	26-110	
Phenanthrene	20.0	13.0	65	52-114	
Phenol	20.0	14.3	72	14-112	
Pyrene	20.0	13.1	66	55-120	
2,4,5-Trichlorophenol	20.0	13.6	68	39-110	
2,4,6-Trichlorophenol	20.0	13.6	68	35-110	
N-Nitrosodimethylamine	20.0	14.1	70	10-130	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Sample No.: STD6 240-6156/10 Date Analyzed: 06/27/2011 20:25

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 0627010.D Heated Purge: (Y/N) N

Calibration ID: 1822

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224864	3.54	863634	4.44	499368	5.70
UPPER LIMIT		449728	4.04	1727268	4.94	998736	6.20
LOWER LIMIT		112432	3.04	431817	3.94	249684	5.20
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-6156/13		250980	3.54	956057	4.44	565740	5.70
CCV 240-6435/2 CCVIS		219623	3.52	824712	4.41	454520	5.67
CCV 240-6711/2 CCVIS		188234	3.44	708281	4.34	404413	5.60

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Sample No.: STD6 240-6156/10 Date Analyzed: 06/27/2011 20:25

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 0627010.D Heated Purge: (Y/N) N

Calibration ID: 1822

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		777854	6.79	783039	8.77	672976	10.19
UPPER LIMIT		1555708	7.29	1566078	9.27	1345952	10.69
LOWER LIMIT		388927	6.29	391520	8.27	336488	9.69
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-6156/13		886965	6.79	888893	8.76	761645	10.18
CCV 240-6435/2 CCVIS		715328	6.76	709744	8.74	604317	10.15
CCV 240-6711/2 CCVIS		631044	6.68	631864	8.64	539371	9.99

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Sample No.: CCV 240-6435/2 Date Analyzed: 06/28/2011 15:37

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 0628002.D Heated Purge: (Y/N) N

Calibration ID: 1830

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		219623	3.52	824712	4.41	454520	5.67
UPPER LIMIT		439246	4.02	1649424	4.91	909040	6.17
LOWER LIMIT		109812	3.02	412356	3.91	227260	5.17
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-5615/6-A		184919	3.52	702767	4.41	427366	5.67
LCS 240-5615/7-A		184484	3.52	716722	4.41	430817	5.68
240-1287-3	GSP-MW-5-062011	196272	3.52	757963	4.41	459594	5.67
240-1287-4	GSP-MW-6-062011	163460	3.52	621720	4.41	372940	5.68

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Sample No.: CCV 240-6435/2 Date Analyzed: 06/28/2011 15:37

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 0628002.D Heated Purge: (Y/N) N

Calibration ID: 1830

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		715328	6.76	709744	8.74	604317	10.15
UPPER LIMIT		1430656	7.26	1419488	9.24	1208634	10.65
LOWER LIMIT		357664	6.26	354872	8.24	302159	9.65
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-5615/6-A		694227	6.75	684362	8.74	588156	10.15
LCS 240-5615/7-A		693375	6.76	692213	8.74	594642	10.14
240-1287-3	GSP-MW-5-062011	751107	6.76	753688	8.74	644110	10.15
240-1287-4	GSP-MW-6-062011	612853	6.76	627421	8.74	531204	10.15

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Sample No.: CCV 240-6711/2 Date Analyzed: 06/30/2011 10:36

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 0630002.D Heated Purge: (Y/N) N

Calibration ID: 1830

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		188234	3.44	708281	4.34	404413	5.60
UPPER LIMIT		376468	3.94	1416562	4.84	808826	6.10
LOWER LIMIT		94117	2.94	354141	3.84	202207	5.10
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-1287-2	GSP-MW-4-062011	183593	3.44	712998	4.34	439501	5.60

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Sample No.: CCV 240-6711/2 Date Analyzed: 06/30/2011 10:36

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 0630002.D Heated Purge: (Y/N) N

Calibration ID: 1830

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		631044	6.68	631864	8.64	539371	9.99
UPPER LIMIT		1262088	7.18	1263728	9.14	1078742	10.49
LOWER LIMIT		315522	6.18	315932	8.14	269686	9.49
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-1287-2	GSP-MW-4-062011	717934	6.68	719210	8.65	616703	10.00

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Instrument ID: A2HP14F Start Date: 05/19/2011 12:01

Analysis Batch Number: 2166 End Date: 05/19/2011 14:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-2166/4 IC		05/19/2011 12:01	1	P14F0000004.D	RTX-5 0.53(mm)
STD2 240-2166/5 IC		05/19/2011 12:25	1	P14F0000005.D	RTX-5 0.53(mm)
STD3 240-2166/6 IC		05/19/2011 12:49	1	P14F0000006.D	RTX-5 0.53(mm)
STD4 240-2166/7 IC		05/19/2011 13:14	1	P14F0000007.D	RTX-5 0.53(mm)
STD5 240-2166/8 IC		05/19/2011 13:38	1	P14F0000008.D	RTX-5 0.53(mm)
ICV 240-2166/9		05/19/2011 14:02	1	P14F0000009.D	RTX-5 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Instrument ID: A2HP14F Start Date: 06/24/2011 14:58

Analysis Batch Number: 6024 End Date: 06/24/2011 21:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-6024/4		06/24/2011 14:58	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 15:22	5		RTX-5 0.53(mm)
RINSE 240-6024/6		06/24/2011 15:47	1		RTX-5 0.53(mm)
CCV 240-6024/7		06/24/2011 16:11	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 16:36	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 17:00	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 17:25	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 17:49	1		RTX-5 0.53(mm)
CCVRT 240-6024/12		06/24/2011 18:13	1	P14F0000012.D	RTX-5 0.53(mm)
ZZZZZ		06/24/2011 18:38	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 19:02	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 19:26	1		RTX-5 0.53(mm)
240-1287-2	GSP-MW-4-062011	06/24/2011 19:51	1	P14F0000016.D	RTX-5 0.53(mm)
240-1287-3	GSP-MW-5-062011	06/24/2011 20:15	1	P14F0000017.D	RTX-5 0.53(mm)
240-1287-4	GSP-MW-6-062011	06/24/2011 20:39	1	P14F0000018.D	RTX-5 0.53(mm)
MB 240-5625/7-A		06/24/2011 21:03	1	P14F0000019.D	RTX-5 0.53(mm)
LCS 240-5625/8-A		06/24/2011 21:27	1	P14F0000020.D	RTX-5 0.53(mm)
CCV 240-6024/21		06/24/2011 21:51	1	P14F0000021.D	RTX-5 0.53(mm)

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Batch Number: 5625 Batch Start Date: 06/22/11 12:00 Batch Analyst: Coast, Chris

Batch Method: 3520C Batch End Date: 06/23/11 06:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	EXDIESELSPKW 00006	EXTPHSURR 00003
240-1287-L-2	GSP-MW-4-062011	3520C, 8015B	T	1050 mL	5.00 mL	7	2		1 mL
240-1287-L-3	GSP-MW-5-062011	3520C, 8015B	T	1050 mL	5.00 mL	7	2		1 mL
240-1287-K-4	GSP-MW-6-062011	3520C, 8015B	T	1050 mL	5.00 mL	7	2		1 mL
MB 240-5625/7		3520C, 8015B		1000 mL	5.00 mL	7	2		1 mL
LCS 240-5625/8		3520C, 8015B		1000 mL	5.00 mL	7	2	1 mL	1 mL

Batch Notes	
Batch Comment	SS CC/SE
Person's name who did the concentration	lah/cc
Na2SO4 Lot Number	010350
Prep Solvent Lot #	057963
Sufficient volume for MS/MSD?	032337

Basis	Basis Description
T	Total/NA

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Sample No.: CCVRT 240-6024/12 Date Analyzed: 06/24/2011 18:13

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P14F0000012.D Heated Purge: (Y/N) N

Calibration ID: 1051

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9 RT #
CONTINUING CALIBRATION SURROGATE				1.74
UPPER LIMIT				1.84
LOWER LIMIT				1.64
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID	
CCVRT 240-6024/12		06/24/2011 18:13	P14F0000012.D	1.74
240-1287-2	GSP-MW-4-062011	06/24/2011 19:51	P14F0000016.D	1.73
240-1287-3	GSP-MW-5-062011	06/24/2011 20:15	P14F0000017.D	1.74
240-1287-4	GSP-MW-6-062011	06/24/2011 20:39	P14F0000018.D	1.73
MB 240-5625/7-A		06/24/2011 21:03	P14F0000019.D	1.73
LCS 240-5625/8-A		06/24/2011 21:27	P14F0000020.D	1.73
CCV 240-6024/21		06/24/2011 21:51	P14F0000021.D	1.73

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 2166

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2166/4	P14F0000004.D
Level 2	STD2 240-2166/5	P14F0000005.D
Level 3	STD3 240-2166/6	P14F0000006.D
Level 4	STD4 240-2166/7	P14F0000007.D
Level 5	STD5 240-2166/8	P14F0000008.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT WINDOW	AVG RT
Diesel	8.122	8.122	8.122	8.122	8.122	3.590 - 12.654	8.122
n-Nonane	1.752	1.753	1.757	1.755	1.757	1.702 - 1.802	1.755

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 2166

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2166/4	P14F0000004.D
Level 2	STD2 240-2166/5	P14F0000005.D
Level 3	STD3 240-2166/6	P14F0000006.D
Level 4	STD4 240-2166/7	P14F0000007.D
Level 5	STD5 240-2166/8	P14F0000008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	705763 336646	515461	435657	351683	Lin	44348394.0	314402.704							0.9980		0.9900
n-Nonane	413140 382989	431927	436350	381033	Ave		409087.891				6.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICV 240-2166/9 Calibration Date: 05/19/2011 14:02

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		411800		514	500	2.8	20.0

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICV 240-2166/9 Calibration Date: 05/19/2011 14:02

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000009.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.12	3.59	12.65

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCVRT 240-6024/12 Calibration Date: 06/24/2011 18:13

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000012.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		425639		536	500	7.2	15.0
n-Nonane	Ave	409088	416429		50.9	50.0	1.8	15.0

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCVRT 240-6024/12 Calibration Date: 06/24/2011 18:13

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000012.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.10	3.56	12.64
n-Nonane	1.74	1.68	1.78

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCV 240-6024/21 Calibration Date: 06/24/2011 21:51

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000021.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		416689		522	500	4.3	15.0
n-Nonane	Ave	409088	423908		51.8	50.0	3.6	15.0

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCV 240-6024/21 Calibration Date: 06/24/2011 21:51

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000021.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.10	3.56	12.64
n-Nonane	1.73	1.68	1.78

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: MB 240-5625/7-A

Matrix: Water Date Extracted: 06/22/2011 09:21

Lab File ID:(1) P14F0000019.D Lab File ID:(2)

Date Analyzed:(1) 06/24/2011 21:03 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-MW-4-062011	240-1287-2	06/24/2011 19:51	
GSP-MW-5-062011	240-1287-3	06/24/2011 20:15	
GSP-MW-6-062011	240-1287-4	06/24/2011 20:39	
	LCS 240-5625/8-A	06/24/2011 21:27	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1287-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-5625/7-A
Matrix: Water
Lab File ID: P14F0000019.D
Analysis Method: 8015B
Date Collected:
Extraction Method: 3520C
Date Extracted: 06/22/2011 09:21
Sample wt/vol: 1000(mL)
Date Analyzed: 06/24/2011 21:03
Con. Extract Vol.: 5.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: RTX-5 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 6024
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	36		10-110

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	C91	#
GSP-MW-4-062011	240-1287-2	37	
GSP-MW-5-062011	240-1287-3	46	
GSP-MW-6-062011	240-1287-4	48	
	MB 240-5625/7-A	36	
	LCS 240-5625/8-A	26	

	QC LIMITS
C9 = n-Nonane	10-110

Column to be used to flag recovery values

FORM II 8015B

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F0000020.D

Lab ID: LCS 240-5625/8-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	1460	59	36-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Instrument ID: YPID Start Date: 06/22/2011 14:07

Analysis Batch Number: 5655 End Date: 06/23/2011 03:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-5655/4 IC		06/22/2011 14:07	1	YF062204.D	RTX-VRX 0.45(mm)
STD2 240-5655/5 IC		06/22/2011 14:47	1	YF062205.D	RTX-VRX 0.45(mm)
STD3 240-5655/6 IC		06/22/2011 15:27	1	YF062206.D	RTX-VRX 0.45(mm)
STD4 240-5655/7 ICRT		06/22/2011 16:07	1	YF062207.D	RTX-VRX 0.45(mm)
STD5 240-5655/8 IC		06/22/2011 16:48	1	YF062208.D	RTX-VRX 0.45(mm)
STD6 240-5655/9 IC		06/22/2011 17:30	1	YF062209.D	RTX-VRX 0.45(mm)
ICV 240-5655/10		06/22/2011 18:11	1	YF062210.D	RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 18:52	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 19:32	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 20:54	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 21:34	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 22:14	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 22:54	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 23:34	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 00:13	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 00:53	1		RTX-VRX 0.45(mm)
CCV 240-5655/21		06/23/2011 01:33	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 02:12	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 02:52	1		RTX-VRX 0.45(mm)
CCV 240-5655/24		06/23/2011 03:32	1		RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Instrument ID: YPID Start Date: 06/24/2011 15:12

Analysis Batch Number: 6019 End Date: 06/25/2011 07:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/24/2011 15:12	1		RTX-VRX 0.45(mm)
CCVRT 240-6019/5		06/24/2011 16:30	1	YF062405.D	RTX-VRX 0.45(mm)
MB 240-6019/6		06/24/2011 17:10	1	YF062406.D	RTX-VRX 0.45(mm)
LCS 240-6019/7		06/24/2011 17:50	1	YF062407.D	RTX-VRX 0.45(mm)
240-1287-2	GSP-MW-4-062011	06/24/2011 18:30	1	YF062408.D	RTX-VRX 0.45(mm)
240-1287-2 MS	GSP-MW-4-062011 MS	06/24/2011 19:10	1	YF062409.D	RTX-VRX 0.45(mm)
240-1287-2 MSD	GSP-MW-4-062011 MSD	06/24/2011 19:49	1	YF062410.D	RTX-VRX 0.45(mm)
240-1287-3	GSP-MW-5-062011	06/24/2011 20:28	1	YF062411.D	RTX-VRX 0.45(mm)
240-1287-4	GSP-MW-6-062011	06/24/2011 21:07	1	YF062412.D	RTX-VRX 0.45(mm)
ZZZZZ		06/24/2011 21:46	1		RTX-VRX 0.45(mm)
ZZZZZ		06/24/2011 22:25	1		RTX-VRX 0.45(mm)
CCV 240-6019/16		06/24/2011 23:42	1	YF062416.D	RTX-VRX 0.45(mm)
ZZZZZ		06/25/2011 00:20	1		RTX-VRX 0.45(mm)
ZZZZZ		06/25/2011 00:58	1		RTX-VRX 0.45(mm)
ZZZZZ		06/25/2011 02:14	1		RTX-VRX 0.45(mm)
ZZZZZ		06/25/2011 03:30	1		RTX-VRX 0.45(mm)
ZZZZZ		06/25/2011 04:08	1		RTX-VRX 0.45(mm)
ZZZZZ		06/25/2011 04:45	1		RTX-VRX 0.45(mm)
ZZZZZ		06/25/2011 05:23	1		RTX-VRX 0.45(mm)
ZZZZZ		06/25/2011 06:01	1		RTX-VRX 0.45(mm)
ZZZZZ		06/25/2011 06:39	1		RTX-VRX 0.45(mm)
CCV 240-6019/28		06/25/2011 07:17	1		RTX-VRX 0.45(mm)

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Sample No.: CCVRT 240-6019/5 Date Analyzed: 06/24/2011 16:30

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF062405.D Heated Purge: (Y/N) N

Calibration ID: 1594

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #
CONTINUING CALIBRATION SURROGATE				9.25
UPPER LIMIT				9.35
LOWER LIMIT				9.15
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID	
CCVRT 240-6019/5		06/24/2011 16:30	YF062405.D	9.25
MB 240-6019/6		06/24/2011 17:10	YF062406.D	9.25
LCS 240-6019/7		06/24/2011 17:50	YF062407.D	9.25
240-1287-2	GSP-MW-4-062011	06/24/2011 18:30	YF062408.D	9.25
240-1287-2 MS	GSP-MW-4-062011 MS	06/24/2011 19:10	YF062409.D	9.25
240-1287-2 MSD	GSP-MW-4-062011 MSD	06/24/2011 19:49	YF062410.D	9.25
240-1287-3	GSP-MW-5-062011	06/24/2011 20:28	YF062411.D	9.26
240-1287-4	GSP-MW-6-062011	06/24/2011 21:07	YF062412.D	9.26
CCV 240-6019/16		06/24/2011 23:42	YF062416.D	9.25

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VI

GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
Total Petroleum Hydrocarbons (C6-C10)	11.358	11.358	11.358	11.358	11.358	11.358	4.298 - 18.418	11.358
C6-C12	13.046	13.046	13.046	13.046	13.046	13.046	4.398 - 21.695	13.046
Trifluorotoluene (Surr)	9.254	9.254	9.250	9.249	9.245	9.236	8.998 - 9.498	9.248

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	302470 208450	252295 210278	214454	228347	Ave		236048.859				15.0		20.0			
C6-C12	346250 223395	277091 226126	233001	247805	Ave		258944.938				18.0		20.0			
Trifluorotoluene (Surr)	211649 226938	171207 226738	185123	251863	Ave		212253.083				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICV 240-5655/10 Calibration Date: 06/22/2011 18:11

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062210.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	221204		750	800	-6.3	20.0
C6-C12	Ave	258945	242972		751	800	-6.2	20.0
Trifluorotoluene (Surr)	Ave	212253	193830		9.13	10.0	-8.7	20.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICV 240-5655/10 Calibration Date: 06/22/2011 18:11

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062210.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Total Petroleum Hydrocarbons (C6-C10)	11.36	4.30	18.42
C6-C12	13.05	4.40	21.70
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCVRT 240-6019/5 Calibration Date: 06/24/2011 16:30

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062405.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	212876		722	800	-9.8	15.0
C6-C12	Ave	258945	230009		711	800	-11.2	15.0
Trifluorotoluene (Surr)	Ave	212253	205734		9.69	10.0	-3.1	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCVRT 240-6019/5 Calibration Date: 06/24/2011 16:30

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062405.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Total Petroleum Hydrocarbons (C6-C10)	11.34	4.30	18.37
C6-C12	13.06	4.40	21.71
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCV 240-6019/16 Calibration Date: 06/24/2011 23:42

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062416.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	266514		903	800	12.9	15.0
C6-C12	Ave	258945	288420		891	800	11.4	15.0
Trifluorotoluene (Surr)	Ave	212253	284178		13.4	10.0	33.9*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: CCV 240-6019/16 Calibration Date: 06/24/2011 23:42

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062416.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Total Petroleum Hydrocarbons (C6-C10)	11.34	4.30	18.37
C6-C12	13.06	4.40	21.71
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Lab Sample ID: MB 240-6019/6

Matrix: Water Date Extracted: 06/24/2011 17:10

Lab File ID:(1) YF062406.D Lab File ID:(2)

Date Analyzed:(1) 06/24/2011 17:10 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-6019/7	06/24/2011 17:50	
GSP-MW-4-062011	240-1287-2	06/24/2011 18:30	
GSP-MW-4-062011 MS	240-1287-2 MS	06/24/2011 19:10	
GSP-MW-4-062011 MSD	240-1287-2 MSD	06/24/2011 19:49	
GSP-MW-5-062011	240-1287-3	06/24/2011 20:28	
GSP-MW-6-062011	240-1287-4	06/24/2011 21:07	

FORM I

GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1287-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6019/6

Matrix: Water | Lab File ID: YF062406.D

Analysis Method: 8015B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/24/2011 17:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6019 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	30.9	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	81		10-150

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1	#
GSP-MW-4-062011	240-1287-2	71	
GSP-MW-5-062011	240-1287-3	75	
GSP-MW-6-062011	240-1287-4	101	
	MB 240-6019/6	81	
	LCS 240-6019/7	94	
GSP-MW-4-062011 MS	240-1287-2 MS	114	
GSP-MW-4-062011 MSD	240-1287-2 MSD	104	

TFT = Trifluorotoluene (Surr)

QC LIMITS
10-150

Column to be used to flag recovery values

FORM II 8015B

FORM III

GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF062407.D

Lab ID: LCS 240-6019/7 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	816	102	72-140	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF062409.D

Lab ID: 240-1287-2 MS Client ID: GSP-MW-4-062011 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	36 J	917	110	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1287-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF062410.D

Lab ID: 240-1287-2 MSD Client ID: GSP-MW-4-062011 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	829	99	10	20	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

Report Date: 30-Jun-2011 17:13:58 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories Sample Calc - VOC

Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A3UX16\20110629-1489.b\UXM7332.D
Lims ID: 240-1287-C-2 Client ID: GSP-MW-4-062011
Inject. Date: 29-Jun-2011 15:43:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 240-0001489-010
Misc. Info.: M10629A,8260LLUX16,,1644
Operator: 1644 Instrument ID: A3UX16
Vol. Injected: 1.0000 ALS Bottle#: 9
Lims Batch ID: 6573 Lims Sample ID: 10
Detector: MS SCAN

$\frac{17958 \times 10}{0.1009 \times 1181821} =$ 1.51 mg/L

Method: \\Ncchrom\ChromData\A3UX16\20110629-1489.b\8260_16.m
Last Update: 30-Jun-2011 16:34:29 Calib Date: 29-May-2011 17:06:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A3UX16\20110529-720.b\UXM6511.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Process Host: CORP-CTX-15

First Level Reviewer: williamsla Date: 30-Jun-2011 11:23:34

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.716	5.716	0.0	98	1181821	10.0	
* 2 Chlorobenzene-d5	117	8.408	8.408	0.0	86	841601	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.649	10.649	0.0	96	389116	10.0	
$ 5 Dibromofluoromethane (Surr)	113	5.135	5.135	0.0	57	259299	8.45	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	5.431	5.431	0.0	0	338895	9.00	
$ 7 Toluene-d8 (Surr)	98	7.091	7.091	0.0	93	1196706	11.0	
$ 131 4-Bromofluorobenzene (Surr)	95	9.522	9.522	0.0	82	411304	9.06	
12 Dichlorodifluoromethane	85		1.636					
13 Chloromethane	50		1.791					
14 Vinyl chloride	62	1.921	1.921	0.0	64	27793	0.6588	
15 Bromomethane	94		2.265					
16 Chloroethane	64		2.372					
18 Trichlorofluoromethane	101		2.621					
21 1,1-Dichloroethene	96		3.131					
23 1,1,2-Trichloro-1,2,2-trifluoroethane	151		3.142					
22 Acetone	43	3.190	3.190	0.0	80	17958	1.51	
26 Carbon disulfide	76		3.344					
30 Methylene Chloride	84		3.581					
31 2-Methyl-2-propanol	59		3.688					
34 Methyl tert-butyl ether	73		3.830					
33 trans-1,2-Dichloroethene	96		3.830					
36 1,1-Dichloroethane	63		4.210					
37 Vinyl acetate	86		4.245					
38 Isopropyl ether	87		4.257					
40 Tert-butyl ethyl ether	59		4.577					
42 cis-1,2-Dichloroethene	96	4.720	4.720	0.0	64	65473	1.60	
43 2,2-Dichloropropane	77		4.720					
41 2-Butanone (MEK)	43		4.732					
47 Chlorobromomethane	128		4.933					
49 Chloroform	83		4.992					
50 1,1,1-Trichloroethane	97		5.158					

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Sample Calc - VOC

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-3007/7	UXM6505.D
Level 2	STD8260 240-3007/6	UXM6504.D
Level 3	STD8260 240-3007/5	UXM6503.D
Level 4	STD8260 240-3007/4	UXM6502.D
Level 5	STD8260 240-3007/3	UXM6501.D
Level 6	STD8260 240-3007/2	UXM6500.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2983 0.2987	0.2259	0.2557	0.2725	0.2800	Ave		0.2718				10.0		15.0			
Chloromethane	0.4717 0.4273	0.4631	0.4296	0.4483	0.4355	Ave		0.4459			0.1000	4.1		15.0			
Vinyl chloride	0.3635 0.3682	0.3493	0.3371	0.3600	0.3637	Ave		0.3570				3.3		15.0			
Bromomethane	0.1931 0.1378	0.1968	0.1783	0.1775	0.1548	Ave		0.1731				13.0		15.0			
Chloroethane	0.2242 0.2050	0.2258	0.2110	0.2245	0.2145	Ave		0.2175				4.0		15.0			
Trichlorofluoromethane	0.3760 0.3443	0.3088	0.3169	0.3442	0.3390	Ave		0.3382				7.0		15.0			
Acrolein	0.0455 0.0489	0.0447	0.0464	0.0479	0.0493	Ave		0.0471				4.0		15.0			
1,1-Dichloroethene	0.2757 0.2875	0.2770	0.2629	0.2753	0.2892	Ave		0.2779				3.4		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.2129 0.2106	0.1837	0.1542	0.1941	0.2092	Ave		0.1941				12.0		15.0			
Acetone	0.1255 0.0899	0.1071	0.0959	0.0954	0.0917	Ave		0.1009				13.0		15.0			
Iodomethane	0.4663 0.4805	0.4523	0.4463	0.4664	0.4894	Ave		0.4669				3.5		15.0			
Carbon disulfide	0.9270 1.0581	0.9205	0.8948	0.9696	1.0483	Ave		0.9697				7.1		15.0			
Acetonitrile	0.0415 0.0416	0.0396	0.0408	0.0418	0.0422	Ave		0.0412				2.2		15.0			
Methyl acetate	0.2173 0.2352	0.2329	0.2302	0.2353	0.2392	Ave		0.2317				3.3		15.0			
Methylene Chloride	0.6813 0.3553	0.4832	0.3847	0.3689	0.3638	Lin1	0.3012	0.3454							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Report Date: 29-Jun-2011 14:23:28 Sample Calc- SVOC Chrom Revision: 1.2 27-Jun-2011 14:36:06

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\NCChrom\ChromData\A4HP10\20110628-1455.b\0628008.D		
Lims ID:	LCS 240-5615/7-A	Client ID:	
Inject. Date:	28-Jun-2011 17:30:30	Dil. Factor:	1.0000
Sample Type:	LCS		
Sample ID:	240-0001455-008		
Misc. Info.:	LCS 240-5615/7-A		
Operator:	001710	Instrument ID:	A4HP10
Vol. Injected:	1.0000	ALS Bottle#:	8
Lims Batch ID:	6435	Lims Sample ID:	8
Detector:	MS SCAN		
Method:	\\NCChrom\ChromData\A4HP10\20110628-1455.b\8270_10.m		
Last Update:	29-Jun-2011 14:23:25	Calib Date:	28-Jun-2011 02:39:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCChrom\ChromData\A4HP10\20110627-1394.b\0627030.D		
Limit Group:	MSS 8270D ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-17		

489070 ⊗ 4
1.4943 ⊗ 184484
= 7.1 mg/L
= 7,100 mg/L ⊗ 2,000 mL / 1000,000 mg/mL
= 14.2 mg/L

First Level Reviewer: gruberj Date: 29-Jun-2011 10:53:57

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.521	3.520	0.001	97	184484	4.00	
* 2 Naphthalene-d8	136	4.413	4.407	0.006	98	716722	4.00	
* 3 Acenaphthene-d10	164	5.679	5.673	0.006	88	430817	4.00	
* 4 Phenanthrene-d10	188	6.758	6.753	0.006	94	693375	4.00	
* 5 Chrysene-d12	240	8.735	8.734	0.001	70	692213	4.00	
* 6 Perylene-d12	264	10.140	10.139	0.001	96	594642	4.00	
$ 7 2-Fluorophenol	112	2.661	2.661	0.0	90	633902	10.6	
$ 8 Phenol-d5	99	3.232	3.232	0.0	98	867155	10.9	
$ 9 Nitrobenzene-d5	82	3.895	3.895	0.0	68	528642	6.96	
$ 10 2-Fluorobiphenyl (Surr)	172	5.166	5.166	0.0	100	907624	6.57	
$ 11 2,4,6-Tribromophenol	330	6.245	6.245	0.0	85	133063	10.4	
$ 12 Terphenyl-d14	244	7.896	7.896	0.0	98	915328	7.35	
25 1,4-Dioxane	88	1.736	1.736	0.0	91	155664	6.09	
26 N-Nitrosodimethylamine	74	1.891	1.891	0.0	88	308933	7.05	
27 Pyridine	79	1.929	1.929	0.0	94	80311	1.13	
30 2-Picoline	93	2.340	2.340	0.0	93	64530	0.8900	
37 Ethyl methanesulfonate	79	2.976	2.976	0.0	98	333896	6.83	
41 Benzaldehyde	77	3.227	3.227	0.0	91	414397	8.53	
43 Phenol	94	3.237	3.243	-0.006	96	611294	7.15	
44 Aniline	93	3.296	3.296	0.0	92	625257	5.71	
45 Bis(2-chloroethyl)ether	93	3.312	3.312	0.0	97	489070	7.10	
47 2-Chlorophenol	128	3.382	3.382	0.0	86	483381	7.05	
48 1,3-Dichlorobenzene	146	3.489	3.489	0.0	97	458477	6.69	
49 1,4-Dichlorobenzene	146	3.531	3.531	0.0	82	461685	6.51	
50 Benzyl alcohol	108	3.590	3.590	0.0	92	310899	7.41	
51 1,2-Dichlorobenzene	146	3.643	3.644	-0.001	74	449191	6.84	
52 2-Methylphenol	108	3.654	3.654	0.0	66	432350	6.82	
54 2,2'-oxybis[1-chloropropane]	45	3.676	3.676	0.0	91	533876	7.53	
56 3 & 4 Methylphenol	108	3.756	3.756	0.0	94	901505	14.0	
57 N-Nitrosodi-n-propylamine	70	3.772	3.772	0.0	78	358948	7.15	
58 Acetophenone	105	3.782	3.782	0.0	74	648771	7.27	

Sample Calc- SVOC

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1287-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-5615/7-A

Matrix: Water | Lab File ID: 0628008.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/22/2011 08:55

Sample wt/vol: 1000(mL) | Date Analyzed: 06/28/2011 17:30

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6435 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	13.0		0.20	0.10
208-96-8	Acenaphthylene	13.2		0.20	0.10
98-86-2	Acetophenone	14.5		1.0	0.34
120-12-7	Anthracene	13.3		0.20	0.10
1912-24-9	Atrazine	14.8		1.0	0.34
100-52-7	Benzaldehyde	17.1		1.0	0.39
56-55-3	Benzo[a]anthracene	12.7		0.20	0.10
50-32-8	Benzo[a]pyrene	10.9		0.20	0.10
205-99-2	Benzo[b]fluoranthene	12.1		0.20	0.10
191-24-2	Benzo[g,h,i]perylene	13.0		0.20	0.10
207-08-9	Benzo[k]fluoranthene	13.8		0.20	0.10
92-52-4	1,1'-Biphenyl	13.0		1.0	0.80
111-91-1	Bis(2-chloroethoxy)methane	14.1		1.0	0.32
111-44-4	Bis(2-chloroethyl)ether	14.2		1.0	0.10
117-81-7	Bis(2-ethylhexyl) phthalate	10.2		2.0	0.80
101-55-3	4-Bromophenyl phenyl ether	13.5		2.0	0.80
85-68-7	Butyl benzyl phthalate	13.6		1.0	0.80
105-60-2	Caprolactam	13.7		5.0	0.80
86-74-8	Carbazole	13.3		1.0	0.28
106-47-8	4-Chloroaniline	12.2		2.0	0.80
59-50-7	4-Chloro-3-methylphenol	13.7		2.0	0.80
91-58-7	2-Chloronaphthalene	13.2		1.0	0.10
95-57-8	2-Chlorophenol	14.1		1.0	0.29
7005-72-3	4-Chlorophenyl phenyl ether	13.9		2.0	0.30
218-01-9	Chrysene	13.7		0.20	0.10
53-70-3	Dibenzo(a,h)anthracene	12.5		0.20	0.10
132-64-9	Dibenzofuran	13.5		1.0	0.10
91-94-1	3,3'-Dichlorobenzidine	8.28		5.0	0.37
120-83-2	2,4-Dichlorophenol	13.9		2.0	0.80
84-66-2	Diethyl phthalate	14.1		1.0	0.60
105-67-9	2,4-Dimethylphenol	10.9		2.0	0.80
131-11-3	Dimethyl phthalate	14.0		1.0	0.29
84-74-2	Di-n-butyl phthalate	14.0		1.0	0.67
534-52-1	4,6-Dinitro-2-methylphenol	12.7		5.0	2.4

FORM VI

GC/MS SEMI VOA INITIAL CALIBRATION DATA

INTERNAL STANDARD CURVE EVALUTION

Sample Calc - SVOC

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6156/6	0627006.D
Level 2	STD2 240-6156/5	0627005.D
Level 3	STD3 240-6156/4	0627004.D
Level 4	STD4 240-6156/3	0627003.D
Level 5	STD5 240-6156/2	0627002.D
Level 6	STD6 240-6156/10	0627010.D
Level 7	STD7 240-6156/9	0627009.D
Level 8	STD8 240-6156/8	0627008.D
Level 9	STD9 240-6156/7	0627007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.5316	0.5719 0.5597	0.5658 0.5338	0.5540 0.5771	0.5393	Ave		0.5541				3.2		20.0			
N-Nitrosodimethylamine	0.9379	0.9702 0.9510	0.9498 0.9409	0.9699 0.9792	0.9057	Ave		0.9506				2.5		20.0			
Pyridine	1.5344	1.4518 1.5750	1.4996 1.5653	1.5671 1.6430	1.5087	Ave		1.5431				3.8		20.0			
Ethyl methacrylate	1.2298	1.2703 1.2662	1.2703 1.2316	1.2807 1.3169	1.2379	Ave		1.2630				2.3		20.0			
3-Chloropropionitrile	0.7011	0.7358 0.6896	0.6866 0.6791	0.7014 0.7253	0.6689	Ave		0.6985				3.2		20.0			
Malononitrile	1.6535	1.6722 1.6840	1.6836 1.6344	1.7078 1.6198	1.5964	Ave		1.6565				2.3		20.0			
Benzoic acid	0.2186	+++++ 0.2782	+++++ 0.2957	0.1569 0.3102	0.2165	Qua	-0.353	0.2212	0.0020						0.9980		0.9900
Benzaldehyde	1.0688	1.2690 0.9448	1.2332 0.8660	1.2393 0.7296	1.0740	Ave		1.0531			0.0100	19.0		20.0			
Phenol	1.8179	1.8081 1.8761	1.8361 1.8792	1.8670 1.9467	1.7908	Ave		1.8527			0.8000	2.7		20.0			
Aniline	2.3553	2.2239 2.5007	2.2540 2.4272	2.3318 2.5670	2.3288	Ave		2.3736				5.0		20.0			
Bis(2-chloroethyl)ether	1.4641	1.6310 1.4267	1.5098 1.4904	1.5659 1.5038	1.3624	Ave		1.4943			0.7000	5.5		20.0			
2-Chlorophenol	1.4542	1.5161 1.4878	1.4573 1.5015	1.4936 1.5532	1.4375	Ave		1.4877			0.8000	2.5		20.0			
1,3-Dichlorobenzene	1.4454	1.5493 1.4797	1.5312 1.4558	1.5069 1.5141	1.4133	Ave		1.4870				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

TestAmerica Laboratories
Target Compound Quantitation Report

Sample Calc - Gasoline TPH

Data File: \\Ncchrom\ChromData\YPID\20110624-1366.b\YF062408.D
Lims ID: 240-1287-E-2 Client ID: GSP-MW-4-062011
Inject. Date: 24-Jun-2011 18:30:34 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 240-0001366-008
Misc. Info.:
Operator: 004275 Instrument ID: YPID
Vol. Injected: 1.0000 ALS Bottle#: 1
Lims Batch ID: 6019 Lims Sample ID: 8
Detector 1 : GC ELC2B
Detector 2 : GC FID1A

Method: \\Ncchrom\ChromData\YPID\20110624-1366.b\Y80158021.m
Last Update: 27-Jun-2011 08:55:20 Calib Date: 22-Jun-2011 17:30:51
Quant Method: Internal/External Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\YPID\20110622-1279.b\YF062209.D
Limit Group: GCV 8015B GRO ICAL
Integrator: Falcon
Process Host: CORP-CTX-18

Compound	Det	RT	ADJ RT	DLT RT	Response	On-Col Amt ug/l	Flags
6 2-Methylpentane	2	4.583	4.568	0.015	25044	0	
$ 16 Trifluorotoluene (Surr)	2	9.253	9.252	0.001	1514768	7.14	
* 15 Fluorobenzene	1	11.322	11.134	0.188	3160	0	
A 5 C6-C10	2	11.337	4.300 - 18.373		8469783	35.9	
A 1 C6-C12	2	13.056	4.400 - 21.712		11678143	45.1	
A 11 GRO	2	14.072	5.018 - 23.126		16919760	0	
14 Dodecane	2	21.461	21.460	0.001	61493	0	
9 Naphthalene							

$\frac{8469783}{236048.859} = 35.9$ mg/L

FORM VI

GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA

EXTERNAL STANDARD CURVE EVALUTION

Sample Calc - Gasoline TPH

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	302470 208450	252295 210278	214454	228347	Ave		236048.859				15.0		20.0			
C6-C12	346250 223395	277091 226126	233001	247805	Ave		258944.938				18.0		20.0			
Trifluorotoluene (Surr)	211649 226938	171207 226738	185123	251863	Ave		212253.083				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

Sample Calc - Diesel TPH

FORM I

DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton

Job No.: 240-1287-1

SDG No.:

Client Sample ID: GSP-MW-5-062011

Lab Sample ID: 240-1287-3

Matrix: Water

Lab File ID: P14F0000017.D

Analysis Method: 8015B

Date Collected: 06/20/2011 12:15

Extraction Method: 3520C

Date Extracted: 06/22/2011 09:21

Sample wt/vol: 1050 (mL)

Date Analyzed: 06/24/2011 20:15

Con. Extract Vol.: 5.00 (mL)

Dilution Factor: 1

Injection Volume: 1 (uL)

GC Column: RTX-5 ID: 0.53 (mm)

% Moisture:

GPC Cleanup: (Y/N) N

Analysis Batch No.: 6024

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	1400		480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	46		10-110

Report Date: 27-Jun-2011 13:36:00 Chrom Revision: 1.2 03-Jun-2011 08:44:02

Sample Calc- Diesel TPH

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP14F\20110624-1365.b\P14F0000017.D		
Lims ID:	240-1287-L-3-A	Client ID:	GSP-MW-5-062011
Inject. Date:	24-Jun-2011 20:15:14	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0001365-017		
Misc. Info.:			
Operator:	2398	Instrument ID:	A2HP14F
Vol. Injected:	1.0000	ALS Bottle#:	17
Lims Batch ID:	6024	Lims Sample ID:	17
Detector:	GC fid1a		
Method:	\\Ncchrom\ChromData\A2HP14F\20110624-1365.b\TPH14F.m		
Last Update:	27-Jun-2011 13:35:56	Calib Date:	19-May-2011 16:04:11
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A2HP14F\20110519-574.b\P14F0000014.D		
Limit Group:	GC TPH DIESEL ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-15		

RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Flags
$ 8 n-Nonane					
1.735	1.733	0.002	18851163	46.1	
A 15 Diesel					
8.102	3.563 - 12.640		121113731	244.2	
A 17 C10-C32					
8.679	3.563 - 13.795		138562252	299.7	

$$\frac{299{,}700\ \mu g/L \times 5{,}000\ \mu L}{1050{,}000\ \mu L} =$$

1427 µg/L

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Sample Calc- Diesel TPH

Lab Name: TestAmerica North Canton Job No.: 240-1287-1 Analy Batch No.: 2166

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2166/4	P14F0000004.D
Level 2	STD2 240-2166/5	P14F0000005.D
Level 3	STD3 240-2166/6	P14F0000006.D
Level 4	STD4 240-2166/7	P14F0000007.D
Level 5	STD5 240-2166/8	P14F0000008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	705763 336646	515461	435657	351683	Lin	44348394.0	314402.704							0.9980		0.9900
n-Nonane	413140 382989	431927	436350	381033	Ave		409087.891				6.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **T. APANAVAGE** **DATE:** **SEPTEMBER 1, 2011**

FROM: **LEANNE GANSER** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION-SELECT TOTAL AND DISSOLVED METALS AND PERCHLORATE**
MARTIN STATE AIRPORT – GREATER STRAWBERRY POINT
SDG 240-1287-1

SAMPLES: 3/Water/
GSP-MW-4-062011 GSP-MW-5-062011 GSP-MW-6-062011

Overview

The sample set for Greater Strawberry Point, SDG 240-1287-1, consists of three (3) aqueous environmental samples. This SDG contained no field duplicate pairs.

All samples were analyzed for select total and dissolved metals: antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, tungsten, vanadium, and zinc and perchlorate. The samples were collected by Tetra Tech NUS on June 20, 2011 and analyzed by Test America. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7470A. Perchlorate analyses were conducted using EPA method 314.0.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, ICP serial dilution results, internal standard recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems – None.

Minor Problems-

- The following contaminants were detected in preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Antimony	0.091 ug/L	0.46 ug/L
Chromium	0.281 ug/L	1.41 ug/L
Cobalt	0.192 ug/L	0.96 ug/L
Lead	0.176 ug/L	0.88 ug/L
Thallium	0.225 ug/L	1.13 ug/L
Tungsten	0.172 ug/L	0.86 ug/L
Zinc	0.851 ug/L	4.26 ug/L

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for were qualified "B" as a result of laboratory blank contamination.

- The following contaminants were detected in calibration blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Antimony[(1)]	0.113 ug/L	0.57 ug/L
Antimony[(2)]	0.121 ug/L	0.61 ug/L
Arsenic[(3)]	0.187 ug/L	0.94 ug/L
Cobalt[(1)]	0.236 ug/L	1.18 ug/L
Cobalt[(2)]	0.243 ug/L	1.22 ug/L
Thallium[(1)]	0.233 ug/L	1.17 ug/L
Thallium[(2)]	0.230 ug/L	1.15 ug/L
Thallium[(3)]	0.195 ug/L	0.98 ug/L
Tungsten[(1)]	0.185 ug/L	0.93 ug/L

(1) Maximum concentration found in a calibration blank affecting total samples.
(2) Maximum concentration found in a calibration blank affecting dissolved samples GSP-MW-4-062011 and GSP-MW-5-062011.
(3) Maximum concentration found in a calibration blank affecting dissolved sample GSP-MW-6-062011.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for were qualified "B" as a result of laboratory blank contamination.

- Positive results greater than the method detection limit but less than the reporting limit were qualified as estimated (J).

Notes

The percent relative intensity for internal standard Y-89 for total samples GSP-MW-4-062011 and GSP-MW-5-062011 and dissolved sample GSP-MW-4-062011 was greater than quality control limits. Affected analytes arsenic, molybdenum, and selenium in these samples were quantified using a different internal standard (In-115); therefore, no validation action was taken.

Nondetected results are reported to the method detection limit (MDL).

Executive Summary

Laboratory Performance: Calibration and preparation blank contamination resulted in the qualification of sample results.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to Region III modifications to the "National

Functional Guidelines for Inorganic Data Validation", April 1993. The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Leanne Ganser
Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS-GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279 SDG: 240-1287-1 FRACTION: M MEDIA: WATER	NSAMPLE	GSP-MW-4-062011			GSP-MW-5-062011			GSP-MW-6-062011		
	LAB_ID	240-1287-2			240-1287-3			240-1287-4		
	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011		
	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.16	B	A	0.21	B	A	0.19	B	A
ARSENIC		4.9	J	P	0.71	J	P	0.42	J	P
BARIUM		36			37			34		
BERYLLIUM		0.092	U		3.5			0.092	U	
CADMIUM		0.046	U		1.4			0.046	U	
CHROMIUM		0.73	B	A	6.7			0.67	B	A
COBALT		11			76			1.5		
COPPER		0.93	J	P	20			1.9	J	P
LEAD		0.3	B	A	0.84	B	A	0.28	B	A
MERCURY		0.066	U		0.066	U		0.066	U	
MOLYBDENUM		0.42	U		5.9			0.72	J	P
NICKEL		0.69	J	P	53			0.63	U	
SELENIUM		0.32	U		2.9	J	P	0.32	U	
SILVER		0.014	U		0.014	U		0.014	U	
THALLIUM		0.32	B	A	0.29	B	A	0.28	B	A
TUNGSTEN		0.16	U		0.16	U		0.16	U	
VANADIUM		0.37	J	P	3.7	J	P	1.4	J	P
ZINC		3.5	B	A	79			6	J	P

PROJ_NO: 03279 SDG: 240-1287-1 FRACTION: MF MEDIA: WATER	NSAMPLE	GSP-MW-4-062011			GSP-MW-5-062011			GSP-MW-6-062011		
	LAB_ID	240-1287-2			240-1287-3			240-1287-4		
	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011		
	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.15	B	A	0.19	B	A	0.086	B	A
ARSENIC		4.1	J	P	0.092	U		0.56	B	A
BARIUM		36			39			32		
BERYLLIUM		0.092	U		2.8			0.092	U	
CADMIUM		0.046	U		1.3			0.053	J	P
CHROMIUM		0.2	B	A	3.7			0.11	U	
COBALT		11			70			1.1		
COPPER		0.39	J	P	15			1.5	J	P
LEAD		0.27	B	A	0.5	B	A	0.22	B	A
MERCURY		0.066	U		0.066	U		0.066	U	
MOLYBDENUM		0.42	U		1.7	J	P	1	J	P
NICKEL		0.73	J	P	50			0.63	U	
SELENIUM		0.32	U		0.32	U		0.53	J	P
SILVER		0.014	U		0.014	U		0.014	U	
THALLIUM		0.31	B	A	0.29	B	A	0.25	B	A
TUNGSTEN		0.16	U		0.16	U		0.46	B	A
VANADIUM		0.3	U		0.3	U		0.63	J	P
ZINC		4.9	J	P	69			0.5	U	

PROJ_NO: 03279 SDG: 240-1287-1 FRACTION: MISC MEDIA: WATER	NSAMPLE	GSP-MW-4-062011			GSP-MW-5-062011			GSP-MW-6-062011		
	LAB_ID	240-1287-2			240-1287-3			240-1287-4		
	SAMP_DATE	6/20/2011			6/20/2011			6/20/2011		
	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.36	U		0.36	U		1.8	U G	

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: GSP-MW-4-062011

Lab Sample ID: 240-1287-2
Client Matrix: Water

Date Sampled: 06/20/2011 1055
Date Received: 06/21/2011 0940

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	200-21675	Instrument ID:	METICPMS2
Prep Method:	3010A	Prep Batch:	200-20966	Lab File ID:	071511-04B.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	07/16/2011 1010			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 0934				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	0.16	J B	0.073	2.0
Arsenic	4.9	J	0.092	5.0
Barium	36		0.42	5.0
Beryllium	1.0	U	0.092	1.0
Cadmium	1.0	U	0.046	1.0
Chromium	0.73	J B	0.11	2.0
Cobalt	11	B	0.049	1.0
Copper	0.93	J	0.23	2.0
Lead	0.30	J B	0.024	1.0
Molybdenum	2.0	U	0.42	2.0
Nickel	0.69	J	0.63	2.0
Selenium	5.0	U	0.32	5.0
Silver	1.0	U	0.014	1.0
Thallium	0.32	J B	0.079	2.0
Tungsten	10	U	0.16	10
Vanadium	0.37	J	0.30	20
Zinc	3.5	J B	0.50	20

6020 Metals (ICP/MS)-Dissolved

Analysis Method:	6020	Analysis Batch:	200-21675	Instrument ID:	METICPMS2
Prep Method:	3010A	Prep Batch:	200-20966	Lab File ID:	071511-04B.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	07/16/2011 1138			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 0934				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	0.15	J B	0.073	2.0
Arsenic	4.1	J	0.092	5.0
Barium	36		0.42	5.0
Beryllium	1.0	U	0.092	1.0
Cadmium	1.0	U	0.046	1.0
Chromium	0.20	J B	0.11	2.0
Cobalt	11	B	0.049	1.0
Copper	0.39	J	0.23	2.0
Lead	0.27	J B	0.024	1.0
Molybdenum	2.0	U	0.42	2.0
Nickel	0.73	J	0.63	2.0
Selenium	5.0	U	0.32	5.0
Silver	1.0	U	0.014	1.0
Thallium	0.31	J B	0.079	2.0
Tungsten	10	U	0.16	10
Vanadium	20	U	0.30	20
Zinc	4.9	J B	0.50	20

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-4-062011**

Lab Sample ID: 240-1287-2
Client Matrix: Water

Date Sampled: 06/20/2011 1055
Date Received: 06/21/2011 0940

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	200-21100	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-20991	Lab File ID:	070811BB.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	07/08/2011 1306			Final Weight/Volume:	50 mL
Prep Date:	07/07/2011 1115				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	0.20	U	0.066	0.20

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	200-21100	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-20991	Lab File ID:	070811BB.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	07/08/2011 1308			Final Weight/Volume:	50 mL
Prep Date:	07/07/2011 1115				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	0.20	U	0.066	0.20

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-5-062011**

Lab Sample ID: 240-1287-3
Client Matrix: Water

Date Sampled: 06/20/2011 1215
Date Received: 06/21/2011 0940

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	200-21675	Instrument ID:	METICPMS2
Prep Method:	3010A	Prep Batch:	200-20966	Lab File ID:	071511-04B.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	07/16/2011 1017			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 0934				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	0.21	J B	0.073	2.0
Arsenic	0.71	J	0.092	5.0
Barium	37		0.42	5.0
Beryllium	3.5		0.092	1.0
Cadmium	1.4		0.046	1.0
Chromium	6.7	B	0.11	2.0
Cobalt	76	B	0.049	1.0
Copper	20		0.23	2.0
Lead	0.84	J B	0.024	1.0
Molybdenum	5.9		0.42	2.0
Nickel	53		0.63	2.0
Selenium	2.9	J	0.32	5.0
Silver	1.0	U	0.014	1.0
Thallium	0.29	J B	0.079	2.0
Tungsten	10	U	0.16	10
Vanadium	3.7	J	0.30	20
Zinc	79	B	0.50	20

6020 Metals (ICP/MS)-Dissolved

Analysis Method:	6020	Analysis Batch:	200-21675	Instrument ID:	METICPMS2
Prep Method:	3010A	Prep Batch:	200-20966	Lab File ID:	071511-04B.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	07/16/2011 1145			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 0934				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	0.19	J B	0.073	2.0
Arsenic	5.0	U	0.092	5.0
Barium	39		0.42	5.0
Beryllium	2.8		0.092	1.0
Cadmium	1.3		0.046	1.0
Chromium	3.7	B	0.11	2.0
Cobalt	70	B	0.049	1.0
Copper	15		0.23	2.0
Lead	0.50	J B	0.024	1.0
Molybdenum	1.7	J	0.42	2.0
Nickel	50		0.63	2.0
Selenium	5.0	U	0.32	5.0
Silver	1.0	U	0.014	1.0
Thallium	0.29	J B	0.079	2.0
Tungsten	10	U	0.16	10
Vanadium	20	U	0.30	20
Zinc	69	B	0.50	20

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-5-062011**

Lab Sample ID: 240-1287-3
Client Matrix: Water

Date Sampled: 06/20/2011 1215
Date Received: 06/21/2011 0940

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	200-21100	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-20991	Lab File ID:	070811BB.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	07/08/2011 1310			Final Weight/Volume:	50 mL
Prep Date:	07/07/2011 1115				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	0.20	U	0.066	0.20

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	200-21100	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-20991	Lab File ID:	070811BB.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	07/08/2011 1312			Final Weight/Volume:	50 mL
Prep Date:	07/07/2011 1115				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	0.20	U	0.066	0.20

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-6-062011**

Lab Sample ID: 240-1287-4
Client Matrix: Water

Date Sampled: 06/20/2011 1455
Date Received: 06/21/2011 0940

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	200-21675	Instrument ID:	METICPMS2
Prep Method:	3010A	Prep Batch:	200-20966	Lab File ID:	071511-04B.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	07/16/2011 1023			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 0934				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	0.19	J B	0.073	2.0
Arsenic	0.42	J	0.092	5.0
Barium	34		0.42	5.0
Beryllium	1.0	U	0.092	1.0
Cadmium	1.0	U	0.046	1.0
Chromium	0.67	J B	0.11	2.0
Cobalt	1.5	B	0.049	1.0
Copper	1.9	J	0.23	2.0
Lead	0.28	J B	0.024	1.0
Molybdenum	0.72	J	0.42	2.0
Nickel	2.0	U	0.63	2.0
Selenium	5.0	U	0.32	5.0
Silver	1.0	U	0.014	1.0
Thallium	0.28	J B	0.079	2.0
Tungsten	10	U	0.16	10
Vanadium	1.4	J	0.30	20
Zinc	6.0	J B	0.50	20

6020 Metals (ICP/MS)-Dissolved

Analysis Method:	6020	Analysis Batch:	200-22993	Instrument ID:	METICPMS2
Prep Method:	3010A	Prep Batch:	200-20966	Lab File ID:	080411-02E.xml
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	08/04/2011 1948			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 0934				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Antimony	0.086	J B	0.073	2.0
Arsenic	0.56	J	0.092	5.0
Barium	32		0.42	5.0
Beryllium	1.0	U	0.092	1.0
Cadmium	0.053	J	0.046	1.0
Chromium	2.0	U	0.11	2.0
Cobalt	1.1	B	0.049	1.0
Copper	1.5	J	0.23	2.0
Lead	0.22	J B	0.024	1.0
Molybdenum	1.0	J	0.42	2.0
Nickel	2.0	U L	0.63	2.0
Selenium	0.53	J	0.32	5.0
Silver	1.0	U	0.014	1.0
Thallium	0.25	J B	0.079	2.0
Tungsten	0.46	J B	0.16	10
Vanadium	0.63	J	0.30	20
Zinc	20	U	0.50	20

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Client Sample ID: **GSP-MW-6-062011**

Lab Sample ID: 240-1287-4
Client Matrix: Water

Date Sampled: 06/20/2011 1455
Date Received: 06/21/2011 0940

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	200-21100	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-20991	Lab File ID:	070811BB.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	07/08/2011 1314			Final Weight/Volume:	50 mL
Prep Date:	07/07/2011 1115				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	0.20	U	0.066	0.20

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	200-21100	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-20991	Lab File ID:	070811BB.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	07/08/2011 1316			Final Weight/Volume:	50 mL
Prep Date:	07/07/2011 1115				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	0.20	U	0.066	0.20

TestAmerica North Canton

Client Sample ID: GSP-MW-4-062011

General Chemistry

Lot-Sample #...: G1F210484-004 **Work Order #...:** MKF52 **Matrix.....:** WATER
Date Sampled...: 06/20/11 **Date Received..:** 06/23/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

TestAmerica North Canton

Client Sample ID: GSP-MW-5-062011

General Chemistry

Lot-Sample #...: G1F210484-005 **Work Order #...:** MKF55 **Matrix.....:** WATER
Date Sampled...: 06/20/11 **Date Received..:** 06/23/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

TestAmerica North Canton

Client Sample ID: GSP-MW-6-062011

General Chemistry

Lot-Sample #...: G1F210484-006 **Work Order #...:** MKF56 **Matrix.....:** WATER
Date Sampled...: 06/20/11 **Date Received..:** 06/23/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND G	5.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 5 MDL.....: 1.8

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

APPENDIX C
SUPPORT DOCUMENTATION

HOLDTIME

PROJ_NO 03279

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1287-1	PCL	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	07/11/2011	07/11/2011	21	0	21
240-1287-1	PCL	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	07/11/2011	07/11/2011	21	0	21
240-1287-1	PCL	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	07/11/2011	07/11/2011	21	0	21

HOLDTIM

PROJ_NO 03279

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1287-1	HG	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	07/07/2011	07/08/2011	17	1	18
240-1287-1	HG	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	07/07/2011	07/08/2011	17	1	18
240-1287-1	HG	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	07/07/2011	07/08/2011	17	1	18
240-1287-1	M	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	07/07/2011	07/16/2011	17	9	26
240-1287-1	M	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	07/07/2011	07/16/2011	17	9	26
240-1287-1	M	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	07/07/2011	07/16/2011	17	9	26
240-1287-1	HGF	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	07/07/2011	07/08/2011	17	1	18
240-1287-1	HGF	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	07/07/2011	07/08/2011	17	1	18
240-1287-1	HGF	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	07/07/2011	07/08/2011	17	1	18
240-1287-1	MF	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	07/07/2011	07/16/2011	17	9	26
240-1287-1	MF	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	07/07/2011	08/04/2011	17	28	45
240-1287-1	MF	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	07/07/2011	07/16/2011	17	9	26
240-1287-1	OS	UG/L	GSP-MW-5-062011	240-1287-3	NM	06/20/2011	06/22/2011	06/28/2011	2	6	8
240-1287-1	OS	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	06/22/2011	06/30/2011	2	8	10
240-1287-1	OS	UG/L	GSP-MW-6-062011	240-1287-4	NM	06/20/2011	06/22/2011	06/28/2011	2	6	8
240-1287-1	OV	UG/L	GSP-MW-4-062011	240-1287-2	NM	06/20/2011	06/29/2011	06/29/2011	9	0	9

CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: MSA Greater Strawberry Point PH. II 2011

Report Number: 240-1287-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/21/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6 C.

Multiple TestAmerica laboratories were used to support this project. Narrative for TestAmerica West Sacramento (Perchlorate) is provided in the lab's report in the Subcontract section of this report. TestAmerica Burlington's narrative for ICP/MS Metals is incorporated herein. See the Method Summary for additional information.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples TB-062011 (240-1287-1), GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/29/2011.

Naphthalene was detected in method blank MB 240-6573/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The laboratory control sample for batch 240-6573/4 failed the recovery criteria low for tert-Butyl alcohol, and exceeded control limits for 2Methyl-2propanol. 2Methyl-2propanol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for this analyte. These results have been reported and qualified. Refer to the QC report for details.

No other difficulties were encountered during the volatiles analyses. All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for Semivolates in accordance with EPA SW 8270D. The samples were analyzed on 06/28/2011 and 06/30/2011.

There was no client requested matrix spike/matrix spike duplicate (MS/MSD) for batch 5615.

No other difficulties were encountered during the semi-volatiles analyses. All quality control parameters were within the acceptance limits.

GRO (C6-C10)
Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for gas range organics in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 06/24/2011.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-6019/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DRO (C10-C32)
Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for Diesel Range Organics (DRO) in accordance with EPA Method 8015B. The samples were analyzed on 06/24/2011.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

There was no client requested matrix spike/matrix spike duplicate (MS/MSD) for batch 5625.

No other difficulties were encountered during the Diesel Range Organics (DRO) analyses. All quality control parameters were within the acceptance limits.

METALS (ICPMS)
Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 07/16/2011 and 08/04/2011.

The internal standard for As, Mo, and Se were re-associated from Y to In for analytical sequence 080111-06b, due to the presence of isobaric interference on the Y line. All results in the batch for As, Mo, and Se are based on internal standard responses for Indium.

A deviation from the Standard Operating Procedure (SOP) occurred. Eleven injections were analyzed between CCB26 and CCV38. Bracketing CCV/CCB were within control limits. The eleventh sample was not reported from this batch 21675. The proceeding ten (10) samples were reported. The following samples were reported in this job: GSP-MW-6-062011 (240-1287-4 SD), (CCV 200-21675/38), GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4)

The internal standard for As, Mo, and Se were re-associated from Y to In for analytical sequence 080111-06b, due to the presence of isobaric interference on the Y line. Data flags in batch 21765 for Y internal standard failures were removed. All results in the batch for As, Mo, and Se are based on internal standard responses for Indium.

A negative result was observed at the magnitude of the RL for Nickel in sample GSP-MW-6-062011 (240-1287-4).

The internal standard In was associated with As, Mo, and Se in analytical sequence 080411-02E. All injections results for As, Mo, and Se in the sequence, 080411-02E, and LIMS batch, 22993, were calculated based upon the Indium internal standard response. Yttrium was disassociated to sample results for these elements due to the possibility of isobaric interference

No other difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL METALS (ICPMS)
Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for total metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 07/16/2011.

Several analytes were detected in method blank MB 200-20966/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)
Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/08/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples GSP-MW-4-062011 (240-1287-2), GSP-MW-5-062011 (240-1287-3) and GSP-MW-6-062011 (240-1287-4) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/08/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 010140
Address: 20251 Century Blvd Ste 200	Telephone: (301)528-5552	Telephone: (703)342-9389	Telephone: (330)497-9396	1 of 1 COCs
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@tetratech.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: (301)528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client: ☐ Lab pickup: ☐ Lab sampling: ☐
Project Name: GSP GW Sampling	Method of Shipment/Carrier:			
Project Number: 112EC03279-04	Shipping/Tracking No:			Job/SDG No.:

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	VOCs	Total Metals	Dissolved Metals	SVOCs + 1,4-Dioxane	TPH-GRO	TPH-DRO	Perchlorate	Mercury			Sample Specific Notes / Special Instructions:
TB-062011				X						2							X										
GSP-MW-4-062011	6-20-11	1055		X				2	2	5			3				X	X	X	X	X	X	X	X			
GSP-MW-5-062011	↓	1215		X				2	2	5			3				X	X	X	X	X	X	X	X			
GSP-MW-6-062011	↓	1455		X				2	2	5			3				X	X	X	X	X	X	X	X			

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	6/20/11 - 1550	M. Hocke	TestAmerica	6-20-11 1554
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
M. Hocke	TestAmerica	6-20-11 1652			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Jill Clark	TAL	6-21-11 0940

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TestAmerica Cooler Receipt Form/Narrative **Lot Number:** _____
North Canton Facility

Client Tetra Tech Project GSP GW Sampling By: Jill Clark (Signature)
Cooler Received on 6-21-11 Opened on 6-21-11
FedEx [X] UPS [ ] DHL [ ] FAS [ ] Stetson [ ] Client Drop Off [ ] TestAmerica Courier [ ] Other _____
TestAmerica Cooler # No # Multiple Coolers [ ] Foam Box [ ] Client Cooler [ ] Other _____

1. Were custody seals on the outside of the cooler(s)? Yes [X] No [ ] Intact? Yes [X] No [ ] NA [ ]
   If YES, Quantity 1 on each Quantity Unsalvageable Ø
   Were custody seals on the outside of cooler(s) signed and dated? Yes [X] No [ ] NA [ ]
   Were custody seals on the bottle(s)? Yes [ ] No [X]
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes [X] No [ ]
3. Did custody papers accompany the sample(s)? Yes [X] No [ ] Relinquished by client? Yes [X] No [ ]
4. Were the custody papers signed in the appropriate place? Yes [X] No [ ]
5. Packing material used: Bubble Wrap [X] Foam [ ] None [ ] Other _____
6. Cooler temperature upon receipt 2.6 °C See back of form for multiple coolers/temps [X]
   METHOD: IR [X] Other [ ] _____
   COOLANT: Wet Ice [X] Blue Ice [ ] Dry Ice [ ] Water [ ] None [ ]
7. Did all bottles arrive in good condition (Unbroken)? Yes [X] No [ ]
8. Could all bottle labels be reconciled with the COC? Yes [X] No [ ]
9. Were sample(s) at the correct pH upon receipt? Yes [X] No [ ] NA [ ]
10. Were correct bottle(s) used for the test(s) indicated? Yes [X] No [ ]
11. Were air bubbles >6 mm in any VOA vials? Yes [ ] No [X] NA [ ]
12. Sufficient quantity received to perform indicated analyses? Yes [X] No [ ]
13. Was a trip blank present in the cooler(s)? Yes [X] No [ ] Were VOAs on the COC? Yes [X] No [ ]

Contacted PM _____ Date _____ by _____ via Verbal [ ] Voice Mail [ ] Other [ ]
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 100110-HNO_3; *Sulfuric Acid Lot#* 110410-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
GSP-MW-4	X 6-21-11 <2, <2, <2, <2, <2, <2	6-21-11	JC
↓ -5	<2, <2, <2, <2, <2, <2	↓	↓
-6	<2, <2, <2, <2, <2 <2		

Case Narrative

TestAmerica West Sacramento Project Number G1F210484B

WATER, 314.0, Perchlorate
Sample(s): 4, 5, 6
A mid continuing calibration blank had a positive result of 0.623 ug/L. Since the associated sample results were all non-detect, no corrective action was performed.

Sample(s): 6
This sample was analyzed at a dilution due to matrix interferences.

There were no other anomalies associated with this project.

METHOD SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-1287-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Purge and Trap	TAL NC		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Liquid-Liquid Extraction (Separatory Funnel)			SW846 3510C
Gasoline Range Organics - (GC)	TAL NC	SW846 8015B	
Purge and Trap	TAL NC		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL NC	SW846 8015B	
Liquid-Liquid Extraction (Continuous)			SW846 3520C
Metals (ICP/MS)	TAL BUR	SW846 6020	
Preparation, Total Metals			SW846 3010A
Metals (ICP/MS)	TAL BUR	SW846 6020	
Preparation, Total Metals			SW846 3010A
Sample Filtration, Field			FIELD_FLTRD
Mercury (CVAA)	TAL BUR	SW846 7470A	
Preparation, Mercury			SW846 7470A
Mercury (CVAA)	TAL BUR	SW846 7470A	
Preparation, Mercury			SW846 7470A
Sample Filtration, Field			FIELD_FLTRD
EPA 314.0 Perchlorate	TAL WSC	EPA 314.0	

Lab References:

TAL BUR = TestAmerica Burlington

TAL NC = TestAmerica North Canton

TAL WSC = TestAmerica West Sacramento

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-20966/1-A	07/07/2011 09:34	20966		100	100
LCS 200-20966/2-A	07/07/2011 09:34	20966		100	100
240-1287-2	07/07/2011 09:34	20966		100	100
240-1287-3	07/07/2011 09:34	20966		100	100
240-1287-4	07/07/2011 09:34	20966		100	100
240-1287-2	07/07/2011 09:34	20966		100	100
240-1287-3	07/07/2011 09:34	20966		100	100
240-1287-4	07/07/2011 09:34	20966		100	100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-20991/11-A	07/07/2011 11:15	20991		50	50
LCS 200-20991/12-A	07/07/2011 11:15	20991		50	50
240-1287-2	07/07/2011 11:15	20991		50	50
240-1287-2	07/07/2011 11:15	20991		50	50
240-1287-3	07/07/2011 11:15	20991		50	50
240-1287-3	07/07/2011 11:15	20991		50	50
240-1287-4	07/07/2011 11:15	20991		50	50
240-1287-4	07/07/2011 11:15	20991		50	50

14-IN
ICP-MS TUNE
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Analysis Date: 07/16/11

Lab ID: ITUNE 200-21675/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Li-6	6.0051	0.82	1.986	
Be-9	8.9422	0.82	1.206	
Mg-24	23.965	0.82	1.466	
Mg-25	24.9758	0.81	2.437	
Mg-26	25.9826	0.81	0.650	
Al-27	26.9815	0.80	0.260	
Sc-45	44.9659	0.80	0.660	
V-51	50.944	0.80	1.020	
Co-59	58.9232	0.81	0.443	
Y-89	88.8959	0.81	0.257	
In-113	112.9041	0.81	1.500	
In-115	114.9039	0.81	0.233	
Ba-137	136.8958	0.83	1.047	
Ce-140	139.8954	0.84	0.208	
Tb-159	158.9154	0.84	0.293	
Pb-206	205.9845	0.85	0.271	
Pb-207	206.9759	0.85	0.491	
Pb-208	207.9766	0.85	0.523	
Th-232	232.0681	0.84	0.471	
U-238	238.0708	0.85	0.638	

14-IN
ICP-MS TUNE
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Analysis Date: 08/04/11

Lab ID: ITUNE 200-22993/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Li-6	6.0151	0.73	0.820	
Be-9	8.9522	0.76	1.911	
Mg-24	23.965	0.77	2.176	
Mg-25	24.9758	0.78	2.843	
Mg-26	25.9726	0.78	1.832	
Al-27	26.9715	0.78	0.612	
Sc-45	44.9459	0.77	0.445	
V-51	50.944	0.79	0.692	
Co-59	58.9032	0.79	0.471	
Y-89	88.8959	0.79	0.752	
In-113	112.9041	0.78	1.612	
In-115	114.9039	0.77	0.199	
Ba-137	136.9058	0.75	0.849	
Ce-140	139.9054	0.75	0.680	
Tb-159	158.9254	0.77	0.536	
Pb-206	205.9745	0.72	0.476	
Pb-207	206.9759	0.72	0.809	
Pb-208	207.9766	0.73	0.290	
Th-232	232.0381	0.69	0.608	
U-238	238.0508	0.69	0.802	

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	ICV 200-21675/7 07/16/2011 00:59				CCV 200-21675/11 07/16/2011 01:37				CCV 200-21675/13 07/16/2011 09:08			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	45.5		50.0	91	20.2		20.0	101	20.0		20.0	100
Arsenic	25.6		25.0	102	9.88		10.0	99	9.55		10.0	95
Barium	1300		1250	104	254		250	101	253		250	101
Beryllium	26.9		25.0	108	9.81		10.0	98	10.6		10.0	106
Cadmium	25.5		25.0	102	10.1		10.0	101	10.0		10.0	100
Chromium	51.1		50.0	102	20.0		20.0	100	20.0		20.0	100
Cobalt	126		125	101	49.7		50.0	99	48.9		50.0	98
Copper	51.8		50.0	104	20.5		20.0	103	20.3		20.0	101
Lead	24.5		25.0	98	9.77		10.0	98	9.77		10.0	98
Molybdenum	262		250	105	101		100	101	98.8		100	99
Nickel	50.9		50.0	102	20.4		20.0	102	20.0		20.0	100
Selenium	26.4		25.0	106	9.88		10.0	99	9.61		10.0	96
Silver	25.2		25.0	101	9.98		10.0	100	9.94		10.0	99
Thallium	24.3		25.0	97	9.60		10.0	96	9.62		10.0	96
Tungsten	25.2		25.0	101	9.97	J	10.0	100	9.95	J	10.0	99
Vanadium	50.9		50.0	102	19.7	J	20.0	99	19.2	J	20.0	96
Zinc	51.9		50.0	104	20.8		20.0	104	20.6		20.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	CCV 200-21675/25 07/16/2011 10:30				CCV 200-21675/38 07/16/2011 11:58							
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	19.9		20.0	100	19.9		20.0	99				
Arsenic	9.71		10.0	97	9.78		10.0	98				
Barium	252		250	101	251		250	100				
Beryllium	10.6		10.0	106	10.2		10.0	102				
Cadmium	10.1		10.0	101	10.2		10.0	102				
Chromium	19.8		20.0	99	20.0		20.0	100				
Cobalt	49.0		50.0	98	48.8		50.0	98				
Copper	20.4		20.0	102	20.3		20.0	101				
Lead	9.70		10.0	97	9.73		10.0	97				
Molybdenum	98.6		100	99	98.7		100	99				
Nickel	20.1		20.0	101	20.1		20.0	100				
Selenium	9.43		10.0	94	9.57		10.0	96				
Silver	9.98		10.0	100	9.91		10.0	99				
Thallium	9.57		10.0	96	9.51		10.0	95				
Tungsten	9.82	J	10.0	98	9.79	J	10.0	98				
Vanadium	19.6	J	20.0	98	19.8	J	20.0	99				
Zinc	20.7		20.0	104	20.6		20.0	103				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	ICV 200-22993/7 08/04/2011 12:18				CCV 200-22993/11 08/04/2011 12:45				CCV 200-22993/13 08/04/2011 19:35			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	46.3		50.0	93	19.7		20.0	99	19.9		20.0	100
Arsenic	25.3		25.0	101	9.71		10.0	97	9.71		10.0	97
Barium	1280		1250	102	249		250	100	252		250	101
Beryllium	25.8		25.0	103	10.1		10.0	101	9.66		10.0	97
Cadmium	25.4		25.0	102	9.82		10.0	98	10.3		10.0	103
Chromium	50.7		50.0	101	19.8		20.0	99	20.0		20.0	100
Cobalt	126		125	101	49.4		50.0	99	49.9		50.0	100
Copper	51.6		50.0	103	20.5		20.0	102	20.4		20.0	102
Lead	24.3		25.0	97	9.68		10.0	97	9.80		10.0	98
Molybdenum	259		250	104	98.7		100	99	97.8		100	98
Nickel	50.4		50.0	101	20.1		20.0	101	20.4		20.0	102
Selenium	26.2		25.0	105	9.85		10.0	98	9.90		10.0	99
Silver	25.3		25.0	101	9.90		10.0	99	10.0		10.0	100
Thallium	24.3		25.0	97	9.58		10.0	96	9.66		10.0	97
Tungsten	24.6		25.0	98	9.80	J	10.0	98	9.87	J	10.0	99
Vanadium	50.8		50.0	102	19.8	J	20.0	99	19.2	J	20.0	96
Zinc	51.6		50.0	103	20.7		20.0	103	20.8		20.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	CCV 200-22993/17 08/04/2011 20:01											
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	20.1		20.0	101								
Arsenic	9.68		10.0	97								
Barium	255		250	102								
Beryllium	9.94		10.0	99								
Cadmium	10.2		10.0	102								
Chromium	20.0		20.0	100								
Cobalt	49.7		50.0	99								
Copper	20.2		20.0	101								
Lead	9.86		10.0	99								
Molybdenum	97.6		100	98								
Nickel	20.1		20.0	100								
Selenium	9.89		10.0	99								
Silver	10.0		10.0	100								
Thallium	9.67		10.0	97								
Tungsten	9.84	J	10.0	98								
Vanadium	18.7	J	20.0	94								
Zinc	21.2		20.0	106								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

ICV Source: MEHGICVw_00010 Concentration Units: ug/L

CCV Source: MEHGCCVw_00282

	ICV 200-20991/7-A 07/08/2011 12:54				CCV 200-20991/9-A 07/08/2011 12:58				CCV 200-20991/9-A 07/08/2011 13:22			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.83		3.00	94	5.14		5.00	103	5.29		5.00	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 200-20966/1-A

Instrument Code: METICPMS2 Batch No.: 21675

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.0910	J		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	5.0	U		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	0.281	J		6020
7440-48-4	Cobalt	0.192	J		6020
7440-50-8	Copper	2.0	U		6020
7439-92-1	Lead	0.176	J		6020
7439-98-7	Molybdenum	2.0	U		6020
7440-02-0	Nickel	2.0	U		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	0.225	J		6020
7440-33-7	Tungsten	0.172	J		6020
7440-62-2	Vanadium	20	U		6020
7440-66-6	Zinc	0.851	J		6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 200-20991/11-A

Instrument Code: MEPCV3 II Batch No.: 21100

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

FORM III-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Concentration Units: ug/L

		ICBIS 200-21675/8 07/16/2011 01:09		CCB 200-21675/12 07/16/2011 01:47		CCB 200-21675/14 07/16/2011 09:15		CCB 200-21675/26 07/16/2011 10:37	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.343	J	0.131	J	0.108	J	0.113	J
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	0.200	J	0.201	J	0.236	J	0.228	J
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	0.161	J	0.160	J	0.165	J	0.166	J
Molybdenum	2.0	0.475	J	0.619	J	2.0	U	2.0	U
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.225	J	0.228	J	0.233	J	0.230	J
Tungsten	10	0.338	J	10	U	0.185	J	10	U
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Concentration Units: ug/L

		CCB 200-21675/39 07/16/2011 12:05							
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.121	J						
Arsenic	5.0	5.0	U						
Barium	5.0	5.0	U						
Beryllium	1.0	1.0	U						
Cadmium	1.0	1.0	U						
Chromium	2.0	2.0	U						
Cobalt	1.0	0.243	J						
Copper	2.0	2.0	U						
Lead	1.0	0.169	J						
Molybdenum	2.0	2.0	U						
Nickel	2.0	2.0	U						
Selenium	5.0	5.0	U						
Silver	1.0	1.0	U						
Thallium	2.0	0.229	J						
Tungsten	10	10	U						
Vanadium	20	20	U						
Zinc	20	20	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Concentration Units: ug/L

		ICBIS 200-22993/8 08/04/2011 12:25		CCB 200-22993/12 08/04/2011 12:51		CCB 200-22993/14 08/04/2011 19:41		CCB 200-22993/18 08/04/2011 20:08	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.342	J	2.0	U	2.0	U	2.0	U
Arsenic	5.0	0.149	J	0.114	J	5.0	U	0.187	J
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Chromium	2.0	2.0	U	0.110	J	2.0	U	2.0	U
Cobalt	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	0.146	J	0.144	J	0.136	J	0.136	J
Molybdenum	2.0	0.562	J	0.649	J	2.0	U	2.0	U
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.188	J	0.195	J	0.195	J	0.190	J
Tungsten	10	0.288	J	10	U	10	U	10	U
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Concentration Units: ug/L

		ICB 200-20991/8-A 07/08/2011 12:56		CCB 200-20991/10-A 07/08/2011 13:00		CCB 200-20991/10-A 07/08/2011 13:23			
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U		

Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICSA 200-21675/9 Instrument ID: METICPMS2

Lab File ID: 071511-04B.xml ICS Source: MEMSICSAW_00022

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.487**	
Arsenic		**0.358**	
Barium		**0.160**	
Beryllium		**-0.187**	
Cadmium		**0.568**	
Chromium		**0.644**	
Cobalt		**0.302**	
Copper		**0.786**	
Lead		**0.293**	
Molybdenum	**2000**	**2331**	**117**
Nickel		**-1.18**	
Selenium		**-0.241**	
Silver		**0.0360**	
Thallium		**0.236**	
Tungsten		**0.363**	
Vanadium		**-0.205**	
Zinc		**-2.14**	
Aluminum	*100000*	*99390*	*99*
Boron		*4.67*	
Calcium	*100000*	*105167*	*105*
Iron	*100000*	*101100*	*101*
Magnesium	*100000*	*106400*	*106*
Manganese		*0.188*	
Potassium	*100000*	*107367*	*107*
Sodium	*100000*	*105100*	*105*
Th		*0.371*	
U		*0.276*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICSAB 200-21675/10 Instrument ID: METICPMS2

Lab File ID: 071511-04B.xml ICS Source: MEMSABw_00026

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**96.5**	**97**
Arsenic	**20.0**	**18.8**	**94**
Barium	**500**	**517**	**103**
Beryllium	**20.0**	**18.5**	**92**
Cadmium	**20.0**	**19.3**	**96**
Chromium	**40.0**	**39.9**	**100**
Cobalt	**50.0**	**46.4**	**93**
Copper	**100**	**89.5**	**89**
Lead	**20.0**	**20.5**	**103**
Molybdenum	**2000**	**2295**	**115**
Nickel	**100**	**90.7**	**91**
Selenium	**20.0**	**18.2**	**91**
Silver	**20.0**	**17.7**	**88**
Thallium	**20.0**	**20.0**	**100**
Tungsten	**20.0**	**21.3**	**106**
Vanadium	**40.0**	**38.6**	**96**
Zinc	**100**	**88.5**	**89**
Aluminum	*100000*	*97913*	*98*
Boron	*200*	*203*	*102*
Calcium	*100000*	*105067*	*105*
Iron	*100000*	*101300*	*101*
Magnesium	*100000*	*107700*	*108*
Manganese	*40.0*	*40.4*	*101*
Potassium	*100000*	*109733*	*110*
Sodium	*100000*	*106767*	*107*
Th	*20.0*	*20.8*	*104*
U	*20.0*	*22.0*	*110*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICSA 200-22993/9 Instrument ID: METICPMS2

Lab File ID: 080411-02E.xml ICS Source: MEMSICSAW_00022

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.442**	
Arsenic		**0.239**	
Barium		**0.547**	
Beryllium		**-0.0570**	
Cadmium		**0.714**	
Chromium		**0.900**	
Cobalt		**0.101**	
Copper		**1.10**	
Lead		**0.282**	
Molybdenum	**2000**	**2287**	**114**
Nickel		**-1.99**	
Selenium		**-0.535**	
Silver		**0.0040**	
Thallium		**0.203**	
Tungsten		**0.298**	
Vanadium		**0.393**	
Zinc		**-1.74**	
Aluminum	*100000*	*97277*	*97*
Boron		*24.4*	
Calcium	*100000*	*102233*	*102*
Iron	*100000*	*100117*	*100*
Magnesium	*100000*	*107967*	*108*
Manganese		*0.117*	
Potassium	*100000*	*108867*	*109*
Sodium	*100000*	*106033*	*106*
Th		*0.315*	
U		*0.245*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Lab Sample ID: ICSAB 200-22993/10 Instrument ID: METICPMS2

Lab File ID: 080411-02E.xml ICS Source: MEMSABw_00026

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**103**	**103**
Arsenic	**20.0**	**20.1**	**101**
Barium	**500**	**539**	**108**
Beryllium	**20.0**	**20.3**	**102**
Cadmium	**20.0**	**20.5**	**102**
Chromium	**40.0**	**42.4**	**106**
Cobalt	**50.0**	**49.5**	**99**
Copper	**100**	**95.7**	**96**
Lead	**20.0**	**21.3**	**106**
Molybdenum	**2000**	**2409**	**120**
Nickel	**100**	**95.0**	**95**
Selenium	**20.0**	**19.1**	**96**
Silver	**20.0**	**18.9**	**94**
Thallium	**20.0**	**21.0**	**105**
Tungsten	**20.0**	**21.8**	**109**
Vanadium	**40.0**	**41.6**	**104**
Zinc	**100**	**92.4**	**92**
Aluminum	*100000*	*102400*	*102*
Boron	*200*	*258*	*129*
Calcium	*100000*	*108933*	*109*
Iron	*100000*	*106133*	*106*
Magnesium	*100000*	*117067*	*117*
Manganese	*40.0*	*41.7*	*104*
Potassium	*100000*	*120633*	*121*
Sodium	*100000*	*115667*	*116*
Th	*20.0*	*21.6*	*108*
U	*20.0*	*22.8*	*114*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-20966/2-A

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

Sample Matrix: Water LCS Source: MEICPMSICVi_00018

Water(ug/L)

Analyte	True	Found	C	%R	Limits		Q	Method
Antimony	50.0	50.2		100	80	120		6020
Arsenic	25.0	23.9		96	80	120		6020
Barium	1250	1410		113	80	120		6020
Beryllium	25.0	25.7		103	80	120		6020
Cadmium	25.0	25.2		101	80	120		6020
Chromium	50.0	54.1		108	80	120		6020
Cobalt	125	133		106	80	120		6020
Copper	50.0	53.1		106	80	120		6020
Lead	25.0	26.5		106	80	120		6020
Molybdenum	250	286		115	80	120		6020
Nickel	50.0	52.7		105	80	120		6020
Selenium	25.0	21.4		86	80	120		6020
Silver	25.0	26.1		105	80	120		6020
Thallium	25.0	25.6		102	80	120		6020
Tungsten	25.0	25.8		103	80	120		6020
Vanadium	50.0	52.5		105	80	120		6020
Zinc	50.0	48.6		97	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-20991/12-A

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

Sample Matrix: Water LCS Source: MEHGCCVw_00282

Water(ug/L)

Analyte	True	Found	C	%R	Limits		Q	Method
Mercury	1.00	1.08		108	85	115		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 240-1287-4

SDG No:

Lab Name: TestAmerica Burlington Job No: 240-1287-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.19	J	0.585	J	NC		6020
Arsenic	0.42	J	25	U	NC		6020
Barium	34		34.0		0.04		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	1.0	U	5.0	U	NC		6020
Chromium	0.67	J	1.27	J	NC		6020
Cobalt	1.5		2.34	J	NC		6020
Copper	1.9	J	1.43	J	NC		6020
Lead	0.28	J	0.950	J	NC		6020
Molybdenum	0.72	J	10	U	NC		6020
Nickel	2.0	U	10	U	NC		6020
Selenium	5.0	U	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.28	J	1.18	J	NC		6020
Tungsten	10	U	50	U	NC		6020
Vanadium	1.4	J	100	U	NC		6020
Zinc	6.0	J	14.4	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-1287-4

SDG No:

Lab Name: TestAmerica Burlington Job No: 240-1287-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.086	J	10	U	NC		6020
Arsenic	0.56	J	1.58	J	NC		6020
Barium	32		32.1		1.3		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	0.053	J	5.0	U	NC		6020
Chromium	2.0	U	10	U	NC		6020
Cobalt	1.1		0.905	J	NC		6020
Copper	1.5	J	1.35	J	NC		6020
Lead	0.22	J	0.750	J	NC		6020
Molybdenum	1.0	J	10	U	NC		6020
Nickel	2.0	U	10	U	NC		6020
Selenium	0.53	J	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.25	J	0.990	J	NC		6020
Tungsten	0.46	J	50	U	NC		6020
Vanadium	0.63	J	100	U	NC		6020
Zinc	20	U	2.56	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 07/16/2011 End Date: 07/16/2011

		Internal Standards %RI For:									
Lab Sample ID	Time	Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element In-115	Q	Element Tb-159	Q
STD0 200-21675/2 IC	00:21	100		100		100		100		100	
STDLL2 200-21675/3	00:28	102		99		99		99		99	
STD1 200-21675/4 IC	00:35	99		101		101		101		100	
STD2 200-21675/5 IC	00:41	98		102		102		101		100	
STD3 200-21675/6 IC	00:49	102		100		99		97		98	
ICV 200-21675/7	00:59	98		101		100		99		99	
ICBIS 200-21675/8	01:09	97		97		97		97		96	
ICSA 200-21675/9	01:15	90		93		90		90		91	
ICSAB 200-21675/10	01:26	85		90		90		91		93	
CCV 200-21675/11	01:37	96		99		102		102		103	
CCB 200-21675/12	01:47	95		97		100		101		101	
CCV 200-21675/13	09:08	99		104		106		106		107	
CCB 200-21675/14	09:15	100		101		103		103		103	
MB 200-20966/1-A	09:21	100		105		105		103		103	
LCS 200-20966/2-A	09:28	103		105		103		100		102	
240-1287-2	10:10	93		91		104		89		94	
240-1287-3	10:17	86		89		319	*	90		115	
240-1287-4	10:23	92		91		127	*	91		98	
CCV 200-21675/25	10:30	97		100		101		101		101	
CCB 200-21675/26	10:37	97		97		97		97		97	
240-1287-4 SD	10:44	101		102		110		101		102	
240-1287-2	11:38	92		91		104		90		95	
240-1287-3	11:45	87		88		290	*	88		111	
CCV 200-21675/38	11:58	102		99		100		100		102	
CCB 200-21675/39	12:05	97		97		98		97		99	

FORM XV - IN

15-IN

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 07/16/2011 End Date: 07/16/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Bi-209	Q	Element	Q	Element	Q	Element	Q	Element	Q
STD0 200-21675/2 IC	00:21	100									
STDLL2 200-21675/3	00:28	99									
STD1 200-21675/4 IC	00:35	99									
STD2 200-21675/5 IC	00:41	98									
STD3 200-21675/6 IC	00:49	91									
ICV 200-21675/7	00:59	94									
ICBIS 200-21675/8	01:09	95									
ICSA 200-21675/9	01:15	80									
ICSAB 200-21675/10	01:26	81									
CCV 200-21675/11	01:37	101									
CCB 200-21675/12	01:47	100									
CCV 200-21675/13	09:08	103									
CCB 200-21675/14	09:15	101									
MB 200-20966/1-A	09:21	98									
LCS 200-20966/2-A	09:28	92									
240-1287-2	10:10	81									
240-1287-3	10:17	86									
240-1287-4	10:23	84									
CCV 200-21675/25	10:30	98									
CCB 200-21675/26	10:37	95									
240-1287-4 SD	10:44	95									
240-1287-2	11:38	83									
240-1287-3	11:45	86									
CCV 200-21675/38	11:58	99									
CCB 200-21675/39	12:05	97									

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 08/04/2011 End Date: 08/04/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element In-115	Q	Element Tb-159	Q
STD0 200-22993/2 IC	11:45	100		100		100		100		100	
STDLL2 200-22993/3	11:51	99		99		98		99		99	
STD1 200-22993/4 IC	11:58	100		101		100		101		101	
STD2 200-22993/5 IC	12:05	100		101		99		100		100	
STD3 200-22993/6 IC	12:11	96		99		97		96		98	
ICV 200-22993/7	12:18	98		102		100		99		101	
ICBIS 200-22993/8	12:25	101		102		101		101		101	
ICSA 200-22993/9	12:31	83		92		90		90		90	
ICSAB 200-22993/10	12:38	83		95		94		94		96	
CCV 200-22993/11	12:45	94		102		104		106		107	
CCB 200-22993/12	12:51	95		102		104		105		106	
CCV 200-22993/13	19:35	105		95		98		99		103	
CCB 200-22993/14	19:41	102		93		96		98		101	
240-1287-4	19:48	99		95		134	*	96		105	
240-1287-4 SD	19:55	109		99		111		104		110	
CCV 200-22993/17	20:01	109		101		104		105		109	
CCB 200-22993/18	20:08	109		99		102		104		108	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 08/04/2011 End Date: 08/04/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Bi-209	Q	Element	Q	Element	Q	Element	Q	Element	Q
STD0 200-22993/2 IC	11:45	100									
STDLL2 200-22993/3	11:51	99									
STD1 200-22993/4 IC	11:58	100									
STD2 200-22993/5 IC	12:05	98									
STD3 200-22993/6 IC	12:11	91									
ICV 200-22993/7	12:18	96									
ICBIS 200-22993/8	12:25	99									
ICSA 200-22993/9	12:31	80									
ICSAB 200-22993/10	12:38	84									
CCV 200-22993/11	12:45	104									
CCB 200-22993/12	12:51	105									
CCV 200-22993/13	19:35	101									
CCB 200-22993/14	19:41	102									
240-1287-4	19:48	91									
240-1287-4 SD	19:55	106									
CCV 200-22993/17	20:01	107									
CCB 200-22993/18	20:08	107									

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1287-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 MDL Date: 08/06/2010 10:09

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.014
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS

Lab Name: TestAmerica Burlington Job Number: 240-1287-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 XMDL Date: 08/06/2010 10:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.14
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1287-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 MDL Date: 08/06/2010 10:09

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.014
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1287-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 XMDL Date: 08/06/2010 10:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.14
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1287-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A MDL Date: 05/05/2011 17:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury		0.2	0.066

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS

Lab Name: TestAmerica Burlington Job Number: 240-1287-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A XMDL Date: 05/05/2011 17:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.066

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1287-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A MDL Date: 05/05/2011 17:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury		0.2	0.066

9-IN

CALIBRATION BLANK DETECTION LIMITS

METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1287-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A XMDL Date: 05/05/2011 17:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.066

FORM IX - IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Instrument ID: METICPMS2 Method: 6020

Start Date: 07/16/2011 00:11 End Date: 07/16/2011 12:46

Lab Sample ID	D/F	Type	Time	Analytes: Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn
ITUNE 200-21675/1			00:11																	
STD0 200-21675/2 IC	1		00:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STDLL2 200-21675/3 IC	1		00:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD1 200-21675/4 IC	1		00:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD2 200-21675/5 IC	1		00:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD3 200-21675/6 IC	1		00:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 200-21675/7	1		00:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICBIS 200-21675/8	1		01:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSA 200-21675/9	1		01:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 200-21675/10	1		01:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-21675/11	1		01:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/12	1		01:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-21675/13	1		09:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/14	1		09:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MB 200-20966/1-A	1	T	09:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 200-20966/2-A	1	T	09:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			09:36																	
ZZZZZZ			09:43																	
ZZZZZZ			09:50																	
ZZZZZZ			09:56																	
ZZZZZZ			10:03																	
240-1287-2	1	T	10:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1287-3	1	T	10:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1287-4	1	T	10:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-21675/25	1		10:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/26	1		10:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1287-4 SD	5	T	10:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			10:51																	
ZZZZZZ			10:58																	
ZZZZZZ			11:04																	
ZZZZZZ			11:11																	
ZZZZZZ			11:18																	
ZZZZZZ			11:25																	
ZZZZZZ			11:31																	
240-1287-2	1	D	11:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1287-3	1	D	11:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			11:51																	
CCV 200-21675/38	1		11:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/39	1		12:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			12:12																	
ZZZZZZ			12:19																	
ZZZZZZ			12:26																	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Instrument ID: METICPMS2 Method: 6020

Start Date: 07/16/2011 00:11 End Date: 07/16/2011 12:46

Lab Sample ID	D/F	Type	Time	Analytes															
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn
ZZZZZZ			12:32																
CCV 200-21675/44			12:39																
CCB 200-21675/45			12:46																

Prep Types

D = Dissolved

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Instrument ID: METICPMS2 Method: 6020

Start Date: 08/04/2011 10:17 End Date: 08/04/2011 20:08

Lab Sample ID	D/F	Type	Time	Analytes															
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn
ITUNE 200-22993/1			10:17																
STD0 200-22993/2 IC	1		11:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STDLL2 200-22993/3 IC	1		11:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD1 200-22993/4 IC	1		11:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD2 200-22993/5 IC	1		12:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD3 200-22993/6 IC	1		12:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 200-22993/7	1		12:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICBIS 200-22993/8	1		12:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSA 200-22993/9	1		12:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 200-22993/10	1		12:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-22993/11	1		12:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-22993/12	1		12:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-22993/13	1		19:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-22993/14	1		19:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1287-4	1	D	19:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1287-4 SD	5	D	19:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-22993/17	1		20:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-22993/18	1		20:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Prep Types

D = Dissolved

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1287-1

SDG No.:

Instrument ID: MEPCV3 II Method: 7470A

Start Date: 07/08/2011 12:41 End Date: 07/08/2011 13:48

Lab Sample ID	D/F	Type	Time	Analytes: Hg
IC 200-20991/1-A			12:41	X
IC 200-20991/2-A			12:43	X
IC 200-20991/3-A			12:45	X
IC 200-20991/4-A			12:47	X
IC 200-20991/5-A			12:49	X
IC 200-20991/6-A			12:51	X
ICV 200-20991/7-A	1		12:54	X
ICB 200-20991/8-A	1		12:56	X
CCV 200-20991/9-A	1		12:58	X
CCB 200-20991/10-A	1		13:00	X
MB 200-20991/11-A	1	T	13:02	X
LCS 200-20991/12-A	1	T	13:04	X
240-1287-2	1	T	13:06	X
240-1287-2	1	D	13:08	X
240-1287-3	1	T	13:10	X
240-1287-3	1	D	13:12	X
240-1287-4	1	T	13:14	X
240-1287-4	1	D	13:16	X
ZZZZZZ			13:19	
CCV 200-20991/9-A	1		13:22	X
CCB 200-20991/10-A	1		13:23	X
ZZZZZZ			13:25	
ZZZZZZ			13:28	
ZZZZZZ			13:30	
ZZZZZZ			13:32	
ZZZZZZ			13:35	
ZZZZZZ			13:37	
ZZZZZZ			13:39	
ZZZZZZ			13:41	
ZZZZZZ			13:43	
CCV 200-20991/9-A			13:46	
CCB 200-20991/10-A			13:48	

Prep Types

D = Dissolved

T = Total/NA

QC DATA ASSOCIATION SUMMARY

G1F210484

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	MCAWW 314.0		1192193	1192116
002	WATER	MCAWW 314.0		1192193	1192116
003	WATER	MCAWW 314.0		1192193	1192116
004	WATER	MCAWW 314.0		1192193	1192116
005	WATER	MCAWW 314.0		1192193	1192116
006	WATER	MCAWW 314.0		1192193	1192116
007	WATER	MCAWW 314.0		1192193	1192116
008	WATER	MCAWW 314.0		1192193	1192116
009	WATER	MCAWW 314.0		1192193	1192116
010	WATER	MCAWW 314.0		1192193	1192116
011	WATER	MCAWW 314.0		1192193	1192116
012	WATER	MCAWW 314.0		1192193	1192116
013	WATER	MCAWW 314.0		1192193	1192116
014	WATER	MCAWW 314.0		1192193	1192116
015	WATER	MCAWW 314.0		1192193	1192116
016	WATER	MCAWW 314.0		1192193	1192116

METHOD BLANK REPORT

General Chemistry

Client Lot #...: G1F210484 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		Work Order #: MKTP71AA		MB Lot-Sample #:	G1G110000-193	
	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		Work Order #: MKTP71AC	LCS Lot-Sample#: G1G110000-193		
	98	(85 - 115)	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G1F210484 Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate			Work Order #: MKTP71AC LCS Lot-Sample#: G1G110000-193				
	50.0	49.2	ug/L	98	MCAWW 314.0	07/11/11	1192193
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER
Date Sampled...: 06/17/11 **Date Received..:** 06/21/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		WO#: MKEG31AC-MS/MKEG31AD-MSD				MS Lot-Sample #: G1F210484-001	
	104	(80 - 120)			MCAWW 314.0	07/11/11	1192193
	104	(80 - 120)	0.11	(0-20)	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER
Date Sampled...: 06/17/11 **Date Received..:** 06/21/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate			WO#: MKEG31AC-MS/MKEG31AD-MSD				MS Lot-Sample #: G1F210484-001		
	ND	50.0	52.1	ug/L	104		MCAWW 314.0	07/11/11	1192193
	ND	50.0	52.1	ug/L	104	0.11	MCAWW 314.0	07/11/11	1192193
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Sample Calc - Metals

240-1287-G-2-A 07/16/2011 10:10:27 AM

User Pre-dilution: 1.000

Run	Time	6Li	7Li	9Be	11B	13C	23Na	24Mg	25Mg	26Mg	27Al	31P	33S	39K	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:31	93.656%	0.000	-0.173	65.090	0.000	M 131400.000	T 10720.000	T 10590.000	T 10550.000	T 110.700	0.000	T 0.000	T 3158.000	M 44380.000	89.944%	0.000
2	10:12:34	92.040%	0.000	-0.184	66.830	0.000	M 132300.000	T 10710.000	T 10680.000	T 10800.000	T 111.100	0.000	T 0.000	T 3270.000	M 43770.000	91.973%	0.000
3	10:13:37	92.385%	0.000	-0.173	68.770	0.000	M 136400.000	T 11050.000	T 10940.000	T 10910.000	T 112.100	0.000	T 0.000	T 3305.000	M 44670.000	91.415%	0.000
x		92.693%	0.000	-0.176	66.900	0.000	M 133400.000	T 10830.000	T 10740.000	T 10760.000	T 111.300	0.000	T 0.000	T 3244.000	M 44280.000	91.111%	0.000
σ		0.851%	0.000	0.007	1.843	0.000	M 2648.000	T 192.900	T 186.800	T 182.900	T 0.698	0.000	T 0.000	T 77.230	M 460.200	1.048%	0.000
%RSD		0.918	0.000	3.739	2.755	0.000	M 1.986	T 1.782	T 1.740	T 1.701	T 0.627	0.000	T 0.000	T 2.381	M 1.039	1.150	0.000

Run	Time	52Cr	53Cl O	54Fe	55Mn	56Fe	59Co	60Ni	62Ni	65Cu	66Zn	67Zn	68Zn	75As	78Se	82Se	89Y
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:31	0.782	45.700	M 7468.000	M 687.100	M 7668.000	11.570	0.707	7.977	0.967	3.422	4.071	3.993	4.812	0.323	-0.014	102.896%
2	10:12:34	0.683	43.120	M 7402.000	M 681.400	M 7559.000	11.350	0.665	20.140	0.898	3.516	3.812	4.209	4.823	0.345	-0.015	103.972%
3	10:13:37	0.731	42.690	M 7617.000	M 697.000	M 7742.000	11.530	0.692	31.150	0.919	3.600	4.002	4.294	4.914	0.470	-0.136	105.452%
x		0.732	43.840	M 7496.000	M 688.500	M 7656.000	11.480	0.688	19.760	0.928	3.513	3.962	4.165	4.850	0.379	-0.055	104.107%
σ		0.050	1.626	M 110.000	M 7.904	M 92.070	0.115	0.021	11.590	0.035	0.089	0.134	0.155	0.056	0.080	0.070	1.283%
%RSD		6.784	3.710	M 1.467	M 1.148	M 1.203	0.999	3.085	58.680	3.799	2.533	3.378	3.722	1.149	20.960	127.500	1.233

Run	Time	98Mo	107Ag	108Mo O	109Ag	111Cd	114Cd	115In	121Sb	123Sb	135Ba	137Ba	159Tb	182W	184W	205Tl	206Pb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:11:31	0.070	-0.019	0.019	-0.018	0.029	0.038	88.233%	0.181	0.163	35.500	37.770	92.873%	0.068	0.063	0.314	0.268
2	10:12:34	0.094	-0.017	0.012	-0.017	0.009	0.052	89.109%	0.184	0.162	36.180	37.530	94.402%	0.076	0.059	0.322	0.283
3	10:13:37	0.063	-0.020	0.007	-0.016	0.016	0.039	90.492%	0.187	0.161	35.900	37.040	95.186%	0.072	0.054	0.320	0.279
x		0.076	-0.019	0.013	-0.017	0.018	0.043	89.278%	0.184	0.162	35.860	37.450	94.154%	0.072	0.059	0.319	0.277
σ		0.016	0.001	0.006	0.001	0.010	0.008	1.139%	0.003	0.001	0.341	0.373	1.176%	0.004	0.005	0.004	0.008
%RSD		21.260	6.621	47.730	4.707	54.280	18.020	1.276	1.558	0.718	0.952	0.996	1.249	5.911	7.824	1.264	2.774

Run	Time	208Pb	209Bi	220Bkg	232Th	238U
		ppb	ppb	ppb	ppb	ppb
1	10:11:31	0.300	80.614%	0.000	0.358	0.370
2	10:12:34	0.302	81.127%	0.000	0.358	0.370
3	10:13:37	0.297	82.087%	0.000	0.353	0.367
x		0.300	81.276%	0.000	0.356	0.369
σ		0.002	0.747%	0.000	0.003	0.002
%RSD		0.692	0.920	0.000	0.789	0.466

Sample: GSP-MW-4-062011
Arsenic reported result: 4.9 µg/L

240-1287-G-3-A 07/16/2011 10:17:11 AM

User Pre-dilution: 1.000

Run	Time	6Li	7Li	9Be	11B	13C	23Na	24Mg	25Mg	26Mg	27Al	31P	33S	39K	44Ca	45Sc	4
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:18:14	86.453%	0.000	3.487	95.390	0.000	M 38000.000	M 39520.000	M 39340.000	M 39170.000	M 4145.000	0.000	T 0.000	T 5123.000	M 34800.000	90.739%	0
2	10:19:17	86.251%	0.000	3.537	95.940	0.000	M 36920.000	M 38530.000	M 38830.000	M 39180.000	M 4177.000	0.000	T 0.000	T 5095.000	M 35220.000	89.322%	0
3	10:20:20	84.355%	0.000	3.586	98.500	0.000	M 38160.000	M 39090.000	M 39540.000	M 39570.000	M 4208.000	0.000	T 0.000	T 5108.000	M 35340.000	88.025%	0
x		85.687%	0.000	3.536	96.610	0.000	M 37690.000	M 39050.000	M 39240.000	M 39310.000	M 4177.000	0.000	T 0.000	T 5109.000	M 35120.000	89.362%	0
σ		1.158%	0.000	0.050	1.657	0.000	M 675.100	M 494.400	M 364.100	M 228.700	M 31.480	0.000	T 0.000	T 14.030	M 287.400	1.357%	0
%RSD		1.351	0.000	1.400	1.715	0.000	M 1.791	M 1.266	M 0.928	M 0.582	M 0.754	0.000	T 0.000	T 0.275	M 0.818	1.519	0

Run	Time	52Cr	53Cl O	54Fe	55Mn	56Fe	59Co	60Ni	62Ni	65Cu	66Zn	67Zn	68Zn	75As	78Se	82Se	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:18:14	6.734	96.930	M 5998.000	M 1114.000	M 6016.000	76.390	53.250	66.310	19.590	78.570	56.650	61.630	0.713	1.959	2.931	320.9
2	10:19:17	6.551	97.220	M 6011.000	M 1119.000	M 6046.000	75.890	52.520	68.600	19.520	78.600	57.560	61.840	0.678	1.985	2.910	317.5
3	10:20:20	6.696	98.330	M 6059.000	M 1128.000	M 6124.000	76.050	53.260	68.680	19.570	79.880	57.860	62.900	0.744	1.783	2.817	317.4
x		6.660	97.490	M 6023.000	M 1120.000	M 6062.000	76.110	53.010	67.860	19.560	79.020	57.360	62.120	0.712	1.909	2.886	318.6
σ		0.097	0.738	M 32.310	M 7.116	M 55.430	0.257	0.426	1.348	0.038	0.748	0.631	0.681	0.033	0.110	0.061	2.0

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **A. APANAVAGE** **DATE:** **SEPTEMBER 6, 2011**

FROM: **A. COGNETTI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION - VOC/SVOC/PCB/TPH (GASOLINE & DIESEL)/ METALS/PERCHLORATE**
GREATER STRAWBERRY POINT MSA
SAMPLE DELIVERY GROUP (SDG) – 240-1342-1

SAMPLES: 2/Aqueous/VOC/SVOC/GRO/DRO/Metals/Perchlorate

GSP-SB-WP-54-062111 GSP-SB-WP-71-062111

Overview

The sample set for Greater Strawberry Point MSA, SDG 240-1342-1 consisted of two (2) aqueous samples analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) total petroleum hydrocarbons (TPH) gasoline and total petroleum hydrocarbons (TPH) diesel, total select metals, dissolved select metals and perchlorate. The select metals were antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, tungsten, vanadium and zinc.

The samples were collected on June 21, 2011 and analyzed by Test America Laboratories Inc. All analyses were conducted in accordance with SW-846 Methods 8260B for VOCs, 8270C for SVOCs, 8015B for TPH (gasoline and diesel), 6010C for metals, 7471B for mercury and MCAWW 314 for perchlorate analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method /preparation blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate, internal standard recoveries, chromatographic resolution, ICP interference results, ICP serial dilution results, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- VOC initial calibration relative response factors (RRFs) for tert-butyl alcohol and vinyl acetate were less than the 0.05 quality control limit on May 29, 2011 for instrument A3UX16 and the continuing calibrations on June 19, 2011 @ 12:41. The nondetected tert-butyl alcohol and vinyl acetate results were qualified as rejected (UR) in the affected samples.

Minor

- The following VOC contaminant was detected in the laboratory method blank 240-6573/5 at the following maximum concentration:

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
Naphthalene	0.264	1.32

An action level of five times the maximum level for other contaminants has been used to evaluate sample data for blank contamination. Sample aliquotand dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for the above analytes were qualified "B" as a result of laboratory blank contamination.

- The VOC continuing calibration percent difference (%D) for acetone was greater than 50% on June 29, 2011 @ 12:41 on instrument A3UX16. The positive acetone results in were qualified as estimated (J).

- The following contaminants were detected in the SVOC soil laboratory method blank 240-5773/1-A at the following maximum concentration:

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
Bis(2-ethylhexyl)phthalate	0.996	9.96

An action level of ten times the maximum level for the phthalates has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified (B) as a result of laboratory blank contamination.

- The TPH as gasoline laboratory method blank 240-6402/19 contained contaminant.

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
TPH as gasoline	37.9	189.5

An action level of 5X the maximum concentration of contaminant was used in order to evaluate the affected samples. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified (B) as a result of laboratory blank contamination.

- The TPH as diesel laboratory method blank 240-5811/1-A contained contaminant.

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
TPH as diesel	479	2395

An action level of 5x the maximum concentration of contaminant was used in order to evaluate the affected samples. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified (B) as a result of laboratory blank contamination.

- The following contaminants were detected in the laboratory method/preparation/calibration blanks at the following maximum concentrations:

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
Antimony [1]	0.343	1.72
Chromium [2]	0.281	1.41
Cobalt [3]	0.228	1.14
Cobalt [4]	0.234	1.17
Lead [2]	0.176	0.88
Molybdenum [1]	0.475	2.375
Thallium [3]	0.230	1.15
Thallium [4]	0.225	1.13
Tungsten [1]	0.388	1.94
Zinc [2]	0.851	4.26

(1) Maximum concentration of contaminants in the initial calibration blank 200-21675/8 analyzed on July 16, 2011 @ 1:09.
(2) Maximum concentration of contaminants in the method blank 200-20966/1-A affecting all samples both total and dissolved.
(3) Maximum concentration of contaminants in continuing calibration blank 200-21675/26 analyzed on July 16, 2011 @ 10:37 affecting the total metals.
(4) Maximum concentration of contaminants in continuing calibration blank 200-21675/39 analyzed on July 16, 2011 @ 12:05 affecting the dissolved metals.

An action level of 5x the maximum concentration of contaminant was used in order to evaluate the affected samples. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified (B) as a result of laboratory blank contamination.

- The %Ds in the serial dilution of total and dissolved arsenic and cobalt were greater than 10%. The positive total and dissolved arsenic and cobalt results were qualified as estimated (J).

- Positive results reported below the quantitation limit but above the method detection limit (MDL) were qualified as estimated, (J).

Notes

According to the chain of custody trip blank, TB-062111, should have been analyzed for VOCs. The laboratory was contacted. The laboratory has no record of the trip blank being logged in. The trip blank was not analyzed. No action was taken.

Form 1s of the VOC Tentatively Identified Compounds (TICs) are included in this SDG in Appendix B. No action was taken on these findings. TICS were qualified as (NJ).

The VOC continuing calibration %Ds for several analytes were greater than the 20% quality control limit but less than 50% on June 29, 2011 @ 12:41 and 13:04. The analytes were bromomethane, tert-butyl alcohol, methyl tert-butyl ether, 2,2-dichloropropane, 2-chloroethyl vinyl ether, bromoform, 1,2-dibromo-3-chloropropane, 1,2,4-trichlorobenzene, naphthalene, 1,2,3-trichlorobenzene, ethyl tert-butyl ether and tert-amyl methyl ether. No action was taken on the nondetected results of the aforementioned analytes in the

affected samples.

The %Rs of 2-chloroethyl vinyl ether were 0% in the matrix spike/matrix spike duplicate (MS/MSD) of sample 240-1438-H-4 which is not included in this SDG. The %Rs of tert-butyl alcohol were less than the lower quality control limit in the MS/MSD. No action was taken.

The percent recovery (%R) of tert-butyl alcohol was less than the lower quality control limit in the laboratory control sample associated with batch 240-6573/4. No further action was taken on the nondetected tert-butyl alcohol results which were qualified due to a more serious noncompliance.

In the SVOC initial calibration of instrument A4HP9 on July 14, 2011, 4,6-dinitro-2-methylphenol had a percent relative standard deviation (%RSD) greater than the 15% quality control limit but less than 50%. No action was taken on the nondetected 4,6-dinitro-2-methylphenol results in the affected samples.

Naphthalene and hexachlorobutadiene were reported in both the VOC and the SVOC fractions.

Nondetected results were reported to the MDL.

Executive Summary

Laboratory Performance: The VOC RRFs for tert-butyl alcohol and vinyl acetate were less than the quality control limit resulting in the rejection of nondetected results. VOC, SVOC, TPH as diesel and gasoline and metals results were qualified due to method blank contamination. Continuing calibration verification percent difference exceeded quality control limits in the VOC fraction for acetone. The LCS %R of tert-butyl alcohol was less than quality control limits.

Other Factors Affecting Data Quality: Trip blank was not analyzed. The serial dilution %D for total and dissolved arsenic and cobalt exceeded quality control limits. Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and U.S. EPA National Functional Guidelines for Inorganic Data Validation (April 1993). The text of this report has been formulated to address only those problem areas affecting data quality.

Ann Cognetti

Tetra Tech NUS
Ann Cognetti
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-54-062111			GSP-SB-WP-71-062111		
SDG: 240-1342-1	LAB_ID	240-1342-2			240-1342-3		
FRACTION: OV	SAMP_DATE	6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U	
2-BUTANONE		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U	
ACETONE		2.8	J	CP	1.9	J	CP
BENZENE		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-54-062111			GSP-SB-WP-71-062111		
SDG: 240-1342-1	LAB_ID	240-1342-2			240-1342-3		
FRACTION: OV	SAMP_DATE	6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U	
TRICHLOROETHENE		0.17	U		0.17	U	
TRICHLOROFLUOROMETHANE		0.21	U		0.21	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-54-062111			GSP-SB-WP-71-062111		
SDG: 240-1342-1	LAB_ID	240-1342-2			240-1342-3		
FRACTION: OV	SAMP_DATE	6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-54-062111			GSP-SB-WP-71-062111		
SDG: 240-1342-1	LAB_ID	240-1342-2			240-1342-3		
FRACTION: OS	SAMP_DATE	6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		0.76	U		0.76	U	
1,4-DIOXANE		0.47	U		0.47	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		0.38	U		0.38	U	
2,4,5-TRICHLOROPHENOL		0.29	U		0.29	U	
2,4,6-TRICHLOROPHENOL		0.76	U		0.76	U	
2,4-DICHLOROPHENOL		0.76	U		0.76	U	
2,4-DIMETHYLPHENOL		0.76	U		0.76	U	
2,4-DINITROPHENOL		2.3	U		2.3	U	
2,4-DINITROTOLUENE		0.26	U		0.26	U	
2,6-DINITROTOLUENE		0.76	U		0.76	U	
2-CHLORONAPHTHALENE		0.095	U		0.095	U	
2-CHLOROPHENOL		0.28	U		0.28	U	
2-METHYLNAPHTHALENE		0.095	U		0.095	U	
2-METHYLPHENOL		0.76	U		0.76	U	
2-NITROANILINE		0.76	U		0.76	U	
2-NITROPHENOL		0.27	U		0.27	U	
3&4-METHYLPHENOL		0.71	U		0.71	U	
3,3'-DICHLOROBENZIDINE		0.35	U		0.35	U	
3-NITROANILINE		0.27	U		0.27	U	
4,6-DINITRO-2-METHYLPHENOL		2.3	U		2.3	U	
4-BROMOPHENYL PHENYL ETHER		0.76	U		0.76	U	
4-CHLORO-3-METHYLPHENOL		0.76	U		0.76	U	
4-CHLOROANILINE		0.76	U		0.76	U	
4-CHLOROPHENYL PHENYL ETHER		0.29	U		0.29	U	
4-NITROANILINE		0.76	U		0.76	U	
4-NITROPHENOL		2.3	U		2.3	U	
ACENAPHTHENE		0.095	U		0.095	U	
ACENAPHTHYLENE		0.095	U		0.095	U	
ACETOPHENONE		0.32	U		0.32	U	
ANTHRACENE		0.095	U		0.095	U	
ATRAZINE		0.32	U		0.32	U	
BENZALDEHYDE		0.37	U		0.37	U	
BENZO(A)ANTHRACENE		0.095	U		0.095	U	
BENZO(A)PYRENE		0.095	U		0.095	U	
BENZO(B)FLUORANTHENE		0.095	U		0.095	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-54-062111			GSP-SB-WP-71-062111		
SDG: 240-1342-1	LAB_ID	240-1342-2			240-1342-3		
FRACTION: OS	SAMP_DATE	6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		0.095	U		0.095	U	
BENZO(K)FLUORANTHENE		0.095	U		0.095	U	
BIS(2-CHLOROETHOXY)METHANE		0.3	U		0.3	U	
BIS(2-CHLOROETHYL)ETHER		0.095	U		0.095	U	
BIS(2-ETHYLHEXYL)PHTHALATE		0.89	B	A	0.85	B	A
BUTYL BENZYL PHTHALATE		0.76	U		0.76	U	
CAPROLACTAM		0.76	U		0.76	U	
CARBAZOLE		0.27	U		0.27	U	
CHRYSENE		0.095	U		0.095	U	
DIBENZO(A,H)ANTHRACENE		0.095	U		0.095	U	
DIBENZOFURAN		0.095	U		0.095	U	
DIETHYL PHTHALATE		0.57	U		0.57	U	
DIMETHYL PHTHALATE		0.28	U		0.28	U	
DI-N-BUTYL PHTHALATE		0.73	J	P	0.64	U	
DI-N-OCTYL PHTHALATE		0.76	U		0.76	U	
FLUORANTHENE		0.095	U		0.095	U	
FLUORENE		0.095	U		0.095	U	
HEXACHLOROBENZENE		0.095	U		0.095	U	
HEXACHLOROBUTADIENE		0.26	U		0.26	U	
HEXACHLOROCYCLOPENTADIENE		0.76	U		0.76	U	
HEXACHLOROETHANE		0.76	U		0.76	U	
INDENO(1,2,3-CD)PYRENE		0.095	U		0.095	U	
ISOPHORONE		0.26	U		0.26	U	
NAPHTHALENE		0.095	U		0.095	U	
NITROBENZENE		0.038	U		0.038	U	
N-NITROSODIMETHYLAMINE		0.3	U		0.3	U	
N-NITROSO-DI-N-PROPYLAMINE		0.76	U		0.76	U	
N-NITROSODIPHENYLAMINE		0.3	U		0.3	U	
PENTACHLOROPHENOL		2.3	U		2.3	U	
PHENANTHRENE		0.095	U		0.095	U	
PHENOL		0.57	U		0.57	U	
PYRENE		0.095	U		0.095	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-54-062111			GSP-SB-WP-71-062111		
SDG: 240-1342-1	LAB_ID	240-1342-2			240-1342-3		
FRACTION: PET	SAMP_DATE	6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		230	B	A	230	U	
GASOLINE RANGE ORGANICS		36	B	A	31	B	A

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-54-062111			GSP-SB-WP-71-062111		
SDG: 240-1342-1	LAB_ID	240-1342-2			240-1342-3		
FRACTION: M	SAMP_DATE	6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY	0.19	B	A	0.36	B	A
ARSENIC	0.092	UJ	I	9.7	J	I
BARIUM	23			68		
BERYLLIUM	0.092	U		0.092	U	
CADMIUM	0.046	U		0.076	J	P
CHROMIUM	0.52	B	A	5.9		
COBALT	0.53	B	A	11	J	I
COPPER	0.69	J	P	7		
LEAD	0.3	B	A	0.98	J	P
MERCURY	0.066	U		0.066	U	
MOLYBDENUM	0.46	B	A	1.5	B	A
NICKEL	0.63	U		2		
SELENIUM	0.32	U		0.32	U	
SILVER	0.014	U		0.014	U	
THALLIUM	0.25	B	A	0.23	B	A
TUNGSTEN	0.16	U		0.16	U	
VANADIUM	0.98	J	P	11	J	P
ZINC	7.5	J	P	12	J	P

PROJ_NO: 03279 SDG: 240-1342-1 FRACTION: MF MEDIA: WATER	NSAMPLE	GSP-SB-WP-54-062111			GSP-SB-WP-71-062111		
	LAB_ID	240-1342-2			240-1342-3		
	SAMP_DATE	6/21/2011			6/21/2011		
	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.18	B	A	0.28	B	A
ARSENIC		0.092	UJ	I	9.1	J	I
BARIUM		24			68		
BERYLLIUM		0.092	U		0.092	U	
CADMIUM		0.046	U		0.055	J	P
CHROMIUM		0.31	B	A	2.7		
COBALT		0.33	B	A	13	J	I
COPPER		0.99	J	P	0.47	J	P
LEAD		0.2	B	A	0.25	B	A
MERCURY		0.066	U		0.066	U	
MOLYBDENUM		0.47	B	A	1.6	B	A
NICKEL		0.63	U		2.1		
SELENIUM		0.32	U		0.32	U	
SILVER		0.014	U		0.014	U	
THALLIUM		0.24	B	A	0.23	B	A
TUNGSTEN		0.16	U		0.16	U	
VANADIUM		0.39	J	P	4.9	J	P
ZINC		7.1	J	P	7.6	J	P

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-54-062111			GSP-SB-WP-71-062111		
SDG: 240-1342-1	LAB_ID	240-1342-2			240-1342-3		
FRACTION: MISC	SAMP_DATE	6/21/2011			6/21/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.36	U		0.36	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-54-062111 | Lab Sample ID: 240-1342-2

Matrix: Water | Lab File ID: UXM7335.D

Analysis Method: 8260B | Date Collected: 06/21/2011 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 16:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	2.8	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-54-062111 Lab Sample ID: 240-1342-2

Matrix: Water Lab File ID: UXM7335.D

Analysis Method: 8260B Date Collected: 06/21/2011 11:30

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 16:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6573 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-54-062111 Lab Sample ID: 240-1342-2

Matrix: Water Lab File ID: UXM7335.D

Analysis Method: 8260B Date Collected: 06/21/2011 11:30

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 16:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6573 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		74-115
1868-53-7	Dibromofluoromethane (Surr)	83		75-121
460-00-4	4-Bromofluorobenzene (Surr)	88		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-54-062111 | Lab Sample ID: 240-1342-2

Matrix: Water | Lab File ID: UXM7335.D

Analysis Method: 8260B | Date Collected: 06/21/2011 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 16:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-71-062111 | Lab Sample ID: 240-1342-3

Matrix: Water | Lab File ID: UXM7336.D

Analysis Method: 8260B | Date Collected: 06/21/2011 14:20

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 17:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	1.9	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-71-062111 | Lab Sample ID: 240-1342-3

Matrix: Water | Lab File ID: UXM7336.D

Analysis Method: 8260B | Date Collected: 06/21/2011 14:20

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 17:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-71-062111 | Lab Sample ID: 240-1342-3

Matrix: Water | Lab File ID: UXM7336.D

Analysis Method: 8260B | Date Collected: 06/21/2011 14:20

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 17:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	107		74-115
1868-53-7	Dibromofluoromethane (Surr)	84		75-121
460-00-4	4-Bromofluorobenzene (Surr)	86		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-71-062111 | Lab Sample ID: 240-1342-3

Matrix: Water | Lab File ID: UXM7336.D

Analysis Method: 8260B | Date Collected: 06/21/2011 14:20

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 17:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 1.4

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.64	1.4	T J N

FORM I-TIC 8260B

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1342-1
SDG No.:
Client Sample ID: GSP-SB-WP-54-062111
Lab Sample ID: 240-1342-2
Matrix: Water
Lab File ID: 1342J2A.D
Analysis Method: 8270D
Date Collected: 06/21/2011 11:30
Extract. Method: 3510C
Date Extracted: 06/23/2011 08:43
Sample wt/vol: 1050(mL)
Date Analyzed: 07/15/2011 20:11
Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 8683
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.19	U	0.19	0.095
208-96-8	Acenaphthylene	0.19	U	0.19	0.095
98-86-2	Acetophenone	0.95	U	0.95	0.32
120-12-7	Anthracene	0.19	U	0.19	0.095
1912-24-9	Atrazine	0.95	U	0.95	0.32
100-52-7	Benzaldehyde	0.95	U	0.95	0.37
56-55-3	Benzo[a]anthracene	0.19	U	0.19	0.095
50-32-8	Benzo[a]pyrene	0.19	U	0.19	0.095
205-99-2	Benzo[b]fluoranthene	0.19	U	0.19	0.095
191-24-2	Benzo[g,h,i]perylene	0.19	U	0.19	0.095
207-08-9	Benzo[k]fluoranthene	0.19	U	0.19	0.095
92-52-4	1,1'-Biphenyl	0.95	U	0.95	0.76
111-91-1	Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30
111-44-4	Bis(2-chloroethyl)ether	0.95	U	0.95	0.095
117-81-7	Bis(2-ethylhexyl) phthalate	0.89	J B	1.9	0.76
101-55-3	4-Bromophenyl phenyl ether	1.9	U	1.9	0.76
85-68-7	Butyl benzyl phthalate	0.95	U	0.95	0.76
105-60-2	Caprolactam	4.8	U	4.8	0.76
86-74-8	Carbazole	0.95	U	0.95	0.27
106-47-8	4-Chloroaniline	1.9	U	1.9	0.76
59-50-7	4-Chloro-3-methylphenol	1.9	U	1.9	0.76
91-58-7	2-Chloronaphthalene	0.95	U	0.95	0.095
95-57-8	2-Chlorophenol	0.95	U	0.95	0.28
7005-72-3	4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29
218-01-9	Chrysene	0.19	U	0.19	0.095
53-70-3	Dibenzo(a,h)anthracene	0.19	U	0.19	0.095
132-64-9	Dibenzofuran	0.95	U	0.95	0.095
91-94-1	3,3'-Dichlorobenzidine	4.8	U	4.8	0.35
120-83-2	2,4-Dichlorophenol	1.9	U	1.9	0.76
84-66-2	Diethyl phthalate	0.95	U	0.95	0.57
105-67-9	2,4-Dimethylphenol	1.9	U	1.9	0.76
131-11-3	Dimethyl phthalate	0.95	U	0.95	0.28
84-74-2	Di-n-butyl phthalate	0.73	J	0.95	0.64
534-52-1	4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-54-062111 | Lab Sample ID: 240-1342-2

Matrix: Water | Lab File ID: 1342J2A.D

Analysis Method: 8270D | Date Collected: 06/21/2011 11:30

Extract. Method: 3510C | Date Extracted: 06/23/2011 08:43

Sample wt/vol: 1050(mL) | Date Analyzed: 07/15/2011 20:11

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	4.8	U	4.8	2.3
121-14-2	2,4-Dinitrotoluene	4.8	U	4.8	0.26
606-20-2	2,6-Dinitrotoluene	4.8	U	4.8	0.76
117-84-0	Di-n-octyl phthalate	0.95	U	0.95	0.76
206-44-0	Fluoranthene	0.19	U	0.19	0.095
86-73-7	Fluorene	0.19	U	0.19	0.095
118-74-1	Hexachlorobenzene	0.19	U	0.19	0.095
87-68-3	Hexachlorobutadiene	0.95	U	0.95	0.26
77-47-4	Hexachlorocyclopentadiene	9.5	U	9.5	0.76
67-72-1	Hexachloroethane	0.95	U	0.95	0.76
193-39-5	Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.095
78-59-1	Isophorone	0.95	U	0.95	0.26
91-57-6	2-Methylnaphthalene	0.19	U	0.19	0.095
95-48-7	2-Methylphenol	0.95	U	0.95	0.76
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47
15831-10-4	3 & 4 Methylphenol	1.9	U	1.9	0.71
91-20-3	Naphthalene	0.19	U	0.19	0.095
88-74-4	2-Nitroaniline	1.9	U	1.9	0.76
99-09-2	3-Nitroaniline	1.9	U	1.9	0.27
100-01-6	4-Nitroaniline	1.9	U	1.9	0.76
98-95-3	Nitrobenzene	0.95	U	0.95	0.038
88-75-5	2-Nitrophenol	1.9	U	1.9	0.27
100-02-7	4-Nitrophenol	4.8	U	4.8	2.3
621-64-7	N-Nitrosodi-n-propylamine	0.95	U	0.95	0.76
86-30-6	N-Nitrosodiphenylamine	0.95	U	0.95	0.30
108-60-1	2,2'-oxybis[1-chloropropane]	0.95	U	0.95	0.38
87-86-5	Pentachlorophenol	4.8	U	4.8	2.3
85-01-8	Phenanthrene	0.19	U	0.19	0.095
108-95-2	Phenol	0.95	U	0.95	0.57
129-00-0	Pyrene	0.19	U	0.19	0.095
95-95-4	2,4,5-Trichlorophenol	4.8	U	4.8	0.29
88-06-2	2,4,6-Trichlorophenol	4.8	U	4.8	0.76
62-75-9	N-Nitrosodimethylamine	0.95	U	0.95	0.30

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-54-062111 | Lab Sample ID: 240-1342-2

Matrix: Water | Lab File ID: 1342J2A.D

Analysis Method: 8270D | Date Collected: 06/21/2011 11:30

Extract. Method: 3510C | Date Extracted: 06/23/2011 08:43

Sample wt/vol: 1050(mL) | Date Analyzed: 07/15/2011 20:11

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	62		28-110
367-12-4	2-Fluorophenol (Surr)	75		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	72		27-111
4165-62-2	Phenol-d5 (Surr)	72		10-110
1718-51-0	Terphenyl-d14 (Surr)	83		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	69		22-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1342-1
SDG No.:
Client Sample ID: GSP-SB-WP-71-062111
Lab Sample ID: 240-1342-3
Matrix: Water
Lab File ID: 1342I3A.D
Analysis Method: 8270D
Date Collected: 06/21/2011 14:20
Extract. Method: 3510C
Date Extracted: 06/23/2011 08:43
Sample wt/vol: 1050(mL)
Date Analyzed: 07/15/2011 19:52
Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 8683
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.19	U	0.19	0.095
208-96-8	Acenaphthylene	0.19	U	0.19	0.095
98-86-2	Acetophenone	0.95	U	0.95	0.32
120-12-7	Anthracene	0.19	U	0.19	0.095
1912-24-9	Atrazine	0.95	U	0.95	0.32
100-52-7	Benzaldehyde	0.95	U	0.95	0.37
56-55-3	Benzo[a]anthracene	0.19	U	0.19	0.095
50-32-8	Benzo[a]pyrene	0.19	U	0.19	0.095
205-99-2	Benzo[b]fluoranthene	0.19	U	0.19	0.095
191-24-2	Benzo[g,h,i]perylene	0.19	U	0.19	0.095
207-08-9	Benzo[k]fluoranthene	0.19	U	0.19	0.095
92-52-4	1,1'-Biphenyl	0.95	U	0.95	0.76
111-91-1	Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30
111-44-4	Bis(2-chloroethyl)ether	0.95	U	0.95	0.095
117-81-7	Bis(2-ethylhexyl) phthalate	0.85	J B	1.9	0.76
101-55-3	4-Bromophenyl phenyl ether	1.9	U	1.9	0.76
85-68-7	Butyl benzyl phthalate	0.95	U	0.95	0.76
105-60-2	Caprolactam	4.8	U	4.8	0.76
86-74-8	Carbazole	0.95	U	0.95	0.27
106-47-8	4-Chloroaniline	1.9	U	1.9	0.76
59-50-7	4-Chloro-3-methylphenol	1.9	U	1.9	0.76
91-58-7	2-Chloronaphthalene	0.95	U	0.95	0.095
95-57-8	2-Chlorophenol	0.95	U	0.95	0.28
7005-72-3	4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29
218-01-9	Chrysene	0.19	U	0.19	0.095
53-70-3	Dibenzo(a,h)anthracene	0.19	U	0.19	0.095
132-64-9	Dibenzofuran	0.95	U	0.95	0.095
91-94-1	3,3'-Dichlorobenzidine	4.8	U	4.8	0.35
120-83-2	2,4-Dichlorophenol	1.9	U	1.9	0.76
84-66-2	Diethyl phthalate	0.95	U	0.95	0.57
105-67-9	2,4-Dimethylphenol	1.9	U	1.9	0.76
131-11-3	Dimethyl phthalate	0.95	U	0.95	0.28
84-74-2	Di-n-butyl phthalate	0.95	U	0.95	0.64
534-52-1	4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-71-062111 | Lab Sample ID: 240-1342-3

Matrix: Water | Lab File ID: 1342I3A.D

Analysis Method: 8270D | Date Collected: 06/21/2011 14:20

Extract. Method: 3510C | Date Extracted: 06/23/2011 08:43

Sample wt/vol: 1050(mL) | Date Analyzed: 07/15/2011 19:52

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	4.8	U	4.8	2.3
121-14-2	2,4-Dinitrotoluene	4.8	U	4.8	0.26
606-20-2	2,6-Dinitrotoluene	4.8	U	4.8	0.76
117-84-0	Di-n-octyl phthalate	0.95	U	0.95	0.76
206-44-0	Fluoranthene	0.19	U	0.19	0.095
86-73-7	Fluorene	0.19	U	0.19	0.095
118-74-1	Hexachlorobenzene	0.19	U	0.19	0.095
87-68-3	Hexachlorobutadiene	0.95	U	0.95	0.26
77-47-4	Hexachlorocyclopentadiene	9.5	U	9.5	0.76
67-72-1	Hexachloroethane	0.95	U	0.95	0.76
193-39-5	Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.095
78-59-1	Isophorone	0.95	U	0.95	0.26
91-57-6	2-Methylnaphthalene	0.19	U	0.19	0.095
95-48-7	2-Methylphenol	0.95	U	0.95	0.76
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47
15831-10-4	3 & 4 Methylphenol	1.9	U	1.9	0.71
91-20-3	Naphthalene	0.19	U	0.19	0.095
88-74-4	2-Nitroaniline	1.9	U	1.9	0.76
99-09-2	3-Nitroaniline	1.9	U	1.9	0.27
100-01-6	4-Nitroaniline	1.9	U	1.9	0.76
98-95-3	Nitrobenzene	0.95	U	0.95	0.038
88-75-5	2-Nitrophenol	1.9	U	1.9	0.27
100-02-7	4-Nitrophenol	4.8	U	4.8	2.3
621-64-7	N-Nitrosodi-n-propylamine	0.95	U	0.95	0.76
86-30-6	N-Nitrosodiphenylamine	0.95	U	0.95	0.30
108-60-1	2,2'-oxybis[1-chloropropane]	0.95	U	0.95	0.38
87-86-5	Pentachlorophenol	4.8	U	4.8	2.3
85-01-8	Phenanthrene	0.19	U	0.19	0.095
108-95-2	Phenol	0.95	U	0.95	0.57
129-00-0	Pyrene	0.19	U	0.19	0.095
95-95-4	2,4,5-Trichlorophenol	4.8	U	4.8	0.29
88-06-2	2,4,6-Trichlorophenol	4.8	U	4.8	0.76
62-75-9	N-Nitrosodimethylamine	0.95	U	0.95	0.30

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-71-062111 | Lab Sample ID: 240-1342-3

Matrix: Water | Lab File ID: 1342I3A.D

Analysis Method: 8270D | Date Collected: 06/21/2011 14:20

Extract. Method: 3510C | Date Extracted: 06/23/2011 08:43

Sample wt/vol: 1050(mL) | Date Analyzed: 07/15/2011 19:52

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	71		28-110
367-12-4	2-Fluorophenol (Surr)	64		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	71		27-111
4165-62-2	Phenol-d5 (Surr)	53		10-110
1718-51-0	Terphenyl-d14 (Surr)	77		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	75		22-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-54-062111 Lab Sample ID: 240-1342-2

Matrix: Water Lab File ID: YF062827.D

Analysis Method: 8015B Date Collected: 06/21/2011 11:30

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 05:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	36	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	90		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-71-062111 | Lab Sample ID: 240-1342-3

Matrix: Water | Lab File ID: YF062828.D

Analysis Method: 8015B | Date Collected: 06/21/2011 14:20

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 06:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6402 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	31	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	108		10-150

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-54-062111 Lab Sample ID: 240-1342-2

Matrix: Water Lab File ID: P14F0000009.D

Analysis Method: 8015B Date Collected: 06/21/2011 11:30

Extraction Method: 3520C Date Extracted: 06/23/2011 10:12

Sample wt/vol: 1050(mL) Date Analyzed: 06/24/2011 17:00

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6024 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	230	J B	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	56		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton	Job No.: 240-1342-1
SDG No.:	
Client Sample ID: GSP-SB-WP-71-062111	Lab Sample ID: 240-1342-3
Matrix: Water	Lab File ID: P14F0000008.D
Analysis Method: 8015B	Date Collected: 06/21/2011 14:20
Extraction Method: 3520C	Date Extracted: 06/23/2011 10:12
Sample wt/vol: 1050(mL)	Date Analyzed: 06/24/2011 16:36
Con. Extract Vol.: 5.00(mL)	Dilution Factor: 1
Injection Volume: 1(uL)	GC Column: RTX-5 ID: 0.53(mm)
% Moisture:	GPC Cleanup:(Y/N) N
Analysis Batch No.: 6024	Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	480	U	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	62		10-110

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-WP-54-062111
Lab Sample ID: 240-1342-2
Lab Name: TestAmerica Burlington
Job No.: 240-1342-1
SDG ID.:
Matrix: Water
Date Sampled: 06/21/2011 11:30
Reporting Basis: WET
Date Received: 06/22/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.19	2.0	0.073	ug/L	J	B	1	6020
7440-38-2	Arsenic	5.0	5.0	0.092	ug/L	U		1	6020
7440-39-3	Barium	23	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	0.52	2.0	0.11	ug/L	J	B	1	6020
7440-48-4	Cobalt	0.53	1.0	0.049	ug/L	J	B	1	6020
7440-50-8	Copper	0.69	2.0	0.23	ug/L	J		1	6020
7439-92-1	Lead	0.30	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.46	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	0.63	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.25	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	0.98	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	7.5	20	0.50	ug/L	J	B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-SB-WP-54-062111 Lab Sample ID: 240-1342-2

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG ID.:

Matrix: Water Date Sampled: 06/21/2011 11:30

Reporting Basis: WET Date Received: 06/22/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.18	2.0	0.073	ug/L	J	B	1	6020
7440-38-2	Arsenic	5.0	5.0	0.092	ug/L	U		1	6020
7440-39-3	Barium	24	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	0.31	2.0	0.11	ug/L	J	B	1	6020
7440-48-4	Cobalt	0.33	1.0	0.049	ug/L	J	B	1	6020
7440-50-8	Copper	0.99	2.0	0.23	ug/L	J		1	6020
7439-92-1	Lead	0.20	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.47	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	0.63	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.24	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	0.39	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	7.1	20	0.50	ug/L	J	B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-WP-71-062111
Lab Sample ID: 240-1342-3
Lab Name: TestAmerica Burlington
Job No.: 240-1342-1
SDG ID.:
Matrix: Water
Date Sampled: 06/21/2011 14:20
Reporting Basis: WET
Date Received: 06/22/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.36	2.0	0.073	ug/L	J	B	1	6020
7440-38-2	Arsenic	9.7	5.0	0.092	ug/L			1	6020
7440-39-3	Barium	68	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	0.076	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	5.9	2.0	0.11	ug/L		B	1	6020
7440-48-4	Cobalt	11	1.0	0.049	ug/L		B	1	6020
7440-50-8	Copper	7.0	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	0.98	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	1.5	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.23	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	11	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	12	20	0.50	ug/L	J	B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-SB-WP-71-062111
Lab Sample ID: 240-1342-3
Lab Name: TestAmerica Burlington
Job No.: 240-1342-1
SDG ID.:
Matrix: Water
Date Sampled: 06/21/2011 14:20
Reporting Basis: WET
Date Received: 06/22/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.28	2.0	0.073	ug/L	J	B	1	6020
7440-38-2	Arsenic	9.1	5.0	0.092	ug/L			1	6020
7440-39-3	Barium	68	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	0.055	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	2.7	2.0	0.11	ug/L		B	1	6020
7440-48-4	Cobalt	13	1.0	0.049	ug/L		B	1	6020
7440-50-8	Copper	0.47	2.0	0.23	ug/L	J		1	6020
7439-92-1	Lead	0.25	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	1.6	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	2.1	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.23	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	4.9	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	7.6	20	0.50	ug/L	J	B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

TestAmerica North Canton

Client Sample ID: GSP-SB-WP-54-062111

General Chemistry

Lot-Sample #...: G1F210484-015 Work Order #...: MKK78 Matrix.....: WATER
Date Sampled...: 06/21/11 Date Received..: 06/27/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

TestAmerica North Canton

Client Sample ID: GSP-SB-WP-71-062111

General Chemistry

Lot-Sample #...: G1F210484-016 Work Order #...: MKK79 Matrix.....: WATER
Date Sampled...: 06/21/11 Date Received..: 06/27/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

Appendix C

Support Documentation

CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: MSA Greater Strawberry Point PH. II 2011

Report Number: 240-1342-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/22/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.5 C.

Multiple TestAmerica laboratories were used to support this project. Narrative for TestAmerica West Sacramento (Perchlorate) is provided in the lab's report in the Subcontract section of this report. TestAmerica Burlington's narrative for ICP/MS Metals is incorporated herein. See the Method Summary for additional information.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-SB-WP-54-062111 (240-1342-2) and GSP-SB-WP-71-062111 (240-1342-3) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/29/2011.

Naphthalene was detected in method blank MB 240-6573/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

tert-Butyl alcohol failed the recovery criteria low for LCS 240-6573/4. Refer to the QC report for details.

2-Chloroethyl vinyl ether and tert-Butyl alcohol failed the recovery criteria low for the MS/MSD of sample 240-1438-4 in batch 240-6573.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analyses. All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples GSP-SB-WP-54-062111 (240-1342-2) and GSP-SB-WP-71-062111 (240-1342-3) were analyzed for Semivolatiles in accordance with EPA SW 8270D. The samples were analyzed on 07/15/2011.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 240-5773/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

There was no client requested matrix spike/matrix spike duplicate (MS/MSD) for batch 5773.

No other difficulties were encountered during the semivolatiles analyses. All other quality control parameters were within the acceptance limits.

GRO (C6-C10)

Samples GSP-SB-WP-54-062111 (240-1342-2) and GSP-SB-WP-71-062111 (240-1342-3) were analyzed for gas range organics in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 06/29/2011.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-6402/19 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DRO (C10-C32)

Samples GSP-SB-WP-54-062111 (240-1342-2) and GSP-SB-WP-71-062111 (240-1342-3) were analyzed for Diesel Range Organics (DRO) in accordance with EPA Method 8015B. The samples were analyzed on 06/24/2011.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-5811/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

There was no client requested matrix spike/matrix spike duplicate (MS/MSD) for batch 5811.

No other difficulties were encountered during the Diesel Range Organics (DRO) analyses. All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICPMS)

Samples GSP-SB-WP-54-062111 (240-1342-2) and GSP-SB-WP-71-062111 (240-1342-3) were analyzed for metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 07/16/2011.

Several analytes were detected in method blank MB 200-20966/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The serial dilution performed for the following samples were outside control limits for As and Co in batch 21675: (240-1342-3 SD), GSP-SB-WP-71-062111 (240-1342-3)

A deviation from the Standard Operating Procedure (SOP) occurred. Eleven injections were analyzed between CCB26 and CCV38. Bracketing CCV/CCB were within control limits. The eleventh sample was not reported from this batch 21675. The proceeding ten (10) samples were reported. The following samples were reported in this job: . (240-1342-3 SD), (CCV 200-21675/38), GSP-SB-WP-54-062111 (240-1342-2) and GSP-SB-WP-71-062111 (240-1342-3)

The internal standard for As, Mo, and Se were reassociated from Y to In for analytical sequence 080111-06b, due to the presence of isobaric interference on the Y line. Data flags in batch 21765 for Y internal standard failures were removed. All results in the batch for As, Mo, and Se are based on internal standard responses for Indium.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)

Samples GSP-SB-WP-54-062111 (240-1342-2) and GSP-SB-WP-71-062111 (240-1342-3) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/08/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples GSP-SB-WP-54-062111 (240-1342-2) and GSP-SB-WP-71-062111 (240-1342-3) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/08/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

METHOD SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-1342-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Purge and Trap	TAL NC		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Liquid-Liquid Extraction (Separatory Funnel)			SW846 3510C
Gasoline Range Organics - (GC)	TAL NC	SW846 8015B	
Purge and Trap	TAL NC		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL NC	SW846 8015B	
Liquid-Liquid Extraction (Continuous)			SW846 3520C
Metals (ICP/MS)	TAL BUR	SW846 6020	
Preparation, Total Metals			SW846 3010A
Metals (ICP/MS)	TAL BUR	SW846 6020	
Preparation, Total Metals			SW846 3010A
Sample Filtration, Field			FIELD_FLTRD
Mercury (CVAA)	TAL BUR	SW846 7470A	
Preparation, Mercury			SW846 7470A
Mercury (CVAA)	TAL BUR	SW846 7470A	
Preparation, Mercury			SW846 7470A
Sample Filtration, Field			FIELD_FLTRD
EPA 314.0 Perchlorate	TAL WSC	EPA 314.0	

Lab References:

TAL BUR = TestAmerica Burlington

TAL NC = TestAmerica North Canton

TAL WSC = TestAmerica West Sacramento

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location:
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 010142
Address: 20251 Century Blvd Suite 200	Telephone: 301-528-5552	Telephone: 703-342-8389	Telephone: 330-497-9396	1 of 1 COCs
City/State/Zip: Germantown, MD 20874	Email: Dev.Murali@tetratech.com	Analysis Turnaround Time (In BUS days) TAT if different from below: ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		For lab use only: Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No.
Phone: 301-528-5552				
Project Name: GSP gw Sampling	Method of Shipment/Carrier:			
Project Number: 1121C03279-04	Shipping/Tracking No:			
PO #				

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C/Grab=G	VOCs	Total Metals	Diss. Metals	SVOCs + 1,4-Dioxane	TPH-GRO	TPH-DRO	Perchlorate	Mercury			Sample Specific Notes / Special Instructions:
TB-062111				X						2							X										2 vial
GSP-SB-WP-~~054~~ MS-062111	06-21-11	11:30		X				2	2	5			3				X	X	X	X	X	X	X	X			4 vlg, 2x500p, 250p, 3 vial
GSP-SB-WP-~~0671~~ MS-062111	↓	14:20		X				2	2	5			3				X	X	X	X	X	X	X	X			4 vlg, 2x500p, 250p, 5 vial
																											6-22-11

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	06-21-11 / 1602	[signature]	TestAmerica	6-21-2011 / 1602
[signature]	TestAmerica	6-21-2011 / 1628			
			Received in Laboratory by: [signature]	TAL	6.22.11 0930

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TAL 0018-1 (04/10)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** #1342
North Canton Facility

Client Tetra Tech Project GSP GW By Jill Clark (Signature)
Cooler Received on 6·22·11 Opened on 6·22·11
FedEx [X] UPS [ ] DHL [ ] FAS [ ] Stetson [ ] Client Drop Off [ ] TestAmerica Courier [ ] Other
TestAmerica Cooler # No# Multiple Coolers [ ] Foam Box [ ] Client Cooler [ ] Other

1. Were custody seals on the outside of the cooler(s)? Yes [X] No [ ] Intact? Yes [X] No [ ] NA [ ]
   If YES, Quantity 1 Quantity Unsalvageable
   Were custody seals on the outside of cooler(s) signed and dated? Yes [X] No [ ] NA [ ]
   Were custody seals on the bottle(s)? Yes [ ] No [X]
   If YES, are there any exceptions?
2. Shippers' packing slip attached to the cooler(s)? Yes [X] No [ ]
3. Did custody papers accompany the sample(s)? Yes [X] No [ ] Relinquished by client? Yes [X] No [ ]
4. Were the custody papers signed in the appropriate place? Yes [X] No [ ]
5. Packing material used: Bubble Wrap [X] Foam [ ] None [ ] Other
6. Cooler temperature upon receipt 3.5 °C See back of form for multiple coolers/temps [ ]
   METHOD: IR [X] Other [ ]
   COOLANT: Wet Ice [X] Blue Ice [ ] Dry Ice [ ] Water [ ] None [ ]
7. Did all bottles arrive in good condition (Unbroken)? Yes [X] No [ ]
8. Could all bottle labels be reconciled with the COC? Yes [X] No [ ]
9. Were sample(s) at the correct pH upon receipt? Yes [X] No [ ] NA [ ]
10. Were correct bottle(s) used for the test(s) indicated? Yes [X] No [ ]
11. Were air bubbles >6 mm in any VOA vials? Yes [ ] No [X] NA [ ]
12. Sufficient quantity received to perform indicated analyses? Yes [X] No [ ]
13. Was a trip blank present in the cooler(s)? Yes [X] No [ ] Were VOAs on the COC? Yes [X] No [ ]

Contacted PM Date by via Verbal [ ] Voice Mail [ ] Other [ ]
Concerning

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 100110-HNO_3; *Sulfuric Acid Lot#* 110410-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)?

Client ID	pH	Date	Initials
GSP-SB-WP-54-062111	<2, <2, <2, <2	6·22·11	
↓ ↓ ↓ -11- ↓	<2, <2, <2, <2	↓	

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Login Sample Receipt Checklist

Client: Tetra Tech NUS Inc

Job Number: 240-1342-1

Login Number: 1342
List Number: 1
Creator: Maddux, Ann

List Source: TestAmerica North Canton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech NUS Inc

Job Number: 240-1342-1

Login Number: 1342
List Number: 1
Creator: Matot, Wade M

List Source: TestAmerica Burlington
List Creation: 07/06/11 05:29 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.5°C IR gun ID 96, CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

PROJ_NO: 03279

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1342-1	HG	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	07/07/2011	07/08/2011	16	1	17
240-1342-1	HG	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	07/07/2011	07/08/2011	16	1	17
240-1365-1	HG	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	07/11/2011	07/12/2011	19	1	20
240-1365-1	HG	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	07/11/2011	07/12/2011	19	1	20
240-1365-1	HG	UG/L	GSP-SB-WP-61-062211	240-1365-1	NM	06/22/2011	07/11/2011	07/12/2011	19	1	20
240-1365-1	HG	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	07/11/2011	07/12/2011	19	1	20
240-1342-1	M	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	07/07/2011	07/16/2011	16	9	25
240-1342-1	M	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	07/07/2011	07/16/2011	16	9	25
240-1365-1	M	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	07/07/2011	08/04/2011	15	28	43
240-1365-1	M	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	07/07/2011	08/04/2011	15	28	43
240-1365-1	M	UG/L	GSP-SB-WP-61-062211	240-1365-1	NM	06/22/2011	07/07/2011	08/04/2011	15	28	43
240-1365-1	M	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	07/19/2011	08/04/2011	27	16	43
240-1365-1	M	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	07/07/2011	08/04/2011	15	28	43
240-1342-1	OS	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	06/23/2011	07/15/2011	2	22	24
240-1342-1	OS	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/23/2011	07/15/2011	2	22	24
240-1365-1	OS	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	06/25/2011	07/16/2011	3	21	24

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1365-1	OS	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	06/25/2011	07/16/2011	3	21	24
240-1365-1	OS	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/25/2011	07/16/2011	3	21	24
240-1342-1	OV	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1342-1	OV	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1365-1	OV	UG/L	TB-062211	240-1365-5	TB	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	OV	UG/L	TB-062211	240-1365-5	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	OV	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	OV	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	OV	UG/L	GSP-SB-WP-61-062211	240-1365-1	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	OV	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1342-1	DRO	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	06/23/2011	06/24/2011	2	1	3
240-1342-1	DRO	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/23/2011	06/24/2011	2	1	3
240-1365-1	DRO	UG/L	GSP-SB-WP-61-062211	240-1365-4	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1365-1	DRO	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1365-1	DRO	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1365-1	DRO	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1342-1	GRO	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1342-1	GRO	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1365-1	GRO	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1365-1	GRO	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	GRO	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	GRO	UG/L	GSP-SB-WP-61-062211	240-1365-1	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1342-1	TPH	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	06/23/2011	06/24/2011	2	1	3
240-1342-1	TPH	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1342-1	TPH	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1342-1	TPH	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/23/2011	06/24/2011	2	1	3
240-1365-1	TPH	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	TPH	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1365-1	TPH	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	TPH	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1365-1	TPH	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1365-1	TPH	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	TPH	UG/L	GSP-SB-WP-61-062211	240-1365-1	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	TPH	UG/L	GSP-SB-WP-61-062211	240-1365-4	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1342-1	OV	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1365-1	OV	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	OV	UG/L	TB-062211	240-1365-5	TB	06/22/2011	06/29/2011	06/29/2011	7	0	7

PROJ_NO 03279

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1342-1	PCL	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	07/11/2011	07/11/2011	20	0	20
240-1342-1	PCL	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	07/11/2011	07/11/2011	20	0	20

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab File ID: BFB1887.D BFB Injection Date: 05/29/2011

Instrument ID: A3UX16 BFB Injection Time: 12:02

Analysis Batch No.: 3007

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	47.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.3	(0.5)1
174	50.0 - 120.00 % of mass 95	71.3	
175	5.0 - 9.0 % of mass 174	4.9	(6.9)1
176	95.0 - 101.0 % of mass 174	69.0	(96.7)1
177	5.0 - 9.0 % of mass 176	4.4	(6.4)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-3007/2	UXM6500.D	05/29/2011	13:00
	STD8260 240-3007/3	UXM6501.D	05/29/2011	13:22
	STD8260 240-3007/4	UXM6502.D	05/29/2011	13:45
	STD8260 240-3007/5	UXM6503.D	05/29/2011	14:08
	STD8260 240-3007/6	UXM6504.D	05/29/2011	14:31
	STD8260 240-3007/7	UXM6505.D	05/29/2011	14:53
	STD1 240-3007/8	UXM6506.D	05/29/2011	15:15
	STD2 240-3007/9	UXM6507.D	05/29/2011	15:37
	STD3 240-3007/10	UXM6508.D	05/29/2011	16:00
	STD4 240-3007/11	UXM6509.D	05/29/2011	16:22
	STD5 240-3007/12	UXM6510.D	05/29/2011	16:44
	STD6 240-3007/13	UXM6511.D	05/29/2011	17:06
	ICV 240-3007/14	UXM6512.D	05/29/2011	17:29

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-3007/7	UXM6505.D
Level 2	STD8260 240-3007/6	UXM6504.D
Level 3	STD8260 240-3007/5	UXM6503.D
Level 4	STD8260 240-3007/4	UXM6502.D
Level 5	STD8260 240-3007/3	UXM6501.D
Level 6	STD8260 240-3007/2	UXM6500.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6																
Dichlorodifluoromethane	0.2983	0.2259	0.2557	0.2725	0.2800	Ave		0.2718				10.0		15.0			
	0.2987																
Chloromethane	0.4717	0.4631	0.4296	0.4483	0.4355	Ave		0.4459			0.1000	4.1		15.0			
	0.4273																
Vinyl chloride	0.3635	0.3493	0.3371	0.3600	0.3637	Ave		0.3570				3.3		15.0			
	0.3682																
Bromomethane	0.1931	0.1968	0.1783	0.1775	0.1548	Ave		0.1731				13.0		15.0			
	0.1378																
Chloroethane	0.2242	0.2258	0.2110	0.2245	0.2145	Ave		0.2175				4.0		15.0			
	0.2050																
Trichlorofluoromethane	0.3760	0.3088	0.3169	0.3442	0.3390	Ave		0.3382				7.0		15.0			
	0.3443																
Acrolein	0.0455	0.0447	0.0464	0.0479	0.0493	Ave		0.0471 NT				4.0		15.0			
	0.0489																
1,1-Dichloroethene	0.2757	0.2770	0.2629	0.2753	0.2892	Ave		0.2779				3.4		15.0			
	0.2875																
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.2129	0.1837	0.1542	0.1941	0.2092	Ave		0.1941				12.0		15.0			
	0.2106																
Acetone	0.1255	0.1071	0.0959	0.0954	0.0917	Ave		0.1009				13.0		15.0			
	0.0899																
Iodomethane	0.4663	0.4523	0.4463	0.4664	0.4894	Ave		0.4669				3.5		15.0			
	0.4805																
Carbon disulfide	0.9270	0.9205	0.8948	0.9696	1.0483	Ave		0.9697				7.1		15.0			
	1.0581																
Acetonitrile	0.0415	0.0396	0.0408	0.0418	0.0422	Ave		0.0412 NT				2.2		15.0			
	0.0416																
Methyl acetate	0.2173	0.2329	0.2302	0.2353	0.2392	Ave		0.2317				3.3		15.0			
	0.2352																
Methylene Chloride	0.6813	0.4832	0.3847	0.3689	0.3638	Lin1	0.3012	0.3454							0.9990		0.9900
	0.3553																

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0264 0.0247	0.0242	0.0238	0.0245	0.0252	Ave		0.0248				3.7		15.0			
Acrylonitrile	0.0962 0.1129	0.1089	0.1081	0.1133	0.1132	Ave		0.1088				6.0		15.0			
Methyl tert-butyl ether	0.9052 0.9780	0.9338	0.9084	0.9445	0.9844	Ave		0.9424				3.6		15.0			
trans-1,2-Dichloroethene	0.3245 0.3425	0.3127	0.3206	0.3283	0.3449	Ave		0.3289				3.8		15.0			
Hexane	0.0574 0.0546	0.0465	0.0392	0.0472	0.0530	Ave		0.0496 WT				13.0		15.0			
1,1-Dichloroethane	0.5912 0.6319	0.5979	0.5673	0.5881	0.6272	Ave		0.6006			0.1000	4.1		15.0			
Vinyl acetate	0.0271 0.0446	0.0328	0.0324	0.0372	0.0413	Lin1	-0.024	0.0433							0.9950		0.9900
2,2-Dichloropropane	0.4458 0.4655	0.4225	0.4110	0.4480	0.4683	Ave		0.4435				5.2		15.0			
cis-1,2-Dichloroethene	0.3377 0.3558	0.3482	0.3265	0.3398	0.3653	Ave		0.3455				4.0		15.0			
2-Butanone	0.1477 0.1193	0.1256	0.1190	0.1218	0.1226	Ave		0.1260				8.6		15.0			
Bromochloromethane	0.1519 0.1533	0.1391	0.1375	0.1459	0.1561	Ave		0.1473				5.3		15.0			
Tetrahydrofuran	0.1188 0.0832	0.0981	0.0900	0.0884	0.0887	Ave		0.0945				14.0		15.0			
Chloroform	0.5079 0.5578	0.5235	0.5114	0.5209	0.5580	Ave		0.5299				4.2		15.0			
1,1,1-Trichloroethane	0.4542 0.5081	0.4748	0.4473	0.4767	0.5115	Ave		0.4788				5.6		15.0			
Cyclohexane	0.5872 0.6036	0.5268	0.4580	0.5415	0.5932	Ave		0.5517				10.0		15.0			
1,1-Dichloropropene	0.3780 0.4190	0.3872	0.3615	0.3885	0.4165	Ave		0.3918				5.7		15.0			
Carbon tetrachloride	0.3498 0.4050	0.3346	0.3134	0.3616	0.3954	Ave		0.3600				9.8		15.0			
Benzene	1.1885 1.2941	1.1806	1.1616	1.1888	1.2727	Ave		1.2144				4.5		15.0			
1,2-Dichloroethane	0.4012 0.4187	0.3969	0.4003	0.3960	0.4222	Ave		0.4059				2.8		15.0			
Trichloroethene	0.2726 0.2968	0.2781	0.2630	0.2758	0.2977	Ave		0.2807				4.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.4041 0.4413	0.3619	0.3155	0.3931	0.4327	Ave		0.3914				12.0		15.0			
1,2-Dichloropropane	0.2862 0.3080	0.2814	0.2805	0.2874	0.3119	Ave		0.2926				4.7		15.0			
1,4-Dioxane	0.0021 0.0021	0.0023	0.0021	0.0022	0.0023	Ave		0.0022				4.4		15.0			
Dibromomethane	0.1486 0.1541	0.1402	0.1421	0.1456	0.1554	Ave		0.1477				4.2		15.0			
Bromodichloromethane	0.3040 0.3742	0.3188	0.3252	0.3357	0.3691	Ave		0.3378				8.3		15.0			
2-Chloroethyl vinyl ether	0.1335 0.1558	0.1465	0.1474	0.1533	0.1571	Ave		0.1489				5.8		15.0			
cis-1,3-Dichloropropene	0.3859 0.4653	0.3988	0.4046	0.4229	0.4617	Ave		0.4232				7.9		15.0			
4-Methyl-2-pentanone	0.2679 0.2843	0.2669	0.2713	0.2799	0.2828	Ave		0.2755				2.8		15.0			
Toluene	1.5641 1.7880	1.6375	1.5242	1.5822	1.7296	Ave		1.6376				6.3		15.0			
trans-1,3-Dichloropropene	0.4247 0.5457	0.4551	0.4630	0.4839	0.5337	Ave		0.4843				9.7		15.0			
Ethyl methacrylate	0.4338 0.4841	0.4601	0.4409	0.4595	0.4880	Ave		0.4611				4.8		15.0			
1,1,2-Trichloroethane	0.2610 0.2902	0.2789	0.2660	0.2758	0.2945	Ave		0.2777				4.7		15.0			
Tetrachloroethene	0.2358 0.2884	0.2605	0.2400	0.2608	0.2832	Ave		0.2614				8.2		15.0			
1,3-Dichloropropane	0.5032 0.5479	0.5202	0.5003	0.5080	0.5463	Ave		0.5210				4.1		15.0			
2-Hexanone	0.2134 0.2464	0.2440	0.2362	0.2476	0.2471	Ave		0.2391				5.6		15.0			
Dibromochloromethane	0.2625 0.3293	0.2576	0.2688	0.2857	0.3228	Ave		0.2878				11.0		15.0			
1,2-Dibromoethane	0.2702 0.3017	0.2701	0.2713	0.2837	0.3012	Ave		0.2830				5.4		15.0			
Chlorobenzene	1.0004 1.1167	1.0557	0.9994	1.0369	1.1122	Ave		1.0535			0.3000	4.9		15.0			
1,1,1,2-Tetrachloroethane	0.2985 0.3953	0.3346	0.3315	0.3568	0.3907	Ave		0.3512				11.0		15.0			
Ethylbenzene	0.5345 0.6104	0.5740	0.5356	0.5610	0.6145	Ave		0.5717				6.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.6665 0.7839	0.7201	0.6698	0.7001	0.7639	Ave		0.7174				6.8		15.0			
o-Xylene	0.6583 0.7725	0.7135	0.6995	0.7111	0.7659	Ave		0.7201				6.0		15.0			
Styrene	1.0634 1.3324	1.1543	1.1303	1.2121	1.3135	Ave		1.2010				8.8		15.0			
Bromoform	0.1308 0.1929	0.1340	0.1432	0.1571	0.1829	Lin1	-0.099	0.1879			0.1000				0.9950		0.9900
Isopropylbenzene	1.6254 2.0021	1.7462	1.6256	1.7661	1.9411	Ave		1.7844				8.8		15.0			
1,1,2,2-Tetrachloroethane	0.6390 0.6966	0.6787	0.6513	0.6576	0.7273	Ave		0.6751			0.3000	4.9		15.0			
Bromobenzene	0.7531 0.8119	0.7794	0.7596	0.7729	0.8537	Ave		0.7884				4.8		15.0			
1,2,3-Trichloropropane	0.2246 0.2221	0.2190	0.2110	0.2231	0.2352	Ave		0.2225				3.5		15.0			
trans-1,4-Dichloro-2-butene	0.2199 0.2389	0.2152	0.2195	0.2249	0.2430	Ave		0.2269				5.0		15.0			
n-Propylbenzene	0.7601 0.8719	0.8284	0.7668	0.8249	0.9068	Ave		0.8265				6.9		15.0			
2-Chlorotoluene	0.7619 0.8073	0.7608	0.7421	0.7472	0.8400	Ave		0.7766				5.0		15.0			
1,3,5-Trimethylbenzene	2.4884 2.9700	2.6808	2.5164	2.6630	2.9838	Ave		2.7171				7.9		15.0			
4-Chlorotoluene	0.7733 0.8393	0.8006	0.7549	0.7759	0.8529	Ave		0.7995				4.9		15.0			
tert-Butylbenzene	1.9919 2.3648	2.1154	1.9687	2.0834	2.3571	Ave		2.1469				8.1		15.0			
1,2,4-Trimethylbenzene	2.6390 3.0675	2.7872	2.6804	2.7942	3.1249	Ave		2.8489				7.1		15.0			
sec-Butylbenzene	2.6740 3.2749	2.9419	2.7072	2.8937	3.3051	Ave		2.9661				9.2		15.0			
1,3-Dichlorobenzene	1.4339 1.5710	1.5438	1.4621	1.4650	1.6137	Ave		1.5149				4.7		15.0			
p-Isopropyltoluene	2.1764 2.7349	2.4137	2.3047	2.4106	2.7549	Ave		2.4659				9.4		15.0			
1,4-Dichlorobenzene	1.4372 1.6450	1.5618	1.4977	1.5279	1.6788	Ave		1.5581				5.8		15.0			
n-Butylbenzene	1.9146 2.3749	2.0057	1.9329	2.1117	2.3793	Ave		2.1199				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.4100 1.5390	1.4793	1.4452	1.4677	1.6050	Ave		1.4910				4.7		15.0			
1,2-Dibromo-3-Chloropropane	0.0991 0.1150	0.0887	0.1000	0.1027	0.1188	Ave		0.1041				11.0		15.0			
1,3,5-Trichlorobenzene	0.7981 0.8925	0.8453	0.8411	0.8652	0.9607	Ave		0.8672				6.4		15.0			
1,2,4-Trichlorobenzene	0.6536 0.7565	0.7392	0.7075	0.7687	0.8329	Ave		0.7431				8.1		15.0			
Hexachlorobutadiene	0.3005 0.3020	0.3307	0.2846	0.3101	0.3393	Ave		0.3112				6.6		15.0			
Naphthalene	1.7625 1.8222	1.8352	1.8166	1.8796	2.0718	Ave		1.8646				5.8		15.0			
1,2,3-Trichlorobenzene	0.6252 0.5752	0.6791	0.6212	0.6414	0.6905	Ave		0.6388				6.6		15.0			
Dibromofluoromethane (Surr)	0.2556 0.2697	0.2553	0.2446	0.2602	0.2726	Ave		0.2597				4.0		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3101 0.3312	0.3104	0.3075	0.3261	0.3266	Ave		0.3187				3.3		15.0			
Toluene-d8 (Surr)	1.1941 1.4113	1.2886	1.2333	1.2912	1.3622	Ave		1.2968				6.2		15.0			
4-Bromofluorobenzene (Surr)	0.5076 0.5645	0.5380	0.5245	0.5444	0.5560	Ave		0.5392				3.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 15:15 Calibration End Date: 05/29/2011 17:06 Calibration ID: 1185

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD6 240-3007/13	UXM6511.D
Level 2	STD5 240-3007/12	UXM6510.D
Level 3	STD4 240-3007/11	UXM6509.D
Level 4	STD3 240-3007/10	UXM6508.D
Level 5	STD2 240-3007/9	UXM6507.D
Level 6	STD1 240-3007/8	UXM6506.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.5506 0.5039	0.4715	0.4922	0.5507	0.4990	Ave		0.5113				6.3		15.0			
Ethyl ether	0.2645 0.2910	0.2573	0.2901	0.2942	0.2830	Ave		0.2800				5.5		15.0			
3-Chloro-1-propene	0.1610 0.1968	0.1599	0.1826	0.1978	0.1860	Ave		0.1807				9.3		15.0			
Diisopropyl ether	0.2920 0.3140	0.2674	0.3008	0.3155	0.2989	Ave		0.2981				5.9		15.0			
2-Chloro-1,3-butadiene	0.5362 0.6149	0.5201	0.5813	0.6137	0.5969	Ave		0.5772				7.0		15.0			
Ethyl-t-butyl ether (ETBE)	1.0807 1.2661	1.0264	1.1669	1.2348	1.1744	Ave		1.1582				7.8		15.0			
Ethyl acetate	0.2291 0.2469	0.2277	0.2426	0.2442	0.2437	Ave		0.2390				3.5		15.0			
Propionitrile	0.0377 0.0394	0.0378	0.0379	0.0380	0.0386	Ave		0.0382 NT				1.7		15.0			
Methacrylonitrile	0.2028 0.1856	0.1619	0.1719	0.1786	0.1788	Ave		0.1799				7.7		15.0			
Isobutyl alcohol	0.0093 0.0090	0.0082	0.0092	0.0095	0.0092	Ave		0.0091 NT				5.0		15.0			
Tert-amyl-methyl ether (TAME)	0.8566 1.0053	0.8277	0.9356	0.9832	0.9465	Ave		0.9258				7.6		15.0			
n-Heptane	0.0283 0.0446	0.0370	0.0385	0.0426	0.0547	Qua	-0.073	0.0626	0						0.9930		0.9900
n-Butanol	0.0086 0.0070	0.0074	0.0073	0.0075	0.0076	Ave		0.0076 NT				7.1		15.0			
Methyl methacrylate	0.2355 0.2558	0.2383	0.2548	0.2603	0.2538	Ave		0.2498				4.1		15.0			
2-Nitropropane	0.0716 0.0766	0.0638	0.0733	0.0740	0.0749	Ave		0.0724				6.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 15:15 Calibration End Date: 05/29/2011 17:06 Calibration ID: 1185

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
n-Butyl acetate	0.4001 0.4652	0.3923	0.4438	0.4817	0.4611	Ave		0.4407				8.3		15.0			
Cyclohexanone	0.0637 0.0656	0.0601	0.0705	0.0773	0.0733	Ave		0.0684				9.4		15.0			
1,2,3-Trimethylbenzene	2.7648 3.2728	2.6215	2.8961	3.0823	3.0301	Ave		2.9446				7.9		15.0			
2-Methylnaphthalene	0.7633 0.5362	0.7935	0.7843	0.8634	0.8467	Ave		0.7646				15.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab File ID: BFB1929.D BFB Injection Date: 06/29/2011

Instrument ID: A3UX16 BFB Injection Time: 12:01

Analysis Batch No.: 6573

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.0	
75	30.0 - 60.0 % of mass 95	48.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	68.9	
175	5.0 - 9.0 % of mass 174	4.9	(7.0)1
176	95.0 - 101.0 % of mass 174	68.3	(99.1)1
177	5.0 - 9.0 % of mass 176	4.1	(5.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-6573/2	UXM7324.D	06/29/2011	12:41
	CCV 240-6573/3	UXM7325.D	06/29/2011	13:04
	LCS 240-6573/4	UXM7326.D	06/29/2011	13:27
	MB 240-6573/5	UXM7327.D	06/29/2011	13:50
GSP-SB-WP-54-062111	240-1342-2	UXM7335.D	06/29/2011	16:52
GSP-SB-WP-71-062111	240-1342-3	UXM7336.D	06/29/2011	17:15
	240-1438-H-4 MS	UXM7348.D	06/29/2011	21:43
	240-1438-I-4 MSD	UXM7349.D	06/29/2011	22:06

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCVIS 240-6573/2 Calibration Date: 06/29/2011 12:41

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7324.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2718	0.2517		9.26	10.0	-7.4	50.0
Chloromethane	Ave	0.4459	0.4449	0.1000	9.98	10.0	-0.2	50.0
Vinyl chloride	Ave	0.3570	0.3596		10.1	10.0	0.7	20.0
Bromomethane	Ave	0.1731	0.1354		7.82	10.0	-21.8	50.0
Chloroethane	Ave	0.2175	0.1791		8.23	10.0	-17.7 ok	50.0
Trichlorofluoromethane	Ave	0.3382	0.3311		9.79	10.0	-2.1	50.0
Acrolein	Ave	0.0471	0.0345 NT		73.3	100	-26.7 NT	50.0
1,1-Dichloroethene	Ave	0.2779	0.2653		9.55	10.0	-4.5	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1941	0.1857		9.56	10.0	-4.4	50.0
Acetone	Ave	0.1009	0.0691		13.7	20.0	-31.5	50.0
Iodomethane	Ave	0.4669	0.4184		8.96	10.0	-10.4	50.0
Carbon disulfide	Ave	0.9697	0.8586		8.85	10.0	-11.5	50.0
Acetonitrile	Ave	0.0412	0.0335 NT		81.2	100	-18.8 NT	50.0
Methyl acetate	Ave	0.2317	0.1973		17.0	20.0	-14.8	50.0
Methylene Chloride	Lin1		0.3462		9.15	10.0	-8.5	50.0
tert-Butyl alcohol	Ave	0.0248	0.0136		109	200	-45.3	50.0
Acrylonitrile	Ave	0.1088	0.0888		16.3	20.0	-18.3	50.0
Methyl tert-butyl ether	Ave	0.9424	0.7107		7.54	10.0	-24.6	50.0
trans-1,2-Dichloroethene	Ave	0.3289	0.3163		9.62	10.0	-3.8	50.0
Hexane	Ave	0.0496	0.0588		11.8	10.0	18.4	20.0
1,1-Dichloroethane	Ave	0.6006	0.5652	0.1000	9.41	10.0	-5.9	50.0
Vinyl acetate	Lin1		0.0391		9.58	10.0	-4.2	50.0
2,2-Dichloropropane	Ave	0.4435	0.3274		7.38	10.0	-26.2	50.0
cis-1,2-Dichloroethene	Ave	0.3455	0.3332		9.64	10.0	-3.6	50.0
2-Butanone	Ave	0.1260	0.1066		16.9	20.0	-15.4 ok	50.0
Bromochloromethane	Ave	0.1473	0.1328		9.02	10.0	-9.8	50.0
Tetrahydrofuran	Ave	0.0945	0.0704		7.45	10.0	-25.5 NT	50.0
Chloroform	Ave	0.5299	0.4953		9.35	10.0	-6.5	20.0
1,1,1-Trichloroethane	Ave	0.4788	0.4013		8.38	10.0	-16.2	50.0
Cyclohexane	Ave	0.5517	0.5707		10.3	10.0	3.4	50.0
1,1-Dichloropropene	Ave	0.3918	0.4214		10.8	10.0	7.6	50.0
Carbon tetrachloride	Ave	0.3600	0.3018		8.38	10.0	-16.2	50.0
Benzene	Ave	1.214	1.292		10.6	10.0	6.4	50.0
1,2-Dichloroethane	Ave	0.4059	0.3620		8.92	10.0	-10.8	50.0
Trichloroethene	Ave	0.2807	0.2883		10.3	10.0	2.7	50.0
Methylcyclohexane	Ave	0.3914	0.4246		10.8	10.0	8.5	50.0
1,2-Dichloropropane	Ave	0.2926	0.3162		10.8	10.0	8.1	20.0
1,4-Dioxane	Ave	0.0022	0.0015 NT		348	500	-30.5 NT	50.0
Dibromomethane	Ave	0.1477	0.1370		9.28	10.0	-7.2	50.0
Bromodichloromethane	Ave	0.3378	0.2995		8.86	10.0	-11.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCVIS 240-6573/2 Calibration Date: 06/29/2011 12:41

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7324.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1489	0.0887		11.9	20.0	-40.4	50.0
cis-1,3-Dichloropropene	Ave	0.4232	0.3662		8.65	10.0	-13.5	50.0
4-Methyl-2-pentanone	Ave	0.2755	0.2283		16.6	20.0	-17.1	50.0
Toluene	Ave	1.638	1.852		11.3	10.0	13.1	20.0
trans-1,3-Dichloropropene	Ave	0.4843	0.3956		8.17	10.0	-18.3	50.0
Ethyl methacrylate	Ave	0.4611	0.4480		9.72	10.0	-2.8	50.0
1,1,2-Trichloroethane	Ave	0.2777	0.2923		10.5	10.0	5.3	50.0
Tetrachloroethene	Ave	0.2614	0.2790		10.7	10.0	6.7	50.0
1,3-Dichloropropane	Ave	0.5210	0.5609		10.8	10.0	7.7	50.0
2-Hexanone	Ave	0.2391	0.2088		17.5	20.0	-12.7	50.0
Dibromochloromethane	Ave	0.2878	0.2392		8.31	10.0	-16.9	50.0
1,2-Dibromoethane	Ave	0.2830	0.2740		9.68	10.0	-3.2	50.0
Chlorobenzene	Ave	1.054	1.101	0.3000	10.5	10.0	4.5	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3512	0.3316		9.44	10.0	-5.6	50.0
Ethylbenzene	Ave	0.5717	0.6209		10.9	10.0	8.6	20.0
m-Xylene & p-Xylene	Ave	0.7174	0.7745		21.6	20.0	8.0	50.0
o-Xylene	Ave	0.7201	0.7509		10.4	10.0	4.3	50.0
Styrene	Ave	1.201	1.262		10.5	10.0	5.1	50.0
Bromoform	Lin1		0.1007	0.1000	5.89	10.0	-41.1	50.0
Isopropylbenzene	Ave	1.784	1.821		10.2	10.0	2.1	50.0
1,1,2,2-Tetrachloroethane	Ave	0.6751	0.6862	0.3000	10.2	10.0	1.6	50.0
Bromobenzene	Ave	0.7884	0.8213		10.4	10.0	4.2	50.0
1,2,3-Trichloropropane	Ave	0.2225	0.2039		9.16	10.0	-8.4	50.0
trans-1,4-Dichloro-2-butene	Ave	0.2269	0.1014		4.47	10.0	-55.3* Ni	50.0
n-Propylbenzene	Ave	0.8265	0.9614		11.6	10.0	16.3	50.0
2-Chlorotoluene	Ave	0.7766	0.8653		11.1	10.0	11.4	50.0
1,3,5-Trimethylbenzene	Ave	2.717	3.019		11.1	10.0	11.1	50.0
4-Chlorotoluene	Ave	0.7995	0.9033		11.3	10.0	13.0	50.0
tert-Butylbenzene	Ave	2.147	2.405		11.2	10.0	12.0	50.0
1,2,4-Trimethylbenzene	Ave	2.849	3.148		11.1	10.0	10.5	50.0
sec-Butylbenzene	Ave	2.966	3.389		11.4	10.0	14.3	50.0
1,3-Dichlorobenzene	Ave	1.515	1.550		10.2	10.0	2.3	50.0
p-Isopropyltoluene	Ave	2.466	2.790		11.3	10.0	13.1	50.0
1,4-Dichlorobenzene	Ave	1.558	1.569		10.1	10.0	0.7	50.0
n-Butylbenzene	Ave	2.120	2.425		11.4	10.0	14.4	50.0
1,2-Dichlorobenzene	Ave	1.491	1.482		9.94	10.0	-0.6	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1041	0.0607		5.83	10.0	-41.7	50.0
1,3,5-Trichlorobenzene	Ave	0.8672	0.7970		9.19	10.0	-8.1	50.0
1,2,4-Trichlorobenzene	Ave	0.7431	0.5868		7.90	10.0	-21.0	50.0
Hexachlorobutadiene	Ave	0.3112	0.2586		8.31	10.0	-16.9	50.0
Naphthalene	Ave	1.865	1.178		6.32	10.0	-36.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCVIS 240-6573/2 Calibration Date: 06/29/2011 12:41

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7324.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.6388	0.4040		6.32	10.0	-36.8	50.0
Dibromofluoromethane (Surr)	Ave	0.2597	0.2372		9.33	10.2	-8.7	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3187	0.2702		8.66	10.2	-15.2	50.0
Toluene-d8 (Surr)	Ave	1.297	1.423		11.2	10.2	9.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5392	0.4799		9.09	10.2	-11.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCV 240-6573/3 Calibration Date: 06/29/2011 13:04

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7325.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2597	0.2243		8.82	10.2	-13.6	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3187	0.2816		9.02	10.2	-11.6	50.0
Toluene-d8 (Surr)	Ave	1.297	1.356		10.7	10.2	4.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5392	0.4873		9.23	10.2	-9.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCV 240-6573/3 Calibration Date: 06/29/2011 13:04

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 17:06

Lab File ID: UXM7325.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5113	0.4861		9.51	10.0	-4.9	50.0
Ethyl ether	Ave	0.2800	0.2545		9.09	10.0	-9.1	50.0
3-Chloro-1-propene	Ave	0.1807	0.1411		7.81	10.0	-21.9 NT	50.0
Diisopropyl ether	Ave	0.2981	0.2840		47.6	50.0	-4.7	50.0
2-Chloro-1,3-butadiene	Ave	0.5772	0.5220		9.04	10.0	-9.6	50.0
Ethyl-t-butyl ether (ETBE)	Ave	1.158	0.9212		7.95	10.0	-20.5	50.0
Ethyl acetate	Ave	0.2390	0.2327		19.5	20.0	-2.7	50.0
Propionitrile	Ave	0.0382	0.0311 NT		16.3	20.0	-18.7	50.0
Methacrylonitrile	Ave	0.1799	0.1705		9.48	10.0	-5.2	50.0
Isobutyl alcohol	Ave	0.0091	0.0073 NT		160	200	-19.8	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.9258	0.7041		7.61	10.0	-23.9	50.0
n-Heptane	Qua		0.0466 NT		9.15	10.0	-8.5	50.0
n-Butanol	Ave	0.0076	0.0046 NT		121	200	-39.7 NT	50.0
Methyl methacrylate	Ave	0.2498	0.2388		9.56	10.0	-4.4	50.0
2-Nitropropane	Ave	0.0724	0.0356 NT		9.84	20.0	-50.8 NT	50.0
Cyclohexanone	Ave	0.0684	0.0375 NT		54.9	100	-45.1	50.0
1,2,3-Trimethylbenzene	Ave	2.945	3.093		10.5	10.0	5.0	50.0
2-Methylnaphthalene	Ave	0.7646	0.2119		5.54	20.0	-72.3 NT	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Lab File ID: UXM7327.D | Lab Sample ID: MB 240-6573/5

Matrix: Water | Heated Purge:(Y/N) N

Instrument ID: A3UX16 | Date Analyzed: 06/29/2011 13:50

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-6573/4	UXM7326.D	06/29/2011 13:27
GSP-SB-WP-54-062111	240-1342-2	UXM7335.D	06/29/2011 16:52
GSP-SB-WP-71-062111	240-1342-3	UXM7336.D	06/29/2011 17:15
	240-1438-H-4 MS	UXM7348.D	06/29/2011 21:43
	240-1438-I-4 MSD	UXM7349.D	06/29/2011 22:06

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6573/5

Matrix: Water | Lab File ID: UXM7327.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 13:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-6573/5

Matrix: Water Lab File ID: UXM7327.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 13:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6573 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	0.264	J	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6573/5

Matrix: Water | Lab File ID: UXM7327.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 13:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		74-115
1868-53-7	Dibromofluoromethane (Surr)	83		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton	Job No.: 240-1342-1
SDG No.:	
Client Sample ID:	Lab Sample ID: MB 240-6573/5
Matrix: Water	Lab File ID: UXM7327.D
Analysis Method: 8260B	Date Collected:
Sample wt/vol: 5(mL)	Date Analyzed: 06/29/2011 13:50
Soil Aliquot Vol:	Dilution Factor: 1
Soil Extract Vol.:	GC Column: DB-624 ID: 0.18(mm)
% Moisture:	Level: (low/med) Low
Analysis Batch No.: 6573	Units: ug/L
Number TICs Found: 0	TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM I-TIC 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM	#	DCA	#	TOL	#	BFB	#
GSP-SB-WP-54-062111	240-1342-2	83		91		108		88	
GSP-SB-WP-71-062111	240-1342-3	84		90		107		86	
	MB 240-6573/5	83		88		106		87	
	LCS 240-6573/4	88		87		108		92	
	240-1438-H-4 MS	90		88		110		96	
	240-1438-I-4 MSD	87		86		107		91	

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7326.D

Lab ID: LCS 240-6573/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	8.18	82	72-116	
1,1,1-Trichloroethane	10.0	7.48	75	74-118	
1,1,2,2-Tetrachloroethane	10.0	9.28	93	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	8.92	89	74-151	
1,1-Dichloroethane	10.0	8.83	88	82-115	
1,1-Dichloroethene	10.0	9.24	92	78-131	
1,1-Dichloropropene	10.0	9.60	96	83-114	
1,2,3-Trichlorobenzene	10.0	6.20	62	54-126	
1,2,3-Trichloropropane	10.0	8.60	86	73-129	
1,2,3-Trimethylbenzene	10.0	10.2	102	70-130	
1,2,4-Trichlorobenzene	10.0	7.02	70	48-135	
1,2,4-Trimethylbenzene	10.0	9.73	97	76-120	
1,2-Dibromo-3-Chloropropane	10.0	5.78	58	42-136	
1,2-Dichlorobenzene	10.0	9.03	90	81-110	
1,2-Dichloroethane	10.0	8.56	86	71-127	
1,2-Dichloropropane	10.0	9.78	98	81-115	
1,3-Dichlorobenzene	10.0	9.36	94	80-110	
1,3-Dichloropropane	10.0	9.85	99	79-116	
1,4-Dichlorobenzene	10.0	9.11	91	82-110	
2,2-Dichloropropane	10.0	6.37	64	50-129	
2-Butanone	20.0	16.7	84	60-126	
2-Chloroethyl vinyl ether	10.0	5.59 J	56	52-131	
2-Chlorotoluene	10.0	9.81	98	76-116	
2-Hexanone	20.0	17.6	88	55-133	
4-Chlorotoluene	10.0	10.1	101	77-115	
p-Isopropyltoluene	10.0	10.0	100	74-120	
4-Methyl-2-pentanone	20.0	16.2	81	63-128	
Acetone	20.0	13.6	68	43-136	
Benzene	10.0	9.78	98	83-112	
Bromobenzene	10.0	9.31	93	76-115	
Bromoform	10.0	5.08	51	40-131	
Bromomethane	10.0	6.36	64	11-185	
Carbon disulfide	10.0	7.65	77	62-142	
Carbon tetrachloride	10.0	7.50	75	66-128	
Chlorobenzene	10.0	9.39	94	85-110	
Dibromochloromethane	10.0	6.97	70	64-119	
Chloroethane	10.0	6.89	69	25-153	
Chloroform	10.0	9.06	91	79-117	
Chloromethane	10.0	7.46	75	44-126	
cis-1,2-Dichloroethene	10.0	8.83	88	80-113	
cis-1,3-Dichloropropene	10.0	7.26	73	61-115	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7326.D

Lab ID: LCS 240-6573/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dibromomethane	10.0	9.02	90	81-120	
Bromochloromethane	10.0	8.69	87	77-120	
Dichlorodifluoromethane	10.0	4.60	46	19-129	
Bromodichloromethane	10.0	7.79	78	72-121	
tert-Butyl alcohol	200	115	57	70-130	*
Ethylbenzene	10.0	9.42	94	83-112	
Hexachlorobutadiene	10.0	6.79	68	36-134	
Diisopropyl ether	10.0	8.44 J	84	77-118	
Isopropylbenzene	10.0	9.08	91	75-114	
Methyl tert-butyl ether	10.0	6.92	69	52-144	
Methylene Chloride	10.0	8.56	86	66-131	
m-Xylene & p-Xylene	20.0	18.9	95	83-113	
Naphthalene	10.0	6.21	62	32-141	
n-Butylbenzene	10.0	10.0	100	66-125	
n-Propylbenzene	10.0	10.5	105	74-121	
o-Xylene	10.0	9.54	95	83-113	
sec-Butylbenzene	10.0	9.96	100	70-117	
Styrene	10.0	9.33	93	79-114	
Tetrachloroethene	10.0	9.44	94	79-114	
Toluene	10.0	10.1	101	84-111	
trans-1,2-Dichloroethene	10.0	8.88	89	83-117	
trans-1,3-Dichloropropene	10.0	6.96	70	58-117	
Trichloroethene	10.0	9.37	94	76-117	
Trichlorofluoromethane	10.0	8.61	86	49-157	
Vinyl acetate	10.0	8.99	90	46-161	
Vinyl chloride	10.0	7.66	77	53-127	
tert-Butylbenzene	10.0	9.68	97	71-115	
1,2-Dibromoethane	10.0	8.72	87	79-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7348.D

Lab ID: 240-1438-H-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	1.0 U	8.29	83	64-118	
1,1,1-Trichloroethane	10.0	1.0 U	7.69	77	68-121	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	9.54	95	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	1.0 U	8.94	89	70-152	
1,1-Dichloroethane	10.0	1.0 U	8.85	89	79-116	
1,1-Dichloroethene	10.0	1.0 U	9.18	92	74-135	
1,1-Dichloropropene	10.0	1.0 U	9.57	96	80-114	
1,2,3-Trichlorobenzene	10.0	1.0 U	5.85	59	45-129	
1,2,3-Trichloropropane	10.0	1.0 U	8.86	89	67-132	
1,2,3-Trimethylbenzene	10.0	5.0 U	9.80	98	70-130	
1,2,4-Trichlorobenzene	10.0	1.0 U	6.55	66	38-138	
1,2,4-Trimethylbenzene	10.0	1.0 U	9.56	96	67-124	
1,2-Dibromo-3-Chloropropane	10.0	2.0 U	4.80	48	32-139	
1,2-Dichlorobenzene	10.0	1.0 U	8.82	88	75-111	
1,2-Dichloroethane	10.0	1.0 U	8.73	87	68-129	
1,2-Dichloropropane	10.0	1.0 U	9.79	98	78-115	
1,3-Dichlorobenzene	10.0	1.0 U	8.97	90	73-110	
1,3-Dichloropropane	10.0	1.0 U	10.2	102	74-118	
1,4-Dichlorobenzene	10.0	1.0 U	8.93	89	75-110	
2,2-Dichloropropane	10.0	1.0 U	5.62	56	38-127	
2-Butanone	20.0	10 U	16.8	84	54-129	
2-Chloroethyl vinyl ether	10.0	10 U	10 U	0	10-150	F
2-Chlorotoluene	10.0	1.0 U	9.56	96	69-117	
2-Hexanone	20.0	10 U	17.8	89	47-139	
4-Chlorotoluene	10.0	1.0 U	9.93	99	71-116	
p-Isopropyltoluene	10.0	1.0 U	9.53	95	64-122	
4-Methyl-2-pentanone	20.0	10 U	16.3	82	56-131	
Acetone	20.0	10 U	14.1	71	33-145	
Benzene	10.0	1.0 U	9.74	97	72-121	
Bromobenzene	10.0	1.0 U	9.33	93	71-116	
Bromoform	10.0	1.0 U	4.70	47	32-128	
Bromomethane	10.0	1.0 U	6.63	66	10-186	
Carbon disulfide	10.0	1.0 U	7.08	71	57-147	
Carbon tetrachloride	10.0	1.0 U	7.36	74	59-129	
Chlorobenzene	10.0	1.0 U	9.64	96	80-110	
Dibromochloromethane	10.0	1.0 U	6.62	66	56-118	
Chloroethane	10.0	1.0 U	7.12	71	21-165	
Chloroform	10.0	1.0 U	8.75	88	76-118	
Chloromethane	10.0	1.0 U	7.55	76	33-132	
cis-1,2-Dichloroethene	10.0	1.0 U	8.83	88	70-120	
cis-1,3-Dichloropropene	10.0	1.0 U	6.83	68	51-110	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7348.D

Lab ID: 240-1438-H-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dibromomethane	10.0	1.0 U	8.92	89	77-121	
Bromochloromethane	10.0	1.0 U	8.32	83	73-121	
Dichlorodifluoromethane	10.0	1.0 U	4.73	47	17-128	
Bromodichloromethane	10.0	1.0 U	7.55	76	67-120	
tert-Butyl alcohol	200	50 U	108	54	70-130	F
Ethylbenzene	10.0	1.0 U	9.80	98	75-116	
Hexachlorobutadiene	10.0	1.0 U	6.22	62	27-132	
Diisopropyl ether	10.0	10 U	8.50 J	85	73-118	
Isopropylbenzene	10.0	1.0 U	9.10	91	68-116	
Methyl tert-butyl ether	10.0	5.0 U	6.90	69	46-144	
Methylene Chloride	10.0	1.0 U	7.95	80	63-128	
m-Xylene & p-Xylene	20.0	2.0 U	18.8	94	75-117	
Naphthalene	10.0	1.0 U	5.85	59	15-158	
n-Butylbenzene	10.0	1.0 U	9.42	94	56-127	
n-Propylbenzene	10.0	1.0 U	10.3	103	64-124	
o-Xylene	10.0	1.0 U	9.54	95	76-116	
sec-Butylbenzene	10.0	1.0 U	9.62	96	60-119	
Styrene	10.0	1.0 U	9.46	95	71-117	
Tetrachloroethene	10.0	1.0 U	9.46	95	70-117	
Toluene	10.0	1.0 U	10.3	103	78-114	
trans-1,2-Dichloroethene	10.0	1.0 U	8.94	89	80-119	
trans-1,3-Dichloropropene	10.0	1.0 U	6.69	67	46-116	
Trichloroethene	10.0	1.0 U	9.08	91	66-120	
Trichlorofluoromethane	10.0	1.0 U	9.01	90	46-157	
Vinyl acetate	10.0	2.0 U	8.53	85	43-157	
Vinyl chloride	10.0	1.0 U	7.97	80	49-130	
tert-Butylbenzene	10.0	1.0 U	9.62	96	61-119	
1,2-Dibromoethane	10.0	1.0 U	8.87	89	74-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7349.D

Lab ID: 240-1438-I-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	8.03	80	3	30	64-118	
1,1,1-Trichloroethane	10.0	7.46	75	3	30	68-121	
1,1,2,2-Tetrachloroethane	10.0	9.70	97	2	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	8.39	84	6	30	70-152	
1,1-Dichloroethane	10.0	8.73	87	1	30	79-116	
1,1-Dichloroethene	10.0	9.19	92	0	30	74-135	
1,1-Dichloropropene	10.0	9.72	97	2	30	80-114	
1,2,3-Trichlorobenzene	10.0	6.56	66	11	30	45-129	
1,2,3-Trichloropropane	10.0	9.22	92	4	30	67-132	
1,2,3-Trimethylbenzene	10.0	10.1	101	3	30	70-130	
1,2,4-Trichlorobenzene	10.0	7.08	71	8	30	38-138	
1,2,4-Trimethylbenzene	10.0	10.0	100	4	30	67-124	
1,2-Dibromo-3-Chloropropane	10.0	5.31	53	10	30	32-139	
1,2-Dichlorobenzene	10.0	9.18	92	4	30	75-111	
1,2-Dichloroethane	10.0	8.50	85	3	30	68-129	
1,2-Dichloropropane	10.0	9.89	99	1	30	78-115	
1,3-Dichlorobenzene	10.0	9.29	93	4	30	73-110	
1,3-Dichloropropane	10.0	9.79	98	4	30	74-118	
1,4-Dichlorobenzene	10.0	9.30	93	4	30	75-110	
2,2-Dichloropropane	10.0	5.73	57	2	30	38-127	
2-Butanone	20.0	16.2	81	4	30	54-129	
2-Chloroethyl vinyl ether	10.0	10 U	0	NC	30	10-150	F
2-Chlorotoluene	10.0	9.96	100	4	30	69-117	
2-Hexanone	20.0	16.9	85	5	30	47-139	
4-Chlorotoluene	10.0	10.1	101	2	30	71-116	
p-Isopropyltoluene	10.0	10.0	100	5	30	64-122	
4-Methyl-2-pentanone	20.0	16.1	81	1	30	56-131	
Acetone	20.0	13.9	70	1	30	33-145	
Benzene	10.0	9.69	97	1	30	72-121	
Bromobenzene	10.0	9.46	95	1	30	71-116	
Bromoform	10.0	4.74	47	1	30	32-128	
Bromomethane	10.0	5.74	57	14	30	10-186	
Carbon disulfide	10.0	7.15	72	1	30	57-147	
Carbon tetrachloride	10.0	7.39	74	0	30	59-129	
Chlorobenzene	10.0	9.34	93	3	30	80-110	
Dibromochloromethane	10.0	6.59	66	0	30	56-118	
Chloroethane	10.0	6.69	67	6	30	21-165	
Chloroform	10.0	8.85	89	1	30	76-118	
Chloromethane	10.0	7.23	72	4	30	33-132	
cis-1,2-Dichloroethene	10.0	8.74	87	1	30	70-120	
cis-1,3-Dichloropropene	10.0	6.75	68	1	30	51-110	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7349.D

Lab ID: 240-1438-I-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dibromomethane	10.0	8.74	87	2	30	77-121	
Bromochloromethane	10.0	8.34	83	0	30	73-121	
Dichlorodifluoromethane	10.0	4.40	44	7	30	17-128	
Bromodichloromethane	10.0	7.52	75	0	30	67-120	
tert-Butyl alcohol	200	107	54	0	30	70-130	F
Ethylbenzene	10.0	9.64	96	2	30	75-116	
Hexachlorobutadiene	10.0	6.92	69	11	30	27-132	
Diisopropyl ether	10.0	8.35 J	84	2	30	73-118	
Isopropylbenzene	10.0	9.01	90	1	30	68-116	
Methyl tert-butyl ether	10.0	6.77	68	2	30	46-144	
Methylene Chloride	10.0	7.96	80	0	30	63-128	
m-Xylene & p-Xylene	20.0	18.6	93	1	30	75-117	
Naphthalene	10.0	6.44	64	10	30	15-158	
n-Butylbenzene	10.0	9.89	99	5	30	56-127	
n-Propylbenzene	10.0	10.6	106	3	30	64-124	
o-Xylene	10.0	9.20	92	4	30	76-116	
sec-Butylbenzene	10.0	10.0	100	4	30	60-119	
Styrene	10.0	9.22	92	3	30	71-117	
Tetrachloroethene	10.0	9.32	93	1	30	70-117	
Toluene	10.0	10.1	101	2	30	78-114	
trans-1,2-Dichloroethene	10.0	8.78	88	2	30	80-119	
trans-1,3-Dichloropropene	10.0	6.52	65	3	30	46-116	
Trichloroethene	10.0	9.20	92	1	30	66-120	
Trichlorofluoromethane	10.0	8.55	86	5	30	46-157	
Vinyl acetate	10.0	8.09	81	5	30	43-157	
Vinyl chloride	10.0	7.77	78	3	30	49-130	
tert-Butylbenzene	10.0	10.0	100	4	30	61-119	
1,2-Dibromoethane	10.0	8.49	85	4	30	74-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Sample No.: STD8260 240-3007/4 Date Analyzed: 05/29/2011 13:45

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM6502.D Heated Purge: (Y/N) N

Calibration ID: 1183

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1300312	5.72	996322	8.41	544167	10.65
UPPER LIMIT		2600624	6.22	1992644	8.91	1088334	11.15
LOWER LIMIT		650156	5.22	498161	7.91	272084	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-3007/14		1244035	5.72	939144	8.41	496491	10.65
CCVIS 240-6573/2		1251278	5.72	883745	8.41	424880	10.65

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Sample No.: CCVIS 240-6573/2 Date Analyzed: 06/29/2011 12:41

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM7324.D Heated Purge: (Y/N) N

Calibration ID: 1185

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1251278	5.72	883745	8.41	424880	10.65
UPPER LIMIT		2502556	6.22	1767490	8.91	849760	11.15
LOWER LIMIT		625639	5.22	441873	7.91	212440	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-6573/3		1186731	5.72	874451	8.41	405311	10.65
LCS 240-6573/4		1221014	5.72	875226	8.41	428882	10.65
MB 240-6573/5		1195601	5.72	858361	8.41	389001	10.65
240-1342-2	GSP-SB-WP-54-062111	1181917	5.72	850984	8.41	382236	10.65
240-1342-3	GSP-SB-WP-71-062111	1208241	5.72	857010	8.41	400236	10.65
240-1438-H-4 MS		1196480	5.72	851980	8.41	428238	10.65
240-1438-I-4 MSD		1210953	5.72	862468	8.41	407675	10.65

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab File ID: 9DF0714.D DFTPP Injection Date: 07/14/2011

Instrument ID: A4HP9 DFTPP Injection Time: 10:04

Analysis Batch No.: 8519

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.3	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	70.9	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	56.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	26.0	
365	Greater than 0.75% of mass 198	3.8	
441	Present, but less than mass 443	13.6	
442	40.0 - 110.0% of mass 198	78.2	
443	15.0 - 24.0% of mass 442	15.3	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-8519/10	9SMH0714.D	07/14/2011	10:23
	STD5 240-8519/2	9SMM0714.D	07/14/2011	10:46
	STD4 240-8519/3	9SM0714.D	07/14/2011	11:06
	STD3 240-8519/4	9SML0714.D	07/14/2011	11:25
	STD2 240-8519/5	9SL0714.D	07/14/2011	11:45
	STD1 240-8519/6	9SLL0714.D	07/14/2011	12:04
	STD7 240-8519/9	9SH0714.D	07/14/2011	12:24
	STD8 240-8519/8	9SHH0714.D	07/14/2011	12:43
	STD9 240-8519/7	9HHH0714.D	07/14/2011	13:03
	ICV 240-8519/11	9TCLICV.D	07/14/2011	13:22

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-8519/6	9SLL0714.D
Level 2	STD2 240-8519/5	9SL0714.D
Level 3	STD3 240-8519/4	9SML0714.D
Level 4	STD4 240-8519/3	9SM0714.D
Level 5	STD5 240-8519/2	9SMM0714.D
Level 6	STD6 240-8519/10	9SMH0714.D
Level 7	STD7 240-8519/9	9SH0714.D
Level 8	STD8 240-8519/8	9SHH0714.D
Level 9	STD9 240-8519/7	9HHH0714.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.7587	0.8043 0.7199	0.7702 0.6658	0.8026 0.7097	0.7368	Ave		0.7460				6.4		20.0			
N-Nitrosodimethylamine	1.3991	1.3232 1.3161	1.3928 1.3290	1.4622 1.3424	1.3439	Ave		1.3636				3.7		20.0			
Pyridine	2.1529	1.3459 2.0091	1.6427 2.1085	2.1613 2.1891	2.0902	Ave		1.9625				16.0 NT		20.0			
Ethyl methacrylate	2.0326	2.1052 1.9970	2.0678 1.9396	2.1894 2.0042	1.9516	Ave		2.0359				4.1		20.0			
3-Chloropropionitrile	0.8164	0.8373 0.8386	0.8159 0.8260	0.9091 0.8429	0.8210	Ave		0.8384				3.6		20.0			
Malononitrile	2.3645	2.2613 2.3288	2.3080 2.2648	2.4927 2.2389	2.3657	Ave		2.3281				3.5		20.0			
Benzaldehyde	1.4947	1.9807 1.4267	1.9784 +++++	2.0479	1.9279	Ave		1.8094			0.0100	15.0		20.0			
Phenol	2.3398	2.3104 2.3310	2.2407 2.3426	2.4539 2.4335	2.2936	Ave		2.3432			0.8000	3.0		20.0			
Aniline	2.9948	2.6137 2.8451	2.5545 2.9465	2.9691 3.1817	2.9682	Ave		2.8842				7.2		20.0			
Bis(2-chloroethyl)ether	1.8417	2.0750 1.9499	1.9533 1.8813	1.9331 1.8823	2.0679	Ave		1.9481			0.7000	4.4		20.0			
2-Chlorophenol	1.3882	1.3606 1.3742	1.3754 1.3784	1.4402 1.4374	1.3903	Ave		1.3931			0.8000	2.1		20.0			
1,3-Dichlorobenzene	1.3331	1.4194 1.3489	1.3890 1.3363	1.4480 1.4030	1.3609	Ave		1.3798				3.0		20.0			
1,4-Dichlorobenzene	1.3842	1.4754 1.4072	1.4702 1.4122	1.5141 1.4775	1.4269	Ave		1.4460				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzyl alcohol		0.8975	0.9436	1.0611	1.0959	Ave		1.0243				6.7		20.0			
	1.0422	1.0243	1.0516	1.0778													
1,2-Dichlorobenzene		1.3721	1.2917	1.3866	1.2926	Ave		1.3217				3.4		20.0			
	1.2793	1.2820	1.3013	1.3678													
2-Methylphenol		1.3655	1.5117	1.5891	1.5488	Ave		1.5174			0.7000	4.6		20.0			
	1.5307	1.4953	1.5190	1.5792													
Benzoic acid		+++++	0.1041	0.1704	0.2382	Qua	-0.138	0.2172	0.0023						0.9970		0.9900
	0.2824	0.2620	0.3099	0.3324													
2,2'-oxybis[1-chloropropane]		1.6730	1.6291	1.6911	1.6447	Ave		1.6237				2.9		20.0			
	1.5598	1.5662	1.5994	1.6266													
3 & 4 Methylphenol		1.4669	1.3924	1.5901	1.6243	Ave		1.5606				5.6		20.0			
	1.5793	1.5789	1.5890	1.6641													
N-Nitrosodi-n-propylamine		1.7163	1.7206	1.7458	1.8192	Ave		1.7553			0.5000	2.5		20.0			
	1.7162	1.7350	1.7719	1.8175													
Acetophenone		2.3786	2.3968	2.4540	2.3996	Ave		2.4073			0.0100	1.7		20.0			
	2.3445	2.3893	2.4334	2.4627													
Hexachloroethane		0.6388	0.6660	0.6838	0.6755	Ave		0.6633			0.3000	2.6		20.0			
	0.6588	0.6407	0.6618	0.6810													
Nitrobenzene		0.6905	0.6630	0.6688	0.6622	Ave		0.6719			0.2000	2.7		20.0			
	0.6513	0.6693	0.6629	0.7073													
Isophorone		1.1931	1.1083	1.1769	1.1407	Ave		1.1705			0.4000	3.7		20.0			
	1.1419	1.1685	1.1800	1.2549													
2-Nitrophenol		0.1677	0.1822	0.1991	0.1918	Ave		0.1943			0.1000	7.9		20.0			
	0.1928	0.1981	0.2020	0.2206													
2,4-Dimethylphenol		0.4931	0.4917	0.4959	0.4980	Ave		0.5047			0.2000	4.0		20.0			
	0.5010	0.4998	0.5046	0.5536													
1,3,5-Trichlorobenzene		0.3189	0.3036	0.3299	0.3075	Ave		0.3184				5.6		20.0			
	0.3005	0.3108	0.3211	0.3549													
Bis(2-chloroethoxy)methane		0.5403	0.5394	0.5852	0.5712	Ave		0.5665			0.3000	3.9		20.0			
	0.5627	0.5594	0.5674	0.6062													
2,4-Dichlorophenol		0.2123	0.2575	0.2681	0.2755	Ave		0.2645			0.2000	8.9		20.0			
	0.2677	0.2709	0.2694	0.2943													
1,2,4-Trichlorobenzene		0.2999	0.3023	0.3166	0.3054	Ave		0.3072				3.4		20.0			
	0.2977	0.3018	0.3049	0.3287													
Naphthalene	1.1920	1.1074	1.0908	1.1032	1.0572	Ave		1.1176			0.7000	4.5		20.0			
	1.0757	1.1144	1.1077	1.2104													
4-Chloroaniline		0.4510	0.4381	0.4568	0.4338	Ave		0.4603			0.0100	4.9		20.0			
	0.4619	0.4627	0.4713	0.5070													
Hexachlorobutadiene		0.1926	0.1904	0.1912	0.1872	Ave		0.1915			0.0100	3.7		20.0			
	0.1814	0.1902	0.1923	0.2066													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,2,3-Trichlorobenzene	0.2788	0.2799 0.2858	0.2914 0.2836	0.2815 0.3090	0.2798	Ave		0.2862				3.5		20.0			
2,4-Toluene diamine	0.2162	0.2003 0.1650	0.2193 +++++	0.2965 0.1329	0.2252	Qua	0.0384	0.2404	-0.004						0.9920		0.9900
1,1'-Biphenyl	+++++ 1.5185	1.5208 1.5901	1.5345 1.6610	1.5292 1.8550	1.4603	Ave		1.5837			0.0100	7.9		20.0			
2-Chloronaphthalene	+++++ 1.0894	1.0817 1.1031	1.1284 1.1155	1.1189 1.1844	1.0842	Ave		1.1132			0.8000	3.0		20.0			
Caprolactam	0.1419	0.1026 0.1405	0.1260 0.1404	0.1328 0.1513	0.1422	Ave		0.1347			0.0100	11.0		20.0			
4-Chloro-3-methylphenol	0.4242	0.4073 0.4311	0.3923 0.4357	0.4270 0.4618	0.4221	Ave		0.4252			0.2000	4.8		20.0			
2-Methylnaphthalene	0.6066 0.5628	0.6007 0.5742	0.5628 0.5778	0.5914 0.6334	0.5644	Ave		0.5860			0.4000	4.1		20.0			
2,4-Dinitrophenol	0.2542	+++++ 0.2644	0.1280 0.2753	0.1822 0.3101	0.2315	Qua	-0.068	0.2061	0.0020		0.0100				0.9990		0.9900
4-Nitrophenol	0.3348	+++++ 0.3081	0.2025 0.3102	0.3099 0.3245	0.2854	Ave		0.2965				15.0		20.0			
1-Methylnaphthalene	0.7499 0.6336	0.6818 0.6630	0.6615 0.6615	0.6783 0.7277	0.6451	Ave		0.6781				5.6		20.0			
1,2,3,5-Tetrachlorobenzene	0.5260	0.4944 0.5622	0.5335 0.5681	0.5304 0.6338	0.5019	Ave		0.5438				8.2		20.0			
Hexachlorocyclopentadiene	0.4049	0.3156 0.4273	0.3335 0.4347	0.3765 0.4723	0.3738	Ave		0.3923			0.0500	13.0		20.0			
2,3,5,6-Tetrachlorophenol	0.3344	+++++ 0.3326	0.3153 0.3433	0.3205 0.3646	0.3176	Ave		0.3326				5.2		20.0			
2,4,6-Trichlorophenol	0.3653	0.2920 0.3547	0.3253 0.3615	0.3399 0.3910	0.3424	Ave		0.3465			0.2000	8.5		20.0			
Dibenzofuran	+++++ 1.6514	1.7000 1.7106	1.6765 1.7622	1.7018 1.8660	1.6221	Ave		1.7113			0.8000	4.4		20.0			
2,4,5-Trichlorophenol	0.4076	0.3829 0.3597	0.3827 0.3875	0.3738 0.4203	0.3827	Ave		0.3871			0.2000	4.9		20.0			
1,2,3,4 -Tetrachlorobenzene	0.5038	0.4968 0.5386	0.4910 0.5486	0.5111 0.6073	0.4824	Ave		0.5225				7.9		20.0			
4,6-Dinitro-2-methylphenol	0.1504	+++++ 0.1507	0.0982 0.1517	0.1234 0.1662	0.1429	Ave		0.1405			0.0100	16.0		20.0			
2-Nitroaniline	0.6182	0.5998 0.6270	0.5808 0.6250	0.6636 0.6433	0.6241	Ave		0.6227			0.0100	4.0		20.0			
Dimethyl phthalate	1.3552	1.2903 1.3439	1.3375 1.3695	1.3905 1.4617	1.3227	Ave		1.3589			0.0100	3.8		20.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,6-Dinitrotoluene	0.3030	0.2697 0.2971	0.2798 0.2975	0.2944 0.3129	0.2973	Ave		0.2940				4.6		20.0			
1,2-Dinitrobenzene	0.1634	0.1316 0.1528	0.1462 0.1565	0.1531 0.1672	0.1518	Ave		0.1528				7.1		20.0			
Acenaphthylene	2.0042 1.9242	1.9026 1.9559	1.9501 1.9806	1.9692 2.1310	1.8869	Ave		1.9672			0.9000	3.7		20.0			
3-Nitroaniline	0.3531	0.2983 0.3448	0.3273 0.3391	0.3376 0.3618	0.3428	Ave		0.3381			0.0100	5.7		20.0			
Acenaphthene	1.3429 1.2089	1.2033 1.2552	1.2609 1.2980	1.2102 1.4090	1.1716	Ave		1.2622			0.9000	6.0		20.0			
2,4-Dinitrotoluene	0.4045	0.3515 0.4047	0.3851 0.4157	0.4157 0.4266	0.3891	Ave		0.3991			0.2000	5.9		20.0			
Diethyl phthalate	1.4761	1.4805 1.5043	1.4507 1.5316	1.5137 1.6616	1.4662	Ave		1.5106			0.0100	4.4		20.0			
4-Chlorophenyl phenyl ether	0.6360	0.6752 0.6603	0.6392 0.6640	0.6643 0.7351	0.6226	Ave		0.6621			0.4000	5.2		20.0			
4-Nitroaniline	0.3781	0.3333 0.3817	0.3761 0.3912	0.3708 0.4096	0.3683	Ave		0.3761			0.0100	5.8		20.0			
Fluorene	1.3386 1.2866	1.2420 1.3390	1.3034 1.3871	1.2986 1.4854	1.2469	Ave		1.3253			0.9000	5.7		20.0			
N-Nitrosodiphenylamine	0.5560	0.5492 0.5953	0.5755 0.5918	0.5711 0.6507	0.5697	Ave		0.5824			0.0100	5.4		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.4707	1.4050 1.5156	1.4478 1.4995	1.5045 1.5277	1.4639	Ave		1.4785				2.8		20.0			
Azobenzene	1.4718	1.4053 1.5167	1.4422 1.4957	1.5065 1.5277	1.4621	Ave		1.4785				2.8		20.0			
4-Bromophenyl phenyl ether	0.1997	0.1946 0.2062	0.1974 0.2085	0.1981 0.2271	0.2022	Ave		0.2042			0.1000	5.1		20.0			
Hexachlorobenzene	0.2175 0.1926	0.1915 0.1986	0.1895 0.1995	0.2024 0.2242	0.1932	Ave		0.2010			0.1000	6.0		20.0			
Atrazine	0.2105	0.1905 0.1960	0.2059 0.1839	0.2058 0.1840	0.2177	Ave		0.1993			0.0100	6.3		20.0			
Pentachlorophenol	0.1478	0.0795 0.1527	0.1215 0.1638	0.1279 0.1776	0.1423	Qua	0.0077	0.1224	0.0011		0.0500				1.0000		0.9900
Phenanthrene	1.1987 1.0588	1.0713 1.1112	1.0793 1.1179	1.0874 1.2700	1.0520	Ave		1.1163			0.7000	6.5		20.0			
Anthracene	1.0379 1.0893	1.0824 1.1531	1.0817 1.1741	1.1140 1.3073	1.0742	Ave		1.1238			0.7000	7.2		20.0			
Carbazole	1.0557	1.0652 1.0956	1.0781 1.1016	1.0738 1.2252	1.0357	Ave		1.0914			0.0100	5.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Di-n-butyl phthalate	1.4178	1.3552 1.5045	1.3962 1.4989	1.4148 1.4629	1.4096	Ave		1.4325			0.0100	3.6		20.0			
Fluoranthene	1.1887 1.1727	1.1082 1.2641	1.2177 1.3015	1.1842 1.4319	1.1747	Ave		1.2271			0.6000	7.7		20.0			
Benzidine	0.6434	0.4961 0.6181	0.4956 0.6518	0.6194 0.6981	0.6498	Ave		0.6090				12.0		20.0			
Pyrene	1.2178 1.2011	1.1840 1.2171	1.2198 1.2836	1.1838 1.3788	1.1978	Ave		1.2315			0.6000	5.1		20.0			
Butyl benzyl phthalate	0.6120	0.5618 0.6041	0.6355 0.6331	0.7000 0.6471	0.6068	Ave		0.6251			0.0100	6.4		20.0			
3,3'-Dimethoxybenzidine	0.2613	0.1768 0.2343	0.2179 0.2488	0.2277 0.2865	0.2549	Ave		0.2385				14.0		20.0			
Bis(2-ethylhexyl) phthalate	0.8565	0.7725 0.8781	0.8684 0.8946	0.8342 0.9763	0.8698	Ave		0.8688			0.0100	6.6		20.0			
4,4'-Methylene bis(2-chloroaniline)	0.2264	0.1993 0.2364	0.2165 0.2445	0.2169 0.2630	0.2299	Ave		0.2291				8.5		20.0			
3,3'-Dichlorobenzidine	0.4312	0.3683 0.4380	0.4040 0.4510	0.4064 0.4927	0.4316	Ave		0.4279			0.0100	8.6		20.0			
Benzo[a]anthracene	1.2110 1.1340	1.0945 1.1555	1.1739 1.1704	1.1365 1.2554	1.1137	Ave		1.1605			0.8000	4.3		20.0			
Chrysene	1.2394 1.1231	1.0804 1.1183	1.1143 1.1409	1.0881 1.2145	1.0840	Ave		1.1337			0.7000	5.0		20.0			
Di-n-octyl phthalate	1.7336	1.4389 1.7619	1.5649 1.8117	1.6060 1.9378	1.6406	Ave		1.6869			0.0100	9.3		20.0			
Benzo[b]fluoranthene	1.1064 1.4585	1.1713 1.2539	1.1854 1.3061	1.2356 1.5219	1.2281	Ave		1.2741			0.7000	11.0		20.0			
Benzo[k]fluoranthene	1.4546 1.1580	1.2638 1.3782	1.3536 1.3828	1.2948 1.3816	1.2840	Ave		1.3279			0.7000	6.6		20.0			
Benzo[a]pyrene	1.1401 1.1741	1.0762 1.2035	1.1106 1.2212	1.1297 1.3029	1.1475	Ave		1.1673			0.7000	5.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2705 1.3033	1.1882 1.3309	1.2235 1.3505	1.2401 1.4368	1.2740	Ave		1.2909			0.5000	5.8		20.0			
Dibenzo(a,h)anthracene	1.0061 1.0889	0.9215 1.1157	1.0240 1.1250	1.0288 1.2106	1.0478	Ave		1.0632			0.4000	7.8		20.0			
Benzo[g,h,i]perylene	0.9424 1.0527	0.9400 1.0674	0.9864 1.0813	1.0173 1.1331	1.0548	Ave		1.0306			0.5000	6.3		20.0			
2-Fluorophenol (Surr)	1.4758	1.4065 1.4396	1.3532 1.4441	1.5566 1.5052	1.4952	Ave		1.4595				4.3		20.0			
Phenol-d5 (Surr)	2.0412	1.9990 2.0291	1.9480 2.0551	2.1175 2.0894	2.0563	Ave		2.0420				2.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Nitrobenzene-d5 (Surr)	0.7581 0.6688	0.6974 0.6160	0.6589 0.6132	0.7017 0.6610	0.6192	Ave		0.6660				7.2		20.0			
2-Fluorobiphenyl (Surr)	1.2615 1.3100	1.2963 1.3260	1.3419 1.3578	1.3322 1.4452	1.2942	Ave		1.3295				3.9		20.0			
2,4,6-Tribromophenol (Surr)	 0.1599	0.1390 0.1644	0.1526 0.1679	0.1601 0.1797	0.1538	Ave		0.1597				7.5		20.0			
Terphenyl-d14 (Surr)	0.7105 0.7125	0.7008 0.7382	0.7216 0.7764	0.7347 0.8331	0.7264	Ave		0.7394				5.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab File ID: 9DF0715.D DFTPP Injection Date: 07/15/2011

Instrument ID: A4HP9 DFTPP Injection Time: 13:55

Analysis Batch No.: 8683

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	68.8	
70	Less than 2.0% of mass 69	0.4	(0.6)1
127	25.0 - 75.0% of mass 198	54.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	26.9	
365	Greater than 0.75% of mass 198	4.0	
441	Present, but less than mass 443	14.2	
442	40.0 - 110.0% of mass 198	83.8	
443	15.0 - 24.0% of mass 442	15.6	(18.6)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-8683/2	9SMH0715.D	07/15/2011	14:17
	CCV 240-8683/3	9AMH0715.D	07/15/2011	15:03
	MB 240-5773/1-A	MB5773.D	07/15/2011	16:39
	LCS 240-5773/2-A	LCA5773.D	07/15/2011	16:59
GSP-SB-WP-71-062111	240-1342-3	1342I3A.D	07/15/2011	19:52
GSP-SB-WP-54-062111	240-1342-2	1342J2A.D	07/15/2011	20:11

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCV 240-8683/2 Calibration Date: 07/15/2011 14:17

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0715.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7460	0.8042		10.8	10.0	7.8	20.0
N-Nitrosodimethylamine	Ave	1.364	1.476		10.8	10.0	8.2	20.0
Pyridine	Ave	1.962	2.333		11.9	10.0	18.9	20.0
Ethyl methacrylate	Ave	2.036	2.166		10.6	10.0	6.4	20.0
3-Chloropropionitrile	Ave	0.8384	0.8880		10.6	10.0	5.9	20.0
Malononitrile	Ave	2.328	2.494		10.7	10.0	7.1	20.0
Benzaldehyde	Ave	1.809	1.656	0.0100	9.15	10.0	-8.5	20.0
Phenol	Ave	2.343	2.436	0.8000	10.4	10.0	4.0	20.0
Aniline	Ave	2.884	3.060		10.6	10.0	6.1	20.0
Bis(2-chloroethyl)ether	Ave	1.948	1.899	0.7000	9.75	10.0	-2.5	20.0
2-Chlorophenol	Ave	1.393	1.416	0.8000	10.2	10.0	1.6	20.0
1,3-Dichlorobenzene	Ave	1.380	1.375		9.96	10.0	-0.4	20.0
1,4-Dichlorobenzene	Ave	1.446	1.458		10.1	10.0	0.9	20.0
Benzyl alcohol	Ave	1.024	1.061		10.4	10.0	3.6	20.0
1,2-Dichlorobenzene	Ave	1.322	1.305		9.88	10.0	-1.2	20.0
2-Methylphenol	Ave	1.517	1.551	0.7000	10.2	10.0	2.2	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.624	1.613		9.93	10.0	-0.7	20.0
3 & 4 Methylphenol	Ave	1.561	1.621		10.4	10.0	3.9	20.0
N-Nitrosodi-n-propylamine	Ave	1.755	1.821	0.5000	10.4	10.0	3.7	20.0
Acetophenone	Ave	2.407	2.470	0.0100	10.3	10.0	2.6	20.0
Hexachloroethane	Ave	0.6633	0.6780	0.3000	10.2	10.0	2.2	20.0
Nitrobenzene	Ave	0.6719	0.6814	0.2000	10.1	10.0	1.4	20.0
Isophorone	Ave	1.171	1.198	0.4000	10.2	10.0	2.4	20.0
2-Nitrophenol	Ave	0.1943	0.1974	0.1000	10.2	10.0	1.6	20.0
1,3,5-Trichlorobenzene	Ave	0.3184	0.3095		9.72	10.0	-2.8	20.0
2,4-Dimethylphenol	Ave	0.5047	0.5246	0.2000	10.4	10.0	3.9	20.0
Bis(2-chloroethoxy)methane	Ave	0.5665	0.5887	0.3000	10.4	10.0	3.9	20.0
Benzoic acid	Qua		0.2770		21.3	20.0	6.5	20.0
2,4-Dichlorophenol	Ave	0.2645	0.2840	0.2000	10.7	10.0	7.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3072	0.3045		9.91	10.0	-0.9	20.0
Naphthalene	Ave	1.118	1.096	0.7000	9.81	10.0	-1.9	20.0
4-Chloroaniline	Ave	0.4603	0.4619	0.0100	10.0	10.0	0.3	20.0
Hexachlorobutadiene	Ave	0.1915	0.1896	0.0100	9.90	10.0	-1.0	20.0
1,2,3-Trichlorobenzene	Ave	0.2862	0.2881		10.1	10.0	0.7	20.0
Caprolactam	Ave	0.1347	0.1512	0.0100	11.2	10.0	12.3	20.0
4-Chloro-3-methylphenol	Ave	0.4252	0.4407	0.2000	10.4	10.0	3.6	20.0
2-Methylnaphthalene	Ave	0.5860	0.5774	0.4000	9.85	10.0	-1.5	20.0
1-Methylnaphthalene	Ave	0.6781	0.6536		9.64	10.0	-3.6	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5438	0.5208		9.58	10.0	-4.2	20.0
Hexachlorocyclopentadiene	Ave	0.3923	0.3884	0.0500	9.90	10.0	-1.0	20.0
2,4,6-Trichlorophenol	Ave	0.3465	0.3657	0.2000	10.6	10.0	5.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCV 240-8683/2 Calibration Date: 07/15/2011 14:17

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0715.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3871	0.3958	0.2000	10.2	10.0	2.2	20.0
2,4-Toluene diamine	Qua		0.2201		11.4	10.0	14.0	20.0
1,1'-Biphenyl	Ave	1.584	1.506	0.0100	9.51	10.0	-4.9	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5225	0.5030		9.63	10.0	-3.7	20.0
2-Chloronaphthalene	Ave	1.113	1.096	0.8000	9.84	10.0	-1.6	20.0
2-Nitroaniline	Ave	0.6227	0.6248	0.0100	10.0	10.0	0.3	20.0
Dimethyl phthalate	Ave	1.359	1.344	0.0100	9.89	10.0	-1.1	20.0
2,6-Dinitrotoluene	Ave	0.2940	0.3090		10.5	10.0	5.1	20.0
1,2-Dinitrobenzene	Ave	0.1528	0.1560		10.2	10.0	2.1	20.0
Acenaphthylene	Ave	1.967	1.893	0.9000	9.62	10.0	-3.8	20.0
3-Nitroaniline	Ave	0.3381	0.3505	0.0100	10.4	10.0	3.7	20.0
2,4-Dinitrophenol	Qua		0.2402	0.0100	19.8	20.0	-1.0	20.0
Acenaphthene	Ave	1.262	1.200	0.9000	9.51	10.0	-4.9	20.0
4-Nitrophenol	Ave	0.2965	0.3359		11.3	10.0	13.3	20.0
2,4-Dinitrotoluene	Ave	0.3991	0.4046	0.2000	10.1	10.0	1.4	20.0
Dibenzofuran	Ave	1.711	1.671	0.8000	9.77	10.0	-2.3	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3326	0.3170		9.53	10.0	-4.7	20.0
Diethyl phthalate	Ave	1.511	1.481	0.0100	9.80	10.0	-2.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.6621	0.6413	0.4000	9.69	10.0	-3.1	20.0
4-Nitroaniline	Ave	0.3761	0.3813	0.0100	10.1	10.0	1.4	20.0
Fluorene	Ave	1.325	1.299	0.9000	9.80	10.0	-2.0	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1405	0.1476	0.0100	10.5	10.0	5.1	20.0
N-Nitrosodiphenylamine	Ave	0.5824	0.5764	0.0100	9.90	10.0	-1.0	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.479	1.499		10.1	10.0	1.4	20.0
Azobenzene	Ave	1.479	1.499		10.1	10.0	1.4	20.0
4-Bromophenyl phenyl ether	Ave	0.2042	0.1989	0.1000	9.74	10.0	-2.6	20.0
Hexachlorobenzene	Ave	0.2010	0.1974	0.1000	9.82	10.0	-1.8	20.0
Atrazine	Ave	0.1993	0.2129	0.0100	10.7	10.0	6.9	20.0
Pentachlorophenol	Qua		0.1423	0.0500	19.8	20.0	-1.0	20.0
Phenanthrene	Ave	1.116	1.088	0.7000	9.74	10.0	-2.6	20.0
Anthracene	Ave	1.124	1.093	0.7000	9.73	10.0	-2.7	20.0
Carbazole	Ave	1.091	1.082	0.0100	9.92	10.0	-0.8	20.0
Di-n-butyl phthalate	Ave	1.432	1.446	0.0100	10.1	10.0	1.0	20.0
Fluoranthene	Ave	1.227	1.204	0.6000	9.81	10.0	-1.9	20.0
Benzidine	Ave	0.6090	0.6332		10.4	10.0	4.0	20.0
Pyrene	Ave	1.232	1.233	0.6000	10.0	10.0	0.1	20.0
Butyl benzyl phthalate	Ave	0.6251	0.6186	0.0100	9.90	10.0	-1.0	20.0
3,3'-Dimethoxybenzidine	Ave	0.2385	0.2506		10.5	10.0	5.1	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8688	0.8735	0.0100	10.1	10.0	0.5	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2291	0.2379		10.4	10.0	3.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCV 240-8683/2 Calibration Date: 07/15/2011 14:17

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0715.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4279	0.4414	0.0100	10.3	10.0	3.2	20.0
Benzo[a]anthracene	Ave	1.161	1.198	0.8000	10.3	10.0	3.2	20.0
Chrysene	Ave	1.134	1.106	0.7000	9.75	10.0	-2.5	20.0
Di-n-octyl phthalate	Ave	1.687	1.743	0.0100	10.3	10.0	3.3	20.0
Benzo[b]fluoranthene	Ave	1.274	1.414	0.7000	11.1	10.0	11.0	20.0
Benzo[k]fluoranthene	Ave	1.328	1.173	0.7000	8.83	10.0	-11.7	20.0
Benzo[a]pyrene	Ave	1.167	1.169	0.7000	10.0	10.0	0.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.291	1.287	0.5000	9.97	10.0	-0.3	20.0
Dibenzo(a,h)anthracene	Ave	1.063	1.090	0.4000	10.3	10.0	2.6	20.0
Benzo[g,h,i]perylene	Ave	1.031	1.067	0.5000	10.4	10.0	3.5	20.0
2-Fluorophenol (Surr)	Ave	1.460	1.511		10.4	10.0	3.5	20.0
Phenol-d5 (Surr)	Ave	2.042	2.151		10.5	10.0	5.3	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6660	0.6870		10.3	10.0	3.2	20.0
2-Fluorobiphenyl (Surr)	Ave	1.329	1.301		9.79	10.0	-2.1	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1597	0.1616		10.1	10.0	1.2	20.0
Terphenyl-d14 (Surr)	Ave	0.7394	0.7410		10.0	10.0	0.2	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab File ID: MB5773.D Lab Sample ID: MB 240-5773/1-A

Matrix: Water Date Extracted: 06/23/2011 08:43

Instrument ID: A4HP9 Date Analyzed: 07/15/2011 16:39

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-5773/2-A	LCA5773.D	07/15/2011 16:59
GSP-SB-WP-71-062111	240-1342-3	1342I3A.D	07/15/2011 19:52
GSP-SB-WP-54-062111	240-1342-2	1342J2A.D	07/15/2011 20:11

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5773/1-A

Matrix: Water | Lab File ID: MB5773.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/23/2011 08:43

Sample wt/vol: 1000(mL) | Date Analyzed: 07/15/2011 16:39

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.20	U	0.20	0.10
208-96-8	Acenaphthylene	0.20	U	0.20	0.10
98-86-2	Acetophenone	1.0	U	1.0	0.34
120-12-7	Anthracene	0.20	U	0.20	0.10
1912-24-9	Atrazine	1.0	U	1.0	0.34
100-52-7	Benzaldehyde	1.0	U	1.0	0.39
56-55-3	Benzo[a]anthracene	0.20	U	0.20	0.10
50-32-8	Benzo[a]pyrene	0.20	U	0.20	0.10
205-99-2	Benzo[b]fluoranthene	0.20	U	0.20	0.10
191-24-2	Benzo[g,h,i]perylene	0.20	U	0.20	0.10
207-08-9	Benzo[k]fluoranthene	0.20	U	0.20	0.10
92-52-4	1,1'-Biphenyl	1.0	U	1.0	0.80
111-91-1	Bis(2-chloroethoxy)methane	1.0	U	1.0	0.32
111-44-4	Bis(2-chloroethyl)ether	1.0	U	1.0	0.10
117-81-7	Bis(2-ethylhexyl) phthalate	0.996	J	2.0	0.80
101-55-3	4-Bromophenyl phenyl ether	2.0	U	2.0	0.80
85-68-7	Butyl benzyl phthalate	1.0	U	1.0	0.80
105-60-2	Caprolactam	5.0	U	5.0	0.80
86-74-8	Carbazole	1.0	U	1.0	0.28
106-47-8	4-Chloroaniline	2.0	U	2.0	0.80
59-50-7	4-Chloro-3-methylphenol	2.0	U	2.0	0.80
91-58-7	2-Chloronaphthalene	1.0	U	1.0	0.10
95-57-8	2-Chlorophenol	1.0	U	1.0	0.29
7005-72-3	4-Chlorophenyl phenyl ether	2.0	U	2.0	0.30
218-01-9	Chrysene	0.20	U	0.20	0.10
53-70-3	Dibenzo(a,h)anthracene	0.20	U	0.20	0.10
132-64-9	Dibenzofuran	1.0	U	1.0	0.10
91-94-1	3,3'-Dichlorobenzidine	5.0	U	5.0	0.37
120-83-2	2,4-Dichlorophenol	2.0	U	2.0	0.80
84-66-2	Diethyl phthalate	1.0	U	1.0	0.60
105-67-9	2,4-Dimethylphenol	2.0	U	2.0	0.80
131-11-3	Dimethyl phthalate	1.0	U	1.0	0.29
84-74-2	Di-n-butyl phthalate	1.0	U	1.0	0.67
534-52-1	4,6-Dinitro-2-methylphenol	5.0	U	5.0	2.4

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5773/1-A

Matrix: Water | Lab File ID: MB5773.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/23/2011 08:43

Sample wt/vol: 1000(mL) | Date Analyzed: 07/15/2011 16:39

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	5.0	U	5.0	2.4
121-14-2	2,4-Dinitrotoluene	5.0	U	5.0	0.27
606-20-2	2,6-Dinitrotoluene	5.0	U	5.0	0.80
117-84-0	Di-n-octyl phthalate	1.0	U	1.0	0.80
206-44-0	Fluoranthene	0.20	U	0.20	0.10
86-73-7	Fluorene	0.20	U	0.20	0.10
118-74-1	Hexachlorobenzene	0.20	U	0.20	0.10
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.27
77-47-4	Hexachlorocyclopentadiene	10	U	10	0.80
67-72-1	Hexachloroethane	1.0	U	1.0	0.80
193-39-5	Indeno[1,2,3-cd]pyrene	0.20	U	0.20	0.10
78-59-1	Isophorone	1.0	U	1.0	0.27
91-57-6	2-Methylnaphthalene	0.20	U	0.20	0.10
95-48-7	2-Methylphenol	1.0	U	1.0	0.80
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49
15831-10-4	3 & 4 Methylphenol	2.0	U	2.0	0.75
91-20-3	Naphthalene	0.20	U	0.20	0.10
88-74-4	2-Nitroaniline	2.0	U	2.0	0.80
99-09-2	3-Nitroaniline	2.0	U	2.0	0.28
100-01-6	4-Nitroaniline	2.0	U	2.0	0.80
98-95-3	Nitrobenzene	1.0	U	1.0	0.040
88-75-5	2-Nitrophenol	2.0	U	2.0	0.28
100-02-7	4-Nitrophenol	5.0	U	5.0	2.4
621-64-7	N-Nitrosodi-n-propylamine	1.0	U	1.0	0.80
86-30-6	N-Nitrosodiphenylamine	1.0	U	1.0	0.31
108-60-1	2,2'-oxybis[1-chloropropane]	1.0	U	1.0	0.40
87-86-5	Pentachlorophenol	5.0	U	5.0	2.4
85-01-8	Phenanthrene	0.20	U	0.20	0.10
108-95-2	Phenol	1.0	U	1.0	0.60
129-00-0	Pyrene	0.20	U	0.20	0.10
95-95-4	2,4,5-Trichlorophenol	5.0	U	5.0	0.30
88-06-2	2,4,6-Trichlorophenol	5.0	U	5.0	0.80
62-75-9	N-Nitrosodimethylamine	1.0	U	1.0	0.31

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1342-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-5773/1-A
Matrix: Water
Lab File ID: MB5773.D
Analysis Method: 8270D
Date Collected:
Extract. Method: 3510C
Date Extracted: 06/23/2011 08:43
Sample wt/vol: 1000(mL)
Date Analyzed: 07/15/2011 16:39
Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 8683
Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	64		28-110
367-12-4	2-Fluorophenol (Surr)	71		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		27-111
4165-62-2	Phenol-d5 (Surr)	71		10-110
1718-51-0	Terphenyl-d14 (Surr)	75		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	64		22-120

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP	#	PHL	#	NBZ	#	FBP	#	TBP	#	TPH	#
GSP-SB-WP-54-062111	240-1342-2	75		72		72		62		69		83	
GSP-SB-WP-71-062111	240-1342-3	64		53		71		71		75		77	
	MB 240-5773/1-A	71		71		65		64		64		75	
	LCS 240-5773/2-A	75		78		78		69		75		79	

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	10-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	27-111
FBP = 2-Fluorobiphenyl (Surr)	28-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
TPH = Terphenyl-d14 (Surr)	37-119

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low Lab File ID: LCA5773.D

Lab ID: LCS 240-5773/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Acenaphthene	20.0	14.0	70	40-110	
Acenaphthylene	20.0	14.3	71	43-110	
Acetophenone	20.0	15.3	76	50-130	
Anthracene	20.0	13.8	69	54-114	
Atrazine	20.0	15.7	79	50-130	
Benzaldehyde	20.0	17.0	85	10-130	
Benzo[a]anthracene	20.0	14.2	71	55-115	
Benzo[a]pyrene	20.0	12.5	62	43-116	
Benzo[b]fluoranthene	20.0	14.4	72	43-122	
Benzo[g,h,i]perylene	20.0	15.2	76	45-120	
Benzo[k]fluoranthene	20.0	14.8	74	43-124	
1,1'-Biphenyl	20.0	13.5	68	50-130	
Bis(2-chloroethoxy)methane	20.0	16.0	80	39-110	
Bis(2-chloroethyl)ether	20.0	15.8	79	34-113	
Bis(2-ethylhexyl) phthalate	20.0	13.6	68	36-163	
4-Bromophenyl phenyl ether	20.0	14.5	72	51-114	
Butyl benzyl phthalate	20.0	14.7	73	53-126	
Caprolactam	20.0	15.9	79	50-130	
Carbazole	20.0	14.1	70	53-120	
4-Chloroaniline	20.0	13.8	69	10-110	
4-Chloro-3-methylphenol	20.0	15.2	76	39-110	
2-Chloronaphthalene	20.0	14.2	71	39-110	
2-Chlorophenol	20.0	15.3	76	27-110	
4-Chlorophenyl phenyl ether	20.0	14.4	72	50-115	
Chrysene	20.0	14.2	71	55-115	
Dibenzo(a,h)anthracene	20.0	14.3	72	46-122	
Dibenzofuran	20.0	14.5	73	46-111	
3,3'-Dichlorobenzidine	20.0	8.42	42	19-110	
2,4-Dichlorophenol	20.0	15.6	78	33-110	
Diethyl phthalate	20.0	15.0	75	33-134	
2,4-Dimethylphenol	20.0	12.5	63	12-110	
Dimethyl phthalate	20.0	14.9	74	15-143	
Di-n-butyl phthalate	20.0	15.1	76	55-122	
4,6-Dinitro-2-methylphenol	20.0	14.3	72	28-112	
2,4-Dinitrophenol	20.0	11.8	59	17-112	
2,4-Dinitrotoluene	20.0	16.0	80	52-123	
2,6-Dinitrotoluene	20.0	15.7	79	52-119	
Di-n-octyl phthalate	20.0	13.2	66	44-128	
Fluoranthene	20.0	14.6	73	54-122	
Fluorene	20.0	14.2	71	47-112	
Hexachlorobenzene	20.0	14.2	71	51-112	
Hexachlorobutadiene	20.0	13.8	69	13-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low Lab File ID: LCA5773.D

Lab ID: LCS 240-5773/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Hexachlorocyclopentadiene	20.0	7.58 J	38	10-110	
Hexachloroethane	20.0	14.3	72	12-110	
Indeno[1,2,3-cd]pyrene	20.0	14.6	73	46-121	
Isophorone	20.0	15.0	75	44-128	
2-Methylnaphthalene	20.0	17.2	86	35-110	
2-Methylphenol	20.0	15.2	76	30-110	
1,4-Dioxane	20.0	14.1	71	10-110	
3 & 4 Methylphenol	40.0	30.6	77	32-110	
Naphthalene	20.0	14.6	73	31-110	
2-Nitroaniline	20.0	15.1	75	43-130	
3-Nitroaniline	20.0	14.8	74	45-116	
4-Nitroaniline	20.0	14.8	74	45-120	
Nitrobenzene	20.0	15.7	78	37-115	
2-Nitrophenol	20.0	15.4	77	29-110	
4-Nitrophenol	20.0	16.4	82	12-130	
N-Nitrosodi-n-propylamine	20.0	15.8	79	37-121	
N-Nitrosodiphenylamine	20.0	13.5	68	53-113	
2,2'-oxybis[1-chloropropane]	20.0	16.2	81	25-128	
Pentachlorophenol	20.0	13.6	68	26-110	
Phenanthrene	20.0	14.2	71	52-114	
Phenol	20.0	16.0	80	14-112	
Pyrene	20.0	14.0	70	55-120	
2,4,5-Trichlorophenol	20.0	14.7	74	39-110	
2,4,6-Trichlorophenol	20.0	15.2	76	35-110	
N-Nitrosodimethylamine	20.0	16.1	81	10-130	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Sample No.: STD6 240-8519/10 Date Analyzed: 07/14/2011 10:23

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0714.D Heated Purge: (Y/N) N

Calibration ID: 2328

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		160508	3.95	606881	4.91	335325	6.21
UPPER LIMIT		321016	4.45	1213762	5.41	670650	6.71
LOWER LIMIT		80254	3.45	303441	4.41	167663	5.71
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-8519/11		199012	3.95	756353	4.91	433009	6.21
CCV 240-8683/2 CCVIS		159485	3.87	607840	4.83	350312	6.13
CCV 240-8683/3		175478	3.87	656792	4.83	386466	6.13

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Sample No.: STD6 240-8519/10 Date Analyzed: 07/14/2011 10:23

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0714.D Heated Purge: (Y/N) N

Calibration ID: 2328

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		598446	7.30	627312	9.29	525856	10.75
UPPER LIMIT		1196892	7.80	1254624	9.79	1051712	11.25
LOWER LIMIT		299223	6.80	313656	8.79	262928	10.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-8519/11		773447	7.30	828955	9.28	690267	10.74
CCV 240-8683/2 CCVIS		613815	7.22	636292	9.21	548771	10.62
CCV 240-8683/3		676696	7.22	705093	9.23	600516	10.64

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Sample No.: CCV 240-8683/2 Date Analyzed: 07/15/2011 14:17

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0715.D Heated Purge: (Y/N) N

Calibration ID: 2324

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		159485	3.87	607840	4.83	350312	6.13
UPPER LIMIT		318970	4.37	1215680	5.33	700624	6.63
LOWER LIMIT		79743	3.37	303920	4.33	175156	5.63
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-8683/3		175478	3.87	656792	4.83	386466	6.13
MB 240-5773/1-A		153900	3.87	585660	4.83	338988	6.13
LCS 240-5773/2-A		139057	3.87	540539	4.83	318418	6.13
240-1342-3	GSP-SB-WP-71-062111	154485	3.87	497052	4.83	328641	6.13
240-1342-2	GSP-SB-WP-54-062111	102031	3.87	379240	4.83	219077	6.13

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Sample No.: CCV 240-8683/2 Date Analyzed: 07/15/2011 14:17

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0715.D Heated Purge: (Y/N) N

Calibration ID: 2324

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		613815	7.22	636292	9.21	548771	10.62
UPPER LIMIT		1227630	7.72	1272584	9.71	1097542	11.12
LOWER LIMIT		306908	6.72	318146	8.71	274386	10.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-8683/3		676696	7.22	705093	9.23	600516	10.64
MB 240-5773/1-A		598315	7.21	644692	9.18	551115	10.58
LCS 240-5773/2-A		575765	7.22	595156	9.17	500571	10.57
240-1342-3	GSP-SB-WP-71-062111	636890	7.22	657710	9.18	581609	10.58
240-1342-2	GSP-SB-WP-54-062111	393325	7.21	422380	9.17	352162	10.57

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Instrument ID: YPID Start Date: 06/22/2011 14:07

Analysis Batch Number: 5655 End Date: 06/23/2011 03:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-5655/4 IC		06/22/2011 14:07	1	YF062204.D	RTX-VRX 0.45(mm)
STD2 240-5655/5 IC		06/22/2011 14:47	1	YF062205.D	RTX-VRX 0.45(mm)
STD3 240-5655/6 IC		06/22/2011 15:27	1	YF062206.D	RTX-VRX 0.45(mm)
STD4 240-5655/7 ICRT		06/22/2011 16:07	1	YF062207.D	RTX-VRX 0.45(mm)
STD5 240-5655/8 IC		06/22/2011 16:48	1	YF062208.D	RTX-VRX 0.45(mm)
STD6 240-5655/9 IC		06/22/2011 17:30	1	YF062209.D	RTX-VRX 0.45(mm)
ICV 240-5655/10		06/22/2011 18:11	1	YF062210.D	RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 18:52	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 19:32	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 20:54	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 21:34	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 22:14	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 22:54	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 23:34	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 00:13	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 00:53	1		RTX-VRX 0.45(mm)
CCV 240-5655/21		06/23/2011 01:33	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 02:12	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 02:52	1		RTX-VRX 0.45(mm)
CCV 240-5655/24		06/23/2011 03:32	1		RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Instrument ID: YPID Start Date: 06/28/2011 14:15

Analysis Batch Number: 6402 End Date: 06/29/2011 17:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/28/2011 14:15	1		RTX-VRX 0.45(mm)
CCVRT 240-6402/5		06/28/2011 15:37	1	YF062805.D	RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 16:17	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 16:59	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 17:39	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 18:19	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 18:58	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 19:39	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 20:19	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 20:58	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 21:36	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 22:14	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 22:52	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 23:30	1		RTX-VRX 0.45(mm)
CCV 240-6402/18		06/29/2011 00:08	1	YF062818.D	RTX-VRX 0.45(mm)
MB 240-6402/19		06/29/2011 00:46	1	YF062819.D	RTX-VRX 0.45(mm)
LCS 240-6402/20		06/29/2011 01:24	1	YF062820.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 02:02	1		RTX-VRX 0.45(mm)
240-1267-E-2 MS		06/29/2011 02:40	1	YF062822.D	RTX-VRX 0.45(mm)
240-1267-E-2 MSD		06/29/2011 03:18	1	YF062823.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 03:56	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 04:35	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 05:13	1		RTX-VRX 0.45(mm)
240-1342-2	GSP-SB-WP-54-062111	06/29/2011 05:51	1	YF062827.D	RTX-VRX 0.45(mm)
240-1342-3	GSP-SB-WP-71-062111	06/29/2011 06:29	1	YF062828.D	RTX-VRX 0.45(mm)
CCV 240-6402/29		06/29/2011 07:07	1	YF062829.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 07:45	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 08:24	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 09:02	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 09:40	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 10:19	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 10:58	1		RTX-VRX 0.45(mm)
CCV 240-6402/36		06/29/2011 11:36	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 15:21	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 15:59	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 16:37	1		RTX-VRX 0.45(mm)
CCV 240-6402/40		06/29/2011 17:16	1		RTX-VRX 0.45(mm)

8015B

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
Total Petroleum Hydrocarbons (C6-C10)	11.358	11.358	11.358	11.358	11.358	11.358	4.298 - 18.418	11.358
C6-C12	13.046	13.046	13.046	13.046	13.046	13.046	4.398 - 21.695	13.046
Trifluorotoluene (Surr)	9.254	9.254	9.250	9.249	9.245	9.236	8.998 - 9.498	9.248

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	302470 208450	252295 210278	214454	228347	Ave		236048.859				15.0		20.0			
C6-C12	346250 223395	277091 226126	233001	247805	Ave		258944.938				18.0		20.0			
Trifluorotoluene (Surr)	211649 226938	171207 226738	185123	251863	Ave		212253.083				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6					LVL 6				
Total Petroleum Hydrocarbons (C6-C10)	Ave	30246977	50458917	85781526	182677975	250139408	100	200	400	800	1200
		336444814					1600				
C6-C12	Ave	34625048	55418197	93200583	198243846	268074543	100	200	400	800	1200
		361802314					1600				
Trifluorotoluene (Surr)	Ave	2116493	1712071	1851228	2518632	2269381	10.0	10.0	10.0	10.0	10.0
		2267380					10.0				

Curve Type Legend:
Ave = Average

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: ICV 240-5655/10 Calibration Date: 06/22/2011 18:11

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062210.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	221204		750	800	-6.3	20.0
C6-C12	Ave	258945	242972		751	800	-6.2	20.0
Trifluorotoluene (Surr)	Ave	212253	193830		9.13	10.0	-8.7	20.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: ICV 240-5655/10 Calibration Date: 06/22/2011 18:11

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062210.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Total Petroleum Hydrocarbons (C6-C10)	11.36	4.30	18.42
C6-C12	13.05	4.40	21.70
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCVRT 240-6402/5 Calibration Date: 06/28/2011 15:37

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062805.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	256102		868	800	8.5	15.0
C6-C12	Ave	258945	276136		853	800	6.6	15.0
Trifluorotoluene (Surr)	Ave	212253	262086		12.3	10.0	23.5*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCVRT 240-6402/5 Calibration Date: 06/28/2011 15:37

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062805.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Total Petroleum Hydrocarbons (C6-C10)	11.36	4.30	18.44
C6-C12	13.07	4.40	21.74
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCV 240-6402/18 Calibration Date: 06/29/2011 00:08

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062818.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	250694		850	800	6.2	15.0
C6-C12	Ave	258945	272441		842	800	5.2	15.0
Trifluorotoluene (Surr)	Ave	212253	273225		12.9	10.0	28.7*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCV 240-6402/18 Calibration Date: 06/29/2011 00:08

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062818.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Total Petroleum Hydrocarbons (C6-C10)	11.36	4.30	18.44
C6-C12	13.07	4.40	21.74
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCV 240-6402/29 Calibration Date: 06/29/2011 07:07

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062829.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	256472		869	800	8.7	15.0
C6-C12	Ave	258945	274665		849	800	6.1	15.0
Trifluorotoluene (Surr)	Ave	212253	258853		12.2	10.0	22.0*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCV 240-6402/29 Calibration Date: 06/29/2011 07:07

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062829.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Total Petroleum Hydrocarbons (C6-C10)	11.34	4.30	18.44
C6-C12	13.07	4.40	21.74
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: MB 240-6402/19

Matrix: Water Date Extracted: 06/29/2011 00:46

Lab File ID:(1) YF062819.D Lab File ID:(2)

Date Analyzed:(1) 06/29/2011 00:46 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-6402/20	06/29/2011 01:24	
	240-1267-E-2 MS	06/29/2011 02:40	
	240-1267-E-2 MSD	06/29/2011 03:18	
GSP-SB-WP-54-062111	240-1342-2	06/29/2011 05:51	
GSP-SB-WP-71-062111	240-1342-3	06/29/2011 06:29	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1342-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-6402/19
Matrix: Water
Lab File ID: YF062819.D
Analysis Method: 8015B
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 06/29/2011 00:46
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 6402
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	37.9	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	110		10-150

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1	#
GSP-SB-WP-54-06211 1	240-1342-2	90	
GSP-SB-WP-71-06211 1	240-1342-3	108	
	MB 240-6402/19	110	
	LCS 240-6402/20	128	
	240-1267-E-2 MS	125	
	240-1267-E-2 MSD	132	

	QC LIMITS
TFT = Trifluorotoluene (Surr)	10-150

Column to be used to flag recovery values

FORM II 8015B

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF062820.D

Lab ID: LCS 240-6402/20 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	936	117	72-140	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF062822.D

Lab ID: 240-1267-E-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	51 J	948	112	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF062823.D

Lab ID: 240-1267-E-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	954	113	1	20	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Sample No.: CCVRT 240-6402/5 Date Analyzed: 06/28/2011 15:37

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF062805.D Heated Purge: (Y/N) N

Calibration ID: 1594

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #
CONTINUING CALIBRATION SURROGATE				9.25
UPPER LIMIT				9.35
LOWER LIMIT				9.15
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID	
CCVRT 240-6402/5		06/28/2011 15:37	YF062805.D	9.25
CCV 240-6402/18		06/29/2011 00:08	YF062818.D	9.25
MB 240-6402/19		06/29/2011 00:46	YF062819.D	9.26
LCS 240-6402/20		06/29/2011 01:24	YF062820.D	9.25
240-1267-E-2 MS		06/29/2011 02:40	YF062822.D	9.25
240-1267-E-2 MSD		06/29/2011 03:18	YF062823.D	9.26
240-1342-2	GSP-SB-WP-54-062111	06/29/2011 05:51	YF062827.D	9.26
240-1342-3	GSP-SB-WP-71-062111	06/29/2011 06:29	YF062828.D	9.26
CCV 240-6402/29		06/29/2011 07:07	YF062829.D	9.25

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Instrument ID: A2HP14F Start Date: 05/19/2011 12:01

Analysis Batch Number: 2166 End Date: 05/19/2011 14:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-2166/4 IC		05/19/2011 12:01	1	P14F0000004.D	RTX-5 0.53(mm)
STD2 240-2166/5 IC		05/19/2011 12:25	1	P14F0000005.D	RTX-5 0.53(mm)
STD3 240-2166/6 IC		05/19/2011 12:49	1	P14F0000006.D	RTX-5 0.53(mm)
STD4 240-2166/7 IC		05/19/2011 13:14	1	P14F0000007.D	RTX-5 0.53(mm)
STD5 240-2166/8 IC		05/19/2011 13:38	1	P14F0000008.D	RTX-5 0.53(mm)
ICV 240-2166/9		05/19/2011 14:02	1	P14F0000009.D	RTX-5 0.53(mm)

8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Instrument ID: A2HP14F Start Date: 06/24/2011 14:58

Analysis Batch Number: 6024 End Date: 06/24/2011 21:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-6024/4		06/24/2011 14:58	1	P14F0000004.D	RTX-5 0.53(mm)
ZZZZZ		06/24/2011 15:22	5		RTX-5 0.53(mm)
RINSE 240-6024/6		06/24/2011 15:47	1		RTX-5 0.53(mm)
CCV 240-6024/7		06/24/2011 16:11	1	P14F0000007.D	RTX-5 0.53(mm)
240-1342-3	GSP-SB-WP-71-062111	06/24/2011 16:36	1	P14F0000008.D	RTX-5 0.53(mm)
240-1342-2	GSP-SB-WP-54-062111	06/24/2011 17:00	1	P14F0000009.D	RTX-5 0.53(mm)
MB 240-5811/1-A		06/24/2011 17:25	1	P14F0000010.D	RTX-5 0.53(mm)
LCS 240-5811/2-A		06/24/2011 17:49	1	P14F0000011.D	RTX-5 0.53(mm)
CCVRT 240-6024/12		06/24/2011 18:13	1	P14F0000012.D	RTX-5 0.53(mm)
ZZZZZ		06/24/2011 18:38	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 19:02	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 19:26	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 19:51	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 20:15	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 20:39	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 21:03	1		RTX-5 0.53(mm)
ZZZZZ		06/24/2011 21:27	1		RTX-5 0.53(mm)
CCV 240-6024/21		06/24/2011 21:51	1		RTX-5 0.53(mm)

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 2166

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2166/4	P14F0000004.D
Level 2	STD2 240-2166/5	P14F0000005.D
Level 3	STD3 240-2166/6	P14F0000006.D
Level 4	STD4 240-2166/7	P14F0000007.D
Level 5	STD5 240-2166/8	P14F0000008.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT WINDOW	AVG RT
Diesel	8.122	8.122	8.122	8.122	8.122	3.590 - 12.654	8.122
n-Nonane	1.752	1.753	1.757	1.755	1.757	1.702 - 1.802	1.755

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 2166

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2166/4	P14F0000004.D
Level 2	STD2 240-2166/5	P14F0000005.D
Level 3	STD3 240-2166/6	P14F0000006.D
Level 4	STD4 240-2166/7	P14F0000007.D
Level 5	STD5 240-2166/8	P14F0000008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	705763 336646	515461	435657	351683	Lin	44348394.0	314402.704							0.9980		0.9900
n-Nonane	413140 382989	431927	436350	381033	Ave		409087.891				6.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 2166

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2166/4	P14F0000004.D
Level 2	STD2 240-2166/5	P14F0000005.D
Level 3	STD3 240-2166/6	P14F0000006.D
Level 4	STD4 240-2166/7	P14F0000007.D
Level 5	STD5 240-2166/8	P14F0000008.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel	Lin	70576281	103092243	217828353	351682761	673292607	100	200	500	1000	2000
n-Nonane	Ave	4131403	8638546	21817505	38103250	76597851	10.0	20.0	50.0	100	200

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: ICV 240-2166/9 Calibration Date: 05/19/2011 14:02

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		411800		514	500	2.8	20.0

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: ICV 240-2166/9 Calibration Date: 05/19/2011 14:02

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000009.D

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Diesel	8.12	3.59	12.65

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCVRT 240-6024/4 Calibration Date: 06/24/2011 14:58

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		416943		522	500	4.4	15.0
n-Nonane	Ave	409088	411397		50.3	50.0	0.6	15.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCVRT 240-6024/4 Calibration Date: 06/24/2011 14:58

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000004.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.10	3.56	12.64
n-Nonane	1.73	1.68	1.78

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCV 240-6024/7 Calibration Date: 06/24/2011 16:11

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000007.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		412934		516	500	3.1	15.0
n-Nonane	Ave	409088	418490		51.1	50.0	2.3	15.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCV 240-6024/7 Calibration Date: 06/24/2011 16:11

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000007.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.10	3.56	12.64
n-Nonane	1.73	1.68	1.78

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCVRT 240-6024/12 Calibration Date: 06/24/2011 18:13

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000012.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		425639		536	500	7.2	15.0
n-Nonane	Ave	409088	416429		50.9	50.0	1.8	15.0

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: CCVRT 240-6024/12 Calibration Date: 06/24/2011 18:13

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000012.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.10	3.56	12.64
n-Nonane	1.74	1.68	1.78

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Lab Sample ID: MB 240-5811/1-A

Matrix: Water Date Extracted: 06/23/2011 10:12

Lab File ID:(1) P14F0000010.D Lab File ID:(2)

Date Analyzed:(1) 06/24/2011 17:25 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-SB-WP-71-062111	240-1342-3	06/24/2011 16:36	
GSP-SB-WP-54-062111	240-1342-2	06/24/2011 17:00	
	LCS 240-5811/2-A	06/24/2011 17:49	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1342-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-5811/1-A
Matrix: Water
Lab File ID: P14F0000010.D
Analysis Method: 8015B
Date Collected:
Extraction Method: 3520C
Date Extracted: 06/23/2011 10:12
Sample wt/vol: 1000(mL)
Date Analyzed: 06/24/2011 17:25
Con. Extract Vol.: 5.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: RTX-5 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 6024
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	479	J	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	66		10-110

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	C91	#
GSP-SB-WP-54-062111	240-1342-2	56	
GSP-SB-WP-71-062111	240-1342-3	62	
	MB 240-5811/1-A	66	
	LCS 240-5811/2-A	65	

	QC LIMITS
C9 = n-Nonane	10-110

Column to be used to flag recovery values

FORM II 8015B

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F0000011.D

Lab ID: LCS 240-5811/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	2650	106	36-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-1342-1

SDG No.:

Sample No.: CCVRT 240-6024/4 Date Analyzed: 06/24/2011 14:58

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P14F0000004.D Heated Purge: (Y/N) N

Calibration ID: 1051

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9 RT #
CONTINUING CALIBRATION SURROGATE				1.73
UPPER LIMIT				1.83
LOWER LIMIT				1.63
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID	
CCVRT 240-6024/4		06/24/2011 14:58	P14F0000004.D	1.73
CCV 240-6024/7		06/24/2011 16:11	P14F0000007.D	1.73
240-1342-3	GSP-SB-WP-71-062111	06/24/2011 16:36	P14F0000008.D	1.73
240-1342-2	GSP-SB-WP-54-062111	06/24/2011 17:00	P14F0000009.D	1.73
MB 240-5811/1-A		06/24/2011 17:25	P14F0000010.D	1.73
LCS 240-5811/2-A		06/24/2011 17:49	P14F0000011.D	1.73

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

COVER PAGE
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1342-1

SDG No.:

Project: MSA Greater Strawberry Point PH. II 2011

Client Sample ID	Lab Sample ID
GSP-SB-WP-54-062111	240-1342-2
GSP-SB-WP-71-062111	240-1342-3

Comments:

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

Instrument ID: METICPMS2 Method: 6020

Start Date: 07/16/2011 00:11 End Date: 07/16/2011 12:46

Lab Sample ID	D/F	Type	Time	Analytes: Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn
ITUNE 200-21675/1			00:11																	
STD0 200-21675/2 IC	1		00:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STDLL2 200-21675/3 IC	1		00:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD1 200-21675/4 IC	1		00:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD2 200-21675/5 IC	1		00:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD3 200-21675/6 IC	1		00:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 200-21675/7	1		00:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICBIS 200-21675/8	1		01:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSA 200-21675/9	1		01:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 200-21675/10	1		01:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-21675/11	1		01:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/12	1		01:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-21675/13	1		09:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/14	1		09:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MB 200-20966/1-A	1	T	09:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 200-20966/2-A	1	T	09:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			09:36																	
ZZZZZZ			09:43																	
ZZZZZZ			09:50																	
ZZZZZZ			09:56																	
ZZZZZZ			10:03																	
ZZZZZZ			10:10																	
ZZZZZZ			10:17																	
ZZZZZZ			10:23																	
CCV 200-21675/25	1		10:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/26	1		10:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			10:44																	
240-1342-2	1	T	10:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1342-3	1	T	10:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1342-3 SD	5	T	11:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			11:11																	
ZZZZZZ			11:18																	
ZZZZZZ			11:25																	
ZZZZZZ			11:31																	
ZZZZZZ			11:38																	
ZZZZZZ			11:45																	
ZZZZZZ			11:51																	
CCV 200-21675/38	1		11:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/39	1		12:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			12:12																	
240-1342-2	1	D	12:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1342-3	1	D	12:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

Instrument ID: METICPMS2 Method: 6020

Start Date: 07/16/2011 00:11 End Date: 07/16/2011 12:46

Lab Sample ID	D/F	Type	Time	Analytes																
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn
240-1342-3 SD	5	D	12:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-21675/44	1		12:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-21675/45	1		12:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Prep Types

D = Dissolved

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

Instrument ID: MEPCV3 II Method: 7470A

Start Date: 07/08/2011 12:41 End Date: 07/08/2011 13:48

Lab Sample ID	D/F	Type	Time	Analytes: Hg
IC 200-20991/1-A			12:41	X
IC 200-20991/2-A			12:43	X
IC 200-20991/3-A			12:45	X
IC 200-20991/4-A			12:47	X
IC 200-20991/5-A			12:49	X
IC 200-20991/6-A			12:51	X
ICV 200-20991/7-A	1		12:54	X
ICB 200-20991/8-A	1		12:56	X
CCV 200-20991/9-A	1		12:58	X
CCB 200-20991/10-A	1		13:00	X
MB 200-20991/11-A	1	T	13:02	X
LCS 200-20991/12-A	1	T	13:04	X
ZZZZZZ			13:06	
ZZZZZZ			13:08	
ZZZZZZ			13:10	
ZZZZZZ			13:12	
ZZZZZZ			13:14	
ZZZZZZ			13:16	
ZZZZZZ			13:19	
CCV 200-20991/9-A	1		13:22	X
CCB 200-20991/10-A	1		13:23	X
ZZZZZZ			13:25	
ZZZZZZ			13:28	
ZZZZZZ			13:30	
ZZZZZZ			13:32	
ZZZZZZ			13:35	
240-1342-2	1	T	13:37	X
240-1342-2	1	D	13:39	X
240-1342-3	1	T	13:41	X
240-1342-3	1	D	13:43	X
CCV 200-20991/9-A	1		13:46	X
CCB 200-20991/10-A	1		13:48	X

Prep Types
D = Dissolved
T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	ICV 200-21675/7 07/16/2011 00:59				CCV 200-21675/11 07/16/2011 01:37				CCV 200-21675/13 07/16/2011 09:08			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	45.5		50.0	91	20.2		20.0	101	20.0		20.0	100
Arsenic	25.6		25.0	102	9.88		10.0	99	9.55		10.0	95
Barium	1300		1250	104	254		250	101	253		250	101
Beryllium	26.9		25.0	108	9.81		10.0	98	10.6		10.0	106
Cadmium	25.5		25.0	102	10.1		10.0	101	10.0		10.0	100
Chromium	51.1		50.0	102	20.0		20.0	100	20.0		20.0	100
Cobalt	126		125	101	49.7		50.0	99	48.9		50.0	98
Copper	51.8		50.0	104	20.5		20.0	103	20.3		20.0	101
Lead	24.5		25.0	98	9.77		10.0	98	9.77		10.0	98
Molybdenum	262		250	105	101		100	101	98.8		100	99
Nickel	50.9		50.0	102	20.4		20.0	102	20.0		20.0	100
Selenium	26.4		25.0	106	9.88		10.0	99	9.61		10.0	96
Silver	25.2		25.0	101	9.98		10.0	100	9.94		10.0	99
Thallium	24.3		25.0	97	9.60		10.0	96	9.62		10.0	96
Tungsten	25.2		25.0	101	9.97	J	10.0	100	9.95	J	10.0	99
Vanadium	50.9		50.0	102	19.7	J	20.0	99	19.2	J	20.0	96
Zinc	51.9		50.0	104	20.8		20.0	104	20.6		20.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	CCV 200-21675/25 07/16/2011 10:30				CCV 200-21675/38 07/16/2011 11:58				CCV 200-21675/44 07/16/2011 12:39			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	19.9		20.0	100	19.9		20.0	99	19.9		20.0	99
Arsenic	9.71		10.0	97	9.78		10.0	98	9.96		10.0	100
Barium	252		250	101	251		250	100	249		250	100
Beryllium	10.6		10.0	106	10.2		10.0	102	10.7		10.0	107
Cadmium	10.1		10.0	101	10.2		10.0	102	10.1		10.0	101
Chromium	19.8		20.0	99	20.0		20.0	100	20.0		20.0	100
Cobalt	49.0		50.0	98	48.8		50.0	98	49.0		50.0	98
Copper	20.4		20.0	102	20.3		20.0	101	20.2		20.0	101
Lead	9.70		10.0	97	9.73		10.0	97	9.74		10.0	97
Molybdenum	98.6		100	99	98.7		100	99	99.1		100	99
Nickel	20.1		20.0	101	20.1		20.0	100	20.4		20.0	102
Selenium	9.43		10.0	94	9.57		10.0	96	9.92		10.0	99
Silver	9.98		10.0	100	9.91		10.0	99	10.1		10.0	101
Thallium	9.57		10.0	96	9.51		10.0	95	9.53		10.0	95
Tungsten	9.82	J	10.0	98	9.79	J	10.0	98	9.65	J	10.0	96
Vanadium	19.6	J	20.0	98	19.8	J	20.0	99	19.5	J	20.0	98
Zinc	20.7		20.0	104	20.6		20.0	103	20.7		20.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

ICV Source: MEHGICVw_00010 Concentration Units: ug/L

CCV Source: MEHGCCVw_00282

	ICV 200-20991/7-A 07/08/2011 12:54				CCV 200-20991/9-A 07/08/2011 12:58				CCV 200-20991/9-A 07/08/2011 13:22			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.83		3.00	94	5.14		5.00	103	5.29		5.00	106

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

ICV Source: MEHGICVw_00010 Concentration Units: ug/L

CCV Source: MEHGCCVw_00282

CCV 200-20991/9-A
07/08/2011 13:46

Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.34		5.00	107								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

Concentration Units: ug/L

		ICBIS 200-21675/8 07/16/2011 01:09		CCB 200-21675/12 07/16/2011 01:47		CCB 200-21675/14 07/16/2011 09:15		CCB 200-21675/26 07/16/2011 10:37	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.343	J	0.131	J	0.108	J	0.113	J
Arsenic	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Chromium	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Cobalt	1.0	0.200	J	0.201	J	0.236	J	0.228	J
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	0.161	J	0.160	J	0.165	J	0.166	J
Molybdenum	2.0	0.475	J	0.619	J	2.0	U	2.0	U
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.225	J	0.228	J	0.233	J	0.230	J
Tungsten	10	0.338	J	10	U	0.185	J	10	U
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

Concentration Units: ug/L

		CCB 200-21675/39 07/16/2011 12:05		CCB 200-21675/45 07/16/2011 12:46					
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.121	J	0.113	J				
Arsenic	5.0	5.0	U	5.0	U				
Barium	5.0	5.0	U	5.0	U				
Beryllium	1.0	1.0	U	1.0	U				
Cadmium	1.0	1.0	U	1.0	U				
Chromium	2.0	2.0	U	2.0	U				
Cobalt	1.0	0.243	J	0.241	J				
Copper	2.0	2.0	U	2.0	U				
Lead	1.0	0.169	J	0.166	J				
Molybdenum	2.0	2.0	U	2.0	U				
Nickel	2.0	2.0	U	2.0	U				
Selenium	5.0	5.0	U	5.0	U				
Silver	1.0	1.0	U	1.0	U				
Thallium	2.0	0.229	J	0.230	J				
Tungsten	10	10	U	10	U				
Vanadium	20	20	U	20	U				
Zinc	20	20	U	20	U				

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 200-20991/8-A 07/08/2011 12:56 Found	C	CCB 200-20991/10-A 07/08/2011 13:00 Found	C	CCB 200-20991/10-A 07/08/2011 13:23 Found	C	CCB 200-20991/10-A 07/08/2011 13:48 Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 200-20966/1-A

Instrument Code: METICPMS2 Batch No.: 21675

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	0.0910	J		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	5.0	U		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	0.281	J		6020
7440-48-4	Cobalt	0.192	J		6020
7440-50-8	Copper	2.0	U		6020
7439-92-1	Lead	0.176	J		6020
7439-98-7	Molybdenum	2.0	U		6020
7440-02-0	Nickel	2.0	U		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	0.225	J		6020
7440-33-7	Tungsten	0.172	J		6020
7440-62-2	Vanadium	20	U		6020
7440-66-6	Zinc	0.851	J		6020

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 200-20991/11-A

Instrument Code: MEPCV3 II Batch No.: 21100

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

Lab Sample ID: ICSA 200-21675/9 Instrument ID: METICPMS2

Lab File ID: 071511-04B.xml ICS Source: MEMSICSAW_00022

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.487**	
Arsenic		**0.358**	
Barium		**0.160**	
Beryllium		**-0.187**	
Cadmium		**0.568**	
Chromium		**0.644**	
Cobalt		**0.302**	
Copper		**0.786**	
Lead		**0.293**	
Molybdenum	**2000**	**2331**	**117**
Nickel		**-1.18**	
Selenium		**-0.241**	
Silver		**0.0360**	
Thallium		**0.236**	
Tungsten		**0.363**	
Vanadium		**-0.205**	
Zinc		**-2.14**	
Aluminum	*100000*	*99390*	*99*
Boron		*4.67*	
Calcium	*100000*	*105167*	*105*
Iron	*100000*	*101100*	*101*
Magnesium	*100000*	*106400*	*106*
Manganese		*0.188*	
Potassium	*100000*	*107367*	*107*
Sodium	*100000*	*105100*	*105*
Th		*0.371*	
U		*0.276*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

Lab Sample ID: ICSAB 200-21675/10 Instrument ID: METICPMS2

Lab File ID: 071511-04B.xml ICS Source: MEMSABw_00026

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	100	96.5	97
Arsenic	20.0	18.8	94
Barium	500	517	103
Beryllium	20.0	18.5	92
Cadmium	20.0	19.3	96
Chromium	40.0	39.9	100
Cobalt	50.0	46.4	93
Copper	100	89.5	89
Lead	20.0	20.5	103
Molybdenum	2000	2295	115
Nickel	100	90.7	91
Selenium	20.0	18.2	91
Silver	20.0	17.7	88
Thallium	20.0	20.0	100
Tungsten	20.0	21.3	106
Vanadium	40.0	38.6	96
Zinc	100	88.5	89
Aluminum	*100000*	*97913*	*98*
Boron	*200*	*203*	*102*
Calcium	*100000*	*105067*	*105*
Iron	*100000*	*101300*	*101*
Magnesium	*100000*	*107700*	*108*
Manganese	*40.0*	*40.4*	*101*
Potassium	*100000*	*109733*	*110*
Sodium	*100000*	*106767*	*107*
Th	*20.0*	*20.8*	*104*
U	*20.0*	*22.0*	*110*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-20966/2-A

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

Sample Matrix: Water LCS Source: MEICPMSICVi_00018

Water(ug/L)

Analyte	True	Found	C	%R	Limits		Q	Method
Antimony	50.0	50.2		100	80	120		6020
Arsenic	25.0	23.9		96	80	120		6020
Barium	1250	1410		113	80	120		6020
Beryllium	25.0	25.7		103	80	120		6020
Cadmium	25.0	25.2		101	80	120		6020
Chromium	50.0	54.1		108	80	120		6020
Cobalt	125	133		106	80	120		6020
Copper	50.0	53.1		106	80	120		6020
Lead	25.0	26.5		106	80	120		6020
Molybdenum	250	286		115	80	120		6020
Nickel	50.0	52.7		105	80	120		6020
Selenium	25.0	21.4		86	80	120		6020
Silver	25.0	26.1		105	80	120		6020
Thallium	25.0	25.6		102	80	120		6020
Tungsten	25.0	25.8		103	80	120		6020
Vanadium	50.0	52.5		105	80	120		6020
Zinc	50.0	48.6		97	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-20991/12-A

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

Sample Matrix: Water LCS Source: MEHGCCVw_00282

Water(ug/L)

Analyte	True	Found	C	%R	Limits		Q	Method
Mercury	1.00	1.08		108	85	115		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 240-1342-3

SDG No:

Lab Name: TestAmerica Burlington Job No: 240-1342-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.36	J	0.800	J	NC		6020
Arsenic	9.7		11.8	J	22	V	6020
Barium	68		74.0		9.0		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	0.076	J	5.0	U	NC		6020
Chromium	5.9		6.45	J	9.7		6020
Cobalt	11		13.2		22	V	6020
Copper	7.0		7.52	J	NC		6020
Lead	0.98	J	1.70	J	NC		6020
Molybdenum	1.5	J	10	U	NC		6020
Nickel	2.0		10	U	NC		6020
Selenium	5.0	U	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.23	J	1.12	J	NC		6020
Tungsten	10	U	50	U	NC		6020
Vanadium	11	J	12.2	J	NC		6020
Zinc	12	J	23.2	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-1342-3

SDG No:

Lab Name: TestAmerica Burlington Job No: 240-1342-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.28	J	0.720	J	NC		6020
Arsenic	9.1		11.4	J	25	V	6020
Barium	68		74.3		9.3		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	0.055	J	5.0	U	NC		6020
Chromium	2.7		2.91	J	NC		6020
Cobalt	13		15.0		19	V	6020
Copper	0.47	J	10	U	NC		6020
Lead	0.25	J	0.915	J	NC		6020
Molybdenum	1.6	J	10	U	NC		6020
Nickel	2.1		10	U	NC		6020
Selenium	5.0	U	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.23	J	1.11	J	NC		6020
Tungsten	10	U	50	U	NC		6020
Vanadium	4.9	J	5.88	J	NC		6020
Zinc	7.6	J	17.3	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1342-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 MDL Date: 08/06/2010 10:09

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.014
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1342-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 XMDL Date: 08/06/2010 10:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.14
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1342-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 MDL Date: 08/06/2010 10:09

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.014
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1342-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 XMDL Date: 08/06/2010 10:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.14
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1342-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A MDL Date: 05/05/2011 17:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury		0.2	0.066

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1342-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A XMDL Date: 05/05/2011 17:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.066

FORM IX - IN

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1342-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A MDL Date: 05/05/2011 17:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury		0.2	0.066

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1342-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A XMDL Date: 05/05/2011 17:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.066

FORM IX - IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 240-1342-1

SDG No.:

Instrument ID: METICPMS2 Date: 05/07/2011 00:00

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Antimony		500	6020
Arsenic		500	6020
Barium		12500	6020
Beryllium		500	6020
Cadmium		500	6020
Chromium		1000	6020
Cobalt		2500	6020
Copper		1000	6020
Lead		100	6020
Molybdenum		5000	6020
Nickel		1000	6020
Selenium		500	6020
Silver		500	6020
Thallium		500	6020
Tungsten		500	6020
Vanadium		1000	6020
Zinc		500	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 240-1342-1

SDG No.:

Instrument ID: MEPCV3 II Date: 01/01/2011 09:52

Analyte	Integ. Time (Sec.)	Concentration (ug/L)		Method
Mercury	10		10	7470A

FORM XI - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-20966/1-A	07/07/2011 09:34	20966		100	100
LCS 200-20966/2-A	07/07/2011 09:34	20966		100	100
240-1342-2	07/07/2011 09:34	20966		100	100
240-1342-3	07/07/2011 09:34	20966		100	100
240-1342-2	07/07/2011 09:34	20966		100	100
240-1342-3	07/07/2011 09:34	20966		100	100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-20991/11-A	07/07/2011 11:15	20991		50	50
LCS 200-20991/12-A	07/07/2011 11:15	20991		50	50
240-1342-2	07/07/2011 11:15	20991		50	50
240-1342-2	07/07/2011 11:15	20991		50	50
240-1342-3	07/07/2011 11:15	20991		50	50
240-1342-3	07/07/2011 11:15	20991		50	50

FORM XII-IN

14-IN
ICP-MS TUNE
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Analysis Date: 07/16/11

Lab ID: ITUNE 200-21675/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Li-6	6.0051	0.82	1.986	
Be-9	8.9422	0.82	1.206	
Mg-24	23.965	0.82	1.466	
Mg-25	24.9758	0.81	2.437	
Mg-26	25.9826	0.81	0.650	
Al-27	26.9815	0.80	0.260	
Sc-45	44.9659	0.80	0.660	
V-51	50.944	0.80	1.020	
Co-59	58.9232	0.81	0.443	
Y-89	88.8959	0.81	0.257	
In-113	112.9041	0.81	1.500	
In-115	114.9039	0.81	0.233	
Ba-137	136.8958	0.83	1.047	
Ce-140	139.8954	0.84	0.208	
Tb-159	158.9154	0.84	0.293	
Pb-206	205.9845	0.85	0.271	
Pb-207	206.9759	0.85	0.491	
Pb-208	207.9766	0.85	0.523	
Th-232	232.0681	0.84	0.471	
U-238	238.0708	0.85	0.638	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 07/16/2011 End Date: 07/16/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element In-115	Q	Element Tb-159	Q
STD0 200-21675/2 IC	00:21	100		100		100		100		100	
STDLL2 200-21675/3	00:28	102		99		99		99		99	
STD1 200-21675/4 IC	00:35	99		101		101		101		100	
STD2 200-21675/5 IC	00:41	98		102		102		101		100	
STD3 200-21675/6 IC	00:49	102		100		99		97		98	
ICV 200-21675/7	00:59	98		101		100		99		99	
ICBIS 200-21675/8	01:09	97		97		97		97		96	
ICSA 200-21675/9	01:15	90		93		90		90		91	
ICSAB 200-21675/10	01:26	85		90		90		91		93	
CCV 200-21675/11	01:37	96		99		102		102		103	
CCB 200-21675/12	01:47	95		97		100		101		101	
CCV 200-21675/13	09:08	99		104		106		106		107	
CCB 200-21675/14	09:15	100		101		103		103		103	
MB 200-20966/1-A	09:21	100		105		105		103		103	
LCS 200-20966/2-A	09:28	103		105		103		100		102	
CCV 200-21675/25	10:30	97		100		101		101		101	
CCB 200-21675/26	10:37	97		97		97		97		97	
240-1342-2	10:51	103		106		106		102		102	
240-1342-3	10:58	90		89		94		88		93	
240-1342-3 SD	11:04	95		93		96		94		96	
CCV 200-21675/38	11:58	102		99		100		100		102	
CCB 200-21675/39	12:05	97		97		98		97		99	
240-1342-2	12:19	105		108		107		103		104	
240-1342-3	12:26	89		88		93		88		93	
240-1342-3 SD	12:32	93		95		97		96		99	
CCV 200-21675/44	12:39	95		100		99		97		97	
CCB 200-21675/45	12:46	100		94		93		92		91	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 07/16/2011 End Date: 07/16/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Bi-209	Q	Element	Q	Element	Q	Element	Q	Element	Q
STD0 200-21675/2 IC	00:21	100									
STDLL2 200-21675/3	00:28	99									
STD1 200-21675/4 IC	00:35	99									
STD2 200-21675/5 IC	00:41	98									
STD3 200-21675/6 IC	00:49	91									
ICV 200-21675/7	00:59	94									
ICBIS 200-21675/8	01:09	95									
ICSA 200-21675/9	01:15	80									
ICSAB 200-21675/10	01:26	81									
CCV 200-21675/11	01:37	101									
CCB 200-21675/12	01:47	100									
CCV 200-21675/13	09:08	103									
CCB 200-21675/14	09:15	101									
MB 200-20966/1-A	09:21	98									
LCS 200-20966/2-A	09:28	92									
CCV 200-21675/25	10:30	98									
CCB 200-21675/26	10:37	95									
240-1342-2	10:51	92									
240-1342-3	10:58	84									
240-1342-3 SD	11:04	93									
CCV 200-21675/38	11:58	99									
CCB 200-21675/39	12:05	97									
240-1342-2	12:19	96									
240-1342-3	12:26	86									
240-1342-3 SD	12:32	97									
CCV 200-21675/44	12:39	92									
CCB 200-21675/45	12:46	86									

Case Narrative

TestAmerica West Sacramento Project Number G1F210484E

General Comments
Samples 15 & 16 were received by the laboratory at 25 degrees C. Wet ice was used as the cooling agent.

WATER, 314.0, Perchlorate
Sample(s): 15, 16
A mid continuing calibration blank had a positive result of 0.623 ug/L. Since the associated sample results were all non-detect, no corrective action was performed.

There were no other anomalies associated with this project.

Sample Summary

TestAmerica West Sacramento Project Number G1F210484E

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
MKK78	15	GSP-SB-WP-54-062111	6/21/2011 11:30 AM	6/27/2011 09:00 AM
MKK79	16	GSP-SB-WP-71-062111	6/21/2011 02:20 PM	6/27/2011 09:00 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

ANALYTICAL METHODS SUMMARY

G1F210484

PARAMETER	ANALYTICAL METHOD
Perchlorate	MCAWW 314.0

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		Work Order #: MKTP71AA		MB Lot-Sample #:	G1G110000-193	
	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G1F210484 Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		Work Order #: MKTP71AC	LCS Lot-Sample#: G1G110000-193		
	98	(85 - 115)	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G1F210484 Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate			Work Order #: MKTP71AC		LCS Lot-Sample#: G1G110000-193		
	50.0	49.2	ug/L	98	MCAWW 314.0	07/11/11	1192193
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G1F210484 Matrix.....: WATER
Date Sampled...: 06/17/11 Date Received..: 06/21/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		WO#: MKEG31AC-MS/MKEG31AD-MSD				MS Lot-Sample #: G1F210484-001	
	104	(80 - 120)			MCAWW 314.0	07/11/11	1192193
	104	(80 - 120)	0.11	(0-20)	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G1F210484 Matrix.....: WATER
Date Sampled...: 06/17/11 Date Received..: 06/21/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate			WO#: MKEG31AC-MS/MKEG31AD-MSD				MS Lot-Sample #: G1F210484-001		
	ND	50.0	52.1	ug/L	104		MCAWW 314.0	07/11/11	1192193
	ND	50.0	52.1	ug/L	104	0.11	MCAWW 314.0	07/11/11	1192193
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE _____ OF _____

CLIENT	JOB NUMBER
MSA Greater Strawberry Point	SDG 240-1342-1
SUBJECT: Sample Calculations	
BASED ON	DRAWING NUMBER
BY: Ann Cognetti / CHECKED BY	APPROVED BY / DATE: August 24, 2011

I. VOC; Sample GSP-SB-WP-54-062111; (acetone)

$$\frac{33737}{1181917} * 1 * \frac{10^{ug/L}}{0.1009} = 2.8\ ug/L$$

II. SVOC; Sample GSP-SB-WP-062111; di-n-Butyl Phthalate

$$\frac{53942}{393325} * \frac{2mL}{1050mL} * \frac{4mg/kg}{1.4325} * 1000 = 0.73\ ug/L$$

III. GRO; Sample GSP-SB-WP-54-062111;

$$\frac{8389007}{236048.859} = 35.5\ ug/L$$

Sample Calculation

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-54-062111 | Lab Sample ID: 240-1342-2

Matrix: Water | Lab File ID: UXM7335.D

Analysis Method: 8260B | Date Collected: 06/21/2011 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 16:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	2.8	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

Sample Calculation

Report Date: 30-Jun-2011 17:14:07 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX16\20110629-1489.b\UXM7335.D		
Lims ID:	240-1342-C-2	Client ID:	GSP-SB-WP-54-062111
Inject. Date:	29-Jun-2011 16:52:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0001489-013		
Misc. Info.:	M10629A,8260LLUX16,,1644		
Operator:	1644	Instrument ID:	A3UX16
Vol. Injected:	1.0000	ALS Bottle#:	12
Lims Batch ID:	6573	Lims Sample ID:	13
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX16\20110629-1489.b\8260_16.m		
Last Update:	30-Jun-2011 16:34:29	Calib Date:	29-May-2011 17:06:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A3UX16\20110529-720.b\UXM6511.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-15		

First Level Reviewer: williamsla Date: 30-Jun-2011 12:12:15

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.716	5.716	0.0	98	1181917	10.0	
* 2 Chlorobenzene-d5	117	8.408	8.408	0.0	86	850984	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.649	10.649	0.0	96	382236	10.0	
$ 5 Dibromofluoromethane (Surr)	113	5.135	5.135	0.0	57	259548	8.46	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	5.431	5.431	0.0	0	349677	9.28	
$ 7 Toluene-d8 (Surr)	98	7.091	7.091	0.0	93	1217898	11.0	
$ 131 4-Bromofluorobenzene (Surr)	95	9.522	9.522	0.0	81	411870	8.98	
12 Dichlorodifluoromethane	85		1.636					
13 Chloromethane	50		1.791					
14 Vinyl chloride	62		1.921					
15 Bromomethane	94		2.265					
16 Chloroethane	64		2.372					
18 Trichlorofluoromethane	101		2.621					
21 1,1-Dichloroethene	96		3.131					
23 1,1,2-Trichloro-1,2,2-trifluoroethane	151		3.142					
22 Acetone	43	3.190	3.190	0.0	80	33737	2.83	
26 Carbon disulfide	76		3.344					
30 Methylene Chloride	84		3.581					
31 2-Methyl-2-propanol	59		3.688					
34 Methyl tert-butyl ether	73		3.830					
33 trans-1,2-Dichloroethene	96		3.830					
36 1,1-Dichloroethane	63		4.210					
37 Vinyl acetate	86		4.245					
38 Isopropyl ether	87		4.257					
40 Tert-butyl ethyl ether	59		4.577					
42 cis-1,2-Dichloroethene	96		4.720					
43 2,2-Dichloropropane	77		4.720					
41 2-Butanone (MEK)	43		4.732					
47 Chlorobromomethane	128		4.933					
49 Chloroform	83		4.992					
50 1,1,1-Trichloroethane	97		5.158					

Sample Calculation

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-3007/7	UXM6505.D
Level 2	STD8260 240-3007/6	UXM6504.D
Level 3	STD8260 240-3007/5	UXM6503.D
Level 4	STD8260 240-3007/4	UXM6502.D
Level 5	STD8260 240-3007/3	UXM6501.D
Level 6	STD8260 240-3007/2	UXM6500.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2983 0.2987	0.2259	0.2557	0.2725	0.2800	Ave		0.2718				10.0		15.0			
Chloromethane	0.4717 0.4273	0.4631	0.4296	0.4483	0.4355	Ave		0.4459			0.1000	4.1		15.0			
Vinyl chloride	0.3635 0.3682	0.3493	0.3371	0.3600	0.3637	Ave		0.3570				3.3		15.0			
Bromomethane	0.1931 0.1378	0.1968	0.1783	0.1775	0.1548	Ave		0.1731				13.0		15.0			
Chloroethane	0.2242 0.2050	0.2258	0.2110	0.2245	0.2145	Ave		0.2175				4.0		15.0			
Trichlorofluoromethane	0.3760 0.3443	0.3088	0.3169	0.3442	0.3390	Ave		0.3382				7.0		15.0			
Acrolein	0.0455 0.0489	0.0447	0.0464	0.0479	0.0493	Ave		0.0471				4.0		15.0			
1,1-Dichloroethene	0.2757 0.2875	0.2770	0.2629	0.2753	0.2892	Ave		0.2779				3.4		15.0			
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.2129 0.2106	0.1837	0.1542	0.1941	0.2092	Ave		0.1941				12.0		15.0			
Acetone	0.1255 0.0899	0.1071	0.0959	0.0954	0.0917	Ave		0.1009				13.0		15.0			
Iodomethane	0.4663 0.4805	0.4523	0.4463	0.4664	0.4894	Ave		0.4669				3.5		15.0			
Carbon disulfide	0.9270 1.0581	0.9205	0.8948	0.9696	1.0483	Ave		0.9697				7.1		15.0			
Acetonitrile	0.0415 0.0416	0.0396	0.0408	0.0418	0.0422	Ave		0.0412				2.2		15.0			
Methyl acetate	0.2173 0.2352	0.2329	0.2302	0.2353	0.2392	Ave		0.2317				3.3		15.0			
Methylene Chloride	0.6813 0.3553	0.4832	0.3847	0.3689	0.3638	Lin1	0.3012	0.3454							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Sample Calculation

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-54-062111 | Lab Sample ID: 240-1342-2

Matrix: Water | Lab File ID: 1342J2A.D

Analysis Method: 8270D | Date Collected: 06/21/2011 11:30

Extract. Method: 3510C | Date Extracted: 06/23/2011 08:43

Sample wt/vol: 1050(mL) | Date Analyzed: 07/15/2011 20:11

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.19	U	0.19	0.095
208-96-8	Acenaphthylene	0.19	U	0.19	0.095
98-86-2	Acetophenone	0.95	U	0.95	0.32
120-12-7	Anthracene	0.19	U	0.19	0.095
1912-24-9	Atrazine	0.95	U	0.95	0.32
100-52-7	Benzaldehyde	0.95	U	0.95	0.37
56-55-3	Benzo[a]anthracene	0.19	U	0.19	0.095
50-32-8	Benzo[a]pyrene	0.19	U	0.19	0.095
205-99-2	Benzo[b]fluoranthene	0.19	U	0.19	0.095
191-24-2	Benzo[g,h,i]perylene	0.19	U	0.19	0.095
207-08-9	Benzo[k]fluoranthene	0.19	U	0.19	0.095
92-52-4	1,1'-Biphenyl	0.95	U	0.95	0.76
111-91-1	Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30
111-44-4	Bis(2-chloroethyl)ether	0.95	U	0.95	0.095
117-81-7	Bis(2-ethylhexyl) phthalate	0.89	J B	1.9	0.76
101-55-3	4-Bromophenyl phenyl ether	1.9	U	1.9	0.76
85-68-7	Butyl benzyl phthalate	0.95	U	0.95	0.76
105-60-2	Caprolactam	4.8	U	4.8	0.76
86-74-8	Carbazole	0.95	U	0.95	0.27
106-47-8	4-Chloroaniline	1.9	U	1.9	0.76
59-50-7	4-Chloro-3-methylphenol	1.9	U	1.9	0.76
91-58-7	2-Chloronaphthalene	0.95	U	0.95	0.095
95-57-8	2-Chlorophenol	0.95	U	0.95	0.28
7005-72-3	4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29
218-01-9	Chrysene	0.19	U	0.19	0.095
53-70-3	Dibenzo(a,h)anthracene	0.19	U	0.19	0.095
132-64-9	Dibenzofuran	0.95	U	0.95	0.095
91-94-1	3,3'-Dichlorobenzidine	4.8	U	4.8	0.35
120-83-2	2,4-Dichlorophenol	1.9	U	1.9	0.76
84-66-2	Diethyl phthalate	0.95	U	0.95	0.57
105-67-9	2,4-Dimethylphenol	1.9	U	1.9	0.76
131-11-3	Dimethyl phthalate	0.95	U	0.95	0.28
84-74-2	Di-n-butyl phthalate	0.73	J	0.95	0.64
534-52-1	4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3

Sample Calculation

Report Date: 19-Jul-2011 08:15:12 Chrom Revision: 1.2 13-Jul-2011 10:43:06

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A4HP9\20110716-1923.b\1342J2A.D
Lims ID: 240-1342-J-2-A Client ID: GSP-SB-WP-54-062111
Inject. Date: 15-Jul-2011 20:11:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 1342j2a,10715a.b,8270c-625,1-827042d.sub
Misc. Info.:
Operator: 001574 Instrument ID: A4HP9
Vol. Injected: 1.0000 ALS Bottle#: 19
Lims Batch ID: 8683 Lims Sample ID: 19
Detector: MS SCAN

Method: \\Ncchrom\ChromData\A4HP9\20110716-1923.b\8270 _9.m
Last Update: 19-Jul-2011 08:14:56 Calib Date: 14-Jul-2011 16:17:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A4HP9\20110715-1888.b\9AHHH714.D
Limit Group: MSS 8270D ICAL
Integrator: RTE ID Type: Deconvolution ID
Process Host: CORP-CTX-17

First Level Reviewer: ulmanm Date: 18-Jul-2011 17:54:22

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.870	3.873	-0.003	93	102031	4.00	
* 2 Naphthalene-d8	136	4.831	4.834	-0.003	98	379240	4.00	
* 3 Acenaphthene-d10	164	6.129	6.132	-0.003	86	219077	4.00	
* 4 Phenanthrene-d10	188	7.214	7.217	-0.003	96	393325	4.00	
* 5 Chrysene-d12	240	9.169	9.209	-0.040	76	422380	4.00	
* 6 Perylene-d12	264	10.569	10.620	-0.051	96	352162	4.00	
$ 7 2-Fluorophenol	112	2.871	2.879	-0.008	93	417195	11.2	
$ 8 Phenol-d5	99	3.554	3.557	-0.003	0	559976	10.8	
$ 9 Nitrobenzene-d5	82	4.281	4.289	-0.008	84	452293	7.16	
$ 10 2-Fluorobiphenyl (Surr)	172	5.617	5.619	-0.003	98	450663	6.19	
$ 11 2,4,6-Tribromophenol	330	6.706	6.709	-0.003	75	90672	10.4	M
$ 12 Terphenyl-d14	244	8.352	8.365	-0.013	97	648293	8.30	
25 1,4-Dioxane	88		1.784					
26 N-Nitrosodimethylamine	74		1.965					
41 Benzaldehyde	77		3.541					
43 Phenol	94		3.568					
69 Bis(2-chloroethyl)ether	93		3.648					
46 2-Chlorophenol	128		3.718					
51 2-Methylphenol	108		4.033					
53 2,2'-oxybis[1-chloropropane]	45		4.054					
21 3 & 4 Methylphenol	108		4.145					
57 N-Nitrosodi-n-propylamine	70		4.156					
58 Acetophenone	105		4.166					
61 Hexachloroethane	117		4.268					
62 Nitrobenzene	77		4.300					
64 Isophorone	82		4.476					
66 2-Nitrophenol	139		4.540					
65 2,4-Dimethylphenol	107		4.551					
70 Bis(2-chloroethoxy)methane	93		4.615					
73 2,4-Dichlorophenol	162		4.717					
75 Naphthalene	128		4.850					

Sample Calculation

Report Date: 19-Jul-2011 08:15:12 Chrom Revision: 1.2 13-Jul-2011 10:43:06
Data File: \\Ncchrom\ChromData\A4HP9\20110716-1923.b\1342J2A.D

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
76 4-Chloroaniline	127		4.877					
79 Hexachlorobutadiene	225		4.936					
84 Caprolactam	113		5.133					
86 4-Chloro-3-methylphenol	107		5.219					
87 2-Methylnaphthalene	142		5.363					
89 Hexachlorocyclopentadiene	237		5.481					
92 2,4,6-Trichlorophenol	196		5.561					
93 2,4,5-Trichlorophenol	196		5.593					
98 1,1'-Biphenyl	154		5.694					
100 2-Chloronaphthalene	162		5.721					
102 2-Nitroaniline	65		5.780					
105 Dimethyl phthalate	163		5.897					
107 2,6-Dinitrotoluene	165		5.945					
109 Acenaphthylene	152		6.031					
110 3-Nitroaniline	138		6.079					
111 2,4-Dinitrophenol	184		6.154					
112 Acenaphthene	153		6.159					
113 4-Nitrophenol	109		6.180					
114 2,4-Dinitrotoluene	165		6.244					
116 Dibenzofuran	168		6.282					
121 Diethyl phthalate	149	6.396	6.405	-0.009	70	15592	0.1885	
123 4-Chlorophenyl phenyl ether	204		6.512					
125 4-Nitroaniline	138		6.528					
126 Fluorene	166		6.533					
128 4,6-Dinitro-2-methylphenol	198		6.549					
131 N-Nitrosodiphenylamine	169		6.592					
139 4-Bromophenyl phenyl ether	248		6.869					
141 Hexachlorobenzene	284		6.944					
142 Atrazine	200		6.960					
143 Pentachlorophenol	266		7.070					
148 Phenanthrene	178		7.238					
149 Anthracene	178		7.275					
151 Carbazole	167		7.377					
154 Di-n-butyl phthalate	149	7.577	7.580	-0.003	95	53942	0.3830	
159 Fluoranthene	202		8.114					
161 Pyrene	202		8.290					
168 Butyl benzyl phthalate	149		8.707					
173 Bis(2-ethylhexyl) phthalate	149	9.089	9.129	-0.040	92	43032	0.4691	
175 3,3'-Dichlorobenzidine	252		9.156					
177 Benzo[a]anthracene	228		9.204					
178 Chrysene	228		9.231					
180 Di-n-octyl phthalate	149		9.658					
182 Benzo[b]fluoranthene	252		10.187					
183 Benzo[k]fluoranthene	252		10.214					
184 Benzo[a]pyrene	252		10.556					
188 Indeno[1,2,3-cd]pyrene	276		12.137					
189 Dibenz(a,h)anthracene	278		12.148					
190 Benzo[g,h,i]perylene	276		12.607					

Sample Calculation

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Di-n-butyl phthalate	1.4178	1.3552 1.5045	1.3962 1.4989	1.4148 1.4629	1.4096	Ave		1.4325			0.0100	3.6		20.0			
Fluoranthene	1.1887 1.1727	1.1082 1.2641	1.2177 1.3015	1.1842 1.4319	1.1747	Ave		1.2271			0.6000	7.7		20.0			
Benzidine	0.6434	0.4961 0.6181	0.4956 0.6518	0.6194 0.6981	0.6498	Ave		0.6090				12.0		20.0			
Pyrene	1.2178 1.2011	1.1840 1.2171	1.2198 1.2836	1.1838 1.3788	1.1978	Ave		1.2315			0.6000	5.1		20.0			
Butyl benzyl phthalate	0.6120	0.5618 0.6041	0.6355 0.6331	0.7000 0.6471	0.6068	Ave		0.6251			0.0100	6.4		20.0			
3,3'-Dimethoxybenzidine	0.2613	0.1768 0.2343	0.2179 0.2488	0.2277 0.2865	0.2549	Ave		0.2385				14.0		20.0			
Bis(2-ethylhexyl) phthalate	0.8565	0.7725 0.8781	0.8684 0.8946	0.8342 0.9763	0.8698	Ave		0.8688			0.0100	6.6		20.0			
4,4'-Methylene bis(2-chloroaniline)	0.2264	0.1993 0.2364	0.2165 0.2445	0.2169 0.2630	0.2299	Ave		0.2291				8.5		20.0			
3,3'-Dichlorobenzidine	0.4312	0.3683 0.4380	0.4040 0.4510	0.4064 0.4927	0.4316	Ave		0.4279			0.0100	8.6		20.0			
Benzo[a]anthracene	1.2110 1.1340	1.0945 1.1555	1.1739 1.1704	1.1365 1.2554	1.1137	Ave		1.1605			0.8000	4.3		20.0			
Chrysene	1.2394 1.1231	1.0804 1.1183	1.1143 1.1409	1.0881 1.2145	1.0840	Ave		1.1337			0.7000	5.0		20.0			
Di-n-octyl phthalate	1.7336	1.4389 1.7619	1.5649 1.8117	1.6060 1.9378	1.6406	Ave		1.6869			0.0100	9.3		20.0			
Benzo[b]fluoranthene	1.1064 1.4585	1.1713 1.2539	1.1854 1.3061	1.2356 1.5219	1.2281	Ave		1.2741			0.7000	11.0		20.0			
Benzo[k]fluoranthene	1.4546 1.1580	1.2638 1.3782	1.3536 1.3828	1.2948 1.3816	1.2840	Ave		1.3279			0.7000	6.6		20.0			
Benzo[a]pyrene	1.1401 1.1741	1.0762 1.2035	1.1106 1.2212	1.1297 1.3029	1.1475	Ave		1.1673			0.7000	5.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2705 1.3033	1.1882 1.3309	1.2235 1.3505	1.2401 1.4368	1.2740	Ave		1.2909			0.5000	5.8		20.0			
Dibenzo(a,h)anthracene	1.0061 1.0889	0.9215 1.1157	1.0240 1.1250	1.0288 1.2106	1.0478	Ave		1.0632			0.4000	7.8		20.0			
Benzo[g,h,i]perylene	0.9424 1.0527	0.9400 1.0674	0.9864 1.0813	1.0173 1.1331	1.0548	Ave		1.0306			0.5000	6.3		20.0			
2-Fluorophenol (Surr)	1.4758	1.4065 1.4396	1.3532 1.4441	1.5566 1.5052	1.4952	Ave		1.4595				4.3		20.0			
Phenol-d5 (Surr)	2.0412	1.9990 2.0291	1.9480 2.0551	2.1175 2.0894	2.0563	Ave		2.0420				2.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Sample Calculation

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1342-1

SDG No.:

Client Sample ID: GSP-SB-WP-54-062111 | Lab Sample ID: 240-1342-2

Matrix: Water | Lab File ID: YF062827.D

Analysis Method: 8015B | Date Collected: 06/21/2011 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 05:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6402 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	36	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	90		10-150

Sample Calculation

Report Date: 30-Jun-2011 09:10:56 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\YPID\20110628-1447.b\YF062827.D		
Lims ID:	240-1342-E-2	Client ID:	GSP-SB-WP-54-062111
Inject. Date:	29-Jun-2011 05:51:19	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0001447-027		
Misc. Info.:			
Operator:	004275	Instrument ID:	YPID
Vol. Injected:	1.0000	ALS Bottle#:	1
Lims Batch ID:	6402	Lims Sample ID:	27
Detector 1 :	GC ELC2B		
Detector 2 :	GC FID1A		
Method:	\\Ncchrom\ChromData\YPID\20110628-1447.b\Y80158021.m		
Last Update:	30-Jun-2011 09:10:48	Calib Date:	22-Jun-2011 17:30:51
Quant Method:	Internal/External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\YPID\20110622-1279.b\YF062209.D		
Limit Group:	GCV 8015B GRO ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-15		

Compound	Det	RT	ADJ RT	DLT RT	Response	On-Col Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	2	9.255	9.251	0.004	1916269	9.03	
* 15 Fluorobenzene	1	11.518	11.095	0.423	4337	0	
A 5 C6-C10	2	11.336	4.298 - 18.442		8389007	35.5	

Sample Calculation

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1342-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	302470 208450	252295 210278	214454	228347	Ave		236048.859				15.0		20.0			
C6-C12	346250 223395	277091 226126	233001	247805	Ave		258944.938				18.0		20.0			
Trifluorotoluene (Surr)	211649 226938	171207 226738	185123	251863	Ave		212253.083				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

Sample Calculation

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-WP-54-062111 Lab Sample ID: 240-1342-2

Lab Name: TestAmerica Burlington Job No.: 240-1342-1

SDG ID.:

Matrix: Water Date Sampled: 06/21/2011 11:30

Reporting Basis: WET Date Received: 06/22/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.19	2.0	0.073	ug/L	J	B	1	6020
7440-38-2	Arsenic	5.0	5.0	0.092	ug/L	U		1	6020
7440-39-3	Barium	23	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	0.52	2.0	0.11	ug/L	J	B	1	6020
7440-48-4	Cobalt	0.53	1.0	0.049	ug/L	J	B	1	6020
7440-50-8	Copper	0.69	2.0	0.23	ug/L	J		1	6020
7439-92-1	Lead	0.30	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.46	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	0.63	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.25	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	0.98	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	7.5	20	0.50	ug/L	J	B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

GSP-SB-WP-54-062111

Sample Calculation

240-1342-G-2-A 07/16/2011 10:51:21 AM

User Pre-dilution: 1.000

Run	Time	6Li	7Li	9Be	11B	13C	23Na	24Mg	25Mg	26Mg	27Al	31P	33S	39K	44Ca	45Sc	47Ti	5
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	p
1	10:52:24	⊤103.196%	0.000	-0.162	33.840	0.000	⊤11180.000	⊤15070.000	⊤15080.000	⊤14970.000	⊤75.710	0.000	⊤0.000	⊤2751.000	ᴛᴍ52520.000	106.682%	0.000	0.9
2	10:53:28	⊤103.030%	0.000	-0.170	33.670	0.000	⊤11300.000	⊤15140.000	⊤15050.000	⊤15070.000	⊤76.690	0.000	⊤0.000	⊤2763.000	ᴛᴍ52570.000	106.173%	0.000	0.9
3	10:54:31	⊤103.835%	0.000	-0.166	33.040	0.000	⊤11130.000	⊤14970.000	⊤15090.000	⊤15000.000	⊤75.480	0.000	⊤0.000	⊤2747.000	ᴛᴍ52520.000	106.623%	0.000	0.9
x		⊤103.354%	0.000	-0.166	33.520	0.000	⊤11200.000	⊤15060.000	⊤15070.000	⊤15010.000	⊤75.960	0.000	⊤0.000	⊤2754.000	ᴛᴍ52540.000	106.492%	0.000	0.9
σ		⊤0.425%	0.000	0.004	0.423	0.000	⊤88.280	⊤86.970	⊤21.970	⊤47.220	⊤0.645	0.000	⊤0.000	⊤7.923	ᴛᴍ28.920	0.279%	0.000	0.0
%RSD		⊤0.411	0.000	2.484	1.263	0.000	⊤0.788	⊤0.578	⊤0.146	⊤0.315	⊤0.850	0.000	⊤0.000	⊤0.288	ᴛᴍ0.055	0.262	0.000	1.0

Run	Time	52Cr	53Cl O	54Fe	55Mn	56Fe	59Co	60Ni	62Ni	65Cu	66Zn	67Zn	68Zn	75As	78Se	82Se	89Y	95
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	p
1	10:52:24	0.535	81.010	196.800	5.339	⊤179.600	0.537	-0.523	0.236	0.629	7.537	6.521	7.118	0.059	0.262	-0.401	106.214%	1.9
2	10:53:28	0.527	76.720	199.800	5.445	⊤180.000	0.529	-0.578	0.069	0.735	7.656	6.362	7.049	0.052	0.267	-0.356	106.484%	1.8
3	10:54:31	0.498	73.360	197.100	5.398	⊤180.200	0.532	-0.617	0.189	0.702	7.342	6.546	6.898	0.123	0.354	-0.472	105.714%	1.8
x		0.520	77.030	197.900	5.394	⊤179.900	0.533	-0.573	0.165	0.689	7.512	6.476	7.021	0.078	0.294	-0.410	106.137%	1.8
σ		0.019	3.834	1.651	0.053	⊤0.328	0.004	0.048	0.086	0.054	0.159	0.100	0.112	0.039	0.052	0.059	0.391%	0.0
%RSD		3.734	4.977	0.835	0.979	⊤0.182	0.773	8.300	52.520	7.862	2.111	1.547	1.600	50.260	17.680	14.290	0.368	2.1

Run	Time	98Mo	107Ag	108Mo O	109Ag	111Cd	114Cd	115In	121Sb	123Sb	135Ba	137Ba	159Tb	182W	184W	205Tl	206Pb	207
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	p
1	10:52:24	0.538	-0.019	0.005	-0.018	-0.009	0.007	102.181%	0.207	0.189	23.210	25.260	102.081%	0.093	0.077	0.245	0.277	0.2
2	10:53:28	0.462	-0.020	0.004	-0.019	-0.006	0.009	101.912%	0.205	0.182	23.390	25.670	102.019%	0.079	0.067	0.244	0.282	0.2
3	10:54:31	0.480	-0.021	0.004	-0.018	-0.011	0.010	100.808%	0.204	0.188	23.640	26.070	101.825%	0.063	0.068	0.246	0.277	0.2
x		0.493	-0.020	0.004	-0.018	-0.009	0.009	101.634%	0.205	0.186	23.410	25.670	101.975%	0.078	0.071	0.245	0.279	0.2
σ		0.040	0.001	0.001	0.001	0.002	0.001	0.727%	0.001	0.003	0.215	0.406	0.133%	0.015	0.006	0.001	0.003	0.0
%RSD		8.087	5.712	16.820	4.956	27.530	16.580	0.716	0.706	1.872	0.920	1.582	0.131	18.640	7.962	0.281	1.248	2.5

Run	Time	208Pb	209Bi	220Bkg	232Th	238U
		ppb	ppb	ppb	ppb	ppb
1	10:52:24	0.299	92.484%	0.000	0.369	0.516
2	10:53:28	0.300	92.308%	0.000	0.365	0.515
3	10:54:31	0.296	91.586%	0.000	0.362	0.522
x		0.298	92.126%	0.000	0.365	0.518
σ		0.002	0.476%	0.000	0.003	0.004
%RSD		0.645	0.517	0.000	0.920	0.773

240-1342-G-3-A 07/16/2011 10:58:07 AM

User Pre-dilution: 1.000

Run	Time	6Li	7Li	9Be	11B	13C	23Na	24Mg	25Mg	26Mg	27Al	31P	33S	39K	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:10	90.608%	0.000	-0.128	160.800	0.000	⊤7285.000	ᴛᴍ34610.000	ᴛᴍ34880.000	ᴛᴍ34940.000	⊤453.800	0.000	⊤0.000	⊤9453.000	ᴛᴍ76510.000	88.823%	0.000
2	11:00:13	89.445%	0.000	-0.143	162.500	0.000	⊤7398.000	ᴛᴍ35560.000	ᴛᴍ35670.000	ᴛᴍ35880.000	⊤457.000	0.000	⊤0.000	⊤9779.000	ᴛᴍ77500.000	88.595%	0.000
3	11:01:16	90.015%	0.000	-0.153	164.700	0.000	⊤7455.000	ᴛᴍ35610.000	ᴛᴍ35820.000	ᴛᴍ35870.000	⊤457.000	0.000	⊤0.000	⊤9901.000	ᴛᴍ78300.000	89.692%	0.000
x		90.023%	0.000	-0.141	162.700	0.000	⊤7379.000	ᴛᴍ35260.000	ᴛᴍ35450.000	ᴛᴍ35560.000	⊤455.900	0.000	⊤0.000	⊤9711.000	ᴛᴍ77440.000	89.036%	0.000
σ		0.582%	0.000	0.013	1.964	0.000	⊤86.440	ᴛᴍ561.600	ᴛᴍ503.500	ᴛᴍ541.400	⊤1.813	0.000	⊤0.000	⊤231.500	ᴛᴍ897.300	0.579%	0.000
%RSD		0.646	0.000	9.174	1.207	0.000	⊤1.171	ᴛᴍ1.593	ᴛᴍ1.420	ᴛᴍ1.522	⊤0.398	0.000	⊤0.000	⊤2.384	ᴛᴍ1.159	0.650	0.000

Run	Time	52Cr	53Cl O	54Fe	55Mn	56Fe	59Co	60Ni	62Ni	65Cu	66Zn	67Zn	68Zn	75As	78Se	82Se	89Y
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:59:10	5.815	76.780	ᴛᴍ17410.000	ᴛᴍ718.000	ᴛᴍ17930.000	10.600	2.047	4.237	7.040	12.100	11.180	11.840	10.400	0.038	-0.104	92.804%
2	11:00:13	5.946	76.880	ᴛᴍ17810.000	ᴛᴍ729.800	ᴛᴍ18120.000	10.970	2.067	5.196	7.088	12.420	11.520	12.020	10.090	0.033	-0.088	93.348%
3	11:01:16	5.879	75.180	ᴛᴍ17830.000	ᴛᴍ732.100	ᴛᴍ18170.000	10.890	2.027	5.126	6.855	12.370	11.820	12.080	10.230	0.262	-0.129	94.653%
x		5.880	76.280	ᴛᴍ17680.000	ᴛᴍ726.600	ᴛᴍ18070.000	10.820	2.047	4.853	6.994	12.300	11.500	11.980	10.240	0.111	-0.107	93.602%
σ		0.065	0.952	ᴛᴍ234.700	ᴛᴍ7.539	ᴛᴍ128.200	0.192	0.020	0.535	0.123	0.174	0.320	0.126	0.151	0.131	0.021	0.950%

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **A. APANAVAGE** **DATE:** **SEPTEMBER 6, 2011**

FROM: **A. COGNETTI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC AND INORGANIC DATA VALIDATION - VOC/SVOC/PCB/TPH (GASOLINE & DIESEL)/ METALS/PERCHLORATE**
GREATER STRAWBERRY POINT MSA
SAMPLE DELIVERY GROUP (SDG) – 240-1365-1

SAMPLES: 5/Aqueous/VOC

GSP-MW-7-062211	GSP-SB-WP-50-062211	GSP-SB-WP-61-062211
GSP-SB-WP-83-062211	TB-062211	

3/Aqueous/SVOC

GSP-MW-7-062211	GSP-SB-WP-50-062211	GSP-SB-WP-83-062211

4/Aqueous/GRO/DRO/Metals/Perchlorate

GSP-MW-7-062211	GSP-SB-WP-50-062211	GSP-SB-WP-61-062211
GSP-SB-WP-83-062211		

Overview

The sample set for Greater Strawberry Point MSA, SDG 240-1365-1 consisted of four (4) aqueous samples and a trip blank analyzed for volatile organic compounds (VOCs). Three (3) aqueous samples were analyzed for semi-volatile organic compounds (SVOCs). Four (4) aqueous samples were analyzed for total petroleum hydrocarbons (TPH) gasoline and total petroleum hydrocarbons (TPH) diesel, total select metals, dissolved select metals and perchlorate. The select metals were antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, tungsten, vanadium and zinc.

The samples were collected on June 22, 2011 and analyzed by Test America Laboratories Inc. All analyses were conducted in accordance with SW-846 Methods 8260B for VOCs, 8270C for SVOCs, 8015B for TPH (gasoline and diesel), 6010C for metals, 7471B for mercury and MCAWW 314 for perchlorate analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method /preparation blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate, internal standard recoveries, chromatographic resolution, ICP interference results, ICP serial dilution results, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- VOC initial calibration relative response factors (RRFs) for tert-butyl alcohol and vinyl acetate were less than the 0.05 quality control limit on May 29, 2011 for instrument A3UX16 and the continuing calibrations on June 19, 2011 @ 12:41. The nondetected tert-butyl alcohol and vinyl acetate results were qualified as rejected (UR) in the affected samples.

Minor

- The following VOC contaminants were detected in the laboratory method blank and trip blank at the following maximum concentrations:

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
Naphthalene [1]	0.264	1.32
Acetone [2]	2.2	22.0

[1] Maximum concentration of contaminant detected in laboratory method blank 240-6573/5.

[2] Maximum concentration of contaminant detected in trip blank TB-062211.

An action level of ten times the maximum level for the common laboratory contaminant, acetone, and five times the maximum level for other contaminants has been used to evaluate sample data for blank contamination. Sample aliquot, and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for the above analytes were qualified "B" as a result of laboratory blank contamination.

- The VOC continuing calibration percent difference (%D) for acetone was greater than 50% on June 29, 2011@ 12:41 on instrument A3UX16. The positive acetone result in the trip blank TB-062211 was qualified as estimated (J). The positive acetone results in the samples were qualified due to blank contamination. No further action was taken.

- The following contaminant was detected in the SVOC soil laboratory method blank at the following maximum concentration:

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
Bis(2-ethylhexyl)phthalate	1.56	15.6

Maximum concentration of contaminant detected in laboratory method blank 240-6094/1-A affecting all samples.

An action level of ten times the maximum level for the phthalates has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified (B) as a result of laboratory blank contamination.

- The TPH as gasoline laboratory method blank 240-6402/19 contained contaminant.

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
TPH as gasoline	37.9	189.5

An action level of 5X the maximum concentration of contaminant was used in order to evaluate the affected samples. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified (B) as a result of laboratory blank contamination.

- The TPH as diesel laboratory method blank 240-6092/1-A contained contaminant.

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
TPH as diesel	334	1670

An action level of 5x the maximum concentration of contaminant was used in order to evaluate the affected samples. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified (B) as a result of laboratory blank contamination.

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Contaminant	Maximum Concentration (ug/L)	Action Level (ug/L)
Antimony (1)	0.342	1.71
Arsenic (1)	0.149	0.745
Lead (1)	0.146	0.73
Molybdenum (1)	0.649	3.245
Thallium (1)	0.188	0.94
Tungsten (1)	0.288	1.44
Zinc (2)	0.507	2.535
Zinc (3)	1.73	8.65

(1) Maximum concentration of contaminants in the initial calibration blank 200-22997/8 analyzed on August 4, 2011 @ 12:25.
(2) Maximum concentration of contaminant in the method blank 200-20967/1-A affecting all samples both total and dissolved except dissolved GSP-SB-WP-83-062211.
(3) Maximum concentration of contaminant in the method blank 200-21964/1-A affecting dissolved sample GSP-SB-WP-83-062211.

An action level of 5x the maximum concentration of contaminant was used in order to evaluate the affected samples. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified (B) as a result of laboratory blank contamination.

- The %D in the serial dilution of total and dissolved arsenic was greater than 10%. The positive total and dissolved arsenic results were qualified as estimated (J).

- Positive results reported below the quantitation limit but above the method detection limit (MDL) were qualified as estimated, (J).

Notes

Form 1s of the VOC Tentatively Identified Compounds (TICs) are included in this SDG in Appendix B. No action was taken on these findings. TICS were qualified as (NJ).

The VOC continuing calibration %Ds for several analytes were greater than the 20% quality control limit but less than 50% on June 29, 2011 @ 12:41 and 13:04. The analytes were bromomethane, tert-butyl alcohol, methyl tert-butyl ether, 2,2-dichloropropane, 2-chloroethyl vinyl ether, bromoform, 1,2-dibromo-3-chloropropane, 1,2,4-trichlorobenzene, naphthalene, 1,2,3-trichlorobenzene, ethyl tert-butyl ether and tert-amyl methyl ether. No action was taken on the nondetected results of the aforementioned analytes in the affected samples.

The %Rs of 2-chloroethyl vinyl ether were 0% in the matrix spike/matrix spike duplicate (MS/MSD) of sample 240-1438-H-4 which is not included in this SDG. The %Rs of tert-butyl alcohol were less than the lower quality control limit in the MS/MSD. No action was taken.

The percent recovery (%R) of tert-butyl alcohol was less than the lower quality control limit in the laboratory control sample associated with batch 240-6573/4. No further action was taken on the nondetected tert-butyl alcohol results which were qualified due to a more serious noncompliance.

In the SVOC initial calibration of instrument A4HP9 on July 14, 2011, 4,6-dinitro-2-methylphenol had a percent relative standard deviation (%RSD) greater than the 15% quality control limit but less than 50%. No action was taken on the nondetected 4,6-dinitro-2-methylphenol results in the affected samples.

Naphthalene and hexachlorobutadiene were reported in both the VOC and the SVOC fractions.

Nondetected results were reported to the MDL.

Executive Summary

Laboratory Performance: The VOC RRFs for tert-butyl alcohol and vinyl acetate were less than the quality control limit resulting in the rejection of nondetected results. VOC, SVOC, TPH as diesel and gasoline and metals results were qualified due to method blank contamination. Continuing calibration verification percent difference exceeded quality control limits in the VOC fraction for acetone. The LCS %R of tert-butyl alcohol was less than quality control limits.

Other Factors Affecting Data Quality: Trip blank contained acetone. The serial dilution %D for total and dissolved arsenic exceeded quality control limits. Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and U.S. EPA National Functional Guidelines for Inorganic Data Validation (April 1993). The text of this report has been formulated to address only those problem areas affecting data quality.

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Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279 SDG: 240-1365-1 FRACTION: OV MEDIA: WATER	NSAMPLE	GSP-MW-7-062211			GSP-SB-WP-50-062211			GSP-SB-WP-61-062211			GSP-SB-WP-83-062211		
	LAB_ID	240-1365-3			240-1365-2			240-1365-1			240-1365-6		
	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		3.8	U		0.23	U		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		3.7	U		0.22	U		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		3	U		0.18	U		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		4.7	U		0.28	U		0.28	U		0.28	U	
1,1-DICHLOROETHANE		2.5	U		0.15	U		0.15	U		0.15	U	
1,1-DICHLOROETHENE		3.2	U		0.19	U		0.19	U		0.19	U	
1,1-DICHLOROPROPENE		2.2	U		0.13	U		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		2.8	U		0.17	U		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		7.2	U		0.43	U		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.098	U		0.0059	U		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		2.5	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		2	U		0.12	U		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		11	U		0.67	U		0.67	U		0.67	U	
1,2-DIBROMOETHANE		4	U		0.24	U		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		2.2	U		0.13	U		0.13	U		0.13	U	
1,2-DICHLOROETHANE		3.7	U		0.22	U		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		3	U		0.18	U		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		2.3	U		0.14	U		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		2.7	U		0.16	U		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		2.2	U		0.13	U		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		2.2	U		0.13	U		0.13	U		0.13	U	
2-BUTANONE		9.5	U		0.57	U		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		17	U		0.99	U		0.99	U		0.99	U	
2-CHLOROTOLUENE		1.8	U		0.11	U		0.11	U		0.11	U	
2-HEXANONE		6.8	U		0.41	U		0.41	U		0.41	U	
4-CHLOROTOLUENE		3	U		0.18	U		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		2	U		0.12	U		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		5.3	U		0.32	U		0.32	U		0.32	U	
ACETONE		22	B	B	1.9	B	B	1.4	B	B	1.6	B	B
BENZENE		3.1	J	P	0.13	U		0.13	U		0.13	U	
BROMOBENZENE		2.2	U		0.13	U		0.13	U		0.13	U	
BROMOCHLOROMETHANE		4.8	U		0.29	U		0.29	U		0.29	U	
BROMODICHLOROMETHANE		2.5	U		0.15	U		0.15	U		0.15	U	
BROMOFORM		11	U		0.64	U		0.64	U		0.64	U	
BROMOMETHANE		6.8	U		0.41	U		0.41	U		0.41	U	

PROJ_NO: 03279	NSAMPLE	TB-062211
SDG: 240-1365-1	LAB_ID	240-1365-5
FRACTION: OV	SAMP_DATE	6/22/2011
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.23	U	
1,1,1-TRICHLOROETHANE	0.22	U	
1,1,2,2-TETRACHLOROETHANE	0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.28	U	
1,1-DICHLOROETHANE	0.15	U	
1,1-DICHLOROETHENE	0.19	U	
1,1-DICHLOROPROPENE	0.13	U	
1,2,3-TRICHLOROBENZENE	0.17	U	
1,2,3-TRICHLOROPROPANE	0.43	U	
1,2,3-TRIMETHYLBENZENE	0.0059	U	
1,2,4-TRICHLOROBENZENE	0.15	U	
1,2,4-TRIMETHYLBENZENE	0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.67	U	
1,2-DIBROMOETHANE	0.24	U	
1,2-DICHLOROBENZENE	0.13	U	
1,2-DICHLOROETHANE	0.22	U	
1,2-DICHLOROPROPANE	0.18	U	
1,3-DICHLOROBENZENE	0.14	U	
1,3-DICHLOROPROPANE	0.16	U	
1,4-DICHLOROBENZENE	0.13	U	
2,2-DICHLOROPROPANE	0.13	U	
2-BUTANONE	0.57	U	
2-CHLOROETHYL VINYL ETHER	0.99	U	
2-CHLOROTOLUENE	0.11	U	
2-HEXANONE	0.41	U	
4-CHLOROTOLUENE	0.18	U	
4-ISOPROPYLTOLUENE	0.12	U	
4-METHYL-2-PENTANONE	0.32	U	
ACETONE	2.2	J	CP
BENZENE	0.13	U	
BROMOBENZENE	0.13	U	
BROMOCHLOROMETHANE	0.29	U	
BROMODICHLOROMETHANE	0.15	U	
BROMOFORM	0.64	U	
BROMOMETHANE	0.41	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-7-062211			GSP-SB-WP-50-062211			GSP-SB-WP-61-062211			GSP-SB-WP-83-062211		
SDG: 240-1365-1	LAB_ID	240-1365-3			240-1365-2			240-1365-1			240-1365-6		
FRACTION: OV	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE	2.2	U		0.13	U		0.13	U		0.13	U	
CARBON TETRACHLORIDE	2.2	U		0.13	U		0.13	U		0.13	U	
CHLOROBENZENE	2.5	U		0.15	U		0.15	U		0.15	U	
CHLORODIBROMOMETHANE	3	U		0.18	U		0.18	U		0.18	U	
CHLOROETHANE	4.8	U		0.29	U		0.29	U		0.29	U	
CHLOROFORM	2.7	U		0.16	U		0.16	U		0.16	U	
CHLOROMETHANE	5	U		0.3	U		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE	2.8	U		0.17	U		0.17	U		0.17	U	
CIS-1,3-DICHLOROPROPENE	2.3	U		0.14	U		0.14	U		0.14	U	
DIBROMOMETHANE	4.7	U		0.28	U		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE	5.2	U		0.31	U		0.31	U		0.31	U	
DIISOPROPYL ETHER	25	U		1.5	U		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER	1.8	U		0.11	U		0.11	U		0.11	U	
ETHYLBENZENE	2.8	U		0.17	U		0.17	U		0.17	U	
HEXACHLOROBUTADIENE	5	U		0.3	U		0.3	U		0.3	U	
ISOPROPYLBENZENE	2.2	U		0.13	U		0.13	U		0.13	U	
M+P-XYLENES	4	U		0.24	U		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER	2.8	U		0.17	U		0.17	U		0.17	U	
METHYLENE CHLORIDE	5.5	U		0.33	U		0.33	U		0.33	U	
NAPHTHALENE	4	U		0.24	U		0.24	U		0.24	U	
N-BUTYLBENZENE	2	U		0.12	U		0.12	U		0.12	U	
N-PROPYLBENZENE	2.3	U		0.14	U		0.14	U		0.14	U	
O-XYLENE	2.3	U		0.14	U		0.14	U		0.14	U	
SEC-BUTYLBENZENE	2.2	U		0.13	U		0.13	U		0.13	U	
STYRENE	1.8	U		0.11	U		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER	1.1	U		0.067	U		0.067	U		0.067	U	
TERT-BUTYLBENZENE	2.2	U		0.13	U		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL	65	UR	C	3.9	UR	C	3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE	4.8	U		0.29	U		0.29	U		0.29	U	
TOLUENE	2.2	U		0.13	U		0.13	U		0.13	U	
TOTAL XYLENES	4.7	U		0.28	U		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE	3.2	U		0.19	U		0.19	U		0.19	U	
TRANS-1,3-DICHLOROPROPENE	3.2	U		0.19	U		0.19	U		0.19	U	
TRICHLOROETHENE	450			0.17	U		0.17	U		1.3		
TRICHLOROFLUOROMETHANE	3.5	U		0.21	U		0.21	U		0.21	U	

PROJ_NO: 03279	NSAMPLE	TB-062211
SDG: 240-1365-1	LAB_ID	240-1365-5
FRACTION: OV	SAMP_DATE	6/22/2011
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
CARBON DISULFIDE	0.13	U	
CARBON TETRACHLORIDE	0.13	U	
CHLOROBENZENE	0.15	U	
CHLORODIBROMOMETHANE	0.18	U	
CHLOROETHANE	0.29	U	
CHLOROFORM	0.16	U	
CHLOROMETHANE	0.3	U	
CIS-1,2-DICHLOROETHENE	0.17	U	
CIS-1,3-DICHLOROPROPENE	0.14	U	
DIBROMOMETHANE	0.28	U	
DICHLORODIFLUOROMETHANE	0.31	U	
DIISOPROPYL ETHER	1.5	U	
ETHYL TERT-BUTYL ETHER	0.11	U	
ETHYLBENZENE	0.17	U	
HEXACHLOROBUTADIENE	0.3	U	
ISOPROPYLBENZENE	0.13	U	
M+P-XYLENES	0.24	U	
METHYL TERT-BUTYL ETHER	0.17	U	
METHYLENE CHLORIDE	0.33	U	
NAPHTHALENE	0.24	U	
N-BUTYLBENZENE	0.12	U	
N-PROPYLBENZENE	0.14	U	
O-XYLENE	0.14	U	
SEC-BUTYLBENZENE	0.13	U	
STYRENE	0.11	U	
TERT-AMYL METHYL ETHER	0.067	U	
TERT-BUTYLBENZENE	0.13	U	
TERTIARY-BUTYL ALCOHOL	3.9	UR	C
TETRACHLOROETHENE	0.29	U	
TOLUENE	0.13	U	
TOTAL XYLENES	0.28	U	
TRANS-1,2-DICHLOROETHENE	0.19	U	
TRANS-1,3-DICHLOROPROPENE	0.19	U	
TRICHLOROETHENE	0.17	U	
TRICHLOROFLUOROMETHANE	0.21	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-7-062211			GSP-SB-WP-50-062211			GSP-SB-WP-61-062211			GSP-SB-WP-83-062211		
SDG: 240-1365-1	LAB_ID	240-1365-3			240-1365-2			240-1365-1			240-1365-6		
FRACTION: OV	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		3.2	UR	C	0.19	UR	C	0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		3.7	U		0.22	U		0.22	U		0.22	U	

PROJ_NO: 03279 SDG: 240-1365-1 FRACTION: OV MEDIA: WATER	NSAMPLE	TB-062211		
	LAB_ID	240-1365-5		
	SAMP_DATE	6/22/2011		
	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C
VINYL CHLORIDE		0.22	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-7-062211			GSP-SB-WP-50-062211			GSP-SB-WP-83-062211		
SDG: 240-1365-1	LAB_ID	240-1365-3			240-1365-2			240-1365-6		
FRACTION: OS	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		0.76	U		0.82	U		0.77	U	
1,4-DIOXANE		0.47	U		0.51	U		0.47	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		0.38	U		0.41	U		0.38	U	
2,4,5-TRICHLOROPHENOL		0.29	U		0.31	U		0.29	U	
2,4,6-TRICHLOROPHENOL		0.76	U		0.82	U		0.77	U	
2,4-DICHLOROPHENOL		0.76	U		0.82	U		0.77	U	
2,4-DIMETHYLPHENOL		0.76	U		0.82	U		0.77	U	
2,4-DINITROPHENOL		2.3	U		2.5	U		2.3	U	
2,4-DINITROTOLUENE		0.26	U		0.28	U		0.26	U	
2,6-DINITROTOLUENE		0.76	U		0.82	U		0.77	U	
2-CHLORONAPHTHALENE		0.095	U		0.1	U		0.096	U	
2-CHLOROPHENOL		0.28	U		0.3	U		0.28	U	
2-METHYLNAPHTHALENE		0.095	U		0.1	U		0.096	U	
2-METHYLPHENOL		0.76	U		0.82	U		0.77	U	
2-NITROANILINE		0.76	U		0.82	U		0.77	U	
2-NITROPHENOL		0.27	U		0.29	U		0.27	U	
3&4-METHYLPHENOL		0.71	U		0.77	U		0.72	U	
3,3'-DICHLOROBENZIDINE		0.35	U		0.38	U		0.36	U	
3-NITROANILINE		0.27	U		0.29	U		0.27	U	
4,6-DINITRO-2-METHYLPHENOL		2.3	U		2.5	U		2.3	U	
4-BROMOPHENYL PHENYL ETHER		0.76	U		0.82	U		0.77	U	
4-CHLORO-3-METHYLPHENOL		0.76	U		0.82	U		0.77	U	
4-CHLOROANILINE		0.76	U		0.82	U		0.77	U	
4-CHLOROPHENYL PHENYL ETHER		0.29	U		0.31	U		0.29	U	
4-NITROANILINE		0.76	U		0.82	U		0.77	U	
4-NITROPHENOL		2.3	U		2.5	U		2.3	U	
ACENAPHTHENE		0.095	U		0.1	U		0.096	U	
ACENAPHTHYLENE		0.095	U		0.1	U		0.096	U	
ACETOPHENONE		0.32	U		0.35	U		0.33	U	
ANTHRACENE		0.095	U		0.1	U		0.096	U	
ATRAZINE		0.32	U		0.35	U		0.33	U	
BENZALDEHYDE		0.37	U		0.4	U		0.37	U	
BENZO(A)ANTHRACENE		0.095	U		0.1	U		0.096	U	
BENZO(A)PYRENE		0.095	U		0.1	U		0.096	U	
BENZO(B)FLUORANTHENE		0.095	U		0.1	U		0.096	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-7-062211			GSP-SB-WP-50-062211			GSP-SB-WP-83-062211		
SDG: 240-1365-1	LAB_ID	240-1365-3			240-1365-2			240-1365-6		
FRACTION: OS	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		0.095	U		0.1	U		0.096	U	
BENZO(K)FLUORANTHENE		0.095	U		0.1	U		0.096	U	
BIS(2-CHLOROETHOXY)METHANE		0.3	U		0.33	U		0.31	U	
BIS(2-CHLOROETHYL)ETHER		0.095	U		0.1	U		0.096	U	
BIS(2-ETHYLHEXYL)PHTHALATE		0.83	B	A	1.1	B	A	0.77	U	
BUTYL BENZYL PHTHALATE		0.76	U		0.82	U		0.77	U	
CAPROLACTAM		0.76	U		0.82	U		0.77	U	
CARBAZOLE		0.27	U		0.29	U		0.27	U	
CHRYSENE		0.095	U		0.1	U		0.096	U	
DIBENZO(A,H)ANTHRACENE		0.095	U		0.1	U		0.096	U	
DIBENZOFURAN		0.095	U		0.1	U		0.096	U	
DIETHYL PHTHALATE		0.57	U		0.62	U		0.58	U	
DIMETHYL PHTHALATE		0.28	U		0.3	U		0.28	U	
DI-N-BUTYL PHTHALATE		0.64	U		0.69	U		0.64	U	
DI-N-OCTYL PHTHALATE		0.76	U		0.82	U		0.77	U	
FLUORANTHENE		0.095	U		0.1	U		0.096	U	
FLUORENE		0.095	U		0.1	U		0.096	U	
HEXACHLOROBENZENE		0.095	U		0.1	U		0.096	U	
HEXACHLOROBUTADIENE		0.26	U		0.28	U		0.26	U	
HEXACHLOROCYCLOPENTADIENE		0.76	U		0.82	U		0.77	U	
HEXACHLOROETHANE		0.76	U		0.82	U		0.77	U	
INDENO(1,2,3-CD)PYRENE		0.095	U		0.1	U		0.096	U	
ISOPHORONE		0.26	U		0.28	U		0.26	U	
NAPHTHALENE		0.095	U		0.1	U		0.096	U	
NITROBENZENE		0.038	U		0.041	U		0.038	U	
N-NITROSODIMETHYLAMINE		0.3	U		0.32	U		0.3	U	
N-NITROSO-DI-N-PROPYLAMINE		0.76	U		0.82	U		0.77	U	
N-NITROSODIPHENYLAMINE		0.3	U		0.32	U		0.3	U	
PENTACHLOROPHENOL		2.3	U		2.5	U		2.3	U	
PHENANTHRENE		0.095	U		0.1	U		0.096	U	
PHENOL		0.57	U		0.62	U		0.58	U	
PYRENE		0.095	U		0.1	U		0.096	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-7-062211			GSP-SB-WP-50-062211			GSP-SB-WP-61-062211			GSP-SB-WP-83-062211		
SDG: 240-1365-1	LAB_ID	240-1365-3			240-1365-2			240-1365-1			240-1365-6		
FRACTION: PET	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		380	B	A	380	B	A	320	B	A	260	B	A
GASOLINE RANGE ORGANICS		300			34	B	A	33	B	A	37	B	A

PROJ_NO: 03279	NSAMPLE	GSP-MW-7-062211			GSP-SB-WP-50-062211			GSP-SB-WP-61-062211			GSP-SB-WP-83-062211		
SDG: 240-1365-1	LAB_ID	240-1365-3			240-1365-2			240-1365-1			240-1365-6		
FRACTION: M	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.1	B	A	0.4	B	A	0.23	B	A	0.31	B	A
ARSENIC		0.93	J	IP	19	J	I	0.79	J	IP	11	J	I
BARIUM		55			150			30			46		
BERYLLIUM		0.17	J	P	0.97	J	P	0.092	U		0.092	U	
CADMIUM		0.07	J	P	0.34	J	P	0.046	U		0.046	U	
CHROMIUM		1.6	J	P	42			1.8	J	P	4.2		
COBALT		3.5			8.3			0.68	J	P	4.5		
COPPER		2.6			35			39			5.2		
LEAD		1.9			16			1.7			0.56	B	A
MERCURY		0.19	J	P	0.14	J	P	0.066	U		0.066	U	
MOLYBDENUM		2.6	B	A	2.3	B	A	1.5	B	A	0.64	B	A
NICKEL		7.9			13			1	J	P	3.4		
SELENIUM		0.72	J	P	0.5	J	P	0.32	U		0.73	J	P
SILVER		0.014	U		0.018	J	P	0.014	U		0.014	U	
THALLIUM		0.24	B	A	0.51	B	A	0.26	B	A	0.21	B	A
TUNGSTEN		0.16	U		0.16	U		0.16	U		0.16	U	
VANADIUM		1.3	J	P	110			3.9	J	P	3.6	J	P
ZINC		18	J	P	33			30			6	J	P

PROJ_NO: 03279	NSAMPLE	GSP-MW-7-062211			GSP-SB-WP-50-062211			GSP-SB-WP-61-062211			GSP-SB-WP-83-062211		
SDG: 240-1365-1	LAB_ID	240-1365-3			240-1365-2			240-1365-1			240-1365-6		
FRACTION: MF	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.12	B	A	0.11	B	A	0.19	B	A	0.31	B	A
ARSENIC		0.66	B	A	1.2	J	IP	0.41	B	A	9.4	J	I
BARIUM		45			58			28			44		
BERYLLIUM		0.092	U		0.092	U		0.092	U		0.092	U	
CADMIUM		0.046	U		0.046	U		0.046	U		0.046	U	
CHROMIUM		0.58	J	P	0.47	J	P	0.47	J	P	2.5		
COBALT		3			2.1			0.42	J	P	4		
COPPER		1.3	J	P	3.2			14			2		
LEAD		0.47	B	A	0.16	B	A	0.3	B	A	0.19	B	A
MERCURY		0.09	J	P	0.066	U		0.066	U		0.066	U	
MOLYBDENUM		2.9	B	A	1.8	B	A	0.93	B	A	0.83	B	A
NICKEL		6.4			1.3	J	P	0.63	U		1.7	J	P
SELENIUM		0.81	J	P	0.32	U		0.32	U		0.71	J	P
SILVER		0.014	U		0.014	U		0.014	U		0.014	U	
THALLIUM		0.23	B	A	0.25	B	A	0.2	B	A	0.26	B	A
TUNGSTEN		0.16	U		0.16	U		0.16	U		0.16	U	
VANADIUM		0.3	U		3.3	J	P	0.99	J	P	1.3	J	P
ZINC		14	J	P	1.2	B	A	9.9	J	P	6.1	B	A

PROJ_NO: 03279 SDG: 240-1365-1 FRACTION: MISC MEDIA: WATER	NSAMPLE	GSP-MW-7-062211			GSP-SB-WP-50-062211			GSP-SB-WP-61-062211			GSP-SB-WP-83-062211		
	LAB_ID	240-1365-3			240-1365-2			240-1365-1			240-1365-6		
	SAMP_DATE	6/22/2011			6/22/2011			6/22/2011			6/22/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.36	U		0.36	U		0.36	U		0.36	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-MW-7-062211 | Lab Sample ID: 240-1365-3

Matrix: Water | Lab File ID: UXM7339.D

Analysis Method: 8260B | Date Collected: 06/22/2011 13:20

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 18:22

Soil Aliquot Vol: | Dilution Factor: 16.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	17	U	17	3.8
71-55-6	1,1,1-Trichloroethane	17	U	17	3.7
79-34-5	1,1,2,2-Tetrachloroethane	17	U	17	3.0
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	17	U	17	4.7
75-34-3	1,1-Dichloroethane	17	U	17	2.5
75-35-4	1,1-Dichloroethene	17	U	17	3.2
563-58-6	1,1-Dichloropropene	17	U	17	2.2
87-61-6	1,2,3-Trichlorobenzene	17	U	17	2.8
96-18-4	1,2,3-Trichloropropane	17	U	17	7.2
526-73-8	1,2,3-Trimethylbenzene	83	U	83	0.098
120-82-1	1,2,4-Trichlorobenzene	17	U	17	2.5
95-63-6	1,2,4-Trimethylbenzene	17	U	17	2.0
96-12-8	1,2-Dibromo-3-Chloropropane	33	U	33	11
95-50-1	1,2-Dichlorobenzene	17	U	17	2.2
107-06-2	1,2-Dichloroethane	17	U	17	3.7
78-87-5	1,2-Dichloropropane	17	U	17	3.0
541-73-1	1,3-Dichlorobenzene	17	U	17	2.3
142-28-9	1,3-Dichloropropane	17	U	17	2.7
106-46-7	1,4-Dichlorobenzene	17	U	17	2.2
594-20-7	2,2-Dichloropropane	17	U	17	2.2
78-93-3	2-Butanone	170	U	170	9.5
110-75-8	2-Chloroethyl vinyl ether	170	U	170	17
95-49-8	2-Chlorotoluene	17	U	17	1.8
591-78-6	2-Hexanone	170	U	170	6.8
106-43-4	4-Chlorotoluene	17	U	17	3.0
99-87-6	p-Isopropyltoluene	17	U	17	2.0
108-10-1	4-Methyl-2-pentanone	170	U	170	5.3
67-64-1	Acetone	22	J	170	18
71-43-2	Benzene	3.1	J	17	2.2
108-86-1	Bromobenzene	17	U	17	2.2
75-25-2	Bromoform	17	U	17	11
74-83-9	Bromomethane	17	U	17	6.8
75-15-0	Carbon disulfide	17	U	17	2.2
56-23-5	Carbon tetrachloride	17	U	17	2.2
108-90-7	Chlorobenzene	17	U	17	2.5

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-MW-7-062211 | Lab Sample ID: 240-1365-3

Matrix: Water | Lab File ID: UXM7339.D

Analysis Method: 8260B | Date Collected: 06/22/2011 13:20

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 18:22

Soil Aliquot Vol: | Dilution Factor: 16.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	17	U	17	3.0
75-00-3	Chloroethane	17	U	17	4.8
67-66-3	Chloroform	17	U	17	2.7
74-87-3	Chloromethane	17	U	17	5.0
156-59-2	cis-1,2-Dichloroethene	17	U	17	2.8
10061-01-5	cis-1,3-Dichloropropene	17	U	17	2.3
74-95-3	Dibromomethane	17	U	17	4.7
74-97-5	Bromochloromethane	17	U	17	4.8
75-71-8	Dichlorodifluoromethane	17	U	17	5.2
75-27-4	Bromodichloromethane	17	U	17	2.5
75-65-0	tert-Butyl alcohol	830	U	830	65
100-41-4	Ethylbenzene	17	U	17	2.8
87-68-3	Hexachlorobutadiene	17	U	17	5.0
108-20-3	Diisopropyl ether	170	U	170	25
98-82-8	Isopropylbenzene	17	U	17	2.2
1634-04-4	Methyl tert-butyl ether	83	U	83	2.8
75-09-2	Methylene Chloride	17	U	17	5.5
179601-23-1	m-Xylene & p-Xylene	33	U	33	4.0
91-20-3	Naphthalene	17	U	17	4.0
104-51-8	n-Butylbenzene	17	U	17	2.0
103-65-1	n-Propylbenzene	17	U	17	2.3
95-47-6	o-Xylene	17	U	17	2.3
135-98-8	sec-Butylbenzene	17	U	17	2.2
100-42-5	Styrene	17	U	17	1.8
994-05-8	Tert-amyl-methyl ether (TAME)	83	U	83	1.1
637-92-3	Ethyl-t-butyl ether (ETBE)	83	U	83	1.8
127-18-4	Tetrachloroethene	17	U	17	4.8
108-88-3	Toluene	17	U	17	2.2
156-60-5	trans-1,2-Dichloroethene	17	U	17	3.2
10061-02-6	trans-1,3-Dichloropropene	17	U	17	3.2
79-01-6	Trichloroethene	450		17	2.8
75-69-4	Trichlorofluoromethane	17	U	17	3.5
108-05-4	Vinyl acetate	33	U	33	3.2
75-01-4	Vinyl chloride	17	U	17	3.7
1330-20-7	Xylenes, Total	33	U	33	4.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-MW-7-062211 Lab Sample ID: 240-1365-3

Matrix: Water Lab File ID: UXM7339.D

Analysis Method: 8260B Date Collected: 06/22/2011 13:20

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 18:22

Soil Aliquot Vol: Dilution Factor: 16.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6573 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	17	U	17	2.2
106-93-4	1,2-Dibromoethane	17	U	17	4.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		74-115
1868-53-7	Dibromofluoromethane (Surr)	80		75-121
460-00-4	4-Bromofluorobenzene (Surr)	86		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-MW-7-062211 Lab Sample ID: 240-1365-3

Matrix: Water Lab File ID: UXM7339.D

Analysis Method: 8260B Date Collected: 06/22/2011 13:20

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 18:22

Soil Aliquot Vol: Dilution Factor: 16.67

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6573 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-50-062211 | Lab Sample ID: 240-1365-2

Matrix: Water | Lab File ID: UXM7338.D

Analysis Method: 8260B | Date Collected: 06/22/2011 13:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 18:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	1.9	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-50-062211 Lab Sample ID: 240-1365-2

Matrix: Water Lab File ID: UXM7338.D

Analysis Method: 8260B Date Collected: 06/22/2011 13:10

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 18:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6573 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1365-1
SDG No.:
Client Sample ID: GSP-SB-WP-50-062211
Lab Sample ID: 240-1365-2
Matrix: Water
Lab File ID: UXM7338.D
Analysis Method: 8260B
Date Collected: 06/22/2011 13:10
Sample wt/vol: 5(mL)
Date Analyzed: 06/29/2011 18:00
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 6573
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	115		74-115
1868-53-7	Dibromofluoromethane (Surr)	87		75-121
460-00-4	4-Bromofluorobenzene (Surr)	94		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-50-062211 | Lab Sample ID: 240-1365-2

Matrix: Water | Lab File ID: UXM7338.D

Analysis Method: 8260B | Date Collected: 06/22/2011 13:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 18:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

Number TICs Found: 1 | TIC Result Total: 2.9

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.64	2.9	T J N

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-61-062211 | Lab Sample ID: 240-1365-1

Matrix: Water | Lab File ID: UXM7337.D

Analysis Method: 8260B | Date Collected: 06/22/2011 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 17:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	1.4	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-61-062211 | Lab Sample ID: 240-1365-1

Matrix: Water | Lab File ID: UXM7337.D

Analysis Method: 8260B | Date Collected: 06/22/2011 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 17:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1365-1
SDG No.:
Client Sample ID: GSP-SB-WP-61-062211
Lab Sample ID: 240-1365-1
Matrix: Water
Lab File ID: UXM7337.D
Analysis Method: 8260B
Date Collected: 06/22/2011 10:10
Sample wt/vol: 5(mL)
Date Analyzed: 06/29/2011 17:37
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 6573
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		74-115
1868-53-7	Dibromofluoromethane (Surr)	83		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton	Job No.: 240-1365-1
SDG No.:	
Client Sample ID: GSP-SB-WP-61-062211	Lab Sample ID: 240-1365-1
Matrix: Water	Lab File ID: UXM7337.D
Analysis Method: 8260B	Date Collected: 06/22/2011 10:10
Sample wt/vol: 5(mL)	Date Analyzed: 06/29/2011 17:37
Soil Aliquot Vol:	Dilution Factor: 1
Soil Extract Vol.:	GC Column: DB-624 ID: 0.18(mm)
% Moisture:	Level: (low/med) Low
Analysis Batch No.: 6573	Units: ug/L
Number TICs Found: 0	TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-83-062211 | Lab Sample ID: 240-1365-6

Matrix: Water | Lab File ID: UXM7341.D

Analysis Method: 8260B | Date Collected: 06/22/2011 16:20

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 19:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	1.6	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1365-1
SDG No.:
Client Sample ID: GSP-SB-WP-83-062211
Lab Sample ID: 240-1365-6
Matrix: Water
Lab File ID: UXM7341.D
Analysis Method: 8260B
Date Collected: 06/22/2011 16:20
Sample wt/vol: 5(mL)
Date Analyzed: 06/29/2011 19:07
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 6573
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.3		1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-83-062211 Lab Sample ID: 240-1365-6

Matrix: Water Lab File ID: UXM7341.D

Analysis Method: 8260B Date Collected: 06/22/2011 16:20

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6573 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	107		74-115
1868-53-7	Dibromofluoromethane (Surr)	84		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-83-062211 Lab Sample ID: 240-1365-6

Matrix: Water Lab File ID: UXM7341.D

Analysis Method: 8260B Date Collected: 06/22/2011 16:20

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 19:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6573 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: TB-062211 | Lab Sample ID: 240-1365-5

Matrix: Water | Lab File ID: UXM7340.D

Analysis Method: 8260B | Date Collected: 06/22/2011 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 18:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	2.2	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: TB-062211 | Lab Sample ID: 240-1365-5

Matrix: Water | Lab File ID: UXM7340.D

Analysis Method: 8260B | Date Collected: 06/22/2011 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 18:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1365-1
SDG No.:
Client Sample ID: TB-062211
Lab Sample ID: 240-1365-5
Matrix: Water
Lab File ID: UXM7340.D
Analysis Method: 8260B
Date Collected: 06/22/2011 00:00
Sample wt/vol: 5(mL)
Date Analyzed: 06/29/2011 18:44
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 6573
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	107		74-115
1868-53-7	Dibromofluoromethane (Surr)	83		75-121
460-00-4	4-Bromofluorobenzene (Surr)	86		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton	Job No.: 240-1365-1
SDG No.:	
Client Sample ID: TB-062211	Lab Sample ID: 240-1365-5
Matrix: Water	Lab File ID: UXM7340.D
Analysis Method: 8260B	Date Collected: 06/22/2011 00:00
Sample wt/vol: 5(mL)	Date Analyzed: 06/29/2011 18:44
Soil Aliquot Vol:	Dilution Factor: 1
Soil Extract Vol.:	GC Column: DB-624 ID: 0.18(mm)
% Moisture:	Level: (low/med) Low
Analysis Batch No.: 6573	Units: ug/L
Number TICs Found: 1	TIC Result Total: 3.7

CAS NO.	COMPOUND NAME	RT	RESULT	Q
55644-10-5	Silanol, dimethyl(1,1,2-trimethylpropyl)	4.64	3.7	T J N

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-MW-7-062211 | Lab Sample ID: 240-1365-3

Matrix: Water | Lab File ID: 1365I3A.D

Analysis Method: 8270D | Date Collected: 06/22/2011 13:20

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1050(mL) | Date Analyzed: 07/16/2011 00:20

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.19	U	0.19	0.095
208-96-8	Acenaphthylene	0.19	U	0.19	0.095
98-86-2	Acetophenone	0.95	U	0.95	0.32
120-12-7	Anthracene	0.19	U	0.19	0.095
1912-24-9	Atrazine	0.95	U	0.95	0.32
100-52-7	Benzaldehyde	0.95	U	0.95	0.37
56-55-3	Benzo[a]anthracene	0.19	U	0.19	0.095
50-32-8	Benzo[a]pyrene	0.19	U	0.19	0.095
205-99-2	Benzo[b]fluoranthene	0.19	U	0.19	0.095
191-24-2	Benzo[g,h,i]perylene	0.19	U	0.19	0.095
207-08-9	Benzo[k]fluoranthene	0.19	U	0.19	0.095
92-52-4	1,1'-Biphenyl	0.95	U	0.95	0.76
111-91-1	Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30
111-44-4	Bis(2-chloroethyl)ether	0.95	U	0.95	0.095
117-81-7	Bis(2-ethylhexyl) phthalate	0.83	J B	1.9	0.76
101-55-3	4-Bromophenyl phenyl ether	1.9	U	1.9	0.76
85-68-7	Butyl benzyl phthalate	0.95	U	0.95	0.76
105-60-2	Caprolactam	4.8	U	4.8	0.76
86-74-8	Carbazole	0.95	U	0.95	0.27
106-47-8	4-Chloroaniline	1.9	U	1.9	0.76
59-50-7	4-Chloro-3-methylphenol	1.9	U	1.9	0.76
91-58-7	2-Chloronaphthalene	0.95	U	0.95	0.095
95-57-8	2-Chlorophenol	0.95	U	0.95	0.28
7005-72-3	4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29
218-01-9	Chrysene	0.19	U	0.19	0.095
53-70-3	Dibenzo(a,h)anthracene	0.19	U	0.19	0.095
132-64-9	Dibenzofuran	0.95	U	0.95	0.095
91-94-1	3,3'-Dichlorobenzidine	4.8	U	4.8	0.35
120-83-2	2,4-Dichlorophenol	1.9	U	1.9	0.76
84-66-2	Diethyl phthalate	0.95	U	0.95	0.57
105-67-9	2,4-Dimethylphenol	1.9	U	1.9	0.76
131-11-3	Dimethyl phthalate	0.95	U	0.95	0.28
84-74-2	Di-n-butyl phthalate	0.95	U	0.95	0.64
534-52-1	4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-MW-7-062211 | Lab Sample ID: 240-1365-3

Matrix: Water | Lab File ID: 1365I3A.D

Analysis Method: 8270D | Date Collected: 06/22/2011 13:20

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1050(mL) | Date Analyzed: 07/16/2011 00:20

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	4.8	U	4.8	2.3
121-14-2	2,4-Dinitrotoluene	4.8	U	4.8	0.26
606-20-2	2,6-Dinitrotoluene	4.8	U	4.8	0.76
117-84-0	Di-n-octyl phthalate	0.95	U	0.95	0.76
206-44-0	Fluoranthene	0.19	U	0.19	0.095
86-73-7	Fluorene	0.19	U	0.19	0.095
118-74-1	Hexachlorobenzene	0.19	U	0.19	0.095
87-68-3	Hexachlorobutadiene	0.95	U	0.95	0.26
77-47-4	Hexachlorocyclopentadiene	9.5	U	9.5	0.76
67-72-1	Hexachloroethane	0.95	U	0.95	0.76
193-39-5	Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.095
78-59-1	Isophorone	0.95	U	0.95	0.26
91-57-6	2-Methylnaphthalene	0.19	U	0.19	0.095
95-48-7	2-Methylphenol	0.95	U	0.95	0.76
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47
15831-10-4	3 & 4 Methylphenol	1.9	U	1.9	0.71
91-20-3	Naphthalene	0.19	U	0.19	0.095
88-74-4	2-Nitroaniline	1.9	U	1.9	0.76
99-09-2	3-Nitroaniline	1.9	U	1.9	0.27
100-01-6	4-Nitroaniline	1.9	U	1.9	0.76
98-95-3	Nitrobenzene	0.95	U	0.95	0.038
88-75-5	2-Nitrophenol	1.9	U	1.9	0.27
100-02-7	4-Nitrophenol	4.8	U	4.8	2.3
621-64-7	N-Nitrosodi-n-propylamine	0.95	U	0.95	0.76
86-30-6	N-Nitrosodiphenylamine	0.95	U	0.95	0.30
108-60-1	2,2'-oxybis[1-chloropropane]	0.95	U	0.95	0.38
87-86-5	Pentachlorophenol	4.8	U	4.8	2.3
85-01-8	Phenanthrene	0.19	U	0.19	0.095
108-95-2	Phenol	0.95	U	0.95	0.57
129-00-0	Pyrene	0.19	U	0.19	0.095
95-95-4	2,4,5-Trichlorophenol	4.8	U	4.8	0.29
88-06-2	2,4,6-Trichlorophenol	4.8	U	4.8	0.76
62-75-9	N-Nitrosodimethylamine	0.95	U	0.95	0.30

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton	Job No.: 240-1365-1
SDG No.:	
Client Sample ID: GSP-MW-7-062211	Lab Sample ID: 240-1365-3
Matrix: Water	Lab File ID: 1365I3A.D
Analysis Method: 8270D	Date Collected: 06/22/2011 13:20
Extract. Method: 3510C	Date Extracted: 06/25/2011 08:27
Sample wt/vol: 1050(mL)	Date Analyzed: 07/16/2011 00:20
Con. Extract Vol.: 2(mL)	Dilution Factor: 1
Injection Volume: 1(uL)	Level: (low/med) Low
% Moisture:	GPC Cleanup:(Y/N) N
Analysis Batch No.: 8683	Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	55		28-110
367-12-4	2-Fluorophenol (Surr)	62		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		27-111
4165-62-2	Phenol-d5 (Surr)	60		10-110
1718-51-0	Terphenyl-d14 (Surr)	77		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	62		22-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-50-062211 | Lab Sample ID: 240-1365-2

Matrix: Water | Lab File ID: 1365I2A.D

Analysis Method: 8270D | Date Collected: 06/22/2011 13:10

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 970(mL) | Date Analyzed: 07/16/2011 00:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.21	U	0.21	0.10
208-96-8	Acenaphthylene	0.21	U	0.21	0.10
98-86-2	Acetophenone	1.0	U	1.0	0.35
120-12-7	Anthracene	0.21	U	0.21	0.10
1912-24-9	Atrazine	1.0	U	1.0	0.35
100-52-7	Benzaldehyde	1.0	U	1.0	0.40
56-55-3	Benzo[a]anthracene	0.21	U	0.21	0.10
50-32-8	Benzo[a]pyrene	0.21	U	0.21	0.10
205-99-2	Benzo[b]fluoranthene	0.21	U	0.21	0.10
191-24-2	Benzo[g,h,i]perylene	0.21	U	0.21	0.10
207-08-9	Benzo[k]fluoranthene	0.21	U	0.21	0.10
92-52-4	1,1'-Biphenyl	1.0	U	1.0	0.82
111-91-1	Bis(2-chloroethoxy)methane	1.0	U	1.0	0.33
111-44-4	Bis(2-chloroethyl)ether	1.0	U	1.0	0.10
117-81-7	Bis(2-ethylhexyl) phthalate	1.1	J B	2.1	0.82
101-55-3	4-Bromophenyl phenyl ether	2.1	U	2.1	0.82
85-68-7	Butyl benzyl phthalate	1.0	U	1.0	0.82
105-60-2	Caprolactam	5.2	U	5.2	0.82
86-74-8	Carbazole	1.0	U	1.0	0.29
106-47-8	4-Chloroaniline	2.1	U	2.1	0.82
59-50-7	4-Chloro-3-methylphenol	2.1	U	2.1	0.82
91-58-7	2-Chloronaphthalene	1.0	U	1.0	0.10
95-57-8	2-Chlorophenol	1.0	U	1.0	0.30
7005-72-3	4-Chlorophenyl phenyl ether	2.1	U	2.1	0.31
218-01-9	Chrysene	0.21	U	0.21	0.10
53-70-3	Dibenzo(a,h)anthracene	0.21	U	0.21	0.10
132-64-9	Dibenzofuran	1.0	U	1.0	0.10
91-94-1	3,3'-Dichlorobenzidine	5.2	U	5.2	0.38
120-83-2	2,4-Dichlorophenol	2.1	U	2.1	0.82
84-66-2	Diethyl phthalate	1.0	U	1.0	0.62
105-67-9	2,4-Dimethylphenol	2.1	U	2.1	0.82
131-11-3	Dimethyl phthalate	1.0	U	1.0	0.30
84-74-2	Di-n-butyl phthalate	1.0	U	1.0	0.69
534-52-1	4,6-Dinitro-2-methylphenol	5.2	U	5.2	2.5

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-50-062211 | Lab Sample ID: 240-1365-2

Matrix: Water | Lab File ID: 1365I2A.D

Analysis Method: 8270D | Date Collected: 06/22/2011 13:10

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 970(mL) | Date Analyzed: 07/16/2011 00:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	5.2	U	5.2	2.5
121-14-2	2,4-Dinitrotoluene	5.2	U	5.2	0.28
606-20-2	2,6-Dinitrotoluene	5.2	U	5.2	0.82
117-84-0	Di-n-octyl phthalate	1.0	U	1.0	0.82
206-44-0	Fluoranthene	0.21	U	0.21	0.10
86-73-7	Fluorene	0.21	U	0.21	0.10
118-74-1	Hexachlorobenzene	0.21	U	0.21	0.10
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.28
77-47-4	Hexachlorocyclopentadiene	10	U	10	0.82
67-72-1	Hexachloroethane	1.0	U	1.0	0.82
193-39-5	Indeno[1,2,3-cd]pyrene	0.21	U	0.21	0.10
78-59-1	Isophorone	1.0	U	1.0	0.28
91-57-6	2-Methylnaphthalene	0.21	U	0.21	0.10
95-48-7	2-Methylphenol	1.0	U	1.0	0.82
123-91-1	1,4-Dioxane	1.0	U	1.0	0.51
15831-10-4	3 & 4 Methylphenol	2.1	U	2.1	0.77
91-20-3	Naphthalene	0.21	U	0.21	0.10
88-74-4	2-Nitroaniline	2.1	U	2.1	0.82
99-09-2	3-Nitroaniline	2.1	U	2.1	0.29
100-01-6	4-Nitroaniline	2.1	U	2.1	0.82
98-95-3	Nitrobenzene	1.0	U	1.0	0.041
88-75-5	2-Nitrophenol	2.1	U	2.1	0.29
100-02-7	4-Nitrophenol	5.2	U	5.2	2.5
621-64-7	N-Nitrosodi-n-propylamine	1.0	U	1.0	0.82
86-30-6	N-Nitrosodiphenylamine	1.0	U	1.0	0.32
108-60-1	2,2'-oxybis[1-chloropropane]	1.0	U	1.0	0.41
87-86-5	Pentachlorophenol	5.2	U	5.2	2.5
85-01-8	Phenanthrene	0.21	U	0.21	0.10
108-95-2	Phenol	1.0	U	1.0	0.62
129-00-0	Pyrene	0.21	U	0.21	0.10
95-95-4	2,4,5-Trichlorophenol	5.2	U	5.2	0.31
88-06-2	2,4,6-Trichlorophenol	5.2	U	5.2	0.82
62-75-9	N-Nitrosodimethylamine	1.0	U	1.0	0.32

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-50-062211 | Lab Sample ID: 240-1365-2

Matrix: Water | Lab File ID: 1365I2A.D

Analysis Method: 8270D | Date Collected: 06/22/2011 13:10

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 970(mL) | Date Analyzed: 07/16/2011 00:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	48		28-110
367-12-4	2-Fluorophenol (Surr)	50		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	54		27-111
4165-62-2	Phenol-d5 (Surr)	48		10-110
1718-51-0	Terphenyl-d14 (Surr)	70		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	54		22-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-83-062211 | Lab Sample ID: 240-1365-6

Matrix: Water | Lab File ID: 1365I6A.D

Analysis Method: 8270D | Date Collected: 06/22/2011 16:20

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1040(mL) | Date Analyzed: 07/16/2011 00:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.19	U	0.19	0.096
208-96-8	Acenaphthylene	0.19	U	0.19	0.096
98-86-2	Acetophenone	0.96	U	0.96	0.33
120-12-7	Anthracene	0.19	U	0.19	0.096
1912-24-9	Atrazine	0.96	U	0.96	0.33
100-52-7	Benzaldehyde	0.96	U	0.96	0.37
56-55-3	Benzo[a]anthracene	0.19	U	0.19	0.096
50-32-8	Benzo[a]pyrene	0.19	U	0.19	0.096
205-99-2	Benzo[b]fluoranthene	0.19	U	0.19	0.096
191-24-2	Benzo[g,h,i]perylene	0.19	U	0.19	0.096
207-08-9	Benzo[k]fluoranthene	0.19	U	0.19	0.096
92-52-4	1,1'-Biphenyl	0.96	U	0.96	0.77
111-91-1	Bis(2-chloroethoxy)methane	0.96	U	0.96	0.31
111-44-4	Bis(2-chloroethyl)ether	0.96	U	0.96	0.096
117-81-7	Bis(2-ethylhexyl) phthalate	1.9	U	1.9	0.77
101-55-3	4-Bromophenyl phenyl ether	1.9	U	1.9	0.77
85-68-7	Butyl benzyl phthalate	0.96	U	0.96	0.77
105-60-2	Caprolactam	4.8	U	4.8	0.77
86-74-8	Carbazole	0.96	U	0.96	0.27
106-47-8	4-Chloroaniline	1.9	U	1.9	0.77
59-50-7	4-Chloro-3-methylphenol	1.9	U	1.9	0.77
91-58-7	2-Chloronaphthalene	0.96	U	0.96	0.096
95-57-8	2-Chlorophenol	0.96	U	0.96	0.28
7005-72-3	4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29
218-01-9	Chrysene	0.19	U	0.19	0.096
53-70-3	Dibenzo(a,h)anthracene	0.19	U	0.19	0.096
132-64-9	Dibenzofuran	0.96	U	0.96	0.096
91-94-1	3,3'-Dichlorobenzidine	4.8	U	4.8	0.36
120-83-2	2,4-Dichlorophenol	1.9	U	1.9	0.77
84-66-2	Diethyl phthalate	0.96	U	0.96	0.58
105-67-9	2,4-Dimethylphenol	1.9	U	1.9	0.77
131-11-3	Dimethyl phthalate	0.96	U	0.96	0.28
84-74-2	Di-n-butyl phthalate	0.96	U	0.96	0.64
534-52-1	4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-83-062211 | Lab Sample ID: 240-1365-6

Matrix: Water | Lab File ID: 1365I6A.D

Analysis Method: 8270D | Date Collected: 06/22/2011 16:20

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1040(mL) | Date Analyzed: 07/16/2011 00:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	4.8	U	4.8	2.3
121-14-2	2,4-Dinitrotoluene	4.8	U	4.8	0.26
606-20-2	2,6-Dinitrotoluene	4.8	U	4.8	0.77
117-84-0	Di-n-octyl phthalate	0.96	U	0.96	0.77
206-44-0	Fluoranthene	0.19	U	0.19	0.096
86-73-7	Fluorene	0.19	U	0.19	0.096
118-74-1	Hexachlorobenzene	0.19	U	0.19	0.096
87-68-3	Hexachlorobutadiene	0.96	U	0.96	0.26
77-47-4	Hexachlorocyclopentadiene	9.6	U	9.6	0.77
67-72-1	Hexachloroethane	0.96	U	0.96	0.77
193-39-5	Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.096
78-59-1	Isophorone	0.96	U	0.96	0.26
91-57-6	2-Methylnaphthalene	0.19	U	0.19	0.096
95-48-7	2-Methylphenol	0.96	U	0.96	0.77
123-91-1	1,4-Dioxane	0.96	U	0.96	0.47
15831-10-4	3 & 4 Methylphenol	1.9	U	1.9	0.72
91-20-3	Naphthalene	0.19	U	0.19	0.096
88-74-4	2-Nitroaniline	1.9	U	1.9	0.77
99-09-2	3-Nitroaniline	1.9	U	1.9	0.27
100-01-6	4-Nitroaniline	1.9	U	1.9	0.77
98-95-3	Nitrobenzene	0.96	U	0.96	0.038
88-75-5	2-Nitrophenol	1.9	U	1.9	0.27
100-02-7	4-Nitrophenol	4.8	U	4.8	2.3
621-64-7	N-Nitrosodi-n-propylamine	0.96	U	0.96	0.77
86-30-6	N-Nitrosodiphenylamine	0.96	U	0.96	0.30
108-60-1	2,2'-oxybis[1-chloropropane]	0.96	U	0.96	0.38
87-86-5	Pentachlorophenol	4.8	U	4.8	2.3
85-01-8	Phenanthrene	0.19	U	0.19	0.096
108-95-2	Phenol	0.96	U	0.96	0.58
129-00-0	Pyrene	0.19	U	0.19	0.096
95-95-4	2,4,5-Trichlorophenol	4.8	U	4.8	0.29
88-06-2	2,4,6-Trichlorophenol	4.8	U	4.8	0.77
62-75-9	N-Nitrosodimethylamine	0.96	U	0.96	0.30

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-83-062211 | Lab Sample ID: 240-1365-6

Matrix: Water | Lab File ID: 1365I6A.D

Analysis Method: 8270D | Date Collected: 06/22/2011 16:20

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1040(mL) | Date Analyzed: 07/16/2011 00:39

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	55		28-110
367-12-4	2-Fluorophenol (Surr)	61		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	63		27-111
4165-62-2	Phenol-d5 (Surr)	56		10-110
1718-51-0	Terphenyl-d14 (Surr)	66		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	59		22-120

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-MW-7-062211 Lab Sample ID: 240-1365-3

Matrix: Water Lab File ID: YF062832.D

Analysis Method: 8015B Date Collected: 06/22/2011 13:20

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 09:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	300	B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	103		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-50-062211 Lab Sample ID: 240-1365-2

Matrix: Water Lab File ID: YF062831.D

Analysis Method: 8015B Date Collected: 06/22/2011 13:10

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 08:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	34	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	91		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-61-062211 | Lab Sample ID: 240-1365-1

Matrix: Water | Lab File ID: YF062830.D

Analysis Method: 8015B | Date Collected: 06/22/2011 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 07:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6402 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	33	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	87		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-83-062211 Lab Sample ID: 240-1365-6

Matrix: Water Lab File ID: YF062833.D

Analysis Method: 8015B Date Collected: 06/22/2011 16:20

Sample wt/vol: 5(mL) Date Analyzed: 06/29/2011 09:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6402 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	37	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	107		10-150

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-MW-7-062211 Lab Sample ID: 240-1365-3

Matrix: Water Lab File ID: P5062807.D

Analysis Method: 8015B Date Collected: 06/22/2011 13:20

Extraction Method: 3520C Date Extracted: 06/25/2011 08:17

Sample wt/vol: 1050(mL) Date Analyzed: 06/28/2011 12:59

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6358 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	380	J B	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	50		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-50-062211 Lab Sample ID: 240-1365-2

Matrix: Water Lab File ID: P5062806.D

Analysis Method: 8015B Date Collected: 06/22/2011 13:10

Extraction Method: 3520C Date Extracted: 06/25/2011 08:17

Sample wt/vol: 1020(mL) Date Analyzed: 06/28/2011 12:31

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6358 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	380	J B	490	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	49		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-61-062211 Lab Sample ID: 240-1365-4

Matrix: Water Lab File ID: P5062808.D

Analysis Method: 8015B Date Collected: 06/22/2011 14:30

Extraction Method: 3520C Date Extracted: 06/25/2011 08:17

Sample wt/vol: 1040(mL) Date Analyzed: 06/28/2011 13:27

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6358 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	320	J B	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	49		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-83-062211 Lab Sample ID: 240-1365-6

Matrix: Water Lab File ID: P5062809.D

Analysis Method: 8015B Date Collected: 06/22/2011 16:20

Extraction Method: 3520C Date Extracted: 06/25/2011 08:17

Sample wt/vol: 1050(mL) Date Analyzed: 06/28/2011 13:55

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6358 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	260	J B	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	51		10-110

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW-7-062211 Lab Sample ID: 240-1365-3

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2011 13:20

Reporting Basis: WET Date Received: 06/23/2011 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.10	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	0.93	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	55	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	0.17	1.0	0.092	ug/L	J		1	6020
7440-43-9	Cadmium	0.070	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	1.6	2.0	0.11	ug/L	J		1	6020
7440-48-4	Cobalt	3.5	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	2.6	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	1.9	1.0	0.024	ug/L		B	1	6020
7439-98-7	Molybdenum	2.6	2.0	0.42	ug/L			1	6020
7440-02-0	Nickel	7.9	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	0.72	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.24	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	1.3	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	18	20	0.50	ug/L	J	B	1	6020
7439-97-6	Mercury	0.19	0.20	0.066	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW-7-062211 Lab Sample ID: 240-1365-3

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2011 13:20

Reporting Basis: WET Date Received: 06/23/2011 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.12	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	0.66	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	45	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	0.58	2.0	0.11	ug/L	J		1	6020
7440-48-4	Cobalt	3.0	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	1.3	2.0	0.23	ug/L	J		1	6020
7439-92-1	Lead	0.47	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	2.9	2.0	0.42	ug/L			1	6020
7440-02-0	Nickel	6.4	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	0.81	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.23	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.30	ug/L	U		1	6020
7440-66-6	Zinc	14	20	0.50	ug/L	J	B	1	6020
7439-97-6	Mercury	0.090	0.20	0.066	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-WP-50-062211 Lab Sample ID: 240-1365-2

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2011 13:10

Reporting Basis: WET Date Received: 06/23/2011 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.40	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	19	5.0	0.092	ug/L			1	6020
7440-39-3	Barium	150	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	0.97	1.0	0.092	ug/L	J		1	6020
7440-43-9	Cadmium	0.34	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	42	2.0	0.11	ug/L			1	6020
7440-48-4	Cobalt	8.3	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	35	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	16	1.0	0.024	ug/L		B	1	6020
7439-98-7	Molybdenum	2.3	2.0	0.42	ug/L			1	6020
7440-02-0	Nickel	13	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	0.50	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	0.018	1.0	0.014	ug/L	J		1	6020
7440-28-0	Thallium	0.51	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	110	20	0.30	ug/L			1	6020
7440-66-6	Zinc	33	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.14	0.20	0.066	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-SB-WP-50-062211 Lab Sample ID: 240-1365-2

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2011 13:10

Reporting Basis: WET Date Received: 06/23/2011 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.11	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	1.2	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	58	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	0.47	2.0	0.11	ug/L	J		1	6020
7440-48-4	Cobalt	2.1	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	3.2	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	0.16	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	1.8	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	1.3	2.0	0.63	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.25	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	3.3	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	1.2	20	0.50	ug/L	J	B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-WP-61-062211
Lab Sample ID: 240-1365-1

Lab Name: TestAmerica Burlington
Job No.: 240-1365-1

SDG ID.:

Matrix: Water
Date Sampled: 06/22/2011 10:10

Reporting Basis: WET
Date Received: 06/23/2011 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.23	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	0.79	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	30	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	1.8	2.0	0.11	ug/L	J		1	6020
7440-48-4	Cobalt	0.68	1.0	0.049	ug/L	J		1	6020
7440-50-8	Copper	39	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	1.7	1.0	0.024	ug/L		B	1	6020
7439-98-7	Molybdenum	1.5	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	1.0	2.0	0.63	ug/L	J		1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.26	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	3.9	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	30	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-SB-WP-61-062211 Lab Sample ID: 240-1365-1

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2011 10:10

Reporting Basis: WET Date Received: 06/23/2011 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.19	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	0.41	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	28	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	0.47	2.0	0.11	ug/L	J		1	6020
7440-48-4	Cobalt	0.42	1.0	0.049	ug/L	J		1	6020
7440-50-8	Copper	14	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	0.30	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.93	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	2.0	2.0	0.63	ug/L	U		1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.20	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	0.99	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	9.9	20	0.50	ug/L	J	B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-WP-83-062211 Lab Sample ID: 240-1365-6

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG ID.:

Matrix: Water Date Sampled: 06/22/2011 16:20

Reporting Basis: WET Date Received: 06/23/2011 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.31	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	11	5.0	0.092	ug/L			1	6020
7440-39-3	Barium	46	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	4.2	2.0	0.11	ug/L			1	6020
7440-48-4	Cobalt	4.5	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	5.2	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	0.56	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.64	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	3.4	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	0.73	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.21	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	3.6	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	6.0	20	0.50	ug/L	J	B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-SB-WP-83-062211
Lab Sample ID: 240-1365-6
Lab Name: TestAmerica Burlington
Job No.: 240-1365-1
SDG ID.:
Matrix: Water
Date Sampled: 06/22/2011 16:20
Reporting Basis: WET
Date Received: 06/23/2011 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.31	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	9.4	5.0	0.092	ug/L			1	6020
7440-39-3	Barium	44	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	2.5	2.0	0.11	ug/L			1	6020
7440-48-4	Cobalt	4.0	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	2.0	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	0.19	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	0.83	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	1.7	2.0	0.63	ug/L	J		1	6020
7782-49-2	Selenium	0.71	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.26	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	1.3	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	6.1	20	0.50	ug/L	J	B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

TestAmerica North Canton

Client Sample ID: GSP-MW-7-062211

General Chemistry

Lot-Sample #...: G1F210484-009 Work Order #...: MKGVW Matrix.....: WATER
Date Sampled...: 06/22/11 Date Received..: 06/24/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/12/11	1192193

Dilution Factor: 1 MDL.....: 0.36

TestAmerica North Canton

Client Sample ID: GSP-SB-WP-50-062211

General Chemistry

Lot-Sample #...: G1F210484-008 Work Order #...: MKGVV Matrix.....: WATER
Date Sampled...: 06/22/11 Date Received..: 06/24/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

TestAmerica North Canton

Client Sample ID: GSP-SB-WP-61-062211

General Chemistry

Lot-Sample #...: G1F210484-007 Work Order #...: MKGVT Matrix.....: WATER
Date Sampled...: 06/22/11 Date Received..: 06/24/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

TestAmerica North Canton

Client Sample ID: GSP-SB-WP-83-062211

General Chemistry

Lot-Sample #...: G1F210484-010 **Work Order #...:** MKGVX **Matrix.....:** WATER
Date Sampled...: 06/22/11 **Date Received..:** 06/24/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

Appendix C

Support Documentation

CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: MSA Greater Strawberry Point PH. II 2011

Report Number: 240-1365-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/23/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.5 and 2.7 C.

Multiple TestAmerica laboratories were used to support this project. Narrative for TestAmerica West Sacramento (Perchlorate) is provided in the lab's report in the Subcontract section of this report. TestAmerica Burlington's narrative for ICP/MS Metals is incorporated herein. See the Method Summary for additional information.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-SB-WP-61-062211 (240-1365-1), GSP-SB-WP-50-062211 (240-1365-2), GSP-MW-7-062211 (240-1365-3), TB-062211 (240-1365-5) and GSP-SB-WP-83-062211 (240-1365-6) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/29/2011.

Naphthalene was detected in method blank MB 240-6573/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

tert-Butyl alcohol failed the recovery criteria low for LCS 240-6573/4. Refer to the QC report for details.

2-Chloroethyl vinyl ether and tert-Butyl alcohol failed the recovery criteria low for the MS/MSD of sample 240-1438-4 in batch 240-6573.

Sample GSP-MW-7-062211 (240-1365-3)[17X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The laboratory control sample for batch 6573 exceeded control limits for tert-Butyl alcohol. This compound has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for this analyte.These results have been reported and qualified.

No other difficulties were encountered during the volatiles analyses. All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples GSP-SB-WP-50-062211 (240-1365-2), GSP-MW-7-062211 (240-1365-3) and GSP-SB-WP-83-062211 (240-1365-6) were analyzed for Semivolatiles in accordance with EPA SW 8270D. The samples were analyzed on 07/16/2011.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 240-6094/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

There was no client requested matrix spike/matrix spike duplicate (MS/MSD) for batch 6094

No other difficulties were encountered during the semivolatiles analyses. All other quality control parameters were within the acceptance limits.

GRO (C6-C10)

Samples GSP-SB-WP-61-062211 (240-1365-1), GSP-SB-WP-50-062211 (240-1365-2), GSP-MW-7-062211 (240-1365-3) and GSP-SB-WP-83-062211 (240-1365-6) were analyzed for gas range organics in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 06/29/2011.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-6402/19 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DRO (C10-C32)

Samples GSP-SB-WP-50-062211 (240-1365-2), GSP-MW-7-062211 (240-1365-3), GSP-SB-WP-61-062211 (240-1365-4) and GSP-SB-WP-83-062211 (240-1365-6) were analyzed for Diesel Range Organics (DRO) in accordance with EPA Method 8015B. The samples were analyzed on 06/28/2011.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-6092/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

There was no client requested matrix spike/matrix spike duplicate (MS/MSD) for batch 6092.

No other difficulties were encountered during the Diesel Range Organics (DRO) analyses. All other quality control parameters were within the acceptance limits.

METALS (ICPMS)

Samples GSP-SB-WP-61-062211 (240-1365-1), GSP-SB-WP-50-062211 (240-1365-2), GSP-MW-7-062211 (240-1365-3) and GSP-SB-WP-83-062211 (240-1365-6) were analyzed for metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 08/04/2011.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL METALS (ICPMS)

Samples GSP-SB-WP-61-062211 (240-1365-1), GSP-SB-WP-50-062211 (240-1365-2), GSP-MW-7-062211 (240-1365-3) and GSP-SB-WP-83-062211 (240-1365-6) were analyzed for total metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 08/04/2011.

Lead, Thallium and Zinc were detected in method blank MB 200-20967/1-A and MB 200-21964/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The serial dilution performed for the following sample was outside control limits for As: (240-1365-6 SD)

The internal standard association for As, Mo, and Se was changed from Y to In in analytical sequence 080411-02D batch 22997. Indium internal standardization was applied to all injection results for these elements , due to the possiblity of isobaric interference on the Yttrium line.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance

limits.

DISSOLVED MERCURY (CVAA)

Samples GSP-SB-WP-61-062211 (240-1365-1), GSP-SB-WP-50-062211 (240-1365-2), GSP-MW-7-062211 (240-1365-3) and GSP-SB-WP-83-062211 (240-1365-6) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/12/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples GSP-SB-WP-61-062211 (240-1365-1), GSP-SB-WP-50-062211 (240-1365-2), GSP-MW-7-062211 (240-1365-3) and GSP-SB-WP-83-062211 (240-1365-6) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/12/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact					
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 009890	
Address: 20251 Century Blvd Ste 200	Telephone: (301)528-5552	Telephone: (703)342-8389	Telephone: (350)497-9396	1 of 1 COCs	
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@Tetratech.com	Analysis Turnaround Time (In BUS days)	Analyses	For lab use only	
Phone: (301)528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐	
Project Name: GSP Phase II	Method of Shipment/Carrier:			Job/SDG No.:	
Project Number: 112I03279-04	Shipping/Tracking No:				
PO#					

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C) / Grab (G)	VOCs	Total Metals	Dissolved Metals	Perchlorate	TPH-GRO	TPH-DRO	SVOCs + 1,4-Dioxane	Sample Specific Notes / Special Instructions:
GSP-SB-WP-61-062211	6/22/11	1010		X					2	5			1			G	X	X	X	X	X			
GSP-SB-WP-50-062211		1310						2	2	5			3			G	X	X	X	X	X	X	X	
~~GSP-MW-8-062211~~																G								
GSP-MW-7-062211		1320						2	2	5			3			G	X	X	X	X	X	X	X	
GSP-SB-WP-61-062211		1430						1								G						X		
TB-062211										2							X							
GSP-SB-WP-83-062211	6/22/11	1620		X				1	2	5			~~32~~			G	X	X	X	X	X	X	X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company: Tetra Tech	Date/Time: 6/22/11 - 1700	Received by:	Company: TestAmerica	Date/Time: 6-22-11 1653
Relinquished by:	Company: TestAmerica	Date/Time: 6-22-11 1733	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 6/23/11 910

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TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 1364
North Canton Facility

Client Tetra Tech Project GSP PHASE II By: (Signature)
Cooler Received on 6/23/11 Opened on 6/23/11
FedEx ☑ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other
TestAmerica Cooler # Multiple Coolers ☑ Foam Box ☐ Client Cooler ☐ Other

1. Were custody seals on the outside of the cooler(s)? Yes ☑ No ☐ Intact? Yes ☑ No ☐ NA ☐
   If YES, Quantity 2 Quantity Unsalvageable
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☑ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions?
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☐ None ☐ Other
6. Cooler temperature upon receipt °C See back of form for multiple coolers/temps ☑
   METHOD: IR ☑ Other ☐ BAUC
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☐ No ☑
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☑ No ☐ NA ☐
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☑ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☑ No ☐ Were VOAs on the COC? Yes ☑ No ☐

Contacted PM Date by via Verbal ☐ Voice Mail ☐ Other ☐
Concerning

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) 1YL MW7 DRO were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 100110-HNO_3; *Sulfuric Acid Lot#* 110410-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-($CH_3COO)_2ZN$/*NaOH*. What time was preservative added to sample(s)?

Client ID	pH	Date	Initials
61	<2 <2	6-23-11	CSL
50	<2 <2 <2 <2	"	"
7	<2 <2 <2	"	"
101	<2	"	"
83	<2 <2 <2	"	"

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant
Client	2.7	IR	IU
2	2.5		L

Discrepancies Cont'd:

Login Sample Receipt Checklist

Client: Tetra Tech NUS Inc

Job Number: 240-1365-1

Login Number: 1365
List Number: 1
Creator: McFadden, John

List Source: TestAmerica North Canton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	2.7, 2.5
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech NUS Inc

Job Number: 240-1365-1

Login Number: 1365
List Number: 1
Creator: Marion, Greg T

List Source: TestAmerica Burlington
List Creation: 07/06/11 02:58 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	939993, 992
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	24.2°C IR GUN ID 96/CF= 0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	Refer to Job Narrative for details.
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	Check done at department level as required.

SAMPLE SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-1365-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-1365-1	GSP-SB-WP-61-062211	Water	06/22/2011 1010	06/23/2011 0910
240-1365-2	GSP-SB-WP-50-062211	Water	06/22/2011 1310	06/23/2011 0910
240-1365-3	GSP-MW-7-062211	Water	06/22/2011 1320	06/23/2011 0910
240-1365-4	GSP-SB-WP-61-062211	Water	06/22/2011 1430	06/23/2011 0910
240-1365-5TB	TB-062211	Water	06/22/2011 0000	06/23/2011 0910
240-1365-6	GSP-SB-WP-83-062211	Water	06/22/2011 1620	06/23/2011 0910

METHOD SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-1365-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Purge and Trap	TAL NC		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Liquid-Liquid Extraction (Separatory Funnel)			SW846 3510C
Gasoline Range Organics - (GC)	TAL NC	SW846 8015B	
Purge and Trap	TAL NC		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL NC	SW846 8015B	
Liquid-Liquid Extraction (Continuous)			SW846 3520C
Metals (ICP/MS)	TAL BUR	SW846 6020	
Preparation, Total Metals			SW846 3010A
Metals (ICP/MS)	TAL BUR	SW846 6020	
Preparation, Total Metals			SW846 3010A
Sample Filtration, Field			FIELD_FLTRD
Mercury (CVAA)	TAL BUR	SW846 7470A	
Preparation, Mercury			SW846 7470A
Mercury (CVAA)	TAL BUR	SW846 7470A	
Preparation, Mercury			SW846 7470A
Sample Filtration, Field			FIELD_FLTRD
EPA 314.0 Perchlorate	TAL WSC	EPA 314.0	

Lab References:

TAL BUR = TestAmerica Burlington

TAL NC = TestAmerica North Canton

TAL WSC = TestAmerica West Sacramento

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1342-1	HG	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	07/07/2011	07/08/2011	16	1	17
240-1342-1	HG	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	07/07/2011	07/08/2011	16	1	17
240-1365-1	HG	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	07/11/2011	07/12/2011	19	1	20
240-1365-1	HG	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	07/11/2011	07/12/2011	19	1	20
240-1365-1	HG	UG/L	GSP-SB-WP-61-062211	240-1365-1	NM	06/22/2011	07/11/2011	07/12/2011	19	1	20
240-1365-1	HG	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	07/11/2011	07/12/2011	19	1	20
240-1342-1	M	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	07/07/2011	07/16/2011	16	9	25
240-1342-1	M	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	07/07/2011	07/16/2011	16	9	25
240-1365-1	M	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	07/07/2011	08/04/2011	15	28	43
240-1365-1	M	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	07/07/2011	08/04/2011	15	28	43
240-1365-1	M	UG/L	GSP-SB-WP-61-062211	240-1365-1	NM	06/22/2011	07/07/2011	08/04/2011	15	28	43
240-1365-1	M	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	07/19/2011	08/04/2011	27	16	43
240-1365-1	M	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	07/07/2011	08/04/2011	15	28	43
240-1342-1	OS	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	06/23/2011	07/15/2011	2	22	24
240-1342-1	OS	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/23/2011	07/15/2011	2	22	24
240-1365-1	OS	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	06/25/2011	07/16/2011	3	21	24

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1365-1	OS	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	06/25/2011	07/16/2011	3	21	24
240-1365-1	OS	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/25/2011	07/16/2011	3	21	24
240-1342-1	OV	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1342-1	OV	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1365-1	OV	UG/L	TB-062211	240-1365-5	TB	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	OV	UG/L	TB-062211	240-1365-5	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	OV	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	OV	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	OV	UG/L	GSP-SB-WP-61-062211	240-1365-1	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	OV	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1342-1	DRO	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	06/23/2011	06/24/2011	2	1	3
240-1342-1	DRO	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/23/2011	06/24/2011	2	1	3
240-1365-1	DRO	UG/L	GSP-SB-WP-61-062211	240-1365-4	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1365-1	DRO	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1365-1	DRO	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1365-1	DRO	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1342-1	GRO	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1342-1	GRO	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1365-1	GRO	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1365-1	GRO	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	GRO	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	GRO	UG/L	GSP-SB-WP-61-062211	240-1365-1	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1342-1	TPH	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	06/23/2011	06/24/2011	2	1	3
240-1342-1	TPH	UG/L	GSP-SB-WP-54-062111	240-1342-2	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1342-1	TPH	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1342-1	TPH	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/23/2011	06/24/2011	2	1	3
240-1365-1	TPH	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	TPH	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1365-1	TPH	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	TPH	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1365-1	TPH	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1365-1	TPH	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	TPH	UG/L	GSP-SB-WP-61-062211	240-1365-1	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	TPH	UG/L	GSP-SB-WP-61-062211	240-1365-4	NM	06/22/2011	06/25/2011	06/28/2011	3	3	6
240-1342-1	OV	UG/L	GSP-SB-WP-71-062111	240-1342-3	NM	06/21/2011	06/29/2011	06/29/2011	8	0	8
240-1365-1	OV	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	06/29/2011	06/29/2011	7	0	7
240-1365-1	OV	UG/L	TB-062211	240-1365-5	TB	06/22/2011	06/29/2011	06/29/2011	7	0	7

PROJ_NO 03279

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1365-1	PCL	UG/L	GSP-SB-WP-83-062211	240-1365-6	NM	06/22/2011	07/11/2011	07/11/2011	19	0	19
240-1365-1	PCL	UG/L	GSP-SB-WP-61-062211	240-1365-1	NM	06/22/2011	07/11/2011	07/11/2011	19	0	19
240-1365-1	PCL	UG/L	GSP-SB-WP-50-062211	240-1365-2	NM	06/22/2011	07/11/2011	07/11/2011	19	0	19
240-1365-1	PCL	UG/L	GSP-MW-7-062211	240-1365-3	NM	06/22/2011	07/12/2011	07/12/2011	20	0	20

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab File ID: BFB1887.D BFB Injection Date: 05/29/2011

Instrument ID: A3UX16 BFB Injection Time: 12:02

Analysis Batch No.: 3007

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.5	
75	30.0 - 60.0 % of mass 95	47.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.3	(0.5)1
174	50.0 - 120.00 % of mass 95	71.3	
175	5.0 - 9.0 % of mass 174	4.9	(6.9)1
176	95.0 - 101.0 % of mass 174	69.0	(96.7)1
177	5.0 - 9.0 % of mass 176	4.4	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-3007/2	UXM6500.D	05/29/2011	13:00
	STD8260 240-3007/3	UXM6501.D	05/29/2011	13:22
	STD8260 240-3007/4	UXM6502.D	05/29/2011	13:45
	STD8260 240-3007/5	UXM6503.D	05/29/2011	14:08
	STD8260 240-3007/6	UXM6504.D	05/29/2011	14:31
	STD8260 240-3007/7	UXM6505.D	05/29/2011	14:53
	STD1 240-3007/8	UXM6506.D	05/29/2011	15:15
	STD2 240-3007/9	UXM6507.D	05/29/2011	15:37
	STD3 240-3007/10	UXM6508.D	05/29/2011	16:00
	STD4 240-3007/11	UXM6509.D	05/29/2011	16:22
	STD5 240-3007/12	UXM6510.D	05/29/2011	16:44
	STD6 240-3007/13	UXM6511.D	05/29/2011	17:06
	ICV 240-3007/14	UXM6512.D	05/29/2011	17:29

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-3007/7	UXM6505.D
Level 2	STD8260 240-3007/6	UXM6504.D
Level 3	STD8260 240-3007/5	UXM6503.D
Level 4	STD8260 240-3007/4	UXM6502.D
Level 5	STD8260 240-3007/3	UXM6501.D
Level 6	STD8260 240-3007/2	UXM6500.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6																
Dichlorodifluoromethane	0.2983	0.2259	0.2557	0.2725	0.2800	Ave		0.2718				10.0		15.0			
	0.2987																
Chloromethane	0.4717	0.4631	0.4296	0.4483	0.4355	Ave		0.4459			0.1000	4.1		15.0			
	0.4273																
Vinyl chloride	0.3635	0.3493	0.3371	0.3600	0.3637	Ave		0.3570				3.3		15.0			
	0.3682																
Bromomethane	0.1931	0.1968	0.1783	0.1775	0.1548	Ave		0.1731				13.0		15.0			
	0.1378																
Chloroethane	0.2242	0.2258	0.2110	0.2245	0.2145	Ave		0.2175				4.0		15.0			
	0.2050																
Trichlorofluoromethane	0.3760	0.3088	0.3169	0.3442	0.3390	Ave		0.3382				7.0		15.0			
	0.3443																
Acrolein	0.0455	0.0447	0.0464	0.0479	0.0493	Ave		0.0471 NT				4.0		15.0			
	0.0489																
1,1-Dichloroethene	0.2757	0.2770	0.2629	0.2753	0.2892	Ave		0.2779				3.4		15.0			
	0.2875																
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.2129	0.1837	0.1542	0.1941	0.2092	Ave		0.1941				12.0		15.0			
	0.2106																
Acetone	0.1255	0.1071	0.0959	0.0954	0.0917	Ave		0.1009				13.0		15.0			
	0.0899																
Iodomethane	0.4663	0.4523	0.4463	0.4664	0.4894	Ave		0.4669				3.5		15.0			
	0.4805																
Carbon disulfide	0.9270	0.9205	0.8948	0.9696	1.0483	Ave		0.9697				7.1		15.0			
	1.0581																
Acetonitrile	0.0415	0.0396	0.0408	0.0418	0.0422	Ave		0.0412 NT				2.2		15.0			
	0.0416																
Methyl acetate	0.2173	0.2329	0.2302	0.2353	0.2392	Ave		0.2317				3.3		15.0			
	0.2352																
Methylene Chloride	0.6813	0.4832	0.3847	0.3689	0.3638	Lin1	0.3012	0.3454							0.9990		0.9900
	0.3553																

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0264 0.0247	0.0242	0.0238	0.0245	0.0252	Ave		0.0248				3.7		15.0			
Acrylonitrile	0.0962 0.1129	0.1089	0.1081	0.1133	0.1132	Ave		0.1088				6.0		15.0			
Methyl tert-butyl ether	0.9052 0.9780	0.9338	0.9084	0.9445	0.9844	Ave		0.9424				3.6		15.0			
trans-1,2-Dichloroethene	0.3245 0.3425	0.3127	0.3206	0.3283	0.3449	Ave		0.3289				3.8		15.0			
Hexane	0.0574 0.0546	0.0465	0.0392	0.0472	0.0530	Ave		0.0496				13.0		15.0			
1,1-Dichloroethane	0.5912 0.6319	0.5979	0.5673	0.5881	0.6272	Ave		0.6006			0.1000	4.1		15.0			
Vinyl acetate	0.0271 0.0446	0.0328	0.0324	0.0372	0.0413	Lin1	-0.024	0.0433							0.9950		0.9900
2,2-Dichloropropane	0.4458 0.4655	0.4225	0.4110	0.4480	0.4683	Ave		0.4435				5.2		15.0			
cis-1,2-Dichloroethene	0.3377 0.3558	0.3482	0.3265	0.3398	0.3653	Ave		0.3455				4.0		15.0			
2-Butanone	0.1477 0.1193	0.1256	0.1190	0.1218	0.1226	Ave		0.1260				8.6		15.0			
Bromochloromethane	0.1519 0.1533	0.1391	0.1375	0.1459	0.1561	Ave		0.1473				5.3		15.0			
Tetrahydrofuran	0.1188 0.0832	0.0981	0.0900	0.0884	0.0887	Ave		0.0945				14.0		15.0			
Chloroform	0.5079 0.5578	0.5235	0.5114	0.5209	0.5580	Ave		0.5299				4.2		15.0			
1,1,1-Trichloroethane	0.4542 0.5081	0.4748	0.4473	0.4767	0.5115	Ave		0.4788				5.6		15.0			
Cyclohexane	0.5872 0.6036	0.5268	0.4580	0.5415	0.5932	Ave		0.5517				10.0		15.0			
1,1-Dichloropropene	0.3780 0.4190	0.3872	0.3615	0.3885	0.4165	Ave		0.3918				5.7		15.0			
Carbon tetrachloride	0.3498 0.4050	0.3346	0.3134	0.3616	0.3954	Ave		0.3600				9.8		15.0			
Benzene	1.1885 1.2941	1.1806	1.1616	1.1888	1.2727	Ave		1.2144				4.5		15.0			
1,2-Dichloroethane	0.4012 0.4187	0.3969	0.4003	0.3960	0.4222	Ave		0.4059				2.8		15.0			
Trichloroethene	0.2726 0.2968	0.2781	0.2630	0.2758	0.2977	Ave		0.2807				4.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	0.4041 0.4413	0.3619	0.3155	0.3931	0.4327	Ave		0.3914				12.0		15.0			
1,2-Dichloropropane	0.2862 0.3080	0.2814	0.2805	0.2874	0.3119	Ave		0.2926				4.7		15.0			
1,4-Dioxane	0.0021 0.0021	0.0023	0.0021	0.0022	0.0023	Ave		0.0022 NT				4.4		15.0			
Dibromomethane	0.1486 0.1541	0.1402	0.1421	0.1456	0.1554	Ave		0.1477				4.2		15.0			
Bromodichloromethane	0.3040 0.3742	0.3188	0.3252	0.3357	0.3691	Ave		0.3378				8.3		15.0			
2-Chloroethyl vinyl ether	0.1335 0.1558	0.1465	0.1474	0.1533	0.1571	Ave		0.1489				5.8		15.0			
cis-1,3-Dichloropropene	0.3859 0.4653	0.3988	0.4046	0.4229	0.4617	Ave		0.4232				7.9		15.0			
4-Methyl-2-pentanone	0.2679 0.2843	0.2669	0.2713	0.2799	0.2828	Ave		0.2755				2.8		15.0			
Toluene	1.5641 1.7880	1.6375	1.5242	1.5822	1.7296	Ave		1.6376				6.3		15.0			
trans-1,3-Dichloropropene	0.4247 0.5457	0.4551	0.4630	0.4839	0.5337	Ave		0.4843				9.7		15.0			
Ethyl methacrylate	0.4338 0.4841	0.4601	0.4409	0.4595	0.4880	Ave		0.4611				4.8		15.0			
1,1,2-Trichloroethane	0.2610 0.2902	0.2789	0.2660	0.2758	0.2945	Ave		0.2777				4.7		15.0			
Tetrachloroethene	0.2358 0.2884	0.2605	0.2400	0.2608	0.2832	Ave		0.2614				8.2		15.0			
1,3-Dichloropropane	0.5032 0.5479	0.5202	0.5003	0.5080	0.5463	Ave		0.5210				4.1		15.0			
2-Hexanone	0.2134 0.2464	0.2440	0.2362	0.2476	0.2471	Ave		0.2391				5.6		15.0			
Dibromochloromethane	0.2625 0.3293	0.2576	0.2688	0.2857	0.3228	Ave		0.2878				11.0		15.0			
1,2-Dibromoethane	0.2702 0.3017	0.2701	0.2713	0.2837	0.3012	Ave		0.2830				5.4		15.0			
Chlorobenzene	1.0004 1.1167	1.0557	0.9994	1.0369	1.1122	Ave		1.0535			0.3000	4.9		15.0			
1,1,1,2-Tetrachloroethane	0.2985 0.3953	0.3346	0.3315	0.3568	0.3907	Ave		0.3512				11.0		15.0			
Ethylbenzene	0.5345 0.6104	0.5740	0.5356	0.5610	0.6145	Ave		0.5717				6.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.6665 0.7839	0.7201	0.6698	0.7001	0.7639	Ave		0.7174				6.8		15.0			
o-Xylene	0.6583 0.7725	0.7135	0.6995	0.7111	0.7659	Ave		0.7201				6.0		15.0			
Styrene	1.0634 1.3324	1.1543	1.1303	1.2121	1.3135	Ave		1.2010				8.8		15.0			
Bromoform	0.1308 0.1929	0.1340	0.1432	0.1571	0.1829	Lin1	-0.099	0.1879			0.1000				0.9950		0.9900
Isopropylbenzene	1.6254 2.0021	1.7462	1.6256	1.7661	1.9411	Ave		1.7844				8.8		15.0			
1,1,2,2-Tetrachloroethane	0.6390 0.6966	0.6787	0.6513	0.6576	0.7273	Ave		0.6751			0.3000	4.9		15.0			
Bromobenzene	0.7531 0.8119	0.7794	0.7596	0.7729	0.8537	Ave		0.7884				4.8		15.0			
1,2,3-Trichloropropane	0.2246 0.2221	0.2190	0.2110	0.2231	0.2352	Ave		0.2225				3.5		15.0			
trans-1,4-Dichloro-2-butene	0.2199 0.2389	0.2152	0.2195	0.2249	0.2430	Ave		0.2269				5.0		15.0			
n-Propylbenzene	0.7601 0.8719	0.8284	0.7668	0.8249	0.9068	Ave		0.8265				6.9		15.0			
2-Chlorotoluene	0.7619 0.8073	0.7608	0.7421	0.7472	0.8400	Ave		0.7766				5.0		15.0			
1,3,5-Trimethylbenzene	2.4884 2.9700	2.6808	2.5164	2.6630	2.9838	Ave		2.7171				7.9		15.0			
4-Chlorotoluene	0.7733 0.8393	0.8006	0.7549	0.7759	0.8529	Ave		0.7995				4.9		15.0			
tert-Butylbenzene	1.9919 2.3648	2.1154	1.9687	2.0834	2.3571	Ave		2.1469				8.1		15.0			
1,2,4-Trimethylbenzene	2.6390 3.0675	2.7872	2.6804	2.7942	3.1249	Ave		2.8489				7.1		15.0			
sec-Butylbenzene	2.6740 3.2749	2.9419	2.7072	2.8937	3.3051	Ave		2.9661				9.2		15.0			
1,3-Dichlorobenzene	1.4339 1.5710	1.5438	1.4621	1.4650	1.6137	Ave		1.5149				4.7		15.0			
p-Isopropyltoluene	2.1764 2.7349	2.4137	2.3047	2.4106	2.7549	Ave		2.4659				9.4		15.0			
1,4-Dichlorobenzene	1.4372 1.6450	1.5618	1.4977	1.5279	1.6788	Ave		1.5581				5.8		15.0			
n-Butylbenzene	1.9146 2.3749	2.0057	1.9329	2.1117	2.3793	Ave		2.1199				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.4100 1.5390	1.4793	1.4452	1.4677	1.6050	Ave		1.4910				4.7		15.0			
1,2-Dibromo-3-Chloropropane	0.0991 0.1150	0.0887	0.1000	0.1027	0.1188	Ave		0.1041				11.0		15.0			
1,3,5-Trichlorobenzene	0.7981 0.8925	0.8453	0.8411	0.8652	0.9607	Ave		0.8672				6.4		15.0			
1,2,4-Trichlorobenzene	0.6536 0.7565	0.7392	0.7075	0.7687	0.8329	Ave		0.7431				8.1		15.0			
Hexachlorobutadiene	0.3005 0.3020	0.3307	0.2846	0.3101	0.3393	Ave		0.3112				6.6		15.0			
Naphthalene	1.7625 1.8222	1.8352	1.8166	1.8796	2.0718	Ave		1.8646				5.8		15.0			
1,2,3-Trichlorobenzene	0.6252 0.5752	0.6791	0.6212	0.6414	0.6905	Ave		0.6388				6.6		15.0			
Dibromofluoromethane (Surr)	0.2556 0.2697	0.2553	0.2446	0.2602	0.2726	Ave		0.2597				4.0		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3101 0.3312	0.3104	0.3075	0.3261	0.3266	Ave		0.3187				3.3		15.0			
Toluene-d8 (Surr)	1.1941 1.4113	1.2886	1.2333	1.2912	1.3622	Ave		1.2968				6.2		15.0			
4-Bromofluorobenzene (Surr)	0.5076 0.5645	0.5380	0.5245	0.5444	0.5560	Ave		0.5392				3.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 15:15 Calibration End Date: 05/29/2011 17:06 Calibration ID: 1185

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD6 240-3007/13	UXM6511.D
Level 2	STD5 240-3007/12	UXM6510.D
Level 3	STD4 240-3007/11	UXM6509.D
Level 4	STD3 240-3007/10	UXM6508.D
Level 5	STD2 240-3007/9	UXM6507.D
Level 6	STD1 240-3007/8	UXM6506.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6																
Dichlorofluoromethane	0.5506	0.4715	0.4922	0.5507	0.4990	Ave		0.5113				6.3		15.0			
	0.5039																
Ethyl ether	0.2645	0.2573	0.2901	0.2942	0.2830	Ave		0.2800				5.5		15.0			
	0.2910																
3-Chloro-1-propene	0.1610	0.1599	0.1826	0.1978	0.1860	Ave		0.1807				9.3		15.0			
	0.1968																
Diisopropyl ether	0.2920	0.2674	0.3008	0.3155	0.2989	Ave		0.2981				5.9		15.0			
	0.3140																
2-Chloro-1,3-butadiene	0.5362	0.5201	0.5813	0.6137	0.5969	Ave		0.5772				7.0		15.0			
	0.6149																
Ethyl-t-butyl ether (ETBE)	1.0807	1.0264	1.1669	1.2348	1.1744	Ave		1.1582				7.8		15.0			
	1.2661																
Ethyl acetate	0.2291	0.2277	0.2426	0.2442	0.2437	Ave		0.2390				3.5		15.0			
	0.2469																
Propionitrile	0.0377	0.0378	0.0379	0.0380	0.0386	Ave		0.0382				1.7		15.0			
	0.0394							NT									
Methacrylonitrile	0.2028	0.1619	0.1719	0.1786	0.1788	Ave		0.1799				7.7		15.0			
	0.1856																
Isobutyl alcohol	0.0093	0.0082	0.0092	0.0095	0.0092	Ave		0.0091				5.0		15.0			
	0.0090							NT									
Tert-amyl-methyl ether (TAME)	0.8566	0.8277	0.9356	0.9832	0.9465	Ave		0.9258				7.6		15.0			
	1.0053																
n-Heptane	0.0283	0.0370	0.0385	0.0426	0.0547	Qua	-0.073	0.0626	0						0.9930		0.9900
	0.0446																
n-Butanol	0.0086	0.0074	0.0073	0.0075	0.0076	Ave		0.0076				7.1		15.0			
	0.0070							NT									
Methyl methacrylate	0.2355	0.2383	0.2548	0.2603	0.2538	Ave		0.2498				4.1		15.0			
	0.2558																
2-Nitropropane	0.0716	0.0638	0.0733	0.0740	0.0749	Ave		0.0724				6.2		15.0			
	0.0766																

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 15:15 Calibration End Date: 05/29/2011 17:06 Calibration ID: 1185

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
n-Butyl acetate	0.4001 0.4652	0.3923	0.4438	0.4817	0.4611	Ave		0.4407				8.3		15.0			
Cyclohexanone	0.0637 0.0656	0.0601	0.0705	0.0773	0.0733	Ave		0.0684				9.4		15.0			
1,2,3-Trimethylbenzene	2.7648 3.2728	2.6215	2.8961	3.0823	3.0301	Ave		2.9446				7.9		15.0			
2-Methylnaphthalene	0.7633 0.5362	0.7935	0.7843	0.8634	0.8467	Ave		0.7646				15.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab File ID: BFB1929.D BFB Injection Date: 06/29/2011

Instrument ID: A3UX16 BFB Injection Time: 12:01

Analysis Batch No.: 6573

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.0	
75	30.0 - 60.0 % of mass 95	48.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	68.9	
175	5.0 - 9.0 % of mass 174	4.9	(7.0)1
176	95.0 - 101.0 % of mass 174	68.3	(99.1)1
177	5.0 - 9.0 % of mass 176	4.1	(5.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-6573/2	UXM7324.D	06/29/2011	12:41
	CCV 240-6573/3	UXM7325.D	06/29/2011	13:04
	LCS 240-6573/4	UXM7326.D	06/29/2011	13:27
	MB 240-6573/5	UXM7327.D	06/29/2011	13:50
GSP-SB-WP-61-062211	240-1365-1	UXM7337.D	06/29/2011	17:37
GSP-SB-WP-50-062211	240-1365-2	UXM7338.D	06/29/2011	18:00
GSP-MW-7-062211	240-1365-3	UXM7339.D	06/29/2011	18:22
TB-062211	240-1365-5	UXM7340.D	06/29/2011	18:44
GSP-SB-WP-83-062211	240-1365-6	UXM7341.D	06/29/2011	19:07
	240-1438-H-4 MS	UXM7348.D	06/29/2011	21:43
	240-1438-I-4 MSD	UXM7349.D	06/29/2011	22:06

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCVIS 240-6573/2 Calibration Date: 06/29/2011 12:41

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7324.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2718	0.2517		9.26	10.0	-7.4	50.0
Chloromethane	Ave	0.4459	0.4449	0.1000	9.98	10.0	-0.2	50.0
Vinyl chloride	Ave	0.3570	0.3596		10.1	10.0	0.7	20.0
Bromomethane	Ave	0.1731	0.1354		7.82	10.0	-21.8	50.0
Chloroethane	Ave	0.2175	0.1791		8.23	10.0	-17.7	50.0
Trichlorofluoromethane	Ave	0.3382	0.3311		9.79	10.0	-2.1	50.0
Acrolein	Ave	0.0471	0.0345 NT		73.3	100	-26.7 NT	50.0
1,1-Dichloroethene	Ave	0.2779	0.2653		9.55	10.0	-4.5	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1941	0.1857		9.56	10.0	-4.4	50.0
Acetone	Ave	0.1009	0.0691		13.7	20.0	-31.5	50.0
Iodomethane	Ave	0.4669	0.4184		8.96	10.0	-10.4	50.0
Carbon disulfide	Ave	0.9697	0.8586		8.85	10.0	-11.5	50.0
Acetonitrile	Ave	0.0412	0.0335 NT		81.2	100	-18.8	50.0
Methyl acetate	Ave	0.2317	0.1973		17.0	20.0	-14.8	50.0
Methylene Chloride	Lin1		0.3462		9.15	10.0	-8.5	50.0
tert-Butyl alcohol	Ave	0.0248	0.0136		109	200	-45.3	50.0
Acrylonitrile	Ave	0.1088	0.0888		16.3	20.0	-18.3	50.0
Methyl tert-butyl ether	Ave	0.9424	0.7107		7.54	10.0	-24.6	50.0
trans-1,2-Dichloroethene	Ave	0.3289	0.3163		9.62	10.0	-3.8	50.0
Hexane	Ave	0.0496	0.0588		11.8	10.0	18.4	20.0
1,1-Dichloroethane	Ave	0.6006	0.5652	0.1000	9.41	10.0	-5.9	50.0
Vinyl acetate	Lin1		0.0391		9.58	10.0	-4.2	50.0
2,2-Dichloropropane	Ave	0.4435	0.3274		7.38	10.0	-26.2	50.0
cis-1,2-Dichloroethene	Ave	0.3455	0.3332		9.64	10.0	-3.6	50.0
2-Butanone	Ave	0.1260	0.1066		16.9	20.0	-15.4	50.0
Bromochloromethane	Ave	0.1473	0.1328		9.02	10.0	-9.8	50.0
Tetrahydrofuran	Ave	0.0945	0.0704		7.45	10.0	-25.5 NT	50.0
Chloroform	Ave	0.5299	0.4953		9.35	10.0	-6.5	20.0
1,1,1-Trichloroethane	Ave	0.4788	0.4013		8.38	10.0	-16.2	50.0
Cyclohexane	Ave	0.5517	0.5707		10.3	10.0	3.4	50.0
1,1-Dichloropropene	Ave	0.3918	0.4214		10.8	10.0	7.6	50.0
Carbon tetrachloride	Ave	0.3600	0.3018		8.38	10.0	-16.2	50.0
Benzene	Ave	1.214	1.292		10.6	10.0	6.4	50.0
1,2-Dichloroethane	Ave	0.4059	0.3620		8.92	10.0	-10.8	50.0
Trichloroethene	Ave	0.2807	0.2883		10.3	10.0	2.7	50.0
Methylcyclohexane	Ave	0.3914	0.4246		10.8	10.0	8.5	50.0
1,2-Dichloropropane	Ave	0.2926	0.3162		10.8	10.0	8.1	20.0
1,4-Dioxane	Ave	0.0022	0.0015 NT		348	500	-30.5 NT	50.0
Dibromomethane	Ave	0.1477	0.1370		9.28	10.0	-7.2	50.0
Bromodichloromethane	Ave	0.3378	0.2995		8.86	10.0	-11.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCVIS 240-6573/2 Calibration Date: 06/29/2011 12:41

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7324.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1489	0.0887		11.9	20.0	-40.4	50.0
cis-1,3-Dichloropropene	Ave	0.4232	0.3662		8.65	10.0	-13.5	50.0
4-Methyl-2-pentanone	Ave	0.2755	0.2283		16.6	20.0	-17.1	50.0
Toluene	Ave	1.638	1.852		11.3	10.0	13.1	20.0
trans-1,3-Dichloropropene	Ave	0.4843	0.3956		8.17	10.0	-18.3	50.0
Ethyl methacrylate	Ave	0.4611	0.4480		9.72	10.0	-2.8	50.0
1,1,2-Trichloroethane	Ave	0.2777	0.2923		10.5	10.0	5.3	50.0
Tetrachloroethene	Ave	0.2614	0.2790		10.7	10.0	6.7	50.0
1,3-Dichloropropane	Ave	0.5210	0.5609		10.8	10.0	7.7	50.0
2-Hexanone	Ave	0.2391	0.2088		17.5	20.0	-12.7	50.0
Dibromochloromethane	Ave	0.2878	0.2392		8.31	10.0	-16.9	50.0
1,2-Dibromoethane	Ave	0.2830	0.2740		9.68	10.0	-3.2	50.0
Chlorobenzene	Ave	1.054	1.101	0.3000	10.5	10.0	4.5	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3512	0.3316		9.44	10.0	-5.6	50.0
Ethylbenzene	Ave	0.5717	0.6209		10.9	10.0	8.6	20.0
m-Xylene & p-Xylene	Ave	0.7174	0.7745		21.6	20.0	8.0	50.0
o-Xylene	Ave	0.7201	0.7509		10.4	10.0	4.3	50.0
Styrene	Ave	1.201	1.262		10.5	10.0	5.1	50.0
Bromoform	Lin1		0.1007	0.1000	5.89	10.0	-41.1	50.0
Isopropylbenzene	Ave	1.784	1.821		10.2	10.0	2.1	50.0
1,1,2,2-Tetrachloroethane	Ave	0.6751	0.6862	0.3000	10.2	10.0	1.6	50.0
Bromobenzene	Ave	0.7884	0.8213		10.4	10.0	4.2	50.0
1,2,3-Trichloropropane	Ave	0.2225	0.2039		9.16	10.0	-8.4	50.0
trans-1,4-Dichloro-2-butene	Ave	0.2269	0.1014		4.47	10.0	-55.3* NT	50.0
n-Propylbenzene	Ave	0.8265	0.9614		11.6	10.0	16.3	50.0
2-Chlorotoluene	Ave	0.7766	0.8653		11.1	10.0	11.4	50.0
1,3,5-Trimethylbenzene	Ave	2.717	3.019		11.1	10.0	11.1	50.0
4-Chlorotoluene	Ave	0.7995	0.9033		11.3	10.0	13.0	50.0
tert-Butylbenzene	Ave	2.147	2.405		11.2	10.0	12.0	50.0
1,2,4-Trimethylbenzene	Ave	2.849	3.148		11.1	10.0	10.5	50.0
sec-Butylbenzene	Ave	2.966	3.389		11.4	10.0	14.3	50.0
1,3-Dichlorobenzene	Ave	1.515	1.550		10.2	10.0	2.3	50.0
p-Isopropyltoluene	Ave	2.466	2.790		11.3	10.0	13.1	50.0
1,4-Dichlorobenzene	Ave	1.558	1.569		10.1	10.0	0.7	50.0
n-Butylbenzene	Ave	2.120	2.425		11.4	10.0	14.4	50.0
1,2-Dichlorobenzene	Ave	1.491	1.482		9.94	10.0	-0.6	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1041	0.0607		5.83	10.0	-41.7	50.0
1,3,5-Trichlorobenzene	Ave	0.8672	0.7970		9.19	10.0	-8.1	50.0
1,2,4-Trichlorobenzene	Ave	0.7431	0.5868		7.90	10.0	-21.0	50.0
Hexachlorobutadiene	Ave	0.3112	0.2586		8.31	10.0	-16.9	50.0
Naphthalene	Ave	1.865	1.178		6.32	10.0	-36.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCVIS 240-6573/2 Calibration Date: 06/29/2011 12:41

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7324.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.6388	0.4040		6.32	10.0	-36.8	50.0
Dibromofluoromethane (Surr)	Ave	0.2597	0.2372		9.33	10.2	-8.7	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3187	0.2702		8.66	10.2	-15.2	50.0
Toluene-d8 (Surr)	Ave	1.297	1.423		11.2	10.2	9.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5392	0.4799		9.09	10.2	-11.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-6573/3 Calibration Date: 06/29/2011 13:04

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 13:00

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 14:53

Lab File ID: UXM7325.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2597	0.2243		8.82	10.2	-13.6	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3187	0.2816		9.02	10.2	-11.6	50.0
Toluene-d8 (Surr)	Ave	1.297	1.356		10.7	10.2	4.6	50.0
4-Bromofluorobenzene (Surr)	Ave	0.5392	0.4873		9.23	10.2	-9.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-6573/3 Calibration Date: 06/29/2011 13:04

Instrument ID: A3UX16 Calib Start Date: 05/29/2011 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/29/2011 17:06

Lab File ID: UXM7325.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.5113	0.4861		9.51	10.0	-4.9	50.0
Ethyl ether	Ave	0.2800	0.2545		9.09	10.0	-9.1	50.0
3-Chloro-1-propene	Ave	0.1807	0.1411		7.81	10.0	-21.9	50.0
Diisopropyl ether	Ave	0.2981	0.2840		47.6	50.0	-4.7	50.0
2-Chloro-1,3-butadiene	Ave	0.5772	0.5220		9.04	10.0	-9.6	50.0
Ethyl-t-butyl ether (ETBE)	Ave	1.158	0.9212		7.95	10.0	-20.5	50.0
Ethyl acetate	Ave	0.2390	0.2327		19.5	20.0	-2.7	50.0
Propionitrile	Ave	0.0382	0.0311	NT	16.3	20.0	-18.7	50.0
Methacrylonitrile	Ave	0.1799	0.1705		9.48	10.0	-5.2	50.0
Isobutyl alcohol	Ave	0.0091	0.0073	NT	160	200	-19.8	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.9258	0.7041		7.61	10.0	-23.9	50.0
n-Heptane	Qua		0.0466	NT	9.15	10.0	-8.5	50.0
n-Butanol	Ave	0.0076	0.0046	NT	121	200	-39.7	NT 50.0
Methyl methacrylate	Ave	0.2498	0.2388		9.56	10.0	-4.4	50.0
2-Nitropropane	Ave	0.0724	0.0356	NT	9.84	20.0	-50.8*	NT 50.0
Cyclohexanone	Ave	0.0684	0.0375	NT	54.9	100	-45.1	NT 50.0
1,2,3-Trimethylbenzene	Ave	2.945	3.093		10.5	10.0	5.0	50.0
2-Methylnaphthalene	Ave	0.7646	0.2119		5.54	20.0	-72.3*	NT 50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab File ID: UXM7327.D Lab Sample ID: MB 240-6573/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX16 Date Analyzed: 06/29/2011 13:50

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-6573/4	UXM7326.D	06/29/2011 13:27
GSP-SB-WP-61-062211	240-1365-1	UXM7337.D	06/29/2011 17:37
GSP-SB-WP-50-062211	240-1365-2	UXM7338.D	06/29/2011 18:00
GSP-MW-7-062211	240-1365-3	UXM7339.D	06/29/2011 18:22
TB-062211	240-1365-5	UXM7340.D	06/29/2011 18:44
GSP-SB-WP-83-062211	240-1365-6	UXM7341.D	06/29/2011 19:07
	240-1438-H-4 MS	UXM7348.D	06/29/2011 21:43
	240-1438-I-4 MSD	UXM7349.D	06/29/2011 22:06

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6573/5

Matrix: Water | Lab File ID: UXM7327.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 13:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6573/5

Matrix: Water | Lab File ID: UXM7327.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 13:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	0.264	J	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1365-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-6573/5
Matrix: Water
Lab File ID: UXM7327.D
Analysis Method: 8260B
Date Collected:
Sample wt/vol: 5(mL)
Date Analyzed: 06/29/2011 13:50
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB-624 ID: 0.18(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 6573
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		74-115
1868-53-7	Dibromofluoromethane (Surr)	83		75-121
460-00-4	4-Bromofluorobenzene (Surr)	87		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton	Job No.: 240-1365-1
SDG No.:	
Client Sample ID:	Lab Sample ID: MB 240-6573/5
Matrix: Water	Lab File ID: UXM7327.D
Analysis Method: 8260B	Date Collected:
Sample wt/vol: 5(mL)	Date Analyzed: 06/29/2011 13:50
Soil Aliquot Vol:	Dilution Factor: 1
Soil Extract Vol.:	GC Column: DB-624 ID: 0.18(mm)
% Moisture:	Level: (low/med) Low
Analysis Batch No.: 6573	Units: ug/L
Number TICs Found: 0	TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM	#	DCA	#	TOL	#	BFB	#
GSP-SB-WP-61-062211	240-1365-1	83		90		108		87	
GSP-SB-WP-50-062211	240-1365-2	87		96		115		94	
GSP-MW-7-062211	240-1365-3	80		90		108		86	
TB-062211	240-1365-5	83		91		107		86	
GSP-SB-WP-83-062211	240-1365-6	84		93		107		87	
	MB 240-6573/5	83		88		106		87	
	LCS 240-6573/4	88		87		108		92	
	240-1438-H-4 MS	90		88		110		96	
	240-1438-I-4 MSD	87		86		107		91	

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7326.D

Lab ID: LCS 240-6573/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	8.18	82	72-116	
1,1,1-Trichloroethane	10.0	7.48	75	74-118	
1,1,2,2-Tetrachloroethane	10.0	9.28	93	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	8.92	89	74-151	
1,1-Dichloroethane	10.0	8.83	88	82-115	
1,1-Dichloroethene	10.0	9.24	92	78-131	
1,1-Dichloropropene	10.0	9.60	96	83-114	
1,2,3-Trichlorobenzene	10.0	6.20	62	54-126	
1,2,3-Trichloropropane	10.0	8.60	86	73-129	
1,2,3-Trimethylbenzene	10.0	10.2	102	70-130	
1,2,4-Trichlorobenzene	10.0	7.02	70	48-135	
1,2,4-Trimethylbenzene	10.0	9.73	97	76-120	
1,2-Dibromo-3-Chloropropane	10.0	5.78	58	42-136	
1,2-Dichlorobenzene	10.0	9.03	90	81-110	
1,2-Dichloroethane	10.0	8.56	86	71-127	
1,2-Dichloropropane	10.0	9.78	98	81-115	
1,3-Dichlorobenzene	10.0	9.36	94	80-110	
1,3-Dichloropropane	10.0	9.85	99	79-116	
1,4-Dichlorobenzene	10.0	9.11	91	82-110	
2,2-Dichloropropane	10.0	6.37	64	50-129	
2-Butanone	20.0	16.7	84	60-126	
2-Chloroethyl vinyl ether	10.0	5.59 J	56	52-131	
2-Chlorotoluene	10.0	9.81	98	76-116	
2-Hexanone	20.0	17.6	88	55-133	
4-Chlorotoluene	10.0	10.1	101	77-115	
p-Isopropyltoluene	10.0	10.0	100	74-120	
4-Methyl-2-pentanone	20.0	16.2	81	63-128	
Acetone	20.0	13.6	68	43-136	
Benzene	10.0	9.78	98	83-112	
Bromobenzene	10.0	9.31	93	76-115	
Bromoform	10.0	5.08	51	40-131	
Bromomethane	10.0	6.36	64	11-185	
Carbon disulfide	10.0	7.65	77	62-142	
Carbon tetrachloride	10.0	7.50	75	66-128	
Chlorobenzene	10.0	9.39	94	85-110	
Dibromochloromethane	10.0	6.97	70	64-119	
Chloroethane	10.0	6.89	69	25-153	
Chloroform	10.0	9.06	91	79-117	
Chloromethane	10.0	7.46	75	44-126	
cis-1,2-Dichloroethene	10.0	8.83	88	80-113	
cis-1,3-Dichloropropene	10.0	7.26	73	61-115	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7326.D

Lab ID: LCS 240-6573/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dibromomethane	10.0	9.02	90	81-120	
Bromochloromethane	10.0	8.69	87	77-120	
Dichlorodifluoromethane	10.0	4.60	46	19-129	
Bromodichloromethane	10.0	7.79	78	72-121	
tert-Butyl alcohol	200	115	57	70-130	*
Ethylbenzene	10.0	9.42	94	83-112	
Hexachlorobutadiene	10.0	6.79	68	36-134	
Diisopropyl ether	10.0	8.44 J	84	77-118	
Isopropylbenzene	10.0	9.08	91	75-114	
Methyl tert-butyl ether	10.0	6.92	69	52-144	
Methylene Chloride	10.0	8.56	86	66-131	
m-Xylene & p-Xylene	20.0	18.9	95	83-113	
Naphthalene	10.0	6.21	62	32-141	
n-Butylbenzene	10.0	10.0	100	66-125	
n-Propylbenzene	10.0	10.5	105	74-121	
o-Xylene	10.0	9.54	95	83-113	
sec-Butylbenzene	10.0	9.96	100	70-117	
Styrene	10.0	9.33	93	79-114	
Tetrachloroethene	10.0	9.44	94	79-114	
Toluene	10.0	10.1	101	84-111	
trans-1,2-Dichloroethene	10.0	8.88	89	83-117	
trans-1,3-Dichloropropene	10.0	6.96	70	58-117	
Trichloroethene	10.0	9.37	94	76-117	
Trichlorofluoromethane	10.0	8.61	86	49-157	
Vinyl acetate	10.0	8.99	90	46-161	
Vinyl chloride	10.0	7.66	77	53-127	
tert-Butylbenzene	10.0	9.68	97	71-115	
1,2-Dibromoethane	10.0	8.72	87	79-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7348.D

Lab ID: 240-1438-H-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	1.0 U	8.29	83	64-118	
1,1,1-Trichloroethane	10.0	1.0 U	7.69	77	68-121	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	9.54	95	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	1.0 U	8.94	89	70-152	
1,1-Dichloroethane	10.0	1.0 U	8.85	89	79-116	
1,1-Dichloroethene	10.0	1.0 U	9.18	92	74-135	
1,1-Dichloropropene	10.0	1.0 U	9.57	96	80-114	
1,2,3-Trichlorobenzene	10.0	1.0 U	5.85	59	45-129	
1,2,3-Trichloropropane	10.0	1.0 U	8.86	89	67-132	
1,2,3-Trimethylbenzene	10.0	5.0 U	9.80	98	70-130	
1,2,4-Trichlorobenzene	10.0	1.0 U	6.55	66	38-138	
1,2,4-Trimethylbenzene	10.0	1.0 U	9.56	96	67-124	
1,2-Dibromo-3-Chloropropane	10.0	2.0 U	4.80	48	32-139	
1,2-Dichlorobenzene	10.0	1.0 U	8.82	88	75-111	
1,2-Dichloroethane	10.0	1.0 U	8.73	87	68-129	
1,2-Dichloropropane	10.0	1.0 U	9.79	98	78-115	
1,3-Dichlorobenzene	10.0	1.0 U	8.97	90	73-110	
1,3-Dichloropropane	10.0	1.0 U	10.2	102	74-118	
1,4-Dichlorobenzene	10.0	1.0 U	8.93	89	75-110	
2,2-Dichloropropane	10.0	1.0 U	5.62	56	38-127	
2-Butanone	20.0	10 U	16.8	84	54-129	
2-Chloroethyl vinyl ether	10.0	10 U	10 U	(0)	10-150	F
2-Chlorotoluene	10.0	1.0 U	9.56	96	69-117	
2-Hexanone	20.0	10 U	17.8	89	47-139	
4-Chlorotoluene	10.0	1.0 U	9.93	99	71-116	
p-Isopropyltoluene	10.0	1.0 U	9.53	95	64-122	
4-Methyl-2-pentanone	20.0	10 U	16.3	82	56-131	
Acetone	20.0	10 U	14.1	71	33-145	
Benzene	10.0	1.0 U	9.74	97	72-121	
Bromobenzene	10.0	1.0 U	9.33	93	71-116	
Bromoform	10.0	1.0 U	4.70	47	32-128	
Bromomethane	10.0	1.0 U	6.63	66	10-186	
Carbon disulfide	10.0	1.0 U	7.08	71	57-147	
Carbon tetrachloride	10.0	1.0 U	7.36	74	59-129	
Chlorobenzene	10.0	1.0 U	9.64	96	80-110	
Dibromochloromethane	10.0	1.0 U	6.62	66	56-118	
Chloroethane	10.0	1.0 U	7.12	71	21-165	
Chloroform	10.0	1.0 U	8.75	88	76-118	
Chloromethane	10.0	1.0 U	7.55	76	33-132	
cis-1,2-Dichloroethene	10.0	1.0 U	8.83	88	70-120	
cis-1,3-Dichloropropene	10.0	1.0 U	6.83	68	51-110	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7348.D

Lab ID: 240-1438-H-4 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dibromomethane	10.0	1.0 U	8.92	89	77-121	
Bromochloromethane	10.0	1.0 U	8.32	83	73-121	
Dichlorodifluoromethane	10.0	1.0 U	4.73	47	17-128	
Bromodichloromethane	10.0	1.0 U	7.55	76	67-120	
tert-Butyl alcohol	200	50 U	108	54	70-130	F
Ethylbenzene	10.0	1.0 U	9.80	98	75-116	
Hexachlorobutadiene	10.0	1.0 U	6.22	62	27-132	
Diisopropyl ether	10.0	10 U	8.50 J	85	73-118	
Isopropylbenzene	10.0	1.0 U	9.10	91	68-116	
Methyl tert-butyl ether	10.0	5.0 U	6.90	69	46-144	
Methylene Chloride	10.0	1.0 U	7.95	80	63-128	
m-Xylene & p-Xylene	20.0	2.0 U	18.8	94	75-117	
Naphthalene	10.0	1.0 U	5.85	59	15-158	
n-Butylbenzene	10.0	1.0 U	9.42	94	56-127	
n-Propylbenzene	10.0	1.0 U	10.3	103	64-124	
o-Xylene	10.0	1.0 U	9.54	95	76-116	
sec-Butylbenzene	10.0	1.0 U	9.62	96	60-119	
Styrene	10.0	1.0 U	9.46	95	71-117	
Tetrachloroethene	10.0	1.0 U	9.46	95	70-117	
Toluene	10.0	1.0 U	10.3	103	78-114	
trans-1,2-Dichloroethene	10.0	1.0 U	8.94	89	80-119	
trans-1,3-Dichloropropene	10.0	1.0 U	6.69	67	46-116	
Trichloroethene	10.0	1.0 U	9.08	91	66-120	
Trichlorofluoromethane	10.0	1.0 U	9.01	90	46-157	
Vinyl acetate	10.0	2.0 U	8.53	85	43-157	
Vinyl chloride	10.0	1.0 U	7.97	80	49-130	
tert-Butylbenzene	10.0	1.0 U	9.62	96	61-119	
1,2-Dibromoethane	10.0	1.0 U	8.87	89	74-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7349.D

Lab ID: 240-1438-I-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	8.03	80	3	30	64-118	
1,1,1-Trichloroethane	10.0	7.46	75	3	30	68-121	
1,1,2,2-Tetrachloroethane	10.0	9.70	97	2	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	8.39	84	6	30	70-152	
1,1-Dichloroethane	10.0	8.73	87	1	30	79-116	
1,1-Dichloroethene	10.0	9.19	92	0	30	74-135	
1,1-Dichloropropene	10.0	9.72	97	2	30	80-114	
1,2,3-Trichlorobenzene	10.0	6.56	66	11	30	45-129	
1,2,3-Trichloropropane	10.0	9.22	92	4	30	67-132	
1,2,3-Trimethylbenzene	10.0	10.1	101	3	30	70-130	
1,2,4-Trichlorobenzene	10.0	7.08	71	8	30	38-138	
1,2,4-Trimethylbenzene	10.0	10.0	100	4	30	67-124	
1,2-Dibromo-3-Chloropropane	10.0	5.31	53	10	30	32-139	
1,2-Dichlorobenzene	10.0	9.18	92	4	30	75-111	
1,2-Dichloroethane	10.0	8.50	85	3	30	68-129	
1,2-Dichloropropane	10.0	9.89	99	1	30	78-115	
1,3-Dichlorobenzene	10.0	9.29	93	4	30	73-110	
1,3-Dichloropropane	10.0	9.79	98	4	30	74-118	
1,4-Dichlorobenzene	10.0	9.30	93	4	30	75-110	
2,2-Dichloropropane	10.0	5.73	57	2	30	38-127	
2-Butanone	20.0	16.2	81	4	30	54-129	
2-Chloroethyl vinyl ether	10.0	10 U	0	NC	30	10-150	F
2-Chlorotoluene	10.0	9.96	100	4	30	69-117	
2-Hexanone	20.0	16.9	85	5	30	47-139	
4-Chlorotoluene	10.0	10.1	101	2	30	71-116	
p-Isopropyltoluene	10.0	10.0	100	5	30	64-122	
4-Methyl-2-pentanone	20.0	16.1	81	1	30	56-131	
Acetone	20.0	13.9	70	1	30	33-145	
Benzene	10.0	9.69	97	1	30	72-121	
Bromobenzene	10.0	9.46	95	1	30	71-116	
Bromoform	10.0	4.74	47	1	30	32-128	
Bromomethane	10.0	5.74	57	14	30	10-186	
Carbon disulfide	10.0	7.15	72	1	30	57-147	
Carbon tetrachloride	10.0	7.39	74	0	30	59-129	
Chlorobenzene	10.0	9.34	93	3	30	80-110	
Dibromochloromethane	10.0	6.59	66	0	30	56-118	
Chloroethane	10.0	6.69	67	6	30	21-165	
Chloroform	10.0	8.85	89	1	30	76-118	
Chloromethane	10.0	7.23	72	4	30	33-132	
cis-1,2-Dichloroethene	10.0	8.74	87	1	30	70-120	
cis-1,3-Dichloropropene	10.0	6.75	68	1	30	51-110	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXM7349.D

Lab ID: 240-1438-I-4 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dibromomethane	10.0	8.74	87	2	30	77-121	
Bromochloromethane	10.0	8.34	83	0	30	73-121	
Dichlorodifluoromethane	10.0	4.40	44	7	30	17-128	
Bromodichloromethane	10.0	7.52	75	0	30	67-120	
tert-Butyl alcohol	200	107	54	0	30	70-130	F
Ethylbenzene	10.0	9.64	96	2	30	75-116	
Hexachlorobutadiene	10.0	6.92	69	11	30	27-132	
Diisopropyl ether	10.0	8.35 J	84	2	30	73-118	
Isopropylbenzene	10.0	9.01	90	1	30	68-116	
Methyl tert-butyl ether	10.0	6.77	68	2	30	46-144	
Methylene Chloride	10.0	7.96	80	0	30	63-128	
m-Xylene & p-Xylene	20.0	18.6	93	1	30	75-117	
Naphthalene	10.0	6.44	64	10	30	15-158	
n-Butylbenzene	10.0	9.89	99	5	30	56-127	
n-Propylbenzene	10.0	10.6	106	3	30	64-124	
o-Xylene	10.0	9.20	92	4	30	76-116	
sec-Butylbenzene	10.0	10.0	100	4	30	60-119	
Styrene	10.0	9.22	92	3	30	71-117	
Tetrachloroethene	10.0	9.32	93	1	30	70-117	
Toluene	10.0	10.1	101	2	30	78-114	
trans-1,2-Dichloroethene	10.0	8.78	88	2	30	80-119	
trans-1,3-Dichloropropene	10.0	6.52	65	3	30	46-116	
Trichloroethene	10.0	9.20	92	1	30	66-120	
Trichlorofluoromethane	10.0	8.55	86	5	30	46-157	
Vinyl acetate	10.0	8.09	81	5	30	43-157	
Vinyl chloride	10.0	7.77	78	3	30	49-130	
tert-Butylbenzene	10.0	10.0	100	4	30	61-119	
1,2-Dibromoethane	10.0	8.49	85	4	30	74-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Sample No.: STD8260 240-3007/4 Date Analyzed: 05/29/2011 13:45

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM6502.D Heated Purge: (Y/N) N

Calibration ID: 1183

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1300312	5.72	996322	8.41	544167	10.65
UPPER LIMIT		2600624	6.22	1992644	8.91	1088334	11.15
LOWER LIMIT		650156	5.22	498161	7.91	272084	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-3007/14		1244035	5.72	939144	8.41	496491	10.65
CCVIS 240-6573/2		1251278	5.72	883745	8.41	424880	10.65

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Sample No.: CCVIS 240-6573/2 Date Analyzed: 06/29/2011 12:41

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXM7324.D Heated Purge: (Y/N) N

Calibration ID: 1185

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1251278	5.72	883745	8.41	424880	10.65
UPPER LIMIT		2502556	6.22	1767490	8.91	849760	11.15
LOWER LIMIT		625639	5.22	441873	7.91	212440	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-6573/3		1186731	5.72	874451	8.41	405311	10.65
LCS 240-6573/4		1221014	5.72	875226	8.41	428882	10.65
MB 240-6573/5		1195601	5.72	858361	8.41	389001	10.65
240-1365-1	GSP-SB-WP-61-062211	1207612	5.72	845801	8.41	385355	10.65
240-1365-2	GSP-SB-WP-50-062211	1121719	5.72	805856	8.41	374829	10.65
240-1365-3	GSP-MW-7-062211	1192760	5.72	853199	8.41	393846	10.65
240-1365-5	TB-062211	1172971	5.72	840929	8.41	375998	10.65
240-1365-6	GSP-SB-WP-83-062211	1167433	5.72	841936	8.41	384001	10.65
240-1438-H-4 MS		1196480	5.72	851980	8.41	428238	10.65
240-1438-I-4 MSD		1210953	5.72	862468	8.41	407675	10.65

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab File ID: 9DF0714.D DFTPP Injection Date: 07/14/2011

Instrument ID: A4HP9 DFTPP Injection Time: 10:04

Analysis Batch No.: 8519

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.3	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	70.9	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	56.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	26.0	
365	Greater than 0.75% of mass 198	3.8	
441	Present, but less than mass 443	13.6	
442	40.0 - 110.0% of mass 198	78.2	
443	15.0 - 24.0% of mass 442	15.3	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-8519/10	9SMH0714.D	07/14/2011	10:23
	STD5 240-8519/2	9SMM0714.D	07/14/2011	10:46
	STD4 240-8519/3	9SM0714.D	07/14/2011	11:06
	STD3 240-8519/4	9SML0714.D	07/14/2011	11:25
	STD2 240-8519/5	9SL0714.D	07/14/2011	11:45
	STD1 240-8519/6	9SLL0714.D	07/14/2011	12:04
	STD7 240-8519/9	9SH0714.D	07/14/2011	12:24
	STD8 240-8519/8	9SHH0714.D	07/14/2011	12:43
	STD9 240-8519/7	9HHH0714.D	07/14/2011	13:03
	ICV 240-8519/11	9TCLICV.D	07/14/2011	13:22

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-8519/6	9SLL0714.D
Level 2	STD2 240-8519/5	9SL0714.D
Level 3	STD3 240-8519/4	9SML0714.D
Level 4	STD4 240-8519/3	9SM0714.D
Level 5	STD5 240-8519/2	9SMM0714.D
Level 6	STD6 240-8519/10	9SMH0714.D
Level 7	STD7 240-8519/9	9SH0714.D
Level 8	STD8 240-8519/8	9SHH0714.D
Level 9	STD9 240-8519/7	9HHH0714.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.7587	0.8043 0.7199	0.7702 0.6658	0.8026 0.7097	0.7368	Ave		0.7460				6.4		20.0			
N-Nitrosodimethylamine	1.3991	1.3232 1.3161	1.3928 1.3290	1.4622 1.3424	1.3439	Ave		1.3636				3.7		20.0			
Pyridine	2.1529	1.3459 2.0091	1.6427 2.1085	2.1613 2.1891	2.0902	Ave		1.9625				16.0 NT		20.0			
Ethyl methacrylate	2.0326	2.1052 1.9970	2.0678 1.9396	2.1894 2.0042	1.9516	Ave		2.0359				4.1		20.0			
3-Chloropropionitrile	0.8164	0.8373 0.8386	0.8159 0.8260	0.9091 0.8429	0.8210	Ave		0.8384				3.6		20.0			
Malononitrile	2.3645	2.2613 2.3288	2.3080 2.2648	2.4927 2.2389	2.3657	Ave		2.3281				3.5		20.0			
Benzaldehyde	1.4947	1.9807 1.4267	1.9784 +++++	2.0479	1.9279	Ave		1.8094			0.0100	15.0		20.0			
Phenol	2.3398	2.3104 2.3310	2.2407 2.3426	2.4539 2.4335	2.2936	Ave		2.3432			0.8000	3.0		20.0			
Aniline	2.9948	2.6137 2.8451	2.5545 2.9465	2.9691 3.1817	2.9682	Ave		2.8842				7.2		20.0			
Bis(2-chloroethyl)ether	1.8417	2.0750 1.9499	1.9533 1.8813	1.9331 1.8823	2.0679	Ave		1.9481			0.7000	4.4		20.0			
2-Chlorophenol	1.3882	1.3606 1.3742	1.3754 1.3784	1.4402 1.4374	1.3903	Ave		1.3931			0.8000	2.1		20.0			
1,3-Dichlorobenzene	1.3331	1.4194 1.3489	1.3890 1.3363	1.4480 1.4030	1.3609	Ave		1.3798				3.0		20.0			
1,4-Dichlorobenzene	1.3842	1.4754 1.4072	1.4702 1.4122	1.5141 1.4775	1.4269	Ave		1.4460				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzyl alcohol		0.8975	0.9436	1.0611	1.0959	Ave		1.0243				6.7		20.0			
	1.0422	1.0243	1.0516	1.0778													
1,2-Dichlorobenzene		1.3721	1.2917	1.3866	1.2926	Ave		1.3217				3.4		20.0			
	1.2793	1.2820	1.3013	1.3678													
2-Methylphenol		1.3655	1.5117	1.5891	1.5488	Ave		1.5174			0.7000	4.6		20.0			
	1.5307	1.4953	1.5190	1.5792													
Benzoic acid		+++++	0.1041	0.1704	0.2382	Qua	-0.138	0.2172	0.0023						0.9970		0.9900
	0.2824	0.2620	0.3099	0.3324													
2,2'-oxybis[1-chloropropane]		1.6730	1.6291	1.6911	1.6447	Ave		1.6237				2.9		20.0			
	1.5598	1.5662	1.5994	1.6266													
3 & 4 Methylphenol		1.4669	1.3924	1.5901	1.6243	Ave		1.5606				5.6		20.0			
	1.5793	1.5789	1.5890	1.6641													
N-Nitrosodi-n-propylamine		1.7163	1.7206	1.7458	1.8192	Ave		1.7553			0.5000	2.5		20.0			
	1.7162	1.7350	1.7719	1.8175													
Acetophenone		2.3786	2.3968	2.4540	2.3996	Ave		2.4073			0.0100	1.7		20.0			
	2.3445	2.3893	2.4334	2.4627													
Hexachloroethane		0.6388	0.6660	0.6838	0.6755	Ave		0.6633			0.3000	2.6		20.0			
	0.6588	0.6407	0.6618	0.6810													
Nitrobenzene		0.6905	0.6630	0.6688	0.6622	Ave		0.6719			0.2000	2.7		20.0			
	0.6513	0.6693	0.6629	0.7073													
Isophorone		1.1931	1.1083	1.1769	1.1407	Ave		1.1705			0.4000	3.7		20.0			
	1.1419	1.1685	1.1800	1.2549													
2-Nitrophenol		0.1677	0.1822	0.1991	0.1918	Ave		0.1943			0.1000	7.9		20.0			
	0.1928	0.1981	0.2020	0.2206													
2,4-Dimethylphenol		0.4931	0.4917	0.4959	0.4980	Ave		0.5047			0.2000	4.0		20.0			
	0.5010	0.4998	0.5046	0.5536													
1,3,5-Trichlorobenzene		0.3189	0.3036	0.3299	0.3075	Ave		0.3184				5.6		20.0			
	0.3005	0.3108	0.3211	0.3549													
Bis(2-chloroethoxy)methane		0.5403	0.5394	0.5852	0.5712	Ave		0.5665			0.3000	3.9		20.0			
	0.5627	0.5594	0.5674	0.6062													
2,4-Dichlorophenol		0.2123	0.2575	0.2681	0.2755	Ave		0.2645			0.2000	8.9		20.0			
	0.2677	0.2709	0.2694	0.2943													
1,2,4-Trichlorobenzene		0.2999	0.3023	0.3166	0.3054	Ave		0.3072				3.4		20.0			
	0.2977	0.3018	0.3049	0.3287													
Naphthalene	1.1920	1.1074	1.0908	1.1032	1.0572	Ave		1.1176			0.7000	4.5		20.0			
	1.0757	1.1144	1.1077	1.2104													
4-Chloroaniline		0.4510	0.4381	0.4568	0.4338	Ave		0.4603			0.0100	4.9		20.0			
	0.4619	0.4627	0.4713	0.5070													
Hexachlorobutadiene		0.1926	0.1904	0.1912	0.1872	Ave		0.1915			0.0100	3.7		20.0			
	0.1814	0.1902	0.1923	0.2066													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,2,3-Trichlorobenzene		0.2799	0.2914	0.2815	0.2798	Ave		0.2862				3.5		20.0			
	0.2788	0.2858	0.2836	0.3090													
2,4-Toluene diamine		0.2003	0.2193	0.2965	0.2252	Qua	0.0384	0.2404	-0.004						0.9920		0.9900
	0.2162	0.1650	+++++	0.1329													
1,1'-Biphenyl	+++++	1.5208	1.5345	1.5292	1.4603	Ave		1.5837			0.0100	7.9		20.0			
	1.5185	1.5901	1.6610	1.8550													
2-Chloronaphthalene	+++++	1.0817	1.1284	1.1189	1.0842	Ave		1.1132			0.8000	3.0		20.0			
	1.0894	1.1031	1.1155	1.1844													
Caprolactam		0.1026	0.1260	0.1328	0.1422	Ave		0.1347			0.0100	11.0		20.0			
	0.1419	0.1405	0.1404	0.1513													
4-Chloro-3-methylphenol		0.4073	0.3923	0.4270	0.4221	Ave		0.4252			0.2000	4.8		20.0			
	0.4242	0.4311	0.4357	0.4618													
2-Methylnaphthalene	0.6066	0.6007	0.5628	0.5914	0.5644	Ave		0.5860			0.4000	4.1		20.0			
	0.5628	0.5742	0.5778	0.6334													
2,4-Dinitrophenol		+++++	0.1280	0.1822	0.2315	Qua	-0.068	0.2061	0.0020		0.0100				0.9990		0.9900
	0.2542	0.2644	0.2753	0.3101													
4-Nitrophenol		+++++	0.2025	0.3099	0.2854	Ave		0.2965				15.0		20.0			
	0.3348	0.3081	0.3102	0.3245													
1-Methylnaphthalene	0.7499	0.6818	0.6615	0.6783	0.6451	Ave		0.6781				5.6		20.0			
	0.6336	0.6630	0.6615	0.7277													
1,2,3,5-Tetrachlorobenzene		0.4944	0.5335	0.5304	0.5019	Ave		0.5438				8.2		20.0			
	0.5260	0.5622	0.5681	0.6338													
Hexachlorocyclopentadiene		0.3156	0.3335	0.3765	0.3738	Ave		0.3923			0.0500	13.0		20.0			
	0.4049	0.4273	0.4347	0.4723													
2,3,5,6-Tetrachlorophenol		+++++	0.3153	0.3205	0.3176	Ave		0.3326				5.2		20.0			
	0.3344	0.3326	0.3433	0.3646													
2,4,6-Trichlorophenol		0.2920	0.3253	0.3399	0.3424	Ave		0.3465			0.2000	8.5		20.0			
	0.3653	0.3547	0.3615	0.3910													
Dibenzofuran	+++++	1.7000	1.6765	1.7018	1.6221	Ave		1.7113			0.8000	4.4		20.0			
	1.6514	1.7106	1.7622	1.8660													
2,4,5-Trichlorophenol		0.3829	0.3827	0.3738	0.3827	Ave		0.3871			0.2000	4.9		20.0			
	0.4076	0.3597	0.3875	0.4203													
1,2,3,4 -Tetrachlorobenzene		0.4968	0.4910	0.5111	0.4824	Ave		0.5225				7.9		20.0			
	0.5038	0.5386	0.5486	0.6073													
4,6-Dinitro-2-methylphenol		+++++	0.0982	0.1234	0.1429	Ave		0.1405			0.0100	16.0		20.0			
	0.1504	0.1507	0.1517	0.1662													
2-Nitroaniline		0.5998	0.5808	0.6636	0.6241	Ave		0.6227			0.0100	4.0		20.0			
	0.6182	0.6270	0.6250	0.6433													
Dimethyl phthalate		1.2903	1.3375	1.3905	1.3227	Ave		1.3589			0.0100	3.8		20.0			
	1.3552	1.3439	1.3695	1.4617													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
2,6-Dinitrotoluene		0.2697	0.2798	0.2944	0.2973	Ave		0.2940				4.6		20.0			
	0.3030	0.2971	0.2975	0.3129													
1,2-Dinitrobenzene		0.1316	0.1462	0.1531	0.1518	Ave		0.1528				7.1		20.0			
	0.1634	0.1528	0.1565	0.1672													
Acenaphthylene	2.0042	1.9026	1.9501	1.9692	1.8869	Ave		1.9672			0.9000	3.7		20.0			
	1.9242	1.9559	1.9806	2.1310													
3-Nitroaniline		0.2983	0.3273	0.3376	0.3428	Ave		0.3381			0.0100	5.7		20.0			
	0.3531	0.3448	0.3391	0.3618													
Acenaphthene	1.3429	1.2033	1.2609	1.2102	1.1716	Ave		1.2622			0.9000	6.0		20.0			
	1.2089	1.2552	1.2980	1.4090													
2,4-Dinitrotoluene		0.3515	0.3851	0.4157	0.3891	Ave		0.3991			0.2000	5.9		20.0			
	0.4045	0.4047	0.4157	0.4266													
Diethyl phthalate		1.4805	1.4507	1.5137	1.4662	Ave		1.5106			0.0100	4.4		20.0			
	1.4761	1.5043	1.5316	1.6616													
4-Chlorophenyl phenyl ether		0.6752	0.6392	0.6643	0.6226	Ave		0.6621			0.4000	5.2		20.0			
	0.6360	0.6603	0.6640	0.7351													
4-Nitroaniline		0.3333	0.3761	0.3708	0.3683	Ave		0.3761			0.0100	5.8		20.0			
	0.3781	0.3817	0.3912	0.4096													
Fluorene	1.3386	1.2420	1.3034	1.2986	1.2469	Ave		1.3253			0.9000	5.7		20.0			
	1.2866	1.3390	1.3871	1.4854													
N-Nitrosodiphenylamine		0.5492	0.5755	0.5711	0.5697	Ave		0.5824			0.0100	5.4		20.0			
	0.5560	0.5953	0.5918	0.6507													
1,2-Diphenylhydrazine(as Azobenzene)		1.4050	1.4478	1.5045	1.4639	Ave		1.4785				2.8		20.0			
	1.4707	1.5156	1.4995	1.5277													
Azobenzene		1.4053	1.4422	1.5065	1.4621	Ave		1.4785				2.8		20.0			
	1.4718	1.5167	1.4957	1.5277													
4-Bromophenyl phenyl ether		0.1946	0.1974	0.1981	0.2022	Ave		0.2042			0.1000	5.1		20.0			
	0.1997	0.2062	0.2085	0.2271													
Hexachlorobenzene	0.2175	0.1915	0.1895	0.2024	0.1932	Ave		0.2010			0.1000	6.0		20.0			
	0.1926	0.1986	0.1995	0.2242													
Atrazine		0.1905	0.2059	0.2058	0.2177	Ave		0.1993			0.0100	6.3		20.0			
	0.2105	0.1960	0.1839	0.1840													
Pentachlorophenol		0.0795	0.1215	0.1279	0.1423	Qua	0.0077	0.1224	0.0011		0.0500				1.0000		0.9900
	0.1478	0.1527	0.1638	0.1776													
Phenanthrene	1.1987	1.0713	1.0793	1.0874	1.0520	Ave		1.1163			0.7000	6.5		20.0			
	1.0588	1.1112	1.1179	1.2700													
Anthracene	1.0379	1.0824	1.0817	1.1140	1.0742	Ave		1.1238			0.7000	7.2		20.0			
	1.0893	1.1531	1.1741	1.3073													
Carbazole		1.0652	1.0781	1.0738	1.0357	Ave		1.0914			0.0100	5.3		20.0			
	1.0557	1.0956	1.1016	1.2252													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Di-n-butyl phthalate		1.3552	1.3962	1.4148	1.4096	Ave		1.4325			0.0100	3.6		20.0			
	1.4178	1.5045	1.4989	1.4629													
Fluoranthene	1.1887	1.1082	1.2177	1.1842	1.1747	Ave		1.2271			0.6000	7.7		20.0			
	1.1727	1.2641	1.3015	1.4319													
Benzidine		0.4961	0.4956	0.6194	0.6498	Ave		0.6090				12.0		20.0			
	0.6434	0.6181	0.6518	0.6981													
Pyrene	1.2178	1.1840	1.2198	1.1838	1.1978	Ave		1.2315			0.6000	5.1		20.0			
	1.2011	1.2171	1.2836	1.3788													
Butyl benzyl phthalate		0.5618	0.6355	0.7000	0.6068	Ave		0.6251			0.0100	6.4		20.0			
	0.6120	0.6041	0.6331	0.6471													
3,3'-Dimethoxybenzidine		0.1768	0.2179	0.2277	0.2549	Ave		0.2385				14.0		20.0			
	0.2613	0.2343	0.2488	0.2865													
Bis(2-ethylhexyl) phthalate		0.7725	0.8684	0.8342	0.8698	Ave		0.8688			0.0100	6.6		20.0			
	0.8565	0.8781	0.8946	0.9763													
4,4'-Methylene bis(2-chloroaniline)		0.1993	0.2165	0.2169	0.2299	Ave		0.2291				8.5		20.0			
	0.2264	0.2364	0.2445	0.2630													
3,3'-Dichlorobenzidine		0.3683	0.4040	0.4064	0.4316	Ave		0.4279			0.0100	8.6		20.0			
	0.4312	0.4380	0.4510	0.4927													
Benzo[a]anthracene	1.2110	1.0945	1.1739	1.1365	1.1137	Ave		1.1605			0.8000	4.3		20.0			
	1.1340	1.1555	1.1704	1.2554													
Chrysene	1.2394	1.0804	1.1143	1.0881	1.0840	Ave		1.1337			0.7000	5.0		20.0			
	1.1231	1.1183	1.1409	1.2145													
Di-n-octyl phthalate		1.4389	1.5649	1.6060	1.6406	Ave		1.6869			0.0100	9.3		20.0			
	1.7336	1.7619	1.8117	1.9378													
Benzo[b]fluoranthene	1.1064	1.1713	1.1854	1.2356	1.2281	Ave		1.2741			0.7000	11.0		20.0			
	1.4585	1.2539	1.3061	1.5219													
Benzo[k]fluoranthene	1.4546	1.2638	1.3536	1.2948	1.2840	Ave		1.3279			0.7000	6.6		20.0			
	1.1580	1.3782	1.3828	1.3816													
Benzo[a]pyrene	1.1401	1.0762	1.1106	1.1297	1.1475	Ave		1.1673			0.7000	5.8		20.0			
	1.1741	1.2035	1.2212	1.3029													
Indeno[1,2,3-cd]pyrene	1.2705	1.1882	1.2235	1.2401	1.2740	Ave		1.2909			0.5000	5.8		20.0			
	1.3033	1.3309	1.3505	1.4368													
Dibenzo(a,h)anthracene	1.0061	0.9215	1.0240	1.0288	1.0478	Ave		1.0632			0.4000	7.8		20.0			
	1.0889	1.1157	1.1250	1.2106													
Benzo[g,h,i]perylene	0.9424	0.9400	0.9864	1.0173	1.0548	Ave		1.0306			0.5000	6.3		20.0			
	1.0527	1.0674	1.0813	1.1331													
2-Fluorophenol (Surr)		1.4065	1.3532	1.5566	1.4952	Ave		1.4595				4.3		20.0			
	1.4758	1.4396	1.4441	1.5052													
Phenol-d5 (Surr)		1.9990	1.9480	2.1175	2.0563	Ave		2.0420				2.6		20.0			
	2.0412	2.0291	2.0551	2.0894													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Nitrobenzene-d5 (Surr)	0.7581 0.6688	0.6974 0.6160	0.6589 0.6132	0.7017 0.6610	0.6192	Ave		0.6660				7.2		20.0			
2-Fluorobiphenyl (Surr)	1.2615 1.3100	1.2963 1.3260	1.3419 1.3578	1.3322 1.4452	1.2942	Ave		1.3295				3.9		20.0			
2,4,6-Tribromophenol (Surr)	0.1599	0.1390 0.1644	0.1526 0.1679	0.1601 0.1797	0.1538	Ave		0.1597				7.5		20.0			
Terphenyl-d14 (Surr)	0.7105 0.7125	0.7008 0.7382	0.7216 0.7764	0.7347 0.8331	0.7264	Ave		0.7394				5.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: ICV 240-8519/11 Calibration Date: 07/14/2011 13:22

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7460	0.7470		10.0	10.0	0.1	30.0
N-Nitrosodimethylamine	Ave	1.364	1.404		10.3	10.0	2.9	30.0
Pyridine	Ave	1.962	2.200		11.2	10.0	12.1	30.0
Ethyl methacrylate	Ave	2.036	2.062		10.1	10.0	1.3	30.0
3-Chloropropionitrile	Ave	0.8384	0.8567		10.2	10.0	2.2	30.0
Malononitrile	Ave	2.328	2.452		10.5	10.0	5.3	30.0
Benzaldehyde	Ave	1.809	1.694	0.0100	9.36	10.0	-6.4	30.0
Phenol	Ave	2.343	2.370	0.8000	10.1	10.0	1.1	30.0
Aniline	Ave	2.884	3.050		10.6	10.0	5.8	30.0
Bis(2-chloroethyl)ether	Ave	1.948	1.873	0.7000	9.62	10.0	-3.8	30.0
2-Chlorophenol	Ave	1.393	1.412	0.8000	10.1	10.0	1.4	30.0
1,3-Dichlorobenzene	Ave	1.380	1.401		10.2	10.0	1.5	30.0
1,4-Dichlorobenzene	Ave	1.446	1.440		9.96	10.0	-0.4	30.0
Benzyl alcohol	Ave	1.024	1.039		10.1	10.0	1.4	30.0
1,2-Dichlorobenzene	Ave	1.322	1.328		10.1	10.0	0.5	30.0
2-Methylphenol	Ave	1.517	1.485	0.7000	9.79	10.0	-2.1	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.624	1.618		9.97	10.0	-0.3	30.0
3 & 4 Methylphenol	Ave	1.561	1.611		10.3	10.0	3.2	30.0
N-Nitrosodi-n-propylamine	Ave	1.755	1.780	0.5000	10.1	10.0	1.4	30.0
Acetophenone	Ave	2.407	2.379	0.0100	9.88	10.0	-1.2	30.0
Hexachloroethane	Ave	0.6633	0.6700	0.3000	10.1	10.0	1.0	30.0
Nitrobenzene	Ave	0.6719	0.6754	0.2000	10.1	10.0	0.5	30.0
Isophorone	Ave	1.171	1.211	0.4000	10.3	10.0	3.5	30.0
2-Nitrophenol	Ave	0.1943	0.1939	0.1000	9.98	10.0	-0.2	30.0
2,4-Dimethylphenol	Ave	0.5047	0.5176	0.2000	10.3	10.0	2.5	30.0
1,3,5-Trichlorobenzene	Ave	0.3184	0.3166		9.94	10.0	-0.6	30.0
Bis(2-chloroethoxy)methane	Ave	0.5665	0.5857	0.3000	10.3	10.0	3.4	30.0
Benzoic acid	Qua		0.3015		22.8	20.0	14.0	30.0
2,4-Dichlorophenol	Ave	0.2645	0.2707	0.2000	10.2	10.0	2.3	30.0
1,2,4-Trichlorobenzene	Ave	0.3072	0.3090		10.1	10.0	0.6	30.0
Naphthalene	Ave	1.118	1.110	0.7000	9.93	10.0	-0.7	30.0
4-Chloroaniline	Ave	0.4603	0.4575	0.0100	9.94	10.0	-0.6	30.0
Hexachlorobutadiene	Ave	0.1915	0.1945	0.0100	10.2	10.0	1.6	30.0
1,2,3-Trichlorobenzene	Ave	0.2862	0.2911		10.2	10.0	1.7	30.0
Caprolactam	Ave	0.1347	0.1493	0.0100	11.1	10.0	10.8	30.0
4-Chloro-3-methylphenol	Ave	0.4252	0.4492	0.2000	10.6	10.0	5.7	30.0
2-Methylnaphthalene	Ave	0.5860	0.5868	0.4000	10.0	10.0	0.1	30.0
1-Methylnaphthalene	Ave	0.6781	0.6727		9.92	10.0	-0.8	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5438	0.5550		10.2	10.0	2.1	30.0
Hexachlorocyclopentadiene	Ave	0.3923	0.4172	0.0500	10.6	10.0	6.3	30.0
2,4,6-Trichlorophenol	Ave	0.3465	0.3701	0.2000	10.7	10.0	6.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: ICV 240-8519/11 Calibration Date: 07/14/2011 13:22

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3871	0.4013	0.2000	10.4	10.0	3.7	30.0
2,4-Toluene diamine	Qua		0.2015		10.1	10.0	1.0	30.0
1,1'-Biphenyl	Ave	1.584	1.591	0.0100	10.0	10.0	0.5	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5225	0.5356		10.3	10.0	2.5	30.0
2-Chloronaphthalene	Ave	1.113	1.118	0.8000	10.0	10.0	0.4	30.0
2-Nitroaniline	Ave	0.6227	0.6559	0.0100	10.5	10.0	5.3	30.0
Dimethyl phthalate	Ave	1.359	1.421	0.0100	10.5	10.0	4.6	30.0
2,6-Dinitrotoluene	Ave	0.2940	0.3102		10.6	10.0	5.5	30.0
1,2-Dinitrobenzene	Ave	0.1528	0.1617		10.6	10.0	5.8	30.0
Acenaphthylene	Ave	1.967	1.980	0.9000	10.1	10.0	0.6	30.0
3-Nitroaniline	Ave	0.3381	0.3549	0.0100	10.5	10.0	5.0	30.0
2,4-Dinitrophenol	Qua		0.2585	0.0100	21.1	20.0	5.5	30.0
Acenaphthene	Ave	1.262	1.260	0.9000	9.99	10.0	-0.1	30.0
4-Nitrophenol	Ave	0.2965	0.2863		9.65	10.0	-3.5	30.0
2,4-Dinitrotoluene	Ave	0.3991	0.4240	0.2000	10.6	10.0	6.2	30.0
Dibenzofuran	Ave	1.711	1.736	0.8000	10.1	10.0	1.5	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3326	0.3359		10.1	10.0	1.0	30.0
Diethyl phthalate	Ave	1.511	1.585	0.0100	10.5	10.0	4.9	30.0
4-Chlorophenyl phenyl ether	Ave	0.6621	0.6744	0.4000	10.2	10.0	1.9	30.0
4-Nitroaniline	Ave	0.3761	0.3944	0.0100	10.5	10.0	4.9	30.0
Fluorene	Ave	1.325	1.357	0.9000	10.2	10.0	2.4	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1405	0.1523	0.0100	10.8	10.0	8.4	30.0
N-Nitrosodiphenylamine	Ave	0.5824	0.6081	0.0100	10.4	10.0	4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.479	1.508		10.2	10.0	2.0	30.0
Azobenzene	Ave	1.479	1.508		10.2	10.0	2.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2042	0.2061	0.1000	10.1	10.0	0.9	30.0
Hexachlorobenzene	Ave	0.2010	0.2014	0.1000	10.0	10.0	0.2	30.0
Atrazine	Ave	0.1993	0.2126	0.0100	10.7	10.0	6.7	30.0
Pentachlorophenol	Qua		0.1528	0.0500	21.0	20.0	5.0	30.0
Phenanthrene	Ave	1.116	1.131	0.7000	10.1	10.0	1.3	30.0
Anthracene	Ave	1.124	1.149	0.7000	10.2	10.0	2.3	30.0
Carbazole	Ave	1.091	1.114	0.0100	10.2	10.0	2.1	30.0
Di-n-butyl phthalate	Ave	1.432	1.502	0.0100	10.5	10.0	4.8	30.0
Fluoranthene	Ave	1.227	1.264	0.6000	10.3	10.0	3.0	30.0
Benzidine	Ave	0.6090	0.7094		11.6	10.0	16.5	30.0
Pyrene	Ave	1.232	1.256	0.6000	10.2	10.0	2.0	30.0
Butyl benzyl phthalate	Ave	0.6251	0.6315	0.0100	10.1	10.0	1.0	30.0
3,3'-Dimethoxybenzidine	Ave	0.2385	0.2647		11.1	10.0	11.0	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8688	0.8960	0.0100	10.3	10.0	3.1	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2291	0.2402		10.5	10.0	4.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: ICV 240-8519/11 Calibration Date: 07/14/2011 13:22

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4279	0.4419	0.0100	10.3	10.0	3.3	30.0
Benzo[a]anthracene	Ave	1.161	1.172	0.8000	10.1	10.0	1.0	30.0
Chrysene	Ave	1.134	1.118	0.7000	9.86	10.0	-1.4	30.0
Di-n-octyl phthalate	Ave	1.687	1.795	0.0100	10.6	10.0	6.4	30.0
Benzo[b]fluoranthene	Ave	1.274	1.239	0.7000	9.73	10.0	-2.7	30.0
Benzo[k]fluoranthene	Ave	1.328	1.415	0.7000	10.7	10.0	6.6	30.0
Benzo[a]pyrene	Ave	1.167	1.213	0.7000	10.4	10.0	3.9	30.0
Dibenzo(a,h)anthracene	Ave	1.063	1.125	0.4000	10.6	10.0	5.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.291	1.349	0.5000	10.4	10.0	4.5	30.0
Benzo[g,h,i]perylene	Ave	1.031	1.079	0.5000	10.5	10.0	4.7	30.0
2-Fluorophenol (Surr)	Ave	1.460	1.504		10.3	10.0	3.0	30.0
Phenol-d5 (Surr)	Ave	2.042	2.073		10.2	10.0	1.5	30.0
Nitrobenzene-d5 (Surr)	Ave	0.6660	0.6335		9.51	10.0	-4.9	30.0
2-Fluorobiphenyl (Surr)	Ave	1.329	1.367		10.3	10.0	2.8	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1597	0.1629		10.2	10.0	2.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7394	0.7550		10.2	10.0	2.1	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab File ID: 9DF0715.D DFTPP Injection Date: 07/15/2011

Instrument ID: A4HP9 DFTPP Injection Time: 13:55

Analysis Batch No.: 8683

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	68.8	
70	Less than 2.0% of mass 69	0.4	(0.6)1
127	25.0 - 75.0% of mass 198	54.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	26.9	
365	Greater than 0.75% of mass 198	4.0	
441	Present, but less than mass 443	14.2	
442	40.0 - 110.0% of mass 198	83.8	
443	15.0 - 24.0% of mass 442	15.6	(18.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-8683/2	9SMH0715.D	07/15/2011	14:17
	CCV 240-8683/3	9AMH0715.D	07/15/2011	15:03
	MB 240-6094/1-A	MB6094.D	07/15/2011	16:01
	LCS 240-6094/2-A	LCS6094.D	07/15/2011	16:20
GSP-SB-WP-50-062211	240-1365-2	1365I2A.D	07/16/2011	00:01
GSP-MW-7-062211	240-1365-3	1365I3A.D	07/16/2011	00:20
GSP-SB-WP-83-062211	240-1365-6	1365I6A.D	07/16/2011	00:39

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-8683/2 Calibration Date: 07/15/2011 14:17

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0715.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7460	0.8042		10.8	10.0	7.8	20.0
N-Nitrosodimethylamine	Ave	1.364	1.476		10.8	10.0	8.2	20.0
Pyridine	Ave	1.962	2.333		11.9	10.0	18.9	20.0
Ethyl methacrylate	Ave	2.036	2.166		10.6	10.0	6.4	20.0
3-Chloropropionitrile	Ave	0.8384	0.8880		10.6	10.0	5.9	20.0
Malononitrile	Ave	2.328	2.494		10.7	10.0	7.1	20.0
Benzaldehyde	Ave	1.809	1.656	0.0100	9.15	10.0	-8.5	20.0
Phenol	Ave	2.343	2.436	0.8000	10.4	10.0	4.0	20.0
Aniline	Ave	2.884	3.060		10.6	10.0	6.1	20.0
Bis(2-chloroethyl)ether	Ave	1.948	1.899	0.7000	9.75	10.0	-2.5	20.0
2-Chlorophenol	Ave	1.393	1.416	0.8000	10.2	10.0	1.6	20.0
1,3-Dichlorobenzene	Ave	1.380	1.375		9.96	10.0	-0.4	20.0
1,4-Dichlorobenzene	Ave	1.446	1.458		10.1	10.0	0.9	20.0
Benzyl alcohol	Ave	1.024	1.061		10.4	10.0	3.6	20.0
1,2-Dichlorobenzene	Ave	1.322	1.305		9.88	10.0	-1.2	20.0
2-Methylphenol	Ave	1.517	1.551	0.7000	10.2	10.0	2.2	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.624	1.613		9.93	10.0	-0.7	20.0
3 & 4 Methylphenol	Ave	1.561	1.621		10.4	10.0	3.9	20.0
N-Nitrosodi-n-propylamine	Ave	1.755	1.821	0.5000	10.4	10.0	3.7	20.0
Acetophenone	Ave	2.407	2.470	0.0100	10.3	10.0	2.6	20.0
Hexachloroethane	Ave	0.6633	0.6780	0.3000	10.2	10.0	2.2	20.0
Nitrobenzene	Ave	0.6719	0.6814	0.2000	10.1	10.0	1.4	20.0
Isophorone	Ave	1.171	1.198	0.4000	10.2	10.0	2.4	20.0
2-Nitrophenol	Ave	0.1943	0.1974	0.1000	10.2	10.0	1.6	20.0
1,3,5-Trichlorobenzene	Ave	0.3184	0.3095		9.72	10.0	-2.8	20.0
2,4-Dimethylphenol	Ave	0.5047	0.5246	0.2000	10.4	10.0	3.9	20.0
Bis(2-chloroethoxy)methane	Ave	0.5665	0.5887	0.3000	10.4	10.0	3.9	20.0
Benzoic acid	Qua		0.2770		21.3	20.0	6.5	20.0
2,4-Dichlorophenol	Ave	0.2645	0.2840	0.2000	10.7	10.0	7.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3072	0.3045		9.91	10.0	-0.9	20.0
Naphthalene	Ave	1.118	1.096	0.7000	9.81	10.0	-1.9	20.0
4-Chloroaniline	Ave	0.4603	0.4619	0.0100	10.0	10.0	0.3	20.0
Hexachlorobutadiene	Ave	0.1915	0.1896	0.0100	9.90	10.0	-1.0	20.0
1,2,3-Trichlorobenzene	Ave	0.2862	0.2881		10.1	10.0	0.7	20.0
Caprolactam	Ave	0.1347	0.1512	0.0100	11.2	10.0	12.3	20.0
4-Chloro-3-methylphenol	Ave	0.4252	0.4407	0.2000	10.4	10.0	3.6	20.0
2-Methylnaphthalene	Ave	0.5860	0.5774	0.4000	9.85	10.0	-1.5	20.0
1-Methylnaphthalene	Ave	0.6781	0.6536		9.64	10.0	-3.6	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5438	0.5208		9.58	10.0	-4.2	20.0
Hexachlorocyclopentadiene	Ave	0.3923	0.3884	0.0500	9.90	10.0	-1.0	20.0
2,4,6-Trichlorophenol	Ave	0.3465	0.3657	0.2000	10.6	10.0	5.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-8683/2 Calibration Date: 07/15/2011 14:17

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0715.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3871	0.3958	0.2000	10.2	10.0	2.2	20.0
2,4-Toluene diamine	Qua		0.2201		11.4	10.0	14.0	20.0
1,1'-Biphenyl	Ave	1.584	1.506	0.0100	9.51	10.0	-4.9	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5225	0.5030		9.63	10.0	-3.7	20.0
2-Chloronaphthalene	Ave	1.113	1.096	0.8000	9.84	10.0	-1.6	20.0
2-Nitroaniline	Ave	0.6227	0.6248	0.0100	10.0	10.0	0.3	20.0
Dimethyl phthalate	Ave	1.359	1.344	0.0100	9.89	10.0	-1.1	20.0
2,6-Dinitrotoluene	Ave	0.2940	0.3090		10.5	10.0	5.1	20.0
1,2-Dinitrobenzene	Ave	0.1528	0.1560		10.2	10.0	2.1	20.0
Acenaphthylene	Ave	1.967	1.893	0.9000	9.62	10.0	-3.8	20.0
3-Nitroaniline	Ave	0.3381	0.3505	0.0100	10.4	10.0	3.7	20.0
2,4-Dinitrophenol	Qua		0.2402	0.0100	19.8	20.0	-1.0	20.0
Acenaphthene	Ave	1.262	1.200	0.9000	9.51	10.0	-4.9	20.0
4-Nitrophenol	Ave	0.2965	0.3359		11.3	10.0	13.3	20.0
2,4-Dinitrotoluene	Ave	0.3991	0.4046	0.2000	10.1	10.0	1.4	20.0
Dibenzofuran	Ave	1.711	1.671	0.8000	9.77	10.0	-2.3	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3326	0.3170		9.53	10.0	-4.7	20.0
Diethyl phthalate	Ave	1.511	1.481	0.0100	9.80	10.0	-2.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.6621	0.6413	0.4000	9.69	10.0	-3.1	20.0
4-Nitroaniline	Ave	0.3761	0.3813	0.0100	10.1	10.0	1.4	20.0
Fluorene	Ave	1.325	1.299	0.9000	9.80	10.0	-2.0	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1405	0.1476	0.0100	10.5	10.0	5.1	20.0
N-Nitrosodiphenylamine	Ave	0.5824	0.5764	0.0100	9.90	10.0	-1.0	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.479	1.499		10.1	10.0	1.4	20.0
Azobenzene	Ave	1.479	1.499		10.1	10.0	1.4	20.0
4-Bromophenyl phenyl ether	Ave	0.2042	0.1989	0.1000	9.74	10.0	-2.6	20.0
Hexachlorobenzene	Ave	0.2010	0.1974	0.1000	9.82	10.0	-1.8	20.0
Atrazine	Ave	0.1993	0.2129	0.0100	10.7	10.0	6.9	20.0
Pentachlorophenol	Qua		0.1423	0.0500	19.8	20.0	-1.0	20.0
Phenanthrene	Ave	1.116	1.088	0.7000	9.74	10.0	-2.6	20.0
Anthracene	Ave	1.124	1.093	0.7000	9.73	10.0	-2.7	20.0
Carbazole	Ave	1.091	1.082	0.0100	9.92	10.0	-0.8	20.0
Di-n-butyl phthalate	Ave	1.432	1.446	0.0100	10.1	10.0	1.0	20.0
Fluoranthene	Ave	1.227	1.204	0.6000	9.81	10.0	-1.9	20.0
Benzidine	Ave	0.6090	0.6332		10.4	10.0	4.0	20.0
Pyrene	Ave	1.232	1.233	0.6000	10.0	10.0	0.1	20.0
Butyl benzyl phthalate	Ave	0.6251	0.6186	0.0100	9.90	10.0	-1.0	20.0
3,3'-Dimethoxybenzidine	Ave	0.2385	0.2506		10.5	10.0	5.1	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8688	0.8735	0.0100	10.1	10.0	0.5	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2291	0.2379		10.4	10.0	3.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-8683/2 Calibration Date: 07/15/2011 14:17

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0715.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4279	0.4414	0.0100	10.3	10.0	3.2	20.0
Benzo[a]anthracene	Ave	1.161	1.198	0.8000	10.3	10.0	3.2	20.0
Chrysene	Ave	1.134	1.106	0.7000	9.75	10.0	-2.5	20.0
Di-n-octyl phthalate	Ave	1.687	1.743	0.0100	10.3	10.0	3.3	20.0
Benzo[b]fluoranthene	Ave	1.274	1.414	0.7000	11.1	10.0	11.0	20.0
Benzo[k]fluoranthene	Ave	1.328	1.173	0.7000	8.83	10.0	-11.7	20.0
Benzo[a]pyrene	Ave	1.167	1.169	0.7000	10.0	10.0	0.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.291	1.287	0.5000	9.97	10.0	-0.3	20.0
Dibenzo(a,h)anthracene	Ave	1.063	1.090	0.4000	10.3	10.0	2.6	20.0
Benzo[g,h,i]perylene	Ave	1.031	1.067	0.5000	10.4	10.0	3.5	20.0
2-Fluorophenol (Surr)	Ave	1.460	1.511		10.4	10.0	3.5	20.0
Phenol-d5 (Surr)	Ave	2.042	2.151		10.5	10.0	5.3	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6660	0.6870		10.3	10.0	3.2	20.0
2-Fluorobiphenyl (Surr)	Ave	1.329	1.301		9.79	10.0	-2.1	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1597	0.1616		10.1	10.0	1.2	20.0
Terphenyl-d14 (Surr)	Ave	0.7394	0.7410		10.0	10.0	0.2	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab File ID: MB6094.D Lab Sample ID: MB 240-6094/1-A

Matrix: Water Date Extracted: 06/25/2011 08:27

Instrument ID: A4HP9 Date Analyzed: 07/15/2011 16:01

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-6094/2-A	LCS6094.D	07/15/2011 16:20
GSP-SB-WP-50-062211	240-1365-2	1365I2A.D	07/16/2011 00:01
GSP-MW-7-062211	240-1365-3	1365I3A.D	07/16/2011 00:20
GSP-SB-WP-83-062211	240-1365-6	1365I6A.D	07/16/2011 00:39

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6094/1-A

Matrix: Water | Lab File ID: MB6094.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1000(mL) | Date Analyzed: 07/15/2011 16:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.20	U	0.20	0.10
208-96-8	Acenaphthylene	0.20	U	0.20	0.10
98-86-2	Acetophenone	1.0	U	1.0	0.34
120-12-7	Anthracene	0.20	U	0.20	0.10
1912-24-9	Atrazine	1.0	U	1.0	0.34
100-52-7	Benzaldehyde	1.0	U	1.0	0.39
56-55-3	Benzo[a]anthracene	0.20	U	0.20	0.10
50-32-8	Benzo[a]pyrene	0.20	U	0.20	0.10
205-99-2	Benzo[b]fluoranthene	0.20	U	0.20	0.10
191-24-2	Benzo[g,h,i]perylene	0.20	U	0.20	0.10
207-08-9	Benzo[k]fluoranthene	0.20	U	0.20	0.10
92-52-4	1,1'-Biphenyl	1.0	U	1.0	0.80
111-91-1	Bis(2-chloroethoxy)methane	1.0	U	1.0	0.32
111-44-4	Bis(2-chloroethyl)ether	1.0	U	1.0	0.10
117-81-7	Bis(2-ethylhexyl) phthalate	1.56	J	2.0	0.80
101-55-3	4-Bromophenyl phenyl ether	2.0	U	2.0	0.80
85-68-7	Butyl benzyl phthalate	1.0	U	1.0	0.80
105-60-2	Caprolactam	5.0	U	5.0	0.80
86-74-8	Carbazole	1.0	U	1.0	0.28
106-47-8	4-Chloroaniline	2.0	U	2.0	0.80
59-50-7	4-Chloro-3-methylphenol	2.0	U	2.0	0.80
91-58-7	2-Chloronaphthalene	1.0	U	1.0	0.10
95-57-8	2-Chlorophenol	1.0	U	1.0	0.29
7005-72-3	4-Chlorophenyl phenyl ether	2.0	U	2.0	0.30
218-01-9	Chrysene	0.20	U	0.20	0.10
53-70-3	Dibenzo(a,h)anthracene	0.20	U	0.20	0.10
132-64-9	Dibenzofuran	1.0	U	1.0	0.10
91-94-1	3,3'-Dichlorobenzidine	5.0	U	5.0	0.37
120-83-2	2,4-Dichlorophenol	2.0	U	2.0	0.80
84-66-2	Diethyl phthalate	1.0	U	1.0	0.60
105-67-9	2,4-Dimethylphenol	2.0	U	2.0	0.80
131-11-3	Dimethyl phthalate	1.0	U	1.0	0.29
84-74-2	Di-n-butyl phthalate	1.0	U	1.0	0.67
534-52-1	4,6-Dinitro-2-methylphenol	5.0	U	5.0	2.4

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6094/1-A

Matrix: Water | Lab File ID: MB6094.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1000(mL) | Date Analyzed: 07/15/2011 16:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	5.0	U	5.0	2.4
121-14-2	2,4-Dinitrotoluene	5.0	U	5.0	0.27
606-20-2	2,6-Dinitrotoluene	5.0	U	5.0	0.80
117-84-0	Di-n-octyl phthalate	1.0	U	1.0	0.80
206-44-0	Fluoranthene	0.20	U	0.20	0.10
86-73-7	Fluorene	0.20	U	0.20	0.10
118-74-1	Hexachlorobenzene	0.20	U	0.20	0.10
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.27
77-47-4	Hexachlorocyclopentadiene	10	U	10	0.80
67-72-1	Hexachloroethane	1.0	U	1.0	0.80
193-39-5	Indeno[1,2,3-cd]pyrene	0.20	U	0.20	0.10
78-59-1	Isophorone	1.0	U	1.0	0.27
91-57-6	2-Methylnaphthalene	0.20	U	0.20	0.10
95-48-7	2-Methylphenol	1.0	U	1.0	0.80
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49
15831-10-4	3 & 4 Methylphenol	2.0	U	2.0	0.75
91-20-3	Naphthalene	0.20	U	0.20	0.10
88-74-4	2-Nitroaniline	2.0	U	2.0	0.80
99-09-2	3-Nitroaniline	2.0	U	2.0	0.28
100-01-6	4-Nitroaniline	2.0	U	2.0	0.80
98-95-3	Nitrobenzene	1.0	U	1.0	0.040
88-75-5	2-Nitrophenol	2.0	U	2.0	0.28
100-02-7	4-Nitrophenol	5.0	U	5.0	2.4
621-64-7	N-Nitrosodi-n-propylamine	1.0	U	1.0	0.80
86-30-6	N-Nitrosodiphenylamine	1.0	U	1.0	0.31
108-60-1	2,2'-oxybis[1-chloropropane]	1.0	U	1.0	0.40
87-86-5	Pentachlorophenol	5.0	U	5.0	2.4
85-01-8	Phenanthrene	0.20	U	0.20	0.10
108-95-2	Phenol	1.0	U	1.0	0.60
129-00-0	Pyrene	0.20	U	0.20	0.10
95-95-4	2,4,5-Trichlorophenol	5.0	U	5.0	0.30
88-06-2	2,4,6-Trichlorophenol	5.0	U	5.0	0.80
62-75-9	N-Nitrosodimethylamine	1.0	U	1.0	0.31

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton	Job No.: 240-1365-1
SDG No.:	
Client Sample ID:	Lab Sample ID: MB 240-6094/1-A
Matrix: Water	Lab File ID: MB6094.D
Analysis Method: 8270D	Date Collected:
Extract. Method: 3510C	Date Extracted: 06/25/2011 08:27
Sample wt/vol: 1000(mL)	Date Analyzed: 07/15/2011 16:01
Con. Extract Vol.: 2(mL)	Dilution Factor: 1
Injection Volume: 1(uL)	Level: (low/med) Low
% Moisture:	GPC Cleanup:(Y/N) N
Analysis Batch No.: 8683	Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	64		28-110
367-12-4	2-Fluorophenol (Surr)	69		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		27-111
4165-62-2	Phenol-d5 (Surr)	72		10-110
1718-51-0	Terphenyl-d14 (Surr)	75		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	63		22-120

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP	#	PHL	#	NBZ	#	FBP	#	TBP	#	TPH	#
GSP-SB-WP-50-062211	240-1365-2	50		48		54		48		54		70	
GSP-MW-7-062211	240-1365-3	62		60		62		55		62		77	
GSP-SB-WP-83-062211	240-1365-6	61		56		63		55		59		66	
	MB 240-6094/1-A	69		72		65		64		63		75	
	LCS 240-6094/2-A	73		75		72		68		71		76	

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	10-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	27-111
FBP = 2-Fluorobiphenyl (Surr)	28-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
TPH = Terphenyl-d14 (Surr)	37-119

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low Lab File ID: LCS6094.D

Lab ID: LCS 240-6094/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Acenaphthene	20.0	13.0	65	40-110	
Acenaphthylene	20.0	13.6	68	43-110	
Acetophenone	20.0	14.3	72	50-130	
Anthracene	20.0	13.2	66	54-114	
Atrazine	20.0	15.2	76	50-130	
Benzaldehyde	20.0	16.1	80	10-130	
Benzo[a]anthracene	20.0	13.7	69	55-115	
Benzo[a]pyrene	20.0	11.8	59	43-116	
Benzo[b]fluoranthene	20.0	13.6	68	43-122	
Benzo[g,h,i]perylene	20.0	14.7	73	45-120	
Benzo[k]fluoranthene	20.0	14.2	71	43-124	
1,1'-Biphenyl	20.0	12.9	65	50-130	
Bis(2-chloroethoxy)methane	20.0	15.2	76	39-110	
Bis(2-chloroethyl)ether	20.0	14.9	75	34-113	
Bis(2-ethylhexyl) phthalate	20.0	15.3	77	36-163	
4-Bromophenyl phenyl ether	20.0	13.3	67	51-114	
Butyl benzyl phthalate	20.0	14.7	73	53-126	
Caprolactam	20.0	15.4	77	50-130	
Carbazole	20.0	13.4	67	53-120	
4-Chloroaniline	20.0	12.3	62	10-110	
4-Chloro-3-methylphenol	20.0	14.3	72	39-110	
2-Chloronaphthalene	20.0	13.6	68	39-110	
2-Chlorophenol	20.0	14.5	73	27-110	
4-Chlorophenyl phenyl ether	20.0	13.8	69	50-115	
Chrysene	20.0	13.5	68	55-115	
Dibenzo(a,h)anthracene	20.0	14.4	72	46-122	
Dibenzofuran	20.0	13.7	69	46-111	
3,3'-Dichlorobenzidine	20.0	9.34	47	19-110	
2,4-Dichlorophenol	20.0	14.9	74	33-110	
Diethyl phthalate	20.0	14.4	72	33-134	
2,4-Dimethylphenol	20.0	11.5	58	12-110	
Dimethyl phthalate	20.0	14.1	71	15-143	
Di-n-butyl phthalate	20.0	14.3	71	55-122	
4,6-Dinitro-2-methylphenol	20.0	13.1	66	28-112	
2,4-Dinitrophenol	20.0	10.9	55	17-112	
2,4-Dinitrotoluene	20.0	15.2	76	52-123	
2,6-Dinitrotoluene	20.0	15.0	75	52-119	
Di-n-octyl phthalate	20.0	13.6	68	44-128	
Fluoranthene	20.0	13.7	69	54-122	
Fluorene	20.0	13.6	68	47-112	
Hexachlorobenzene	20.0	13.9	70	51-112	
Hexachlorobutadiene	20.0	12.8	64	13-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low Lab File ID: LCS6094.D

Lab ID: LCS 240-6094/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Hexachlorocyclopentadiene	20.0	7.84 J	39	10-110	
Hexachloroethane	20.0	13.6	68	12-110	
Indeno[1,2,3-cd]pyrene	20.0	14.1	70	46-121	
Isophorone	20.0	14.3	71	44-128	
2-Methylnaphthalene	20.0	16.5	83	35-110	
2-Methylphenol	20.0	14.5	72	30-110	
1,4-Dioxane	20.0	12.1	61	10-110	
3 & 4 Methylphenol	40.0	29.4	74	32-110	
Naphthalene	20.0	14.1	70	31-110	
2-Nitroaniline	20.0	14.3	72	43-130	
3-Nitroaniline	20.0	14.1	71	45-116	
4-Nitroaniline	20.0	14.7	73	45-120	
Nitrobenzene	20.0	15.0	75	37-115	
2-Nitrophenol	20.0	14.5	72	29-110	
4-Nitrophenol	20.0	13.4	67	12-130	
N-Nitrosodi-n-propylamine	20.0	15.0	75	37-121	
N-Nitrosodiphenylamine	20.0	12.8	64	53-113	
2,2'-oxybis[1-chloropropane]	20.0	15.4	77	25-128	
Pentachlorophenol	20.0	12.3	62	26-110	
Phenanthrene	20.0	13.0	65	52-114	
Phenol	20.0	14.9	75	14-112	
Pyrene	20.0	13.3	67	55-120	
2,4,5-Trichlorophenol	20.0	14.1	71	39-110	
2,4,6-Trichlorophenol	20.0	14.4	72	35-110	
N-Nitrosodimethylamine	20.0	14.7	73	10-130	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Sample No.: STD6 240-8519/10 Date Analyzed: 07/14/2011 10:23

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0714.D Heated Purge: (Y/N) N

Calibration ID: 2328

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		160508	3.95	606881	4.91	335325	6.21
UPPER LIMIT		321016	4.45	1213762	5.41	670650	6.71
LOWER LIMIT		80254	3.45	303441	4.41	167663	5.71
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-8519/11		199012	3.95	756353	4.91	433009	6.21
CCV 240-8683/2 CCVIS		159485	3.87	607840	4.83	350312	6.13
CCV 240-8683/3		175478	3.87	656792	4.83	386466	6.13

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Sample No.: STD6 240-8519/10 Date Analyzed: 07/14/2011 10:23

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0714.D Heated Purge: (Y/N) N

Calibration ID: 2328

	PHN		CRY		PRY	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	598446	7.30	627312	9.29	525856	10.75
UPPER LIMIT	1196892	7.80	1254624	9.79	1051712	11.25
LOWER LIMIT	299223	6.80	313656	8.79	262928	10.25
LAB SAMPLE ID CLIENT SAMPLE ID						
ICV 240-8519/11	773447	7.30	828955	9.28	690267	10.74
CCV 240-8683/2 CCVIS	613815	7.22	636292	9.21	548771	10.62
CCV 240-8683/3	676696	7.22	705093	9.23	600516	10.64

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Sample No.: CCV 240-8683/2 Date Analyzed: 07/15/2011 14:17

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0715.D Heated Purge: (Y/N) N

Calibration ID: 2324

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		159485	3.87	607840	4.83	350312	6.13
UPPER LIMIT		318970	4.37	1215680	5.33	700624	6.63
LOWER LIMIT		79743	3.37	303920	4.33	175156	5.63
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-8683/3		175478	3.87	656792	4.83	386466	6.13
MB 240-6094/1-A		152064	3.87	585101	4.83	341388	6.13
LCS 240-6094/2-A		141956	3.87	553066	4.83	325557	6.13
240-1365-2	GSP-SB-WP-50-062211	193197	3.87	661346	4.83	389085	6.13
240-1365-3	GSP-MW-7-062211	182742	3.87	648992	4.83	389077	6.13
240-1365-6	GSP-SB-WP-83-062211	178870	3.87	617188	4.83	375777	6.13

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Sample No.: CCV 240-8683/2 Date Analyzed: 07/15/2011 14:17

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0715.D Heated Purge: (Y/N) N

Calibration ID: 2324

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		613815	7.22	636292	9.21	548771	10.62
UPPER LIMIT		1227630	7.72	1272584	9.71	1097542	11.12
LOWER LIMIT		306908	6.72	318146	8.71	274386	10.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-8683/3		676696	7.22	705093	9.23	600516	10.64
MB 240-6094/1-A		613683	7.21	652481	9.18	560353	10.58
LCS 240-6094/2-A		597257	7.22	614464	9.18	518174	10.58
240-1365-2	GSP-SB-WP-50-062211	724249	7.22	760580	9.17	652468	10.57
240-1365-3	GSP-MW-7-062211	720382	7.21	764986	9.17	643097	10.56
240-1365-6	GSP-SB-WP-83-062211	699846	7.22	737850	9.17	645974	10.57

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Instrument ID: YPID Start Date: 06/22/2011 14:07

Analysis Batch Number: 5655 End Date: 06/23/2011 03:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-5655/4 IC		06/22/2011 14:07	1	YF062204.D	RTX-VRX 0.45(mm)
STD2 240-5655/5 IC		06/22/2011 14:47	1	YF062205.D	RTX-VRX 0.45(mm)
STD3 240-5655/6 IC		06/22/2011 15:27	1	YF062206.D	RTX-VRX 0.45(mm)
STD4 240-5655/7 ICRT		06/22/2011 16:07	1	YF062207.D	RTX-VRX 0.45(mm)
STD5 240-5655/8 IC		06/22/2011 16:48	1	YF062208.D	RTX-VRX 0.45(mm)
STD6 240-5655/9 IC		06/22/2011 17:30	1	YF062209.D	RTX-VRX 0.45(mm)
ICV 240-5655/10		06/22/2011 18:11	1	YF062210.D	RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 18:52	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 19:32	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 20:54	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 21:34	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 22:14	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 22:54	1		RTX-VRX 0.45(mm)
ZZZZZ		06/22/2011 23:34	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 00:13	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 00:53	1		RTX-VRX 0.45(mm)
CCV 240-5655/21		06/23/2011 01:33	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 02:12	1		RTX-VRX 0.45(mm)
ZZZZZ		06/23/2011 02:52	1		RTX-VRX 0.45(mm)
CCV 240-5655/24		06/23/2011 03:32	1		RTX-VRX 0.45(mm)

GASOLINE RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Instrument ID: YPID Start Date: 06/28/2011 14:15

Analysis Batch Number: 6402 End Date: 06/29/2011 17:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/28/2011 14:15	1		RTX-VRX 0.45(mm)
CCVRT 240-6402/5		06/28/2011 15:37	1	YF062805.D	RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 16:17	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 16:59	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 17:39	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 18:19	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 18:58	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 19:39	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 20:19	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 20:58	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 21:36	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 22:14	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 22:52	1		RTX-VRX 0.45(mm)
ZZZZZ		06/28/2011 23:30	1		RTX-VRX 0.45(mm)
CCV 240-6402/18		06/29/2011 00:08	1	YF062818.D	RTX-VRX 0.45(mm)
MB 240-6402/19		06/29/2011 00:46	1	YF062819.D	RTX-VRX 0.45(mm)
LCS 240-6402/20		06/29/2011 01:24	1	YF062820.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 02:02	1		RTX-VRX 0.45(mm)
240-1267-E-2 MS		06/29/2011 02:40	1	YF062822.D	RTX-VRX 0.45(mm)
240-1267-E-2 MSD		06/29/2011 03:18	1	YF062823.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 03:56	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 04:35	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 05:13	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 05:51	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 06:29	1		RTX-VRX 0.45(mm)
CCV 240-6402/29		06/29/2011 07:07	1	YF062829.D	RTX-VRX 0.45(mm)
240-1365-1	GSP-SB-WP-61-062211	06/29/2011 07:45	1	YF062830.D	RTX-VRX 0.45(mm)
240-1365-2	GSP-SB-WP-50-062211	06/29/2011 08:24	1	YF062831.D	RTX-VRX 0.45(mm)
240-1365-3	GSP-MW-7-062211	06/29/2011 09:02	1	YF062832.D	RTX-VRX 0.45(mm)
240-1365-6	GSP-SB-WP-83-062211	06/29/2011 09:40	1	YF062833.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 10:19	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 10:58	1		RTX-VRX 0.45(mm)
CCV 240-6402/36		06/29/2011 11:36	1	YF062836.D	RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 15:21	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 15:59	1		RTX-VRX 0.45(mm)
ZZZZZ		06/29/2011 16:37	1		RTX-VRX 0.45(mm)
CCV 240-6402/40		06/29/2011 17:16	1		RTX-VRX 0.45(mm)

8015B

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
Total Petroleum Hydrocarbons (C6-C10)	11.358	11.358	11.358	11.358	11.358	11.358	4.298 - 18.418	11.358
C6-C12	13.046	13.046	13.046	13.046	13.046	13.046	4.398 - 21.695	13.046
Trifluorotoluene (Surr)	9.254	9.254	9.250	9.249	9.245	9.236	8.998 - 9.498	9.248

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	302470 208450	252295 210278	214454	228347	Ave		236048.859				15.0		20.0			
C6-C12	346250 223395	277091 226126	233001	247805	Ave		258944.938				18.0		20.0			
Trifluorotoluene (Surr)	211649 226938	171207 226738	185123	251863	Ave		212253.083				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: ICV 240-5655/10 Calibration Date: 06/22/2011 18:11

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062210.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	221204		750	800	-6.3	20.0
C6-C12	Ave	258945	242972		751	800	-6.2	20.0
Trifluorotoluene (Surr)	Ave	212253	193830		9.13	10.0	-8.7	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: ICV 240-5655/10 Calibration Date: 06/22/2011 18:11

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062210.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Total Petroleum Hydrocarbons (C6-C10)	11.36	4.30	18.42
C6-C12	13.05	4.40	21.70
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Sample No.: CCVRT 240-6402/5 Date Analyzed: 06/28/2011 15:37

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF062805.D Heated Purge: (Y/N) N

Calibration ID: 1594

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #
CONTINUING CALIBRATION SURROGATE				9.25
UPPER LIMIT				9.35
LOWER LIMIT				9.15
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID	
CCVRT 240-6402/5		06/28/2011 15:37	YF062805.D	9.25
CCV 240-6402/18		06/29/2011 00:08	YF062818.D	9.25
MB 240-6402/19		06/29/2011 00:46	YF062819.D	9.26
LCS 240-6402/20		06/29/2011 01:24	YF062820.D	9.25
240-1267-E-2 MS		06/29/2011 02:40	YF062822.D	9.25
240-1267-E-2 MSD		06/29/2011 03:18	YF062823.D	9.26
CCV 240-6402/29		06/29/2011 07:07	YF062829.D	9.25
240-1365-1	GSP-SB-WP-61-062211	06/29/2011 07:45	YF062830.D	9.26
240-1365-2	GSP-SB-WP-50-062211	06/29/2011 08:24	YF062831.D	9.26
240-1365-3	GSP-MW-7-062211	06/29/2011 09:02	YF062832.D	9.26
240-1365-6	GSP-SB-WP-83-062211	06/29/2011 09:40	YF062833.D	9.26
CCV 240-6402/36		06/29/2011 11:36	YF062836.D	9.25

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCVRT 240-6402/5 Calibration Date: 06/28/2011 15:37

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062805.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	256102		868	800	8.5	15.0
C6-C12	Ave	258945	276136		853	800	6.6	15.0
Trifluorotoluene (Surr)	Ave	212253	262086		12.3	10.0	23.5*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCVRT 240-6402/5 Calibration Date: 06/28/2011 15:37

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062805.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Total Petroleum Hydrocarbons (C6-C10)	11.36	4.30	18.44
C6-C12	13.07	4.40	21.74
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-6402/18 Calibration Date: 06/29/2011 00:08

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062818.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	250694		850	800	6.2	15.0
C6-C12	Ave	258945	272441		842	800	5.2	15.0
Trifluorotoluene (Surr)	Ave	212253	273225		12.9	10.0	28.7*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-6402/18 Calibration Date: 06/29/2011 00:08

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062818.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Total Petroleum Hydrocarbons (C6-C10)	11.36	4.30	18.44
C6-C12	13.07	4.40	21.74
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: MB 240-6402/19

Matrix: Water Date Extracted: 06/29/2011 00:46

Lab File ID:(1) YF062819.D Lab File ID:(2)

Date Analyzed:(1) 06/29/2011 00:46 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-6402/20	06/29/2011 01:24	
	240-1267-E-2 MS	06/29/2011 02:40	
	240-1267-E-2 MSD	06/29/2011 03:18	
GSP-SB-WP-61-062211	240-1365-1	06/29/2011 07:45	
GSP-SB-WP-50-062211	240-1365-2	06/29/2011 08:24	
GSP-MW-7-062211	240-1365-3	06/29/2011 09:02	
GSP-SB-WP-83-062211	240-1365-6	06/29/2011 09:40	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton	Job No.: 240-1365-1
SDG No.:	
Client Sample ID:	Lab Sample ID: MB 240-6402/19
Matrix: Water	Lab File ID: YF062819.D
Analysis Method: 8015B	Date Collected:
Sample wt/vol: 5(mL)	Date Analyzed: 06/29/2011 00:46
Soil Aliquot Vol:	Dilution Factor: 1
Soil Extract Vol.:	GC Column: RTX-VRX ID: 0.45(mm)
% Moisture:	Level: (low/med) Low
Analysis Batch No.: 6402	Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	37.9	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	110		10-150

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-6402/29 Calibration Date: 06/29/2011 07:07

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062829.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	256472		869	800	8.7	15.0
C6-C12	Ave	258945	274665		849	800	6.1	15.0
Trifluorotoluene (Surr)	Ave	212253	258853		12.2	10.0	22.0*	15.0

FORM VII

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-6402/29 Calibration Date: 06/29/2011 07:07

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062829.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Total Petroleum Hydrocarbons (C6-C10)	11.34	4.30	18.44
C6-C12	13.07	4.40	21.74
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-6402/36 Calibration Date: 06/29/2011 11:36

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062836.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	249971		847	800	5.9	15.0
C6-C12	Ave	258945	267166		825	800	3.2	15.0
Trifluorotoluene (Surr)	Ave	212253	234695		11.1	10.0	10.6	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-6402/36 Calibration Date: 06/29/2011 11:36

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062836.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Total Petroleum Hydrocarbons (C6-C10)	11.36	4.30	18.44
C6-C12	13.07	4.40	21.74
Trifluorotoluene (Surr)	9.25	9.00	9.50

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1	#
GSP-SB-WP-61-062211	240-1365-1	87	
GSP-SB-WP-50-062211	240-1365-2	91	
GSP-MW-7-062211	240-1365-3	103	
GSP-SB-WP-83-062211	240-1365-6	107	
	MB 240-6402/19	110	
	LCS 240-6402/20	128	
	240-1267-E-2 MS	125	
	240-1267-E-2 MSD	132	

	QC LIMITS
TFT = Trifluorotoluene (Surr)	10-150

Column to be used to flag recovery values

FORM II 8015B

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF062820.D

Lab ID: LCS 240-6402/20 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	936	117	72-140	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF062822.D

Lab ID: 240-1267-E-2 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	51 J	948	112	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF062823.D

Lab ID: 240-1267-E-2 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	954	113	1	20	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Instrument ID: A2HP5 Start Date: 06/27/2011 11:08

Analysis Batch Number: 6176 End Date: 06/27/2011 22:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-6176/4 IC		06/27/2011 11:08	1	P5062704.D	RTX-5 0.53(mm)
STD2 240-6176/5 IC		06/27/2011 11:36	1	P5062705.D	RTX-5 0.53(mm)
ICRT 240-6176/6		06/27/2011 12:04	1	P5062706.D	RTX-5 0.53(mm)
STD4 240-6176/7 IC		06/27/2011 12:32	1	P5062707.D	RTX-5 0.53(mm)
STD5 240-6176/8 IC		06/27/2011 13:00	1	P5062708.D	RTX-5 0.53(mm)
ICV 240-6176/9		06/27/2011 13:28	1	P5062709.D	RTX-5 0.53(mm)
ZZZZZ		06/27/2011 13:56	1		RTX-5 0.53(mm)
CCV 240-6176/11		06/27/2011 14:24	1		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 14:52	5		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 15:20	5		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 15:48	5		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 16:16	5		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 16:45	5		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 17:13	5		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 17:41	1		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 18:09	5		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 18:37	1		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 19:05	1		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 19:33	1		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 20:01	1		RTX-5 0.53(mm)
CCV 240-6176/24		06/27/2011 20:29	1		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 20:58	250		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 21:26	250		RTX-5 0.53(mm)
ZZZZZ		06/27/2011 21:54	259		RTX-5 0.53(mm)
CCV 240-6176/29		06/27/2011 22:50	1		RTX-5 0.53(mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Instrument ID: A2HP5 Start Date: 06/28/2011 11:34

Analysis Batch Number: 6358 End Date: 06/28/2011 16:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-6358/4		06/28/2011 11:34	1	P5062804.D	RTX-5 0.53(mm)
ZZZZZ		06/28/2011 12:03	1		RTX-5 0.53(mm)
240-1365-2	GSP-SB-WP-50-062211	06/28/2011 12:31	1	P5062806.D	RTX-5 0.53(mm)
240-1365-3	GSP-MW-7-062211	06/28/2011 12:59	1	P5062807.D	RTX-5 0.53(mm)
240-1365-4	GSP-SB-WP-61-062211	06/28/2011 13:27	1	P5062808.D	RTX-5 0.53(mm)
240-1365-6	GSP-SB-WP-83-062211	06/28/2011 13:55	1	P5062809.D	RTX-5 0.53(mm)
ZZZZZ		06/28/2011 14:24	1		RTX-5 0.53(mm)
ZZZZZ		06/28/2011 14:52	1		RTX-5 0.53(mm)
MB 240-6092/1-A		06/28/2011 15:20	1	P5062812.D	RTX-5 0.53(mm)
LCS 240-6092/2-A		06/28/2011 15:48	1	P5062813.D	RTX-5 0.53(mm)
CCV 240-6358/14		06/28/2011 16:16	1	P5062814.D	RTX-5 0.53(mm)

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 6176

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 11:08 Calibration End Date: 06/27/2011 13:00 Calibration ID: 1777

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6176/4	P5062704.D
Level 2	STD2 240-6176/5	P5062705.D
Level 3	ICRT 240-6176/6	P5062706.D
Level 4	STD4 240-6176/7	P5062707.D
Level 5	STD5 240-6176/8	P5062708.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT WINDOW	AVG RT
Diesel	8.772	8.772	8.772	8.772	8.772	4.492 - 13.051	8.772
n-Nonane	3.113	3.119	3.119	3.121	3.124	3.043 - 3.183	3.119

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 6176

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 11:08 Calibration End Date: 06/27/2011 13:00 Calibration ID: 1777

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6176/4	P5062704.D
Level 2	STD2 240-6176/5	P5062705.D
Level 3	ICRT 240-6176/6	P5062706.D
Level 4	STD4 240-6176/7	P5062707.D
Level 5	STD5 240-6176/8	P5062708.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	159484 170115	171167	187950	174295	Ave		172602.240				5.9		20.0			
n-Nonane	194827 231187	227414	244778	237482	Ave		227137.555				8.5		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: ICV 240-6176/9 Calibration Date: 06/27/2011 13:28

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062709.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	172602	183333		531	500	6.2	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: ICV 240-6176/9 Calibration Date: 06/27/2011 13:28

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062709.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.77	4.49	13.05

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Sample No.: CCVRT 240-6358/4 Date Analyzed: 06/28/2011 11:34

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P5062804.D Heated Purge: (Y/N) N

Calibration ID: 1777

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9 RT #
CONTINUING CALIBRATION SURROGATE				3.12
UPPER LIMIT				3.22
LOWER LIMIT				3.02
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID	
CCVRT 240-6358/4		06/28/2011 11:34	P5062804.D	3.12
240-1365-2	GSP-SB-WP-50-062211	06/28/2011 12:31	P5062806.D	3.12
240-1365-3	GSP-MW-7-062211	06/28/2011 12:59	P5062807.D	3.12
240-1365-4	GSP-SB-WP-61-062211	06/28/2011 13:27	P5062808.D	3.12
240-1365-6	GSP-SB-WP-83-062211	06/28/2011 13:55	P5062809.D	3.12
MB 240-6092/1-A		06/28/2011 15:20	P5062812.D	3.12
LCS 240-6092/2-A		06/28/2011 15:48	P5062813.D	3.12
CCV 240-6358/14		06/28/2011 16:16	P5062814.D	3.12

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCVRT 240-6358/4 Calibration Date: 06/28/2011 11:34

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062804.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	172602	184323		534	500	6.8	15.0
n-Nonane	Ave	227138	244997		53.9	50.0	7.9	15.0

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCVRT 240-6358/4 Calibration Date: 06/28/2011 11:34

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062804.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.77	4.50	13.05
n-Nonane	3.12	3.05	3.19

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-6358/14 Calibration Date: 06/28/2011 16:16

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062814.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	172602	196754		570	500	14.0	15.0
n-Nonane	Ave	227138	257629		56.7	50.0	13.4	15.0

FORM VII

DIESEL RANGE ORGANICS CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: CCV 240-6358/14 Calibration Date: 06/28/2011 16:16

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062814.D

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Diesel	8.77	4.50	13.05
n-Nonane	3.12	3.05	3.19

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Lab Sample ID: MB 240-6092/1-A

Matrix: Water Date Extracted: 06/25/2011 08:17

Lab File ID:(1) P5062812.D Lab File ID:(2)

Date Analyzed:(1) 06/28/2011 15:20 Date Analyzed:(2)

Instrument ID:(1) A2HP5 Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-SB-WP-50-062211	240-1365-2	06/28/2011 12:31	
GSP-MW-7-062211	240-1365-3	06/28/2011 12:59	
GSP-SB-WP-61-062211	240-1365-4	06/28/2011 13:27	
GSP-SB-WP-83-062211	240-1365-6	06/28/2011 13:55	
	LCS 240-6092/2-A	06/28/2011 15:48	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton	Job No.: 240-1365-1
SDG No.:	
Client Sample ID:	Lab Sample ID: MB 240-6092/1-A
Matrix: Water	Lab File ID: P5062812.D
Analysis Method: 8015B	Date Collected:
Extraction Method: 3520C	Date Extracted: 06/25/2011 08:17
Sample wt/vol: 1000(mL)	Date Analyzed: 06/28/2011 15:20
Con. Extract Vol.: 5(mL)	Dilution Factor: 1
Injection Volume: 1(uL)	GC Column: RTX-5 ID: 0.53(mm)
% Moisture:	GPC Cleanup:(Y/N) N
Analysis Batch No.: 6358	Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	334	J	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	53		10-110

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	C91	#
GSP-SB-WP-50-062211	240-1365-2	49	
GSP-MW-7-062211	240-1365-3	50	
GSP-SB-WP-61-062211	240-1365-4	49	
GSP-SB-WP-83-062211	240-1365-6	51	
	MB 240-6092/1-A	53	
	LCS 240-6092/2-A	50	

C9 = n-Nonane

QC LIMITS
10-110

Column to be used to flag recovery values

FORM II 8015B

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1365-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P5062813.D

Lab ID: LCS 240-6092/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	2610	104	36-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

Case Narrative

TestAmerica West Sacramento Project Number G1F210484C

WATER, 314.0, Perchlorate
Sample(s): 7, 8, 9, 10
A mid continuing calibration blank had a positive result of 0.623 ug/L. Only sample 9 had a positive result for perchlorate. This sample was re-analyzed and the re-analysis results for this sample were reported. No corrective action was performed on the remaining samples since their results were all non-detect.

There were no other anomalies associated with this project.

Sample Summary

TestAmerica West Sacramento Project Number G1F210484C

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
MKGVT	7	GSP-SB-WP-61-062211	6/22/2011 10:10 AM	6/24/2011 08:50 AM
MKGVV	8	GSP-SB-WP-50-062211	6/22/2011 01:10 PM	6/24/2011 08:50 AM
MKGVW	9	GSP-MW-7-062211	6/22/2011 01:20 PM	6/24/2011 08:50 AM
MKGVX	10	GSP-SB-WP-83-062211	6/22/2011 04:20 PM	6/24/2011 08:50 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

ANALYTICAL METHODS SUMMARY

G1F210484

PARAMETER	ANALYTICAL METHOD
Perchlorate	MCAWW 314.0

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: G1F210484 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		Work Order #: MKTP71AA		MB Lot-Sample #:	G1G110000-193	
	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		Work Order #: MKTP71AC LCS Lot-Sample#: G1G110000-193			
	98	(85 - 115)	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		Work Order #: MKTP71AC LCS Lot-Sample#: G1G110000-193					
	50.0	49.2	ug/L	98	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G1F210484 Matrix.....: WATER
Date Sampled...: 06/17/11 Date Received..: 06/21/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		WO#: MKEG31AC-MS/MKEG31AD-MSD				MS Lot-Sample #: G1F210484-001	
	104	(80 - 120)			MCAWW 314.0	07/11/11	1192193
	104	(80 - 120)	0.11	(0-20)	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER
Date Sampled...: 06/17/11 **Date Received..:** 06/21/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate			WO#: MKEG31AC-MS/MKEG31AD-MSD				MS Lot-Sample #: G1F210484-001		
	ND	50.0	52.1	ug/L	104		MCAWW 314.0	07/11/11	1192193
	ND	50.0	52.1	ug/L	104	0.11	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

COVER PAGE
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1365-1

SDG No.:

Project: MSA Greater Strawberry Point PH. II 2011

Client Sample ID	Lab Sample ID
GSP-SB-WP-61-062211	240-1365-1
GSP-SB-WP-50-062211	240-1365-2
GSP-MW-7-062211	240-1365-3
GSP-SB-WP-83-062211	240-1365-6

Comments:

Client: Tetra Tech NUS Inc

Job Number: 240-1365-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-20967					
LCS 200-20967/2-A	Lab Control Sample	T	Water	3010A	
MB 200-20967/1-A	Method Blank	T	Water	3010A	
240-1365-1	GSP-SB-WP-61-062211	D	Water	3010A	
240-1365-1	GSP-SB-WP-61-062211	T	Water	3010A	
240-1365-2	GSP-SB-WP-50-062211	D	Water	3010A	
240-1365-2	GSP-SB-WP-50-062211	T	Water	3010A	
240-1365-3	GSP-MW-7-062211	D	Water	3010A	
240-1365-3	GSP-MW-7-062211	T	Water	3010A	
240-1365-6	GSP-SB-WP-83-062211	T	Water	3010A	
Prep Batch: 200-21199					
LCS 200-21199/12-A	Lab Control Sample	T	Water	7470A	
MB 200-21199/11-A	Method Blank	T	Water	7470A	
240-1365-1	GSP-SB-WP-61-062211	D	Water	7470A	
240-1365-1	GSP-SB-WP-61-062211	T	Water	7470A	
240-1365-2	GSP-SB-WP-50-062211	D	Water	7470A	
240-1365-2	GSP-SB-WP-50-062211	T	Water	7470A	
240-1365-3	GSP-MW-7-062211	D	Water	7470A	
240-1365-3	GSP-MW-7-062211	T	Water	7470A	
240-1365-6	GSP-SB-WP-83-062211	D	Water	7470A	
240-1365-6	GSP-SB-WP-83-062211	T	Water	7470A	
Analysis Batch:200-21332					
LCS 200-21199/12-A	Lab Control Sample	T	Water	7470A	200-21199
MB 200-21199/11-A	Method Blank	T	Water	7470A	200-21199
240-1365-1	GSP-SB-WP-61-062211	D	Water	7470A	200-21199
240-1365-1	GSP-SB-WP-61-062211	T	Water	7470A	200-21199
240-1365-2	GSP-SB-WP-50-062211	D	Water	7470A	200-21199
240-1365-2	GSP-SB-WP-50-062211	T	Water	7470A	200-21199
240-1365-3	GSP-MW-7-062211	D	Water	7470A	200-21199
240-1365-3	GSP-MW-7-062211	T	Water	7470A	200-21199
240-1365-6	GSP-SB-WP-83-062211	D	Water	7470A	200-21199
240-1365-6	GSP-SB-WP-83-062211	T	Water	7470A	200-21199
Prep Batch: 200-21964					
LCS 200-21964/2-A	Lab Control Sample	T	Water	3010A	
MB 200-21964/1-A	Method Blank	T	Water	3010A	
240-1365-6	GSP-SB-WP-83-062211	D	Water	3010A	

Client: Tetra Tech NUS Inc

Job Number: 240-1365-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:200-22997					
LCS 200-20967/2-A	Lab Control Sample	T	Water	6020	200-20967
MB 200-20967/1-A	Method Blank	T	Water	6020	200-20967
LCS 200-21964/2-A	Lab Control Sample	T	Water	6020	200-21964
MB 200-21964/1-A	Method Blank	T	Water	6020	200-21964
240-1365-1	GSP-SB-WP-61-062211	D	Water	6020	200-20967
240-1365-1	GSP-SB-WP-61-062211	T	Water	6020	200-20967
240-1365-2	GSP-SB-WP-50-062211	D	Water	6020	200-20967
240-1365-2	GSP-SB-WP-50-062211	T	Water	6020	200-20967
240-1365-3	GSP-MW-7-062211	D	Water	6020	200-20967
240-1365-3	GSP-MW-7-062211	T	Water	6020	200-20967
240-1365-6	GSP-SB-WP-83-062211	T	Water	6020	200-20967
240-1365-6	GSP-SB-WP-83-062211	D	Water	6020	200-21964

Report Basis
D = Dissolved
T = Total

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Instrument ID: METICPMS2 Method: 6020

Start Date: 08/04/2011 10:17 End Date: 08/04/2011 19:41

Lab Sample ID	D/F	Type	Time	Analytes																
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn
ITUNE 200-22997/1			10:17																	
STD0 200-22997/2 IC	1		11:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STDLL2 200-22997/3 IC	1		11:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD1 200-22997/4 IC	1		11:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD2 200-22997/5 IC	1		12:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD3 200-22997/6 IC	1		12:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 200-22997/7	1		12:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICBIS 200-22997/8	1		12:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSA 200-22997/9	1		12:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 200-22997/10	1		12:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-22997/11	1		12:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-22997/12	1		12:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-22997/13	1		15:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-22997/14	1		16:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MB 200-20967/1-A	1	T	16:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 200-20967/2-A	1	T	16:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1365-1	1	T	16:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1365-2	1	T	16:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1365-3	1	T	16:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1365-6	1	T	17:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1365-6 SD	5	T	17:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1365-1	1	D	17:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1365-2	1	D	17:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1365-3	1	D	17:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-22997/25	1		17:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-22997/26	1		17:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			17:48																	
ZZZZZZ			17:55																	
ZZZZZZ			18:02																	
ZZZZZZ			18:08																	
ZZZZZZ			18:15																	
ZZZZZZ			18:22																	
ZZZZZZ			18:28																	
ZZZZZZ			18:35																	
ZZZZZZ			18:41																	
ZZZZZZ			18:48																	
CCV 200-22997/37	1		18:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-22997/38	1		19:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MB 200-21964/1-A	1	T	19:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 200-21964/2-A	1	T	19:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1365-6	1	D	19:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1365-6 SD	5	D	19:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Instrument ID: METICPMS2 Method: 6020

Start Date: 08/04/2011 10:17 End Date: 08/04/2011 19:41

Lab Sample ID	D/F	Type	Time	Analytes																
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn
CCV 200-22997/43	1		19:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-22997/44	1		19:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Prep Types

D = Dissolved

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Instrument ID: MEPCV3 II Method: 7470A

Start Date: 07/12/2011 09:51 End Date: 07/12/2011 11:18

				Analytes
Lab Sample ID	D/F	Type	Time	Hg
ZZZZZZ			09:51	
ZZZZZZ			09:53	
ZZZZZZ			09:55	
ZZZZZZ			09:58	
ZZZZZZ			10:00	
ZZZZZZ			10:02	
ZZZZZZ			10:04	
IC 200-21199/1-A			10:06	X
IC 200-21199/2-A			10:08	X
IC 200-21199/3-A			10:10	X
IC 200-21199/4-A			10:13	X
IC 200-21199/5-A			10:15	X
IC 200-21199/6-A			10:17	X
ICV 200-21199/7-A	1		10:19	X
ICB 200-21199/8-A	1		10:21	X
CCV 200-21199/9-A	1		10:23	X
CCB 200-21199/10-A	1		10:25	X
MB 200-21199/11-A	1	T	10:27	X
LCS 200-21199/12-A	1	T	10:29	X
240-1365-1	1	T	10:31	X
240-1365-1	1	D	10:33	X
240-1365-2	1	T	10:35	X
240-1365-2	1	D	10:37	X
240-1365-3	1	T	10:39	X
240-1365-3	1	D	10:41	X
240-1365-6	1	T	10:43	X
CCV 200-21199/9-A	1		10:45	X
CCB 200-21199/10-A	1		10:47	X
240-1365-6	1	D	10:49	X
ZZZZZZ			10:51	
ZZZZZZ			10:53	
ZZZZZZ			10:55	
ZZZZZZ			10:57	
ZZZZZZ			10:59	
ZZZZZZ			11:01	
ZZZZZZ			11:03	
ZZZZZZ			11:05	
CCV 200-21199/9-A	1		11:08	X
CCB 200-21199/10-A	1		11:10	X
ZZZZZZ			11:12	
ZZZZZZ			11:14	
CCV 200-21199/9-A			11:16	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Instrument ID: MEPCV3 II Method: 7470A

Start Date: 07/12/2011 09:51 End Date: 07/12/2011 11:18

				Analytes
				Hg
Lab Sample ID	D/F	Type	Time	
CCB 200-21199/10-A			11:18	

Prep Types

D = Dissolved

T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	ICV 200-22997/7 08/04/2011 12:18				CCV 200-22997/11 08/04/2011 12:45				CCV 200-22997/13 08/04/2011 15:57			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	46.3		50.0	93	19.7		20.0	99	20.0		20.0	100
Arsenic	25.3		25.0	101	9.71		10.0	97	9.85		10.0	98
Barium	1280		1250	102	249		250	100	252		250	101
Beryllium	25.8		25.0	103	10.1		10.0	101	10.2		10.0	102
Cadmium	25.4		25.0	102	9.82		10.0	98	10.3		10.0	103
Chromium	50.7		50.0	101	19.8		20.0	99	20.2		20.0	101
Cobalt	126		125	101	49.4		50.0	99	50.7		50.0	101
Copper	51.6		50.0	103	20.5		20.0	102	20.7		20.0	103
Lead	24.3		25.0	97	9.68		10.0	97	9.82		10.0	98
Molybdenum	259		250	104	98.7		100	99	99.6		100	100
Nickel	50.4		50.0	101	20.1		20.0	101	20.6		20.0	103
Selenium	26.2		25.0	105	9.85		10.0	98	9.97		10.0	100
Silver	25.3		25.0	101	9.90		10.0	99	10.1		10.0	101
Thallium	24.3		25.0	97	9.58		10.0	96	9.71		10.0	97
Tungsten	24.6		25.0	98	9.80	J	10.0	98	9.84	J	10.0	98
Vanadium	50.8		50.0	102	19.8	J	20.0	99	20.0		20.0	100
Zinc	51.6		50.0	103	20.7		20.0	103	20.8		20.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	CCV 200-22997/25 08/04/2011 17:35				CCV 200-22997/37 08/04/2011 18:55				CCV 200-22997/43 08/04/2011 19:35			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	19.8		20.0	99	20.0		20.0	100	19.9		20.0	100
Arsenic	9.92		10.0	99	9.45		10.0	95	9.71		10.0	97
Barium	252		250	101	254		250	102	252		250	101
Beryllium	9.63		10.0	96	9.89		10.0	99	9.66		10.0	97
Cadmium	10.2		10.0	102	10.2		10.0	102	10.3		10.0	103
Chromium	19.8		20.0	99	20.2		20.0	101	20.0		20.0	100
Cobalt	49.7		50.0	99	50.1		50.0	100	49.9		50.0	100
Copper	20.3		20.0	102	20.7		20.0	103	20.4		20.0	102
Lead	9.80		10.0	98	9.75		10.0	98	9.80		10.0	98
Molybdenum	98.5		100	98	98.4		100	98	97.8		100	98
Nickel	20.1		20.0	101	20.5		20.0	103	20.4		20.0	102
Selenium	10.2		10.0	102	9.67		10.0	97	9.90		10.0	99
Silver	10.1		10.0	101	10.1		10.0	101	10.0		10.0	100
Thallium	9.69		10.0	97	9.65		10.0	96	9.66		10.0	97
Tungsten	9.77	J	10.0	98	9.83	J	10.0	98	9.87	J	10.0	99
Vanadium	19.0	J	20.0	95	19.5	J	20.0	97	19.2	J	20.0	96
Zinc	20.4		20.0	102	21.0		20.0	105	20.8		20.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

ICV Source: MEHGICVw_00010 Concentration Units: ug/L

CCV Source: MEHGCCVw_00284

	ICV 200-21199/7-A 07/12/2011 10:19				CCV 200-21199/9-A 07/12/2011 10:23				CCV 200-21199/9-A 07/12/2011 10:45			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.84		3.00	95	5.26		5.00	105	5.35		5.00	107

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

ICV Source: MEHGICVw_00010 Concentration Units: ug/L

CCV Source: MEHGCCVw_00284

CCV 200-21199/9-A
07/12/2011 11:08

Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.46		5.00	109								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Concentration Units: ug/L

		ICBIS 200-22997/8 08/04/2011 12:25		CCB 200-22997/12 08/04/2011 12:51		CCB 200-22997/14 08/04/2011 16:04		CCB 200-22997/26 08/04/2011 17:41	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Antimony	2.0	0.342	J	2.0	U	2.0	U	2.0	U
Arsenic	5.0	0.149	J	0.114	J	0.0960	J	0.134	J
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Chromium	2.0	2.0	U	0.110	J	2.0	U	2.0	U
Cobalt	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	0.146	J	0.144	J	0.138	J	0.137	J
Molybdenum	2.0	0.562	J	0.649	J	2.0	U	2.0	U
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.188	J	0.195	J	0.188	J	0.189	J
Tungsten	10	0.288	J	10	U	10	U	10	U
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Concentration Units: ug/L

		CCB 200-22997/38 08/04/2011 19:01		CCB 200-22997/44 08/04/2011 19:41					
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Antimony	2.0	2.0	U	2.0	U				
Arsenic	5.0	0.155	J	5.0	U				
Barium	5.0	5.0	U	5.0	U				
Beryllium	1.0	1.0	U	1.0	U				
Cadmium	1.0	1.0	U	1.0	U				
Chromium	2.0	2.0	U	2.0	U				
Cobalt	1.0	1.0	U	1.0	U				
Copper	2.0	2.0	U	2.0	U				
Lead	1.0	0.134	J	0.136	J				
Molybdenum	2.0	2.0	U	2.0	U				
Nickel	2.0	2.0	U	2.0	U				
Selenium	5.0	5.0	U	5.0	U				
Silver	1.0	1.0	U	1.0	U				
Thallium	2.0	0.187	J	0.195	J				
Tungsten	10	10	U	10	U				
Vanadium	20	20	U	20	U				
Zinc	20	20	U	20	U				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 200-20967/1-A

Instrument Code: METICPMS2 Batch No.: 22997

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	5.0	U		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	2.0	U		6020
7439-92-1	Lead	0.150	J		6020
7439-98-7	Molybdenum	2.0	U		6020
7440-02-0	Nickel	2.0	U		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	0.187	J		6020
7440-33-7	Tungsten	10	U		6020
7440-62-2	Vanadium	20	U		6020
7440-66-6	Zinc	0.507	J		6020

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 200-21964/1-A

Instrument Code: METICPMS2 Batch No.: 22997

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	5.0	U		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	2.0	U		6020
7439-92-1	Lead	0.180	J		6020
7439-98-7	Molybdenum	2.0	U		6020
7440-02-0	Nickel	2.0	U		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	0.185	J		6020
7440-33-7	Tungsten	10	U		6020
7440-62-2	Vanadium	20	U		6020
7440-66-6	Zinc	1.73	J		6020

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 200-21199/11-A

Instrument Code: MEPCV3 II Batch No.: 21332

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

FORM III-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Concentration Units: ug/L

		ICB 200-21199/8-A 07/12/2011 10:21		CCB 200-21199/10-A 07/12/2011 10:25		CCB 200-21199/10-A 07/12/2011 10:47		CCB 200-21199/10-A 07/12/2011 11:10	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Lab Sample ID: ICSA 200-22997/9 Instrument ID: METICPMS2

Lab File ID: 080411-02D.xml ICS Source: MEMSICSAW_00022

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		0.442	
Arsenic		0.239	
Barium		0.547	
Beryllium		-0.0570	
Cadmium		0.714	
Chromium		0.900	
Cobalt		0.101	
Copper		1.10	
Lead		0.282	
Molybdenum	2000	2287	114
Nickel		-1.99	
Selenium		-0.535	
Silver		0.0040	
Thallium		0.203	
Tungsten		0.298	
Vanadium		0.393	
Zinc		-1.74	
Aluminum	*100000*	*97277*	*97*
Boron		*24.4*	
Calcium	*100000*	*102233*	*102*
Iron	*100000*	*100117*	*100*
Magnesium	*100000*	*107967*	*108*
Manganese		*0.117*	
Potassium	*100000*	*108867*	*109*
Sodium	*100000*	*106033*	*106*
Th		*0.315*	
U		*0.245*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Lab Sample ID: ICSAB 200-22997/10 Instrument ID: METICPMS2

Lab File ID: 080411-02D.xml ICS Source: MEMSABw_00026

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**103**	**103**
Arsenic	**20.0**	**20.1**	**101**
Barium	**500**	**539**	**108**
Beryllium	**20.0**	**20.3**	**102**
Cadmium	**20.0**	**20.5**	**102**
Chromium	**40.0**	**42.4**	**106**
Cobalt	**50.0**	**49.5**	**99**
Copper	**100**	**95.7**	**96**
Lead	**20.0**	**21.3**	**106**
Molybdenum	**2000**	**2409**	**120**
Nickel	**100**	**95.0**	**95**
Selenium	**20.0**	**19.1**	**96**
Silver	**20.0**	**18.9**	**94**
Thallium	**20.0**	**21.0**	**105**
Tungsten	**20.0**	**21.8**	**109**
Vanadium	**40.0**	**41.6**	**104**
Zinc	**100**	**92.4**	**92**
Aluminum	*100000*	*102400*	*102*
Boron	*200*	*258*	*129*
Calcium	*100000*	*108933*	*109*
Iron	*100000*	*106133*	*106*
Magnesium	*100000*	*117067*	*117*
Manganese	*40.0*	*41.7*	*104*
Potassium	*100000*	*120633*	*121*
Sodium	*100000*	*115667*	*116*
Th	*20.0*	*21.6*	*108*
U	*20.0*	*22.8*	*114*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-20967/2-A

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

Sample Matrix: Water LCS Source: MEICPMSICVi_00018

Water(ug/L)

Analyte	True	Found	C	%R	Limits		Q	Method
Antimony	50.0	50.7		101	80	120		6020
Arsenic	25.0	24.3		97	80	120		6020
Barium	1250	1400		112	80	120		6020
Beryllium	25.0	25.1		100	80	120		6020
Cadmium	25.0	26.1		104	80	120		6020
Chromium	50.0	54.8		110	80	120		6020
Cobalt	125	140		112	80	120		6020
Copper	50.0	55.2		110	80	120		6020
Lead	25.0	26.9		108	80	120		6020
Molybdenum	250	284		114	80	120		6020
Nickel	50.0	54.9		110	80	120		6020
Selenium	25.0	22.3		89	80	120		6020
Silver	25.0	26.1		104	80	120		6020
Thallium	25.0	26.3		105	80	120		6020
Tungsten	25.0	26.0		104	80	120		6020
Vanadium	50.0	54.7		109	80	120		6020
Zinc	50.0	50.5		101	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-21964/2-A

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

Sample Matrix: Water LCS Source: MEICPMSICVi_00018

Water(ug/L)

Analyte	True	Found	C	%R	Limits		Q	Method
Antimony	50.0	48.1		96	80	120		6020
Arsenic	25.0	22.7		91	80	120		6020
Barium	1250	1310		104	80	120		6020
Beryllium	25.0	23.0		92	80	120		6020
Cadmium	25.0	24.6		98	80	120		6020
Chromium	50.0	50.8		102	80	120		6020
Cobalt	125	128		102	80	120		6020
Copper	50.0	51.4		103	80	120		6020
Lead	25.0	25.3		101	80	120		6020
Molybdenum	250	260		104	80	120		6020
Nickel	50.0	50.3		101	80	120		6020
Selenium	25.0	22.0		88	80	120		6020
Silver	25.0	25.1		100	80	120		6020
Thallium	25.0	25.0		100	80	120		6020
Tungsten	25.0	25.4		102	80	120		6020
Vanadium	50.0	50.9		102	80	120		6020
Zinc	50.0	48.9		98	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-21199/12-A

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

Sample Matrix: Water LCS Source: MEHGCCVw_00284

Water(ug/L)

Analyte	True	Found	C	%R	Limits		Q	Method
Mercury	1.00	1.08		108	85	115		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 240-1365-6

SDG No:

Lab Name: TestAmerica Burlington Job No: 240-1365-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.31	J	10	U	NC		6020
Arsenic	11		11.9	J	(12)	V	6020
Barium	46		47.5		2.3		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	1.0	U	5.0	U	NC		6020
Chromium	4.2		3.51	J	NC		6020
Cobalt	4.5		4.43	J	2.0		6020
Copper	5.2		4.91	J	NC		6020
Lead	0.56	J	1.09	J	NC		6020
Molybdenum	0.64	J	10	U	NC		6020
Nickel	3.4		10	U	NC		6020
Selenium	0.73	J	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.21	J	0.945	J	NC		6020
Tungsten	10	U	50	U	NC		6020
Vanadium	3.6	J	3.17	J	NC		6020
Zinc	6.0	J	6.20	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-1365-6

SDG No:

Lab Name: TestAmerica Burlington Job No: 240-1365-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.31	J	0.370	J	NC		6020
Arsenic	9.4		10.9	J	17	V	6020
Barium	44		45.6		3.7		6020
Beryllium	1.0	U	5.0	U	NC		6020
Cadmium	1.0	U	5.0	U	NC		6020
Chromium	2.5		1.88	J	NC		6020
Cobalt	4.0		3.97	J	1.3		6020
Copper	2.0		1.53	J	NC		6020
Lead	0.19	J	0.730	J	NC		6020
Molybdenum	0.83	J	10	U	NC		6020
Nickel	1.7	J	10	U	NC		6020
Selenium	0.71	J	25	U	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.26	J	1.02	J	NC		6020
Tungsten	10	U	50	U	NC		6020
Vanadium	1.3	J	100	U	NC		6020
Zinc	6.1	J	10.8	J	NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1365-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 MDL Date: 08/06/2010 10:09

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.014
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1365-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 XMDL Date: 08/06/2010 10:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.14
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1365-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 MDL Date: 08/06/2010 10:09

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.014
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1365-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 XMDL Date: 08/06/2010 10:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.14
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1365-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A MDL Date: 05/05/2011 17:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury		0.2	0.066

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1365-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A XMDL Date: 05/05/2011 17:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.066

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1365-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A MDL Date: 05/05/2011 17:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury		0.2	0.066

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1365-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A XMDL Date: 05/05/2011 17:07

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.066

FORM IX - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-20967/1-A	07/07/2011 09:43	20967		100	100
LCS 200-20967/2-A	07/07/2011 09:43	20967		100	100
240-1365-1	07/07/2011 09:43	20967		100	100
240-1365-2	07/07/2011 09:43	20967		100	100
240-1365-3	07/07/2011 09:43	20967		100	100
240-1365-6	07/07/2011 09:43	20967		100	100
240-1365-1	07/07/2011 09:43	20967		100	100
240-1365-2	07/07/2011 09:43	20967		100	100
240-1365-3	07/07/2011 09:43	20967		100	100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-21964/1-A	07/19/2011 16:00	21964		100	100
LCS 200-21964/2-A	07/19/2011 16:00	21964		100	100
240-1365-6	07/19/2011 16:00	21964		100	100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-21199/11-A	07/11/2011 09:00	21199		50	50
LCS 200-21199/12-A	07/11/2011 09:00	21199		50	50
240-1365-1	07/11/2011 09:00	21199		50	50
240-1365-1	07/11/2011 09:00	21199		50	50
240-1365-2	07/11/2011 09:00	21199		50	50
240-1365-2	07/11/2011 09:00	21199		50	50
240-1365-3	07/11/2011 09:00	21199		50	50
240-1365-3	07/11/2011 09:00	21199		50	50
240-1365-6	07/11/2011 09:00	21199		50	50
240-1365-6	07/11/2011 09:00	21199		50	50

14-IN
ICP-MS TUNE
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Analysis Date: 08/04/11

Lab ID: ITUNE 200-22997/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Li-6	6.0151	0.73	0.820	
Be-9	8.9522	0.76	1.911	
Mg-24	23.965	0.77	2.176	
Mg-25	24.9758	0.78	2.843	
Mg-26	25.9726	0.78	1.832	
Al-27	26.9715	0.78	0.612	
Sc-45	44.9459	0.77	0.445	
V-51	50.944	0.79	0.692	
Co-59	58.9032	0.79	0.471	
Y-89	88.8959	0.79	0.752	
In-113	112.9041	0.78	1.612	
In-115	114.9039	0.77	0.199	
Ba-137	136.9058	0.75	0.849	
Ce-140	139.9054	0.75	0.680	
Tb-159	158.9254	0.77	0.536	
Pb-206	205.9745	0.72	0.476	
Pb-207	206.9759	0.72	0.809	
Pb-208	207.9766	0.73	0.290	
Th-232	232.0381	0.69	0.608	
U-238	238.0508	0.69	0.802	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 08/04/2011 End Date: 08/04/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element In-115	Q	Element Tb-159	Q
STD0 200-22997/2 IC	11:45	100		100		100		100		100	
STDLL2 200-22997/3	11:51	99		99		98		99		99	
STD1 200-22997/4 IC	11:58	100		101		100		101		101	
STD2 200-22997/5 IC	12:05	100		101		99		100		100	
STD3 200-22997/6 IC	12:11	96		99		97		96		98	
ICV 200-22997/7	12:18	98		102		100		99		101	
ICBIS 200-22997/8	12:25	101		102		101		101		101	
ICSA 200-22997/9	12:31	83		92		90		90		90	
ICSAB 200-22997/10	12:38	83		95		94		94		96	
CCV 200-22997/11	12:45	94		102		104		106		107	
CCB 200-22997/12	12:51	95		102		104		105		106	
CCV 200-22997/13	15:57	96		96		98		99		101	
CCB 200-22997/14	16:04	99		95		97		98		101	
MB 200-20967/1-A	16:28	106		101		102		102		104	
LCS 200-20967/2-A	16:34	104		101		100		100		102	
240-1365-1	16:41	102		99		102		97		102	
240-1365-2	16:48	91		114		144	*	94		102	
240-1365-3	16:55	106		110		111		106		108	
240-1365-6	17:01	101		100		105		100		105	
240-1365-6 SD	17:08	102		98		101		101		105	
240-1365-1	17:14	110		100		104		102		106	
240-1365-2	17:21	110		105		109		103		108	
240-1365-3	17:28	109		104		105		104		108	
CCV 200-22997/25	17:35	112		105		106		107		109	
CCB 200-22997/26	17:41	118		104		105		106		108	
CCV 200-22997/37	18:55	99		96		99		100		103	
CCB 200-22997/38	19:01	101		95		99		100		102	
MB 200-21964/1-A	19:08	102		97		99		100		104	
LCS 200-21964/2-A	19:15	102		94		96		96		101	
240-1365-6	19:21	96		92		96		94		100	
240-1365-6 SD	19:28	100		93		97		98		102	
CCV 200-22997/43	19:35	105		95		98		99		103	
CCB 200-22997/44	19:41	102		93		96		98		101	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1365-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 08/04/2011 End Date: 08/04/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Bi-209	Q	Element	Q	Element	Q	Element	Q	Element	Q
STD0 200-22997/2 IC	11:45	100									
STDLL2 200-22997/3	11:51	99									
STD1 200-22997/4 IC	11:58	100									
STD2 200-22997/5 IC	12:05	98									
STD3 200-22997/6 IC	12:11	91									
ICV 200-22997/7	12:18	96									
ICBIS 200-22997/8	12:25	99									
ICSA 200-22997/9	12:31	80									
ICSAB 200-22997/10	12:38	84									
CCV 200-22997/11	12:45	104									
CCB 200-22997/12	12:51	105									
CCV 200-22997/13	15:57	99									
CCB 200-22997/14	16:04	100									
MB 200-20967/1-A	16:28	100									
LCS 200-20967/2-A	16:34	94									
240-1365-1	16:41	94									
240-1365-2	16:48	86									
240-1365-3	16:55	99									
240-1365-6	17:01	95									
240-1365-6 SD	17:08	103									
240-1365-1	17:14	99									
240-1365-2	17:21	97									
240-1365-3	17:28	100									
CCV 200-22997/25	17:35	105									
CCB 200-22997/26	17:41	106									
CCV 200-22997/37	18:55	101									
CCB 200-22997/38	19:01	102									
MB 200-21964/1-A	19:08	101									
LCS 200-21964/2-A	19:15	94									
240-1365-6	19:21	92									
240-1365-6 SD	19:28	101									
CCV 200-22997/43	19:35	101									
CCB 200-22997/44	19:41	102									

FORM XV - IN

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE _____ OF _____

CLIENT	JOB NUMBER
MSA Greater Strawberry Point	SDG 240-1365-1
SUBJECT: Sample Calculations	
BASED ON	DRAWING NUMBER
BY: Ann Cognetta / CHECKED BY	APPROVED BY / DATE: August 23, 2011

I. VOC; Sample GSP-MW-7-062211; Trichloroethene

$$\frac{910126}{1192760} * 16.67 * \frac{10\ ug/L}{0.2807} = 453\ ug/L$$

II. SVOC; Sample GSP-SB-WP-50-062211; Bis(2-ethylhexyl)phthlate

$$\frac{85287}{760580} * \frac{2\ mL}{970\ mL} * \frac{4\ ng/uL}{0.8688} * 1000 = 1.06\ ug/L$$

III. GRO; Sample GSP-MW-7-062211

$$\frac{70197746}{236048.859} = 297.4\ ug/L$$

IV DRO; Sample GSP-SB-WP-50-062211

$$\frac{13430189}{172602.240} * \frac{5mL}{1020mL} * 1000 = 381.4\ ug/L$$

Sample Calculation

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-MW-7-062211 | Lab Sample ID: 240-1365-3

Matrix: Water | Lab File ID: UXM7339.D

Analysis Method: 8260B | Date Collected: 06/22/2011 13:20

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 18:22

Soil Aliquot Vol: | Dilution Factor: 16.67

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6573 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	17	U	17	3.0
75-00-3	Chloroethane	17	U	17	4.8
67-66-3	Chloroform	17	U	17	2.7
74-87-3	Chloromethane	17	U	17	5.0
156-59-2	cis-1,2-Dichloroethene	17	U	17	2.8
10061-01-5	cis-1,3-Dichloropropene	17	U	17	2.3
74-95-3	Dibromomethane	17	U	17	4.7
74-97-5	Bromochloromethane	17	U	17	4.8
75-71-8	Dichlorodifluoromethane	17	U	17	5.2
75-27-4	Bromodichloromethane	17	U	17	2.5
75-65-0	tert-Butyl alcohol	830	U	830	65
100-41-4	Ethylbenzene	17	U	17	2.8
87-68-3	Hexachlorobutadiene	17	U	17	5.0
108-20-3	Diisopropyl ether	170	U	170	25
98-82-8	Isopropylbenzene	17	U	17	2.2
1634-04-4	Methyl tert-butyl ether	83	U	83	2.8
75-09-2	Methylene Chloride	17	U	17	5.5
179601-23-1	m-Xylene & p-Xylene	33	U	33	4.0
91-20-3	Naphthalene	17	U	17	4.0
104-51-8	n-Butylbenzene	17	U	17	2.0
103-65-1	n-Propylbenzene	17	U	17	2.3
95-47-6	o-Xylene	17	U	17	2.3
135-98-8	sec-Butylbenzene	17	U	17	2.2
100-42-5	Styrene	17	U	17	1.8
994-05-8	Tert-amyl-methyl ether (TAME)	83	U	83	1.1
637-92-3	Ethyl-t-butyl ether (ETBE)	83	U	83	1.8
127-18-4	Tetrachloroethene	17	U	17	4.8
108-88-3	Toluene	17	U	17	2.2
156-60-5	trans-1,2-Dichloroethene	17	U	17	3.2
10061-02-6	trans-1,3-Dichloropropene	17	U	17	3.2
79-01-6	Trichloroethene	450		17	2.8
75-69-4	Trichlorofluoromethane	17	U	17	3.5
108-05-4	Vinyl acetate	33	U	33	3.2
75-01-4	Vinyl chloride	17	U	17	3.7
1330-20-7	Xylenes, Total	33	U	33	4.7

Sample Calculation

Report Date: 30-Jun-2011 17:14:18 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A3UX16\20110629-1489.b\UXM7339.D		
Lims ID:	240-1365-A-3	Client ID:	GSP-MW-7-062211
Inject. Date:	29-Jun-2011 18:22:30	Dil. Factor:	16.6700
Sample Type:	Client		
Sample ID:	240-0001489-017		
Misc. Info.:	M10629A,8260LLUX16,,1644		
Operator:	1644	Instrument ID:	A3UX16
Vol. Injected:	1.0000	ALS Bottle#:	16
Lims Batch ID:	6573	Lims Sample ID:	17
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A3UX16\20110629-1489.b\8260_16.m		
Last Update:	30-Jun-2011 16:34:29	Calib Date:	29-May-2011 17:06:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A3UX16\20110529-720.b\UXM6511.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-15		

First Level Reviewer: williamsla Date: 30-Jun-2011 12:15:18

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.716	5.716	0.0	98	1192760	10.0	
* 2 Chlorobenzene-d5	117	8.408	8.408	0.0	87	853199	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.649	10.649	0.0	98	393846	10.0	
$ 5 Dibromofluoromethane (Surr)	113	5.135	5.135	0.0	56	253681	8.19	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	5.431	5.431	0.0	0	351067	9.24	
$ 7 Toluene-d8 (Surr)	98	7.091	7.091	0.0	93	1215647	11.0	
$ 131 4-Bromofluorobenzene (Surr)	95	9.522	9.522	0.0	82	406161	8.83	
12 Dichlorodifluoromethane	85		1.636					
13 Chloromethane	50		1.791					
14 Vinyl chloride	62		1.921					
15 Bromomethane	94		2.265					
16 Chloroethane	64		2.372					
18 Trichlorofluoromethane	101		2.621					
21 1,1-Dichloroethene	96		3.131					
23 1,1,2-Trichloro-1,2,2-trifluoroethane	151		3.142					
22 Acetone	43	3.190	3.190	0.0	77	15492	1.29	
26 Carbon disulfide	76		3.344					
30 Methylene Chloride	84		3.581					
31 2-Methyl-2-propanol	59		3.688					
34 Methyl tert-butyl ether	73		3.830					
33 trans-1,2-Dichloroethene	96		3.830					
36 1,1-Dichloroethane	63		4.210					
37 Vinyl acetate	86		4.245					
38 Isopropyl ether	87		4.257					
40 Tert-butyl ethyl ether	59		4.577					
42 cis-1,2-Dichloroethene	96		4.720					
43 2,2-Dichloropropane	77		4.720					
41 2-Butanone (MEK)	43		4.732					
47 Chlorobromomethane	128		4.933					
49 Chloroform	83		4.992					
50 1,1,1-Trichloroethane	97		5.158					

Sample Calculation

Report Date: 30-Jun-2011 17:14:18 Chrom Revision: 1.2 03-Jun-2011 08:44:02
Data File: \\Ncchrom\ChromData\A3UX16\20110629-1489.b\UXM7339.D

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
52 1,1-Dichloropropene	75		5.289					
53 Carbon tetrachloride	117		5.301					
55 Benzene	78	5.479	5.479	0.0	54	26551	0.1833	
56 1,2-Dichloroethane	62		5.490					
57 Tert-amyl methyl ether	73		5.550					
60 Trichloroethene	130	6.024	6.024	0.0	95	910126	27.2	
62 1,2-Dichloropropane	63		6.226					
65 Dibromomethane	93		6.332					
67 Dichlorobromomethane	83		6.463					
69 2-Chloroethyl vinyl ether	63		6.700					
70 cis-1,3-Dichloropropene	75		6.842					
71 4-Methyl-2-pentanone (MIBK)	43		6.973					
72 Toluene	91		7.151					
73 trans-1,3-Dichloropropene	75		7.340					
77 Tetrachloroethene	164		7.649					
76 1,3-Dichloropropane	76		7.661					
78 2-Hexanone	43		7.720					
79 Chlorodibromomethane	129		7.874					
123 Ethylene Dibromide	107		7.993					
82 Chlorobenzene	112		8.443					
83 1,1,1,2-Tetrachloroethane	131		8.503					
84 Ethylbenzene	106		8.526					
10 m-Xylene & p-Xylene	106		8.633					
85 o-Xylene	106		9.012					
86 Styrene	104		9.024					
87 Bromoform	173		9.226					
88 Isopropylbenzene	105		9.356					
90 1,1,2,2-Tetrachloroethane	83		9.653					
91 Bromobenzene	156		9.677					
92 1,2,3-Trichloropropane	110		9.700					
94 N-Propylbenzene	120		9.760					
95 2-Chlorotoluene	126		9.854					
104 4-Chlorotoluene	126		9.961					
97 tert-Butylbenzene	119		10.246					
98 1,2,4-Trimethylbenzene	105		10.293					
99 sec-Butylbenzene	105		10.459					
100 1,3-Dichlorobenzene	146		10.590					
101 4-Isopropyltoluene	119		10.601					
102 1,4-Dichlorobenzene	146		10.673					
103 1,2,3-Trimethylbenzene	105		10.720					
105 n-Butylbenzene	91		11.005					
106 1,2-Dichlorobenzene	146		11.052					
107 1,2-Dibromo-3-Chloropropane	157		11.835					
109 1,2,4-Trichlorobenzene	180		12.653					
110 Hexachlorobutadiene	225		12.819					
111 Naphthalene	128		12.914					
112 1,2,3-Trichlorobenzene	180		13.175					
S 114 Xylenes, Total	106		16.530					

7

Sample Calculation

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 3007

SDG No.:

Instrument ID: A3UX16 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/29/2011 13:00 Calibration End Date: 05/29/2011 14:53 Calibration ID: 1183

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0264 0.0247	0.0242	0.0238	0.0245	0.0252	Ave		0.0248				3.7		15.0			
Acrylonitrile	0.0962 0.1129	0.1089	0.1081	0.1133	0.1132	Ave		0.1088				6.0		15.0			
Methyl tert-butyl ether	0.9052 0.9780	0.9338	0.9084	0.9445	0.9844	Ave		0.9424				3.6		15.0			
trans-1,2-Dichloroethene	0.3245 0.3425	0.3127	0.3206	0.3283	0.3449	Ave		0.3289				3.8		15.0			
Hexane	0.0574 0.0546	0.0465	0.0392	0.0472	0.0530	Ave		0.0496				13.0		15.0			
1,1-Dichloroethane	0.5912 0.6319	0.5979	0.5673	0.5881	0.6272	Ave		0.6006			0.1000	4.1		15.0			
Vinyl acetate	0.0271 0.0446	0.0328	0.0324	0.0372	0.0413	Lin1	-0.024	0.0433							0.9950		0.9900
2,2-Dichloropropane	0.4458 0.4655	0.4225	0.4110	0.4480	0.4683	Ave		0.4435				5.2		15.0			
cis-1,2-Dichloroethene	0.3377 0.3558	0.3482	0.3265	0.3398	0.3653	Ave		0.3455				4.0		15.0			
2-Butanone	0.1477 0.1193	0.1256	0.1190	0.1218	0.1226	Ave		0.1260				8.6		15.0			
Bromochloromethane	0.1519 0.1533	0.1391	0.1375	0.1459	0.1561	Ave		0.1473				5.3		15.0			
Tetrahydrofuran	0.1188 0.0832	0.0981	0.0900	0.0884	0.0887	Ave		0.0945				14.0		15.0			
Chloroform	0.5079 0.5578	0.5235	0.5114	0.5209	0.5580	Ave		0.5299				4.2		15.0			
1,1,1-Trichloroethane	0.4542 0.5081	0.4748	0.4473	0.4767	0.5115	Ave		0.4788				5.6		15.0			
Cyclohexane	0.5872 0.6036	0.5268	0.4580	0.5415	0.5932	Ave		0.5517				10.0		15.0			
1,1-Dichloropropene	0.3780 0.4190	0.3872	0.3615	0.3885	0.4165	Ave		0.3918				5.7		15.0			
Carbon tetrachloride	0.3498 0.4050	0.3346	0.3134	0.3616	0.3954	Ave		0.3600				9.8		15.0			
Benzene	1.1885 1.2941	1.1806	1.1616	1.1888	1.2727	Ave		1.2144				4.5		15.0			
1,2-Dichloroethane	0.4012 0.4187	0.3969	0.4003	0.3960	0.4222	Ave		0.4059				2.8		15.0			
Trichloroethene	0.2726 0.2968	0.2781	0.2630	0.2758	0.2977	Ave		0.2807				4.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Sample Calculation

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-SB-WP-50-062211 | Lab Sample ID: 240-1365-2

Matrix: Water | Lab File ID: 1365I2A.D

Analysis Method: 8270D | Date Collected: 06/22/2011 13:10

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 970(mL) | Date Analyzed: 07/16/2011 00:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.21	U	0.21	0.10
208-96-8	Acenaphthylene	0.21	U	0.21	0.10
98-86-2	Acetophenone	1.0	U	1.0	0.35
120-12-7	Anthracene	0.21	U	0.21	0.10
1912-24-9	Atrazine	1.0	U	1.0	0.35
100-52-7	Benzaldehyde	1.0	U	1.0	0.40
56-55-3	Benzo[a]anthracene	0.21	U	0.21	0.10
50-32-8	Benzo[a]pyrene	0.21	U	0.21	0.10
205-99-2	Benzo[b]fluoranthene	0.21	U	0.21	0.10
191-24-2	Benzo[g,h,i]perylene	0.21	U	0.21	0.10
207-08-9	Benzo[k]fluoranthene	0.21	U	0.21	0.10
92-52-4	1,1'-Biphenyl	1.0	U	1.0	0.82
111-91-1	Bis(2-chloroethoxy)methane	1.0	U	1.0	0.33
111-44-4	Bis(2-chloroethyl)ether	1.0	U	1.0	0.10
117-81-7	Bis(2-ethylhexyl) phthalate	1.1	J B	2.1	0.82
101-55-3	4-Bromophenyl phenyl ether	2.1	U	2.1	0.82
85-68-7	Butyl benzyl phthalate	1.0	U	1.0	0.82
105-60-2	Caprolactam	5.2	U	5.2	0.82
86-74-8	Carbazole	1.0	U	1.0	0.29
106-47-8	4-Chloroaniline	2.1	U	2.1	0.82
59-50-7	4-Chloro-3-methylphenol	2.1	U	2.1	0.82
91-58-7	2-Chloronaphthalene	1.0	U	1.0	0.10
95-57-8	2-Chlorophenol	1.0	U	1.0	0.30
7005-72-3	4-Chlorophenyl phenyl ether	2.1	U	2.1	0.31
218-01-9	Chrysene	0.21	U	0.21	0.10
53-70-3	Dibenzo(a,h)anthracene	0.21	U	0.21	0.10
132-64-9	Dibenzofuran	1.0	U	1.0	0.10
91-94-1	3,3'-Dichlorobenzidine	5.2	U	5.2	0.38
120-83-2	2,4-Dichlorophenol	2.1	U	2.1	0.82
84-66-2	Diethyl phthalate	1.0	U	1.0	0.62
105-67-9	2,4-Dimethylphenol	2.1	U	2.1	0.82
131-11-3	Dimethyl phthalate	1.0	U	1.0	0.30
84-74-2	Di-n-butyl phthalate	1.0	U	1.0	0.69
534-52-1	4,6-Dinitro-2-methylphenol	5.2	U	5.2	2.5

Sample Calculation

Report Date: 19-Jul-2011 08:15:19 Chrom Revision: 1.2 13-Jul-2011 10:43:06

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A4HP9\20110716-1923.b\1365I2A.D
Lims ID: 240-1365-I-2-A Client ID: GSP-SB-WP-50-062211
Inject. Date: 16-Jul-2011 00:01:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 1365i2a,10715a.b,8270c-625,1-827042d.sub
Misc. Info.:
Operator: 001574 Instrument ID: A4HP9
Vol. Injected: 1.0000 ALS Bottle#: 31
Lims Batch ID: 8683 Lims Sample ID: 31
Detector: MS SCAN

Method: \\Ncchrom\ChromData\A4HP9\20110716-1923.b\8270 _9.m
Last Update: 19-Jul-2011 08:14:56 Calib Date: 14-Jul-2011 16:17:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A4HP9\20110715-1888.b\9AHHH714.D
Limit Group: MSS 8270D ICAL
Integrator: RTE ID Type: Deconvolution ID
Process Host: CORP-CTX-17

First Level Reviewer: ulmanm Date: 19-Jul-2011 08:02:50

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.872	3.873	-0.001	87	193197	4.00	
* 2 Naphthalene-d8	136	4.834	4.834	0.0	98	661346	4.00	M
* 3 Acenaphthene-d10	164	6.127	6.132	-0.005	74	389085	4.00	
* 4 Phenanthrene-d10	188	7.216	7.217	-0.001	97	724249	4.00	
* 5 Chrysene-d12	240	9.172	9.209	-0.037	78	760580	4.00	
* 6 Perylene-d12	264	10.566	10.620	-0.054	92	652468	4.00	
$ 7 2-Fluorophenol	112	2.879	2.879	0.0	94	527519	7.48	
$ 8 Phenol-d5	99	3.557	3.557	0.0	0	712376	7.22	
$ 9 Nitrobenzene-d5	82	4.284	4.289	-0.005	83	592214	5.38	
$ 10 2-Fluorobiphenyl (Surr)	172	5.614	5.619	-0.005	98	625147	4.83	
$ 11 2,4,6-Tribromophenol	330	6.709	6.709	0.0	76	125110	8.06	M
$ 12 Terphenyl-d14	244	8.349	8.365	-0.016	98	989762	7.04	
25 1,4-Dioxane	88		1.784					
26 N-Nitrosodimethylamine	74		1.965					
41 Benzaldehyde	77		3.541					
43 Phenol	94		3.568					
69 Bis(2-chloroethyl)ether	93		3.648					
46 2-Chlorophenol	128		3.718					
51 2-Methylphenol	108		4.033					
53 2,2'-oxybis[1-chloropropane]	45		4.054					
21 3 & 4 Methylphenol	108		4.145					
57 N-Nitrosodi-n-propylamine	70		4.156					
58 Acetophenone	105		4.166					
61 Hexachloroethane	117		4.268					
62 Nitrobenzene	77		4.300					
64 Isophorone	82		4.476					
66 2-Nitrophenol	139		4.540					
65 2,4-Dimethylphenol	107		4.551					
70 Bis(2-chloroethoxy)methane	93		4.615					
73 2,4-Dichlorophenol	162		4.717					
75 Naphthalene	128		4.850					

Sample Calculation

Report Date: 19-Jul-2011 08:15:19 Chrom Revision: 1.2 13-Jul-2011 10:43:06
Data File: \\Ncchrom\ChromData\A4HP9\20110716-1923.b\1365I2A.D

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
76 4-Chloroaniline	127		4.877					
79 Hexachlorobutadiene	225		4.936					
84 Caprolactam	113		5.133					
86 4-Chloro-3-methylphenol	107		5.219					
87 2-Methylnaphthalene	142		5.363					
89 Hexachlorocyclopentadiene	237		5.481					
92 2,4,6-Trichlorophenol	196		5.561					
93 2,4,5-Trichlorophenol	196		5.593					
98 1,1'-Biphenyl	154		5.694					
100 2-Chloronaphthalene	162		5.721					
102 2-Nitroaniline	65		5.780					
105 Dimethyl phthalate	163		5.897					
107 2,6-Dinitrotoluene	165		5.945					
109 Acenaphthylene	152		6.031					
110 3-Nitroaniline	138		6.079					
111 2,4-Dinitrophenol	184		6.154					
112 Acenaphthene	153		6.159					
113 4-Nitrophenol	109		6.180					
114 2,4-Dinitrotoluene	165		6.244					
116 Dibenzofuran	168		6.282					
121 Diethyl phthalate	149		6.405					
123 4-Chlorophenyl phenyl ether	204		6.512					
125 4-Nitroaniline	138		6.528					
126 Fluorene	166		6.533					
128 4,6-Dinitro-2-methylphenol	198		6.549					
131 N-Nitrosodiphenylamine	169		6.592					
139 4-Bromophenyl phenyl ether	248		6.869					
141 Hexachlorobenzene	284		6.944					
142 Atrazine	200		6.960					
143 Pentachlorophenol	266		7.070					
148 Phenanthrene	178		7.238					
149 Anthracene	178		7.275					
151 Carbazole	167		7.377					
154 Di-n-butyl phthalate	149	7.574	7.580	-0.006	93	51292	0.1978	
159 Fluoranthene	202		8.114					
161 Pyrene	202		8.290					
168 Butyl benzyl phthalate	149		8.707					
173 Bis(2-ethylhexyl) phthalate	149	9.086	9.129	-0.043	95	85287	0.5163	
175 3,3'-Dichlorobenzidine	252		9.156					
177 Benzo[a]anthracene	228		9.204					
178 Chrysene	228		9.231					
180 Di-n-octyl phthalate	149		9.658					
182 Benzo[b]fluoranthene	252		10.187					
183 Benzo[k]fluoranthene	252		10.214					
184 Benzo[a]pyrene	252		10.556					
188 Indeno[1,2,3-cd]pyrene	276		12.137					
189 Dibenz(a,h)anthracene	278		12.148					
190 Benzo[g,h,i]perylene	276		12.607					

Sample Calculation

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Di-n-butyl phthalate	1.4178	1.3552 1.5045	1.3962 1.4989	1.4148 1.4629	1.4096	Ave		1.4325			0.0100	3.6		20.0			
Fluoranthene	1.1887 1.1727	1.1082 1.2641	1.2177 1.3015	1.1842 1.4319	1.1747	Ave		1.2271			0.6000	7.7		20.0			
Benzidine	0.6434	0.4961 0.6181	0.4956 0.6518	0.6194 0.6981	0.6498	Ave		0.6090				12.0		20.0			
Pyrene	1.2178 1.2011	1.1840 1.2171	1.2198 1.2836	1.1838 1.3788	1.1978	Ave		1.2315			0.6000	5.1		20.0			
Butyl benzyl phthalate	0.6120	0.5618 0.6041	0.6355 0.6331	0.7000 0.6471	0.6068	Ave		0.6251			0.0100	6.4		20.0			
3,3'-Dimethoxybenzidine	0.2613	0.1768 0.2343	0.2179 0.2488	0.2277 0.2865	0.2549	Ave		0.2385				14.0		20.0			
Bis(2-ethylhexyl) phthalate	0.8565	0.7725 0.8781	0.8684 0.8946	0.8342 0.9763	0.8698	Ave		0.8688			0.0100	6.6		20.0			
4,4'-Methylene bis(2-chloroaniline)	0.2264	0.1993 0.2364	0.2165 0.2445	0.2169 0.2630	0.2299	Ave		0.2291				8.5		20.0			
3,3'-Dichlorobenzidine	0.4312	0.3683 0.4380	0.4040 0.4510	0.4064 0.4927	0.4316	Ave		0.4279			0.0100	8.6		20.0			
Benzo[a]anthracene	1.2110 1.1340	1.0945 1.1555	1.1739 1.1704	1.1365 1.2554	1.1137	Ave		1.1605			0.8000	4.3		20.0			
Chrysene	1.2394 1.1231	1.0804 1.1183	1.1143 1.1409	1.0881 1.2145	1.0840	Ave		1.1337			0.7000	5.0		20.0			
Di-n-octyl phthalate	1.7336	1.4389 1.7619	1.5649 1.8117	1.6060 1.9378	1.6406	Ave		1.6869			0.0100	9.3		20.0			
Benzo[b]fluoranthene	1.1064 1.4585	1.1713 1.2539	1.1854 1.3061	1.2356 1.5219	1.2281	Ave		1.2741			0.7000	11.0		20.0			
Benzo[k]fluoranthene	1.4546 1.1580	1.2638 1.3782	1.3536 1.3828	1.2948 1.3816	1.2840	Ave		1.3279			0.7000	6.6		20.0			
Benzo[a]pyrene	1.1401 1.1741	1.0762 1.2035	1.1106 1.2212	1.1297 1.3029	1.1475	Ave		1.1673			0.7000	5.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2705 1.3033	1.1882 1.3309	1.2235 1.3505	1.2401 1.4368	1.2740	Ave		1.2909			0.5000	5.8		20.0			
Dibenzo(a,h)anthracene	1.0061 1.0889	0.9215 1.1157	1.0240 1.1250	1.0288 1.2106	1.0478	Ave		1.0632			0.4000	7.8		20.0			
Benzo[g,h,i]perylene	0.9424 1.0527	0.9400 1.0674	0.9864 1.0813	1.0173 1.1331	1.0548	Ave		1.0306			0.5000	6.3		20.0			
2-Fluorophenol (Surr)	1.4758	1.4065 1.4396	1.3532 1.4441	1.5566 1.5052	1.4952	Ave		1.4595				4.3		20.0			
Phenol-d5 (Surr)	2.0412	1.9990 2.0291	1.9480 2.0551	2.1175 2.0894	2.0563	Ave		2.0420				2.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Sample Calculation

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1365-1

SDG No.:

Client Sample ID: GSP-MW-7-062211 | Lab Sample ID: 240-1365-3

Matrix: Water | Lab File ID: YF062832.D

Analysis Method: 8015B | Date Collected: 06/22/2011 13:20

Sample wt/vol: 5(mL) | Date Analyzed: 06/29/2011 09:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6402 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	300	B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	103		10-150

Sample Calculation

Report Date: 30-Jun-2011 09:11:00 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\YPID\20110628-1447.b\YF062832.D		
Lims ID:	240-1365-D-3	Client ID:	GSP-MW-7-062211
Inject. Date:	29-Jun-2011 09:02:20	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0001447-032		
Misc. Info.:			
Operator:	004275	Instrument ID:	YPID
Vol. Injected:	1.0000	ALS Bottle#:	1
Lims Batch ID:	6402	Lims Sample ID:	32
Detector 1 :	GC ELC2B		
Detector 2 :	GC FID1A		
Method:	\\Ncchrom\ChromData\YPID\20110628-1447.b\Y80158021.m		
Last Update:	30-Jun-2011 09:10:57	Calib Date:	22-Jun-2011 17:30:51
Quant Method:	Internal/External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\YPID\20110622-1279.b\YF062209.D		
Limit Group:	GCV 8015B GRO ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-15		

Compound	Det	RT	ADJ RT	DLT RT	Response	On-Col Amt ug/l	Flags
$ 16 Trifluorotoluene (Surr)	2	9.256	9.254	0.002	2182217	10.3	
A 5 C6-C10	2	11.362	4.298 - 18.442		70197746	297.4	
* 15 Fluorobenzene	1	12.084	12.346	-0.262	3383	0	

Sample Calculation

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	302470 208450	252295 210278	214454	228347	Ave		236048.859				15.0		20.0			
C6-C12	346250 223395	277091 226126	233001	247805	Ave		258944.938				18.0		20.0			
Trifluorotoluene (Surr)	211649 226938	171207 226738	185123	251863	Ave		212253.083				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

Sample Calculation

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-1365-1
SDG No.:
Client Sample ID: GSP-SB-WP-50-062211
Lab Sample ID: 240-1365-2
Matrix: Water
Lab File ID: P5062806.D
Analysis Method: 8015B
Date Collected: 06/22/2011 13:10
Extraction Method: 3520C
Date Extracted: 06/25/2011 08:17
Sample wt/vol: 1020(mL)
Date Analyzed: 06/28/2011 12:31
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: RTX-5 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 6358
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	380	J B	490	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	49		10-110

Sample calculation

Report Date: 01-Jul-2011 10:52:14 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP5\20110628-1435.b\P5062806.D		
Lims ID:	240-1365-K-2-A	Client ID:	GSP-SB-WP-50-062211
Inject. Date:	28-Jun-2011 12:31:08	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0001435-006		
Misc. Info.:			
Operator:	2398	Instrument ID:	A2HP5
Vol. Injected:	1.0000	ALS Bottle#:	6
Lims Batch ID:	6358	Lims Sample ID:	6
Detector:	GC FID1A		
Method:	\\Ncchrom\ChromData\A2HP5\20110628-1435.b\TPH5.m		
Last Update:	01-Jul-2011 10:52:13	Calib Date:	27-Jun-2011 13:00:26
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A2HP5\20110627-1399.b\P5062708.D		
Limit Group:	GC TPH DIESEL ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-15		

RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Flags
$ 8 n-Nonane					
3.119	3.120	-0.001	11179246	49.2	
A 17 C10-C32					
9.354	4.495 - 14.214		13430189	77.8	

Sample Calculation

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1365-1 Analy Batch No.: 6176

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 11:08 Calibration End Date: 06/27/2011 13:00 Calibration ID: 1777

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6176/4	P5062704.D
Level 2	STD2 240-6176/5	P5062705.D
Level 3	ICRT 240-6176/6	P5062706.D
Level 4	STD4 240-6176/7	P5062707.D
Level 5	STD5 240-6176/8	P5062708.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	159484 170115	171167	187950	174295	Ave		172602.240				5.9		20.0			
n-Nonane	194827 231187	227414	244778	237482	Ave		227137.555				8.5		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

Sample Calculation

1A-IN

INORGANIC ANALYSIS DATA SHEET

METALS - DISSOLVED

Client Sample ID: GSP-MW-7-062211

Lab Sample ID: 240-1365-3

Lab Name: TestAmerica Burlington

Job No.: 240-1365-1

SDG ID.:

Matrix: Water

Date Sampled: 06/22/2011 13:20

Reporting Basis: WET

Date Received: 06/23/2011 09:10

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.12	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	0.66	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	45	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	0.58	2.0	0.11	ug/L	J		1	6020
7440-48-4	Cobalt	3.0	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	1.3	2.0	0.23	ug/L	J		1	6020
7439-92-1	Lead	0.47	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	2.9	2.0	0.42	ug/L			1	6020
7440-02-0	Nickel	6.4	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	0.81	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.23	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.30	ug/L	U		1	6020
7440-66-6	Zinc	14	20	0.50	ug/L	J	B	1	6020
7439-97-6	Mercury	0.090	0.20	0.066	ug/L	J		1	7470A

GSP-MW-7-062211

Sample Calculation

240-1365-G-3-A 08/04/2011 05:28:21 PM

User Pre-dilution: 1.00

Run	Time	6Li	7Li	9Be	11B	23Na	24Mg	25Mg	26Mg	27Al
1	17:29:25	700913.400	54442.533	30.000	29854.942	ᵀᴹ 132683880.000	ᵀ 4566677.000	613633.920	718151.990	86140.183
2	17:30:29	ᵀ 750736.200	54450.581	27.000	29036.297	ᵀᴹ 132062760.000	ᵀ 4566426.900	607672.810	718856.540	86881.184
3	17:31:32	697609.190	53653.865	30.000	29074.418	ᵀᴹ 131457680.000	ᵀ 4542735.700	608561.390	720875.390	86327.951
x		ᵀ 716419.600	54182.326	29.000	29321.886	ᵀᴹ 132068110.000	ᵀ 4558613.200	609956.040	719294.640	86449.773
σ		ᵀ 29764.934	457.679	1.732	462.034	ᵀᴹ 613113.930	ᵀ 13750.921	3215.976	1413.566	385.229
%RSD		ᵀ 4.155	0.845	5.973	1.576	ᵀᴹ 0.464	ᵀ 0.302	0.527	0.197	0.446

Run	Time	31P	33S	39K	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
1	17:29:25	8479.953	ᵀ 278773.500	ᵀ 4970591.300	351157.640	435126.020	178.002	41974.680	5497.662	14707.888
2	17:30:29	8259.751	ᵀ 278680.490	ᵀ 4967047.700	352587.410	437063.730	178.002	40632.603	5347.572	14369.347
3	17:31:32	8167.667	ᵀ 277989.620	ᵀ 5022698.100	355227.260	440659.210	170.002	38915.113	5447.632	14122.962
x		8302.457	ᵀ 278481.200	ᵀ 4986779.100	352990.770	437616.320	175.335	40507.465	5430.955	14400.066
σ		160.463	ᵀ 428.255	ᵀ 31157.233	2064.575	2807.682	4.619	1533.617	76.422	293.671
%RSD		1.933	ᵀ 0.154	ᵀ 0.625	0.585	0.642	2.634	3.786	1.407	2.039

Run	Time	54Fe	55Mn	56Fe	59Co	60Ni	62Ni	65Cu	66Zn	67Zn
1	17:29:25	65593.789	423656.900	1021693.700	14361.335	6394.248	1026.058	1670.153	12867.099	2314.295
2	17:30:29	64975.372	428481.300	1029454.300	14273.196	6160.086	1128.070	1616.144	12835.054	2076.237
3	17:31:32	66576.897	428259.190	1041928.600	14601.717	6688.459	1114.068	1846.187	13087.414	2250.278
x		65715.353	426799.130	1031025.500	14412.083	6414.265	1089.399	1710.828	12929.856	2213.603
σ		807.653	2723.518	10208.572	170.038	264.755	55.300	120.295	137.387	123.194
%RSD		1.229	0.638	0.990	1.180	4.128	5.076	7.031	1.063	5.565

$\frac{264.755}{6414.265} \times 1000 = 6.4$

Run	Time	68Zn	75As	78Se	82Se	89Y	95Mo	98Mo	107Ag	108Mo O
1	17:29:25	9693.165	908.445	504.214	87.600	421698.950	3430.647	5817.861	40.000	4.000
2	17:30:29	9875.361	834.038	517.215	94.000	427513.290	3360.621	5265.525	34.000	14.000
3	17:31:32	9771.248	881.643	501.214	91.000	425405.800	3434.649	5465.642	42.000	12.000
x		9779.925	874.709	507.548	90.867	424872.680	3408.639	5516.343	38.667	10.000
σ		91.407	37.685	8.505	3.202	2943.605	41.633	279.637	4.163	5.292
%RSD		0.935	4.308	1.676	3.524	0.693	1.221	5.069	10.767	52.915

Run	Time	109Ag	111Cd	114Cd	115In	121Sb	123Sb	135Ba	137Ba	159Tb
1	17:29:25	24.000	92.000	234.003	544780.350	441.611	352.807	26823.514	46993.146	551979.740
2	17:30:29	26.000	82.000	156.001	548697.730	431.810	358.407	27016.083	48135.098	557187.470
3	17:31:32	30.000	84.000	164.001	553504.380	446.011	346.207	27411.264	48314.043	556754.090
x		26.667	86.000	184.669	548994.150	439.811	352.474	27083.620	47814.096	555307.100
σ		3.055	5.292	42.912	4369.564	7.269	6.107	299.639	716.571	2889.713
%RSD		11.456	6.153	23.237	0.796	1.653	1.733	1.106	1.499	0.520

Run	Time	182W	184W	203Tl	205Tl	208Pb	209Bi	220Bkg	232Th	238U
1	17:29:25	880.043	1200.079	348.007	790.034	3664.738	944019.200	0.000	208.002	7334.958
2	17:30:29	1150.073	1276.090	292.005	790.034	3640.729	947954.860	0.000	192.002	7044.729
3	17:31:32	1188.078	1214.081	310.005	756.031	3658.736	947720.180	0.000	184.002	7196.848
x		1072.731	1230.083	316.672	778.700	3654.735	946564.750	0.000	194.669	7192.178
σ		167.952	40.453	28.590	19.632	12.495	2207.628	0.000	12.220	145.171
%RSD		15.656	3.289	9.028	2.521	0.342	0.233	0.000	6.278	2.018

CCV 08/04/2011 05:35:00 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.00

Run	Time	6Li	7Li	9Be	11B	23Na	24Mg	25Mg	26Mg	27Al
1	17:36:04	714707.810	46977.064	3679.745	117275.600	ᵀ 17925277.000	ᵀ 11618144.000	1522353.800	ᵀ 1902084.600	1071769.000
2	17:37:07	ᵀ 777080.580	47330.892	3635.727	119996.760	ᵀ 18057050.000	ᵀ 11733868.000	1533000.200	ᵀ 1932418.200	1078717.300
3	17:38:10	719703.800	47930.019	3619.720	119232.810	ᵀ 18081742.000	ᵀ 11616483.000	1519333.500	ᵀ 1913220.700	1068764.200
x		ᵀ 737164.060	47412.658	3645.064	118835.060	ᵀ 18021356.000	ᵀ 11656165.000	1524895.800	ᵀ 1915907.900	1073083.500

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **A. APANAVAGE** **DATE:** **SEPTEMBER 15, 2011**

FROM: **MICHELLE L. ALLEN** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC/SVOC/DRO/GRO**
MARTIN STATE AIRPORT (MSA)-GREATER STRAWBERRY POINT (GSP)
SDG 240-1443-1

SAMPLES: 5/Aqueous/VOC

GSP-MW-8-062311	GSP-SB-WP-66-062311	GSP-SB-WP-84-062311
GSP-SB-WP-89-062311	TB-062311	

5/Aqueous/SVOC/

GSP-MW-8-062311	GSP-SB-WP-61-062311	GSP-SB-WP-66-062311
GSP-SB-WP-84-062311	GSP-SB-WP-89-062311	

4/DRO/GRO

GSP-MW-8-062311	GSP-SB-WP-66-062311	GSP-SB-WP-84-062311
GSP-SB-WP-89-062311		

Overview

The sample set for MSA - Groundwater, SDG 240-1443-1 consisted of four (4) aqueous environmental samples and one (1) trip blank. All five (5) aqueous samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOC). The four (4) aqueous environmental samples were analyzed for TCL semi-volatile organic compounds (SVOC), diesel range organic compounds (DRO), and gasoline range organic compounds (GRO). No field duplicate sample pair was included in the sample delivery group (SDG).

The samples were collected by Tetra Tech on June 23, 2011 and analyzed by Test America, Inc. All analyses were conducted in accordance with SW-846 Methods 8260B, 8270D, and 8015B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, trip blank results, surrogate spike recoveries, blank spike results, matrix spike/matrix spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The initial and continuing calibrations performed on instruments A3UX10 in the VOC fraction had Relative Response Factors (RRFs) for tert-butyl alcohol and vinyl acetate the 0.050 quality control limit. All samples were affected. The positive result reported for tert-butyl alcohol in sample was qualified as estimated, (J). The remaining non-detected results reported for these compounds in the affected samples were qualified as rejected, (UR).

Minor

- The continuing calibration performed on instrument A3UX10 on 07/01/11 @ 22:08 had a Percent Difference (%D) for trichlorofluoromethane above the 20% quality control criterion but greater than 90%. All samples were affected. Only non-detected results were reported for this compound in the affected samples and these non-detects were qualified as estimated, (UJ).

- The following contaminants were detected in the laboratory method or trip blanks at the following maximum concentrations:

Compound	Maximum Concentration (µg/L)	Action Level (µg/L)
Acetone [1]	4.4	44
DRO [2]	334	1670
DRO [3]	538	2690
GRO [4]	33.6	168

[1] Maximum concentration detected in the trip blank, TB-062311, affecting all samples.
[2] Maximum concentration detected in the laboratory method blank, MB 240-6092/1-A, affecting samples GSP-MW-8-062311 and GSP-SB-WP-89-062311.
[3] Maximum concentration detected in the laboratory method blank, MB 240-6574/1-A, affecting samples GSP-SB-WP-66-062311 and GSP-SB-WP-84-062311.
[4] Maximum concentration detected in the laboratory method blank, MB 240-7018/11, affecting all samples.

An action level of 10X the maximum concentration for the common laboratory contaminant, acetone, was used to evaluate for blank contamination. An action level of 5X the maximum concentration was used for the remaining compounds to evaluate for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results reported below the action level were qualified as, (B), due to laboratory method blank contamination.

- Positive results reported below the Reporting Limit (RL) limit but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

Sample GSP-SB-WP-66-062311 was analyzed for the SVOC and DRO fractions even though the Chain of Custody (COC) did not request these analyses. The data was reviewed and reported in this data validation letter.

The VOC continuing calibration performed 07/01/11 @ 22:08 had %Ds for 2-butanone, 2-chloroethyl vinyl ether, 4-methyl-2-pentanone, 2-hexanone, hexachlorobutadiene, naphthalene, and 1,2,3-trichlorobenzene that exceeded the 20% quality control limit but were less than 50%. All samples were affected. No validation action was necessary because only non-detected results were reported for these compounds in the associated samples.

The %D for the continuing calibration verification performed for the GRO fraction on 07/04/11 @ 05:28 exceeded the 15% quality control limit. All samples were affected. No actions were necessary because the affected sample results were qualified for blank contamination.

The following contaminants were detected in the laboratory method blanks at the following maximum concentrations:

Compound	Maximum Concentration (µg/L)	Action Level (µg/L)
Naphthalene [1]	0.784	3.92
1,2,3-Trichlorobenzene [1]	0.508	2.54
Bis(2-ethylhexyl)phthalate [2]	1.56	15.6

[1] Maximum concentration detected in the laboratory method blank, MB 240-6923/5, affecting all samples.
[2] Maximum concentration detected in the laboratory method blank, MB 240-6094/1-A, affecting samples GSP-MW-8-062311, GSP-SB-WP-61-062311, GSP-SB-WP-84-062311, and GSP-SB-WP-89-062311.

An action level of 10X the maximum level was used for the common laboratory contaminant, bis(2-ethylhexyl)phthalate and an action level of 5X the maximum level was used for the remaining contaminants to evaluate the affected samples for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. No qualification was necessary since no positive results were reported for these contaminants below the action level in the associated environmental samples.

The VOC Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses yielded many Percent Recoveries (%Rs) and Relative Percent Differences (RPDs) outside the quality control limits. No action was taken because the sample analyzed was not from this SDG and the blank spike sample had acceptable %Rs.

Acetone exceeded the instrument's linear calibration range in the undiluted analysis of sample GSP-SB-WP-66-062311. The sample was reanalyzed at a 2.5X dilution and acetone was detected below the RL in the dilution analysis. Because of the discrepancy between the undiluted and the diluted analysis results and considering that acetone is a common lab contaminant, the result for acetone from the dilution was used for data validation. This result was qualified for trip blank contamination.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Initial and continuing calibration RRFs for tert-butyl alcohol and vinyl acetate were below the quality control criteria resulting in the rejection of the non-detected results and estimating one positive result for tert-butyl alcohol. The continuing calibration %D for trichlorofluoromethane exceeded 90%. Continuing calibration %Ds for several VOC compounds were above the 20% quality control criteria. A continuing calibration %D exceed %15 in the GRO fraction. Contaminants were detected in the laboratory method blanks in the VOC, SVOC, DRO, and GRO fractions.

Other Factors Affecting Data Quality: Acetone was detected in the trip blank. Noncompliant %Rs and RPDs were noted in the VOC MS/MSD analyses.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994) and SW-846 Methods 8260B, 8270C, and 8015B analytical and reporting protocols. The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Michelle L. Allen
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279	NSAMPLE	GSP-MW-8-062311			GSP-SB-WP-66-062311			GSP-SB-WP-66-062311RA			GSP-SB-WP-84-062311		
SDG: 240-1443-1	LAB_ID	240-1443-5			240-1443-4			240-1443-4			240-1443-1		
FRACTION: OV	SAMP_DATE	6/23/2011			6/23/2011			6/23/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U					0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U					0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U					0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U					0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U					0.15	U	
1,1-DICHLOROETHENE		0.19	U		0.19	U					0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U					0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U					0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U					0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U					0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U					0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U					0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U					0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U					0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U					0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U					0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U					0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U					0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U					0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U					0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U					0.13	U	
2-BUTANONE		0.57	U		3.2	J	P				0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U					0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U					0.11	U	
2-HEXANONE		0.41	U		0.41	U					0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U					0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U					0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U					0.32	U	
ACETONE		2.1	B	B				7.9	B	B	1.1	U	
BENZENE		0.13	U		0.13	U					0.13	U	
BROMOBENZENE		0.13	U		0.13	U					0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U					0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U					0.15	U	
BROMOFORM		0.64	U		0.64	U					0.64	U	
BROMOMETHANE		0.41	U		0.41	U					0.41	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-89-062311			TB-062311		
SDG: 240-1443-1	LAB_ID	240-1443-2			240-1443-6		
FRACTION: OV	SAMP_DATE	6/23/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.23	U		0.23	U	
1,1,1-TRICHLOROETHANE		0.22	U		0.22	U	
1,1,2,2-TETRACHLOROETHANE		0.18	U		0.18	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.28	U		0.28	U	
1,1-DICHLOROETHANE		0.15	U		0.15	U	
1,1-DICHLOROETHENE		0.99	J	P	0.19	U	
1,1-DICHLOROPROPENE		0.13	U		0.13	U	
1,2,3-TRICHLOROBENZENE		0.17	U		0.17	U	
1,2,3-TRICHLOROPROPANE		0.43	U		0.43	U	
1,2,3-TRIMETHYLBENZENE		0.0059	U		0.0059	U	
1,2,4-TRICHLOROBENZENE		0.15	U		0.15	U	
1,2,4-TRIMETHYLBENZENE		0.12	U		0.12	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.67	U		0.67	U	
1,2-DIBROMOETHANE		0.24	U		0.24	U	
1,2-DICHLOROBENZENE		0.13	U		0.13	U	
1,2-DICHLOROETHANE		0.22	U		0.22	U	
1,2-DICHLOROPROPANE		0.18	U		0.18	U	
1,3-DICHLOROBENZENE		0.14	U		0.14	U	
1,3-DICHLOROPROPANE		0.16	U		0.16	U	
1,4-DICHLOROBENZENE		0.13	U		0.13	U	
2,2-DICHLOROPROPANE		0.13	U		0.13	U	
2-BUTANONE		0.57	U		0.57	U	
2-CHLOROETHYL VINYL ETHER		0.99	U		0.99	U	
2-CHLOROTOLUENE		0.11	U		0.11	U	
2-HEXANONE		0.41	U		0.41	U	
4-CHLOROTOLUENE		0.18	U		0.18	U	
4-ISOPROPYLTOLUENE		0.12	U		0.12	U	
4-METHYL-2-PENTANONE		0.32	U		0.32	U	
ACETONE		1.1	U		4.4	J	P
BENZENE		0.13	U		0.13	U	
BROMOBENZENE		0.13	U		0.13	U	
BROMOCHLOROMETHANE		0.29	U		0.29	U	
BROMODICHLOROMETHANE		0.15	U		0.15	U	
BROMOFORM		0.64	U		0.64	U	
BROMOMETHANE		0.41	U		0.41	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-8-062311			GSP-SB-WP-66-062311			GSP-SB-WP-66-062311RA			GSP-SB-WP-84-062311		
SDG: 240-1443-1	LAB_ID	240-1443-5			240-1443-4			240-1443-4			240-1443-1		
FRACTION: OV	SAMP_DATE	6/23/2011			6/23/2011			6/23/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.27	J	P				0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U					0.13	U	
CHLOROBENZENE		0.15	U		0.15	U					0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U					0.18	U	
CHLOROETHANE		0.29	U		0.29	U					0.29	U	
CHLOROFORM		0.16	U		0.16	U					0.16	U	
CHLOROMETHANE		0.42	J	P	0.3	U					0.3	U	
CIS-1,2-DICHLOROETHENE		0.17	U		0.17	U					0.33	J	P
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U					0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U					0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U					0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U					1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U					0.11	U	
ETHYLBENZENE		0.17	U		0.17	U					0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U					0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U					0.13	U	
M+P-XYLENES		0.24	U		0.24	U					0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U					0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U					0.33	U	
NAPHTHALENE		0.24	U		0.24	U					0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U					0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U					0.14	U	
O-XYLENE		0.14	U		0.14	U					0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U					0.13	U	
STYRENE		0.11	U		0.11	U					0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U					0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U					0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	6.9	J	CP				3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U					0.29	U	
TOLUENE		0.28	J	P	22						0.13	U	
TOTAL XYLENES		0.28	U		0.28	U					0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	U		0.19	U					0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U					0.19	U	
TRICHLOROETHENE		0.27	J	P	0.17	U					5		
TRICHLOROFLUOROMETHANE		0.21	UJ	C	0.21	UJ	C				0.21	UJ	C

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-89-062311			TB-062311		
SDG: 240-1443-1	LAB_ID	240-1443-2			240-1443-6		
FRACTION: OV	SAMP_DATE	6/23/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.13	U		0.13	U	
CARBON TETRACHLORIDE		0.13	U		0.13	U	
CHLOROBENZENE		0.15	U		0.15	U	
CHLORODIBROMOMETHANE		0.18	U		0.18	U	
CHLOROETHANE		0.29	U		0.29	U	
CHLOROFORM		0.16	U		0.16	U	
CHLOROMETHANE		0.3	U		0.3	U	
CIS-1,2-DICHLOROETHENE		4.1			0.17	U	
CIS-1,3-DICHLOROPROPENE		0.14	U		0.14	U	
DIBROMOMETHANE		0.28	U		0.28	U	
DICHLORODIFLUOROMETHANE		0.31	U		0.31	U	
DIISOPROPYL ETHER		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.11	U		0.11	U	
ETHYLBENZENE		0.17	U		0.17	U	
HEXACHLOROBUTADIENE		0.3	U		0.3	U	
ISOPROPYLBENZENE		0.13	U		0.13	U	
M+P-XYLENES		0.24	U		0.24	U	
METHYL TERT-BUTYL ETHER		0.17	U		0.17	U	
METHYLENE CHLORIDE		0.33	U		0.33	U	
NAPHTHALENE		0.24	U		0.24	U	
N-BUTYLBENZENE		0.12	U		0.12	U	
N-PROPYLBENZENE		0.14	U		0.14	U	
O-XYLENE		0.14	U		0.14	U	
SEC-BUTYLBENZENE		0.13	U		0.13	U	
STYRENE		0.11	U		0.11	U	
TERT-AMYL METHYL ETHER		0.067	U		0.067	U	
TERT-BUTYLBENZENE		0.13	U		0.13	U	
TERTIARY-BUTYL ALCOHOL		3.9	UR	C	3.9	UR	C
TETRACHLOROETHENE		0.29	U		0.29	U	
TOLUENE		0.13	U		0.13	U	
TOTAL XYLENES		0.28	U		0.28	U	
TRANS-1,2-DICHLOROETHENE		0.19	J	P	0.19	U	
TRANS-1,3-DICHLOROPROPENE		0.19	U		0.19	U	
TRICHLOROETHENE		25			0.17	U	
TRICHLOROFLUOROMETHANE		0.21	UJ	C	0.21	UJ	C

PROJ_NO: 03279	NSAMPLE	GSP-MW-8-062311			GSP-SB-WP-66-062311			GSP-SB-WP-66-062311RA			GSP-SB-WP-84-062311		
SDG: 240-1443-1	LAB_ID	240-1443-5			240-1443-4			240-1443-4			240-1443-1		
FRACTION: OV	SAMP_DATE	6/23/2011			6/23/2011			6/23/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C				0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U					0.22	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-89-062311			TB-062311		
SDG: 240-1443-1	LAB_ID	240-1443-2			240-1443-6		
FRACTION: OV	SAMP_DATE	6/23/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.19	UR	C	0.19	UR	C
VINYL CHLORIDE		0.22	U		0.22	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-8-062311			GSP-SB-WP-61-062311			GSP-SB-WP-66-062411			GSP-SB-WP-84-062311		
SDG: 240-1443-1	LAB_ID	240-1443-5			240-1443-3			240-1470-1			240-1443-1		
FRACTION: OS	SAMP_DATE	6/23/2011			6/23/2011			6/24/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		0.77	U		0.77	U		1.2	U		0.77	U	
1,4-DIOXANE		0.47	U		0.47	U		0.74	U		0.47	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		0.38	U		0.38	U		0.61	U		0.38	U	
2,4,5-TRICHLOROPHENOL		0.29	U		0.29	U		0.45	U		0.29	U	
2,4,6-TRICHLOROPHENOL		0.77	U		0.77	U		1.2	U		0.77	U	
2,4-DICHLOROPHENOL		0.77	U		0.77	U		1.2	U		0.77	U	
2,4-DIMETHYLPHENOL		0.77	U		0.77	U		1.2	U		0.77	U	
2,4-DINITROPHENOL		2.3	U		2.3	U		3.6	U		2.3	U	
2,4-DINITROTOLUENE		0.26	U		0.26	U		0.41	U		0.26	U	
2,6-DINITROTOLUENE		0.77	U		0.77	U		1.2	U		0.77	U	
2-CHLORONAPHTHALENE		0.096	U		0.096	U		0.15	U		0.096	U	
2-CHLOROPHENOL		0.28	U		0.28	U		0.44	U		0.28	U	
2-METHYLNAPHTHALENE		0.096	U		0.096	U		0.15	U		0.096	U	
2-METHYLPHENOL		0.77	U		0.77	U		1.2	U		0.77	U	
2-NITROANILINE		0.77	U		0.77	U		1.2	U		0.77	U	
2-NITROPHENOL		0.27	U		0.27	U		0.42	U		0.27	U	
3&4-METHYLPHENOL		0.72	U		0.72	U		1.1	U		0.72	U	
3,3'-DICHLOROBENZIDINE		0.36	U		0.36	U		0.56	U		0.36	U	
3-NITROANILINE		0.27	U		0.27	U		0.42	U		0.27	U	
4,6-DINITRO-2-METHYLPHENOL		2.3	U		2.3	U		3.6	U		2.3	U	
4-BROMOPHENYL PHENYL ETHER		0.77	U		0.77	U		1.2	U		0.77	U	
4-CHLORO-3-METHYLPHENOL		0.77	U		0.77	U		1.2	U		0.77	U	
4-CHLOROANILINE		0.77	U		0.77	U		1.2	U		0.77	U	
4-CHLOROPHENYL PHENYL ETHER		0.29	U		0.29	U		0.45	U		0.29	U	
4-NITROANILINE		0.77	U		0.77	U		1.2	U		0.77	U	
4-NITROPHENOL		2.3	U		2.3	U		3.6	U		2.3	U	
ACENAPHTHENE		0.096	U		0.096	U		0.15	U		0.096	U	
ACENAPHTHYLENE		0.096	U		0.096	U		0.15	U		0.096	U	
ACETOPHENONE		0.33	U		0.33	U		0.52	U		0.33	U	
ANTHRACENE		0.096	U		0.096	U		0.15	U		0.096	U	
ATRAZINE		0.33	U		0.33	U		0.52	U		0.33	U	
BENZALDEHYDE		0.37	U		0.37	U		0.59	U		0.37	U	
BENZO(A)ANTHRACENE		0.096	U		0.096	U		0.15	U		0.096	U	
BENZO(A)PYRENE		0.096	U		0.096	U		0.15	U		0.096	U	
BENZO(B)FLUORANTHENE		0.096	U		0.096	U		0.15	U		0.096	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-89-062311
SDG: 240-1443-1	LAB_ID	240-1443-2
FRACTION: OS	SAMP_DATE	6/23/2011
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1-BIPHENYL	0.76	U	
1,4-DIOXANE	0.47	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	0.38	U	
2,4,5-TRICHLOROPHENOL	0.29	U	
2,4,6-TRICHLOROPHENOL	0.76	U	
2,4-DICHLOROPHENOL	0.76	U	
2,4-DIMETHYLPHENOL	0.76	U	
2,4-DINITROPHENOL	2.3	U	
2,4-DINITROTOLUENE	0.26	U	
2,6-DINITROTOLUENE	0.76	U	
2-CHLORONAPHTHALENE	0.095	U	
2-CHLOROPHENOL	0.28	U	
2-METHYLNAPHTHALENE	0.095	U	
2-METHYLPHENOL	0.76	U	
2-NITROANILINE	0.76	U	
2-NITROPHENOL	0.27	U	
3&4-METHYLPHENOL	0.71	U	
3,3'-DICHLOROBENZIDINE	0.35	U	
3-NITROANILINE	0.27	U	
4,6-DINITRO-2-METHYLPHENOL	2.3	U	
4-BROMOPHENYL PHENYL ETHER	0.76	U	
4-CHLORO-3-METHYLPHENOL	0.76	U	
4-CHLOROANILINE	0.76	U	
4-CHLOROPHENYL PHENYL ETHER	0.29	U	
4-NITROANILINE	0.76	U	
4-NITROPHENOL	2.3	U	
ACENAPHTHENE	0.095	U	
ACENAPHTHYLENE	0.095	U	
ACETOPHENONE	0.32	U	
ANTHRACENE	0.095	U	
ATRAZINE	0.32	U	
BENZALDEHYDE	0.37	U	
BENZO(A)ANTHRACENE	0.095	U	
BENZO(A)PYRENE	0.095	U	
BENZO(B)FLUORANTHENE	0.095	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-8-062311			GSP-SB-WP-61-062311			GSP-SB-WP-66-062411			GSP-SB-WP-84-062311		
SDG: 240-1443-1	LAB_ID	240-1443-5			240-1443-3			240-1470-1			240-1443-1		
FRACTION: OS	SAMP_DATE	6/23/2011			6/23/2011			6/24/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		0.096	U		0.096	U		0.15	U		0.096	U	
BENZO(K)FLUORANTHENE		0.096	U		0.096	U		0.15	U		0.096	U	
BIS(2-CHLOROETHOXY)METHANE		0.31	U		0.31	U		0.48	U		0.31	U	
BIS(2-CHLOROETHYL)ETHER		0.096	U		0.096	U		0.15	U		0.096	U	
BIS(2-ETHYLHEXYL)PHTHALATE		0.77	U		0.77	U		1.2	U		0.77	U	
BUTYL BENZYL PHTHALATE		0.77	U		0.77	U		1.2	U		0.77	U	
CAPROLACTAM		0.77	U		0.77	U		1.2	U		0.77	U	
CARBAZOLE		0.27	U		0.27	U		0.42	U		0.27	U	
CHRYSENE		0.096	U		0.096	U		0.15	U		0.096	U	
DIBENZO(A,H)ANTHRACENE		0.096	U		0.096	U		0.15	U		0.096	U	
DIBENZOFURAN		0.096	U		0.096	U		0.15	U		0.096	U	
DIETHYL PHTHALATE		0.58	U		0.58	U		0.91	U		0.58	U	
DIMETHYL PHTHALATE		0.28	U		0.28	U		0.44	U		0.28	U	
DI-N-BUTYL PHTHALATE		0.64	U		0.64	U		1	U		0.64	U	
DI-N-OCTYL PHTHALATE		0.77	U		0.77	U		1.2	U		0.77	U	
FLUORANTHENE		0.096	U		0.096	U		0.15	U		0.096	U	
FLUORENE		0.096	U		0.096	U		0.15	U		0.096	U	
HEXACHLOROBENZENE		0.096	U		0.096	U		0.15	U		0.096	U	
HEXACHLOROBUTADIENE		0.26	U		0.26	U		0.41	U		0.26	U	
HEXACHLOROCYCLOPENTADIENE		0.77	U		0.77	U		1.2	U		0.77	U	
HEXACHLOROETHANE		0.77	U		0.77	U		1.2	U		0.77	U	
INDENO(1,2,3-CD)PYRENE		0.096	U		0.096	U		0.15	U		0.096	U	
ISOPHORONE		0.26	U		0.26	U		0.41	U		0.26	U	
NAPHTHALENE		0.096	U		0.096	U		0.15	U		0.096	U	
NITROBENZENE		0.038	U		0.038	U		0.061	U		0.038	U	
N-NITROSODIMETHYLAMINE		0.3	U		0.3	U		0.47	U		0.3	U	
N-NITROSO-DI-N-PROPYLAMINE		0.77	U		0.77	U		1.2	U		0.77	U	
N-NITROSODIPHENYLAMINE		0.3	U		0.3	U		0.47	U		0.3	U	
PENTACHLOROPHENOL		2.3	U		2.3	U		3.6	U		2.3	U	
PHENANTHRENE		0.096	U		0.096	U		0.15	U		0.096	U	
PHENOL		0.58	U		0.58	U		0.91	U		0.58	U	
PYRENE		0.096	U		0.096	U		0.15	U		0.096	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-89-062311
SDG: 240-1443-1	LAB_ID	240-1443-2
FRACTION: OS	SAMP_DATE	6/23/2011
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE	0.095	U	
BENZO(K)FLUORANTHENE	0.095	U	
BIS(2-CHLOROETHOXY)METHANE	0.3	U	
BIS(2-CHLOROETHYL)ETHER	0.095	U	
BIS(2-ETHYLHEXYL)PHTHALATE	0.76	U	
BUTYL BENZYL PHTHALATE	0.76	U	
CAPROLACTAM	0.76	U	
CARBAZOLE	0.27	U	
CHRYSENE	0.095	U	
DIBENZO(A,H)ANTHRACENE	0.095	U	
DIBENZOFURAN	0.095	U	
DIETHYL PHTHALATE	0.57	U	
DIMETHYL PHTHALATE	0.28	U	
DI-N-BUTYL PHTHALATE	0.64	U	
DI-N-OCTYL PHTHALATE	0.76	U	
FLUORANTHENE	0.095	U	
FLUORENE	0.095	U	
HEXACHLOROBENZENE	0.095	U	
HEXACHLOROBUTADIENE	0.26	U	
HEXACHLOROCYCLOPENTADIENE	0.76	U	
HEXACHLOROETHANE	0.76	U	
INDENO(1,2,3-CD)PYRENE	0.095	U	
ISOPHORONE	0.26	U	
NAPHTHALENE	0.095	U	
NITROBENZENE	0.038	U	
N-NITROSODIMETHYLAMINE	0.3	U	
N-NITROSO-DI-N-PROPYLAMINE	0.76	U	
N-NITROSODIPHENYLAMINE	0.3	U	
PENTACHLOROPHENOL	2.3	U	
PHENANTHRENE	0.095	U	
PHENOL	0.57	U	
PYRENE	0.095	U	

PROJ_NO: 03279	NSAMPLE	GSP-MW-8-062311			GSP-SB-WP-66-062311			GSP-SB-WP-66-062411			GSP-SB-WP-84-062311		
SDG: 240-1443-1	LAB_ID	240-1443-5			240-1443-4			240-1470-1			240-1443-1		
FRACTION: PET	SAMP_DATE	6/23/2011			6/23/2011			6/24/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		230	U					240	U		450	B	A
GASOLINE RANGE ORGANICS		39	B	A	42	B	A				38	B	A

PROJ_NO: 03279	NSAMPLE	GSP-SB-WP-89-062311		
SDG: 240-1443-1	LAB_ID	240-1443-2		
FRACTION: PET	SAMP_DATE	6/23/2011		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		740	B	A
GASOLINE RANGE ORGANICS		53	B	A

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-MW-8-062311 | Lab Sample ID: 240-1443-5

Matrix: Water | Lab File ID: UXX2931.D

Analysis Method: 8260B | Date Collected: 06/23/2011 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2011 00:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6923 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	2.1	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-MW-8-062311 Lab Sample ID: 240-1443-5

Matrix: Water Lab File ID: UXX2931.D

Analysis Method: 8260B Date Collected: 06/23/2011 10:10

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 00:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	0.42	J	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	0.28	J	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	0.27	J	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-MW-8-062311 Lab Sample ID: 240-1443-5

Matrix: Water Lab File ID: UXX2931.D

Analysis Method: 8260B Date Collected: 06/23/2011 10:10

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 00:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	107		74-115
1868-53-7	Dibromofluoromethane (Surr)	89		75-121
460-00-4	4-Bromofluorobenzene (Surr)	81		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-MW-8-062311 Lab Sample ID: 240-1443-5

Matrix: Water Lab File ID: UXX2931.D

Analysis Method: 8260B Date Collected: 06/23/2011 10:10

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 00:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

Number TICs Found: 1 TIC Result Total: 4.5

CAS NO.	COMPOUND NAME	RT	RESULT	Q
18173-64-3	tert-Butyldimethylsilanol	4.04	4.5	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062311 Lab Sample ID: 240-1443-4

Matrix: Water Lab File ID: UXX2930.D

Analysis Method: 8260B Date Collected: 06/23/2011 08:45

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 00:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	3.2	J	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	170	E	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	0.27	J	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062311 | Lab Sample ID: 240-1443-4

Matrix: Water | Lab File ID: UXX2930.D

Analysis Method: 8260B | Date Collected: 06/23/2011 08:45

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2011 00:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6923 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	6.9	J	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	22		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062311 Lab Sample ID: 240-1443-4

Matrix: Water Lab File ID: UXX2930.D

Analysis Method: 8260B Date Collected: 06/23/2011 08:45

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 00:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		74-115
1868-53-7	Dibromofluoromethane (Surr)	98		75-121
460-00-4	4-Bromofluorobenzene (Surr)	83		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062311 Lab Sample ID: 240-1443-4

Matrix: Water Lab File ID: UXX2930.D

Analysis Method: 8260B Date Collected: 06/23/2011 08:45

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 00:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

Number TICs Found: 1 TIC Result Total: 1.8

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Unknown	5.19	1.8	T J

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062311 DL Lab Sample ID: 240-1443-4 DL

Matrix: Water Lab File ID: UXX2956.D

Analysis Method: 8260B Date Collected: 06/23/2011 08:45

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2011 12:05

Soil Aliquot Vol: Dilution Factor: 2.5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 7003 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	2.5	U	2.5	0.58
71-55-6	1,1,1-Trichloroethane	2.5	U	2.5	0.55
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	2.5	0.45
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	2.5	U	2.5	0.70
75-34-3	1,1-Dichloroethane	2.5	U	2.5	0.38
75-35-4	1,1-Dichloroethene	2.5	U	2.5	0.48
563-58-6	1,1-Dichloropropene	2.5	U	2.5	0.33
87-61-6	1,2,3-Trichlorobenzene	2.5	U	2.5	0.43
96-18-4	1,2,3-Trichloropropane	2.5	U	2.5	1.1
526-73-8	1,2,3-Trimethylbenzene	13	U	13	0.015
120-82-1	1,2,4-Trichlorobenzene	2.5	U	2.5	0.38
95-63-6	1,2,4-Trimethylbenzene	2.5	U	2.5	0.30
96-12-8	1,2-Dibromo-3-Chloropropane	5.0	U	5.0	1.7
95-50-1	1,2-Dichlorobenzene	2.5	U	2.5	0.33
107-06-2	1,2-Dichloroethane	2.5	U	2.5	0.55
78-87-5	1,2-Dichloropropane	2.5	U	2.5	0.45
541-73-1	1,3-Dichlorobenzene	2.5	U	2.5	0.35
142-28-9	1,3-Dichloropropane	2.5	U	2.5	0.40
106-46-7	1,4-Dichlorobenzene	2.5	U	2.5	0.33
594-20-7	2,2-Dichloropropane	2.5	U	2.5	0.33
78-93-3	2-Butanone	25	U	25	1.4
110-75-8	2-Chloroethyl vinyl ether	25	U	25	2.5
95-49-8	2-Chlorotoluene	2.5	U	2.5	0.28
591-78-6	2-Hexanone	25	U	25	1.0
106-43-4	4-Chlorotoluene	2.5	U	2.5	0.45
99-87-6	p-Isopropyltoluene	2.5	U	2.5	0.30
108-10-1	4-Methyl-2-pentanone	25	U	25	0.80
67-64-1	Acetone	7.9	J	25	2.8
71-43-2	Benzene	2.5	U	2.5	0.33
108-86-1	Bromobenzene	2.5	U	2.5	0.33
75-25-2	Bromoform	2.5	U	2.5	1.6
74-83-9	Bromomethane	2.5	U	2.5	1.0
75-15-0	Carbon disulfide	0.54	J	2.5	0.33
56-23-5	Carbon tetrachloride	2.5	U	2.5	0.33
108-90-7	Chlorobenzene	2.5	U	2.5	0.38

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062311 DL | Lab Sample ID: 240-1443-4 DL

Matrix: Water | Lab File ID: UXX2956.D

Analysis Method: 8260B | Date Collected: 06/23/2011 08:45

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2011 12:05

Soil Aliquot Vol: | Dilution Factor: 2.5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 7003 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	2.5	U	2.5	0.45
75-00-3	Chloroethane	2.5	U	2.5	0.73
67-66-3	Chloroform	2.5	U	2.5	0.40
74-87-3	Chloromethane	2.5	U	2.5	0.75
156-59-2	cis-1,2-Dichloroethene	2.5	U	2.5	0.43
10061-01-5	cis-1,3-Dichloropropene	2.5	U	2.5	0.35
74-95-3	Dibromomethane	2.5	U	2.5	0.70
74-97-5	Bromochloromethane	2.5	U	2.5	0.73
75-71-8	Dichlorodifluoromethane	2.5	U	2.5	0.78
75-27-4	Bromodichloromethane	2.5	U	2.5	0.38
75-65-0	tert-Butyl alcohol	130	U	130	9.8
100-41-4	Ethylbenzene	2.5	U	2.5	0.43
87-68-3	Hexachlorobutadiene	2.5	U	2.5	0.75
108-20-3	Diisopropyl ether	25	U	25	3.8
98-82-8	Isopropylbenzene	2.5	U	2.5	0.33
1634-04-4	Methyl tert-butyl ether	13	U	13	0.43
75-09-2	Methylene Chloride	2.5	U	2.5	0.83
179601-23-1	m-Xylene & p-Xylene	5.0	U	5.0	0.60
91-20-3	Naphthalene	2.5	U	2.5	0.60
104-51-8	n-Butylbenzene	2.5	U	2.5	0.30
103-65-1	n-Propylbenzene	2.5	U	2.5	0.35
95-47-6	o-Xylene	2.5	U	2.5	0.35
135-98-8	sec-Butylbenzene	2.5	U	2.5	0.33
100-42-5	Styrene	2.5	U	2.5	0.28
994-05-8	Tert-amyl-methyl ether (TAME)	13	U	13	0.17
637-92-3	Ethyl-t-butyl ether (ETBE)	13	U	13	0.28
127-18-4	Tetrachloroethene	2.5	U	2.5	0.73
108-88-3	Toluene	13		2.5	0.33
156-60-5	trans-1,2-Dichloroethene	2.5	U	2.5	0.48
10061-02-6	trans-1,3-Dichloropropene	2.5	U	2.5	0.48
79-01-6	Trichloroethene	2.5	U	2.5	0.43
75-69-4	Trichlorofluoromethane	2.5	U *	2.5	0.53
108-05-4	Vinyl acetate	5.0	U *	5.0	0.48
75-01-4	Vinyl chloride	2.5	U	2.5	0.55
1330-20-7	Xylenes, Total	5.0	U	5.0	0.70

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062311 DL Lab Sample ID: 240-1443-4 DL

Matrix: Water Lab File ID: UXX2956.D

Analysis Method: 8260B Date Collected: 06/23/2011 08:45

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2011 12:05

Soil Aliquot Vol: Dilution Factor: 2.5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 7003 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	*tert-Butylbenzene*	*2.5*	*U*	*2.5*	*0.33*
106-93-4	*1,2-Dibromoethane*	*2.5*	*U*	*2.5*	*0.60*

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	89		74-115
1868-53-7	Dibromofluoromethane (Surr)	87		75-121
460-00-4	4-Bromofluorobenzene (Surr)	77		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	86		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062311 DL Lab Sample ID: 240-1443-4 DL

Matrix: Water Lab File ID: UXX2956.D

Analysis Method: 8260B Date Collected: 06/23/2011 08:45

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2011 12:05

Soil Aliquot Vol: Dilution Factor: 2.5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 7003 Units: ug/L

Number TICs Found: 1 TIC Result Total: 2.8

CAS NO.	COMPOUND NAME	RT	RESULT	Q
18173-64-3	tert-Butyldimethylsilanol	4.04	2.8	T J N

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-84-062311 Lab Sample ID: 240-1443-1

Matrix: Water Lab File ID: UXX2928.D

Analysis Method: 8260B Date Collected: 06/23/2011 12:40

Sample wt/vol: 5(mL) Date Analyzed: 07/01/2011 23:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-84-062311 | Lab Sample ID: 240-1443-1

Matrix: Water | Lab File ID: UXX2928.D

Analysis Method: 8260B | Date Collected: 06/23/2011 12:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/01/2011 23:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6923 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	0.33	J	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	5.0		1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-84-062311 Lab Sample ID: 240-1443-1

Matrix: Water Lab File ID: UXX2928.D

Analysis Method: 8260B Date Collected: 06/23/2011 12:40

Sample wt/vol: 5(mL) Date Analyzed: 07/01/2011 23:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		74-115
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	78		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-84-062311 Lab Sample ID: 240-1443-1

Matrix: Water Lab File ID: UXX2928.D

Analysis Method: 8260B Date Collected: 06/23/2011 12:40

Sample wt/vol: 5(mL) Date Analyzed: 07/01/2011 23:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

Number TICs Found: 1 TIC Result Total: 1.3

CAS NO.	COMPOUND NAME	RT	RESULT	Q
1066-40-6	Silanol, trimethyl-	4.04	1.3	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-89-062311 Lab Sample ID: 240-1443-2

Matrix: Water Lab File ID: UXX2929.D

Analysis Method: 8260B Date Collected: 06/23/2011 10:40

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 00:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	0.99	J	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-89-062311 | Lab Sample ID: 240-1443-2

Matrix: Water | Lab File ID: UXX2929.D

Analysis Method: 8260B | Date Collected: 06/23/2011 10:40

Sample wt/vol: 5(mL) | Date Analyzed: 07/02/2011 00:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 6923 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	4.1		1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.19	J	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	25		1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-89-062311 Lab Sample ID: 240-1443-2

Matrix: Water Lab File ID: UXX2929.D

Analysis Method: 8260B Date Collected: 06/23/2011 10:40

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 00:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	114		74-115
1868-53-7	Dibromofluoromethane (Surr)	88		75-121
460-00-4	4-Bromofluorobenzene (Surr)	90		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-89-062311 Lab Sample ID: 240-1443-2

Matrix: Water Lab File ID: UXX2929.D

Analysis Method: 8260B Date Collected: 06/23/2011 10:40

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 00:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: TB-062311 Lab Sample ID: 240-1443-6

Matrix: Water Lab File ID: UXX2932.D

Analysis Method: 8260B Date Collected: 06/23/2011 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 01:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	1.0	U	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	4.4	J	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: TB-062311 Lab Sample ID: 240-1443-6

Matrix: Water Lab File ID: UXX2932.D

Analysis Method: 8260B Date Collected: 06/23/2011 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 01:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	1.0	U	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: TB-062311 Lab Sample ID: 240-1443-6

Matrix: Water Lab File ID: UXX2932.D

Analysis Method: 8260B Date Collected: 06/23/2011 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 01:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	95		74-115
1868-53-7	Dibromofluoromethane (Surr)	89		75-121
460-00-4	4-Bromofluorobenzene (Surr)	81		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: TB-062311 Lab Sample ID: 240-1443-6

Matrix: Water Lab File ID: UXX2932.D

Analysis Method: 8260B Date Collected: 06/23/2011 00:00

Sample wt/vol: 5(mL) Date Analyzed: 07/02/2011 01:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

Number TICs Found: 1 TIC Result Total: 1.2

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Unknown	2.83	1.2	T J

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-MW-8-062311 | Lab Sample ID: 240-1443-5

Matrix: Water | Lab File ID: 1443I5A.D

Analysis Method: 8270D | Date Collected: 06/23/2011 10:10

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1040(mL) | Date Analyzed: 07/21/2011 20:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9362 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.19	U	0.19	0.096
208-96-8	Acenaphthylene	0.19	U	0.19	0.096
98-86-2	Acetophenone	0.96	U	0.96	0.33
120-12-7	Anthracene	0.19	U	0.19	0.096
1912-24-9	Atrazine	0.96	U	0.96	0.33
100-52-7	Benzaldehyde	0.96	U	0.96	0.37
56-55-3	Benzo[a]anthracene	0.19	U	0.19	0.096
50-32-8	Benzo[a]pyrene	0.19	U	0.19	0.096
205-99-2	Benzo[b]fluoranthene	0.19	U	0.19	0.096
191-24-2	Benzo[g,h,i]perylene	0.19	U	0.19	0.096
207-08-9	Benzo[k]fluoranthene	0.19	U	0.19	0.096
92-52-4	1,1'-Biphenyl	0.96	U	0.96	0.77
111-91-1	Bis(2-chloroethoxy)methane	0.96	U	0.96	0.31
111-44-4	Bis(2-chloroethyl)ether	0.96	U	0.96	0.096
117-81-7	Bis(2-ethylhexyl) phthalate	1.9	U	1.9	0.77
101-55-3	4-Bromophenyl phenyl ether	1.9	U	1.9	0.77
85-68-7	Butyl benzyl phthalate	0.96	U	0.96	0.77
105-60-2	Caprolactam	4.8	U	4.8	0.77
86-74-8	Carbazole	0.96	U	0.96	0.27
106-47-8	4-Chloroaniline	1.9	U	1.9	0.77
59-50-7	4-Chloro-3-methylphenol	1.9	U	1.9	0.77
91-58-7	2-Chloronaphthalene	0.96	U	0.96	0.096
95-57-8	2-Chlorophenol	0.96	U	0.96	0.28
7005-72-3	4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29
218-01-9	Chrysene	0.19	U	0.19	0.096
53-70-3	Dibenzo(a,h)anthracene	0.19	U	0.19	0.096
132-64-9	Dibenzofuran	0.96	U	0.96	0.096
91-94-1	3,3'-Dichlorobenzidine	4.8	U	4.8	0.36
120-83-2	2,4-Dichlorophenol	1.9	U	1.9	0.77
84-66-2	Diethyl phthalate	0.96	U	0.96	0.58
105-67-9	2,4-Dimethylphenol	1.9	U	1.9	0.77
131-11-3	Dimethyl phthalate	0.96	U	0.96	0.28
84-74-2	Di-n-butyl phthalate	0.96	U	0.96	0.64
534-52-1	4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-MW-8-062311 | Lab Sample ID: 240-1443-5

Matrix: Water | Lab File ID: 1443I5A.D

Analysis Method: 8270D | Date Collected: 06/23/2011 10:10

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1040(mL) | Date Analyzed: 07/21/2011 20:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9362 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	4.8	U	4.8	2.3
121-14-2	2,4-Dinitrotoluene	4.8	U	4.8	0.26
606-20-2	2,6-Dinitrotoluene	4.8	U	4.8	0.77
117-84-0	Di-n-octyl phthalate	0.96	U	0.96	0.77
206-44-0	Fluoranthene	0.19	U	0.19	0.096
86-73-7	Fluorene	0.19	U	0.19	0.096
118-74-1	Hexachlorobenzene	0.19	U	0.19	0.096
87-68-3	Hexachlorobutadiene	0.96	U	0.96	0.26
77-47-4	Hexachlorocyclopentadiene	9.6	U	9.6	0.77
67-72-1	Hexachloroethane	0.96	U	0.96	0.77
193-39-5	Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.096
78-59-1	Isophorone	0.96	U	0.96	0.26
91-57-6	2-Methylnaphthalene	0.19	U	0.19	0.096
95-48-7	2-Methylphenol	0.96	U	0.96	0.77
123-91-1	1,4-Dioxane	0.96	U	0.96	0.47
15831-10-4	3 & 4 Methylphenol	1.9	U	1.9	0.72
91-20-3	Naphthalene	0.19	U	0.19	0.096
88-74-4	2-Nitroaniline	1.9	U	1.9	0.77
99-09-2	3-Nitroaniline	1.9	U	1.9	0.27
100-01-6	4-Nitroaniline	1.9	U	1.9	0.77
98-95-3	Nitrobenzene	0.96	U	0.96	0.038
88-75-5	2-Nitrophenol	1.9	U	1.9	0.27
100-02-7	4-Nitrophenol	4.8	U	4.8	2.3
621-64-7	N-Nitrosodi-n-propylamine	0.96	U	0.96	0.77
86-30-6	N-Nitrosodiphenylamine	0.96	U	0.96	0.30
108-60-1	2,2'-oxybis[1-chloropropane]	0.96	U	0.96	0.38
87-86-5	Pentachlorophenol	4.8	U	4.8	2.3
85-01-8	Phenanthrene	0.19	U	0.19	0.096
108-95-2	Phenol	0.96	U	0.96	0.58
129-00-0	Pyrene	0.19	U	0.19	0.096
95-95-4	2,4,5-Trichlorophenol	4.8	U	4.8	0.29
88-06-2	2,4,6-Trichlorophenol	4.8	U	4.8	0.77
62-75-9	N-Nitrosodimethylamine	0.96	U	0.96	0.30

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-MW-8-062311 | Lab Sample ID: 240-1443-5

Matrix: Water | Lab File ID: 1443I5A.D

Analysis Method: 8270D | Date Collected: 06/23/2011 10:10

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1040(mL) | Date Analyzed: 07/21/2011 20:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 9362 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	59		28-110
367-12-4	2-Fluorophenol (Surr)	62		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		27-111
4165-62-2	Phenol-d5 (Surr)	61		10-110
1718-51-0	Terphenyl-d14 (Surr)	80		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	71		22-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-61-062311 | Lab Sample ID: 240-1443-3

Matrix: Water | Lab File ID: 1443A3A.D

Analysis Method: 8270D | Date Collected: 06/23/2011 08:30

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1040(mL) | Date Analyzed: 07/16/2011 01:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.19	U	0.19	0.096
208-96-8	Acenaphthylene	0.19	U	0.19	0.096
98-86-2	Acetophenone	0.96	U	0.96	0.33
120-12-7	Anthracene	0.19	U	0.19	0.096
1912-24-9	Atrazine	0.96	U	0.96	0.33
100-52-7	Benzaldehyde	0.96	U	0.96	0.37
56-55-3	Benzo[a]anthracene	0.19	U	0.19	0.096
50-32-8	Benzo[a]pyrene	0.19	U	0.19	0.096
205-99-2	Benzo[b]fluoranthene	0.19	U	0.19	0.096
191-24-2	Benzo[g,h,i]perylene	0.19	U	0.19	0.096
207-08-9	Benzo[k]fluoranthene	0.19	U	0.19	0.096
92-52-4	1,1'-Biphenyl	0.96	U	0.96	0.77
111-91-1	Bis(2-chloroethoxy)methane	0.96	U	0.96	0.31
111-44-4	Bis(2-chloroethyl)ether	0.96	U	0.96	0.096
117-81-7	Bis(2-ethylhexyl) phthalate	1.9	U	1.9	0.77
101-55-3	4-Bromophenyl phenyl ether	1.9	U	1.9	0.77
85-68-7	Butyl benzyl phthalate	0.96	U	0.96	0.77
105-60-2	Caprolactam	4.8	U	4.8	0.77
86-74-8	Carbazole	0.96	U	0.96	0.27
106-47-8	4-Chloroaniline	1.9	U	1.9	0.77
59-50-7	4-Chloro-3-methylphenol	1.9	U	1.9	0.77
91-58-7	2-Chloronaphthalene	0.96	U	0.96	0.096
95-57-8	2-Chlorophenol	0.96	U	0.96	0.28
7005-72-3	4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29
218-01-9	Chrysene	0.19	U	0.19	0.096
53-70-3	Dibenzo(a,h)anthracene	0.19	U	0.19	0.096
132-64-9	Dibenzofuran	0.96	U	0.96	0.096
91-94-1	3,3'-Dichlorobenzidine	4.8	U	4.8	0.36
120-83-2	2,4-Dichlorophenol	1.9	U	1.9	0.77
84-66-2	Diethyl phthalate	0.96	U	0.96	0.58
105-67-9	2,4-Dimethylphenol	1.9	U	1.9	0.77
131-11-3	Dimethyl phthalate	0.96	U	0.96	0.28
84-74-2	Di-n-butyl phthalate	0.96	U	0.96	0.64
534-52-1	4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-61-062311 | Lab Sample ID: 240-1443-3

Matrix: Water | Lab File ID: 1443A3A.D

Analysis Method: 8270D | Date Collected: 06/23/2011 08:30

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1040(mL) | Date Analyzed: 07/16/2011 01:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	4.8	U	4.8	2.3
121-14-2	2,4-Dinitrotoluene	4.8	U	4.8	0.26
606-20-2	2,6-Dinitrotoluene	4.8	U	4.8	0.77
117-84-0	Di-n-octyl phthalate	0.96	U	0.96	0.77
206-44-0	Fluoranthene	0.19	U	0.19	0.096
86-73-7	Fluorene	0.19	U	0.19	0.096
118-74-1	Hexachlorobenzene	0.19	U	0.19	0.096
87-68-3	Hexachlorobutadiene	0.96	U	0.96	0.26
77-47-4	Hexachlorocyclopentadiene	9.6	U	9.6	0.77
67-72-1	Hexachloroethane	0.96	U	0.96	0.77
193-39-5	Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.096
78-59-1	Isophorone	0.96	U	0.96	0.26
91-57-6	2-Methylnaphthalene	0.19	U	0.19	0.096
95-48-7	2-Methylphenol	0.96	U	0.96	0.77
123-91-1	1,4-Dioxane	0.96	U	0.96	0.47
15831-10-4	3 & 4 Methylphenol	1.9	U	1.9	0.72
91-20-3	Naphthalene	0.19	U	0.19	0.096
88-74-4	2-Nitroaniline	1.9	U	1.9	0.77
99-09-2	3-Nitroaniline	1.9	U	1.9	0.27
100-01-6	4-Nitroaniline	1.9	U	1.9	0.77
98-95-3	Nitrobenzene	0.96	U	0.96	0.038
88-75-5	2-Nitrophenol	1.9	U	1.9	0.27
100-02-7	4-Nitrophenol	4.8	U	4.8	2.3
621-64-7	N-Nitrosodi-n-propylamine	0.96	U	0.96	0.77
86-30-6	N-Nitrosodiphenylamine	0.96	U	0.96	0.30
108-60-1	2,2'-oxybis[1-chloropropane]	0.96	U	0.96	0.38
87-86-5	Pentachlorophenol	4.8	U	4.8	2.3
85-01-8	Phenanthrene	0.19	U	0.19	0.096
108-95-2	Phenol	0.96	U	0.96	0.58
129-00-0	Pyrene	0.19	U	0.19	0.096
95-95-4	2,4,5-Trichlorophenol	4.8	U	4.8	0.29
88-06-2	2,4,6-Trichlorophenol	4.8	U	4.8	0.77
62-75-9	N-Nitrosodimethylamine	0.96	U	0.96	0.30

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-61-062311 Lab Sample ID: 240-1443-3

Matrix: Water Lab File ID: 1443A3A.D

Analysis Method: 8270D Date Collected: 06/23/2011 08:30

Extract. Method: 3510C Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1040(mL) Date Analyzed: 07/16/2011 01:37

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	60		28-110
367-12-4	2-Fluorophenol (Surr)	63		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		27-111
4165-62-2	Phenol-d5 (Surr)	55		10-110
1718-51-0	Terphenyl-d14 (Surr)	77		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	64		22-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062411 | Lab Sample ID: 240-1470-1

Matrix: Water | Lab File ID: 1470B1A.D

Analysis Method: 8270D | Date Collected: 06/24/2011 08:10

Extract. Method: 3510C | Date Extracted: 06/29/2011 08:27

Sample wt/vol: 660(mL) | Date Analyzed: 07/16/2011 17:10

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8694 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.30	U	0.30	0.15
208-96-8	Acenaphthylene	0.30	U	0.30	0.15
98-86-2	Acetophenone	1.5	U	1.5	0.52
120-12-7	Anthracene	0.30	U	0.30	0.15
1912-24-9	Atrazine	1.5	U	1.5	0.52
100-52-7	Benzaldehyde	1.5	U	1.5	0.59
56-55-3	Benzo[a]anthracene	0.30	U	0.30	0.15
50-32-8	Benzo[a]pyrene	0.30	U	0.30	0.15
205-99-2	Benzo[b]fluoranthene	0.30	U	0.30	0.15
191-24-2	Benzo[g,h,i]perylene	0.30	U	0.30	0.15
207-08-9	Benzo[k]fluoranthene	0.30	U	0.30	0.15
92-52-4	1,1'-Biphenyl	1.5	U	1.5	1.2
111-91-1	Bis(2-chloroethoxy)methane	1.5	U	1.5	0.48
111-44-4	Bis(2-chloroethyl)ether	1.5	U	1.5	0.15
117-81-7	Bis(2-ethylhexyl) phthalate	3.0	U	3.0	1.2
101-55-3	4-Bromophenyl phenyl ether	3.0	U	3.0	1.2
85-68-7	Butyl benzyl phthalate	1.5	U	1.5	1.2
105-60-2	Caprolactam	7.6	U	7.6	1.2
86-74-8	Carbazole	1.5	U	1.5	0.42
106-47-8	4-Chloroaniline	3.0	U	3.0	1.2
59-50-7	4-Chloro-3-methylphenol	3.0	U	3.0	1.2
91-58-7	2-Chloronaphthalene	1.5	U	1.5	0.15
95-57-8	2-Chlorophenol	1.5	U	1.5	0.44
7005-72-3	4-Chlorophenyl phenyl ether	3.0	U	3.0	0.45
218-01-9	Chrysene	0.30	U	0.30	0.15
53-70-3	Dibenzo(a,h)anthracene	0.30	U	0.30	0.15
132-64-9	Dibenzofuran	1.5	U	1.5	0.15
91-94-1	3,3'-Dichlorobenzidine	7.6	U	7.6	0.56
120-83-2	2,4-Dichlorophenol	3.0	U	3.0	1.2
84-66-2	Diethyl phthalate	1.5	U	1.5	0.91
105-67-9	2,4-Dimethylphenol	3.0	U	3.0	1.2
131-11-3	Dimethyl phthalate	1.5	U	1.5	0.44
84-74-2	Di-n-butyl phthalate	1.5	U	1.5	1.0
534-52-1	4,6-Dinitro-2-methylphenol	7.6	U	7.6	3.6

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062411 | Lab Sample ID: 240-1470-1

Matrix: Water | Lab File ID: 1470B1A.D

Analysis Method: 8270D | Date Collected: 06/24/2011 08:10

Extract. Method: 3510C | Date Extracted: 06/29/2011 08:27

Sample wt/vol: 660(mL) | Date Analyzed: 07/16/2011 17:10

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8694 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	7.6	U	7.6	3.6
121-14-2	2,4-Dinitrotoluene	7.6	U	7.6	0.41
606-20-2	2,6-Dinitrotoluene	7.6	U	7.6	1.2
117-84-0	Di-n-octyl phthalate	1.5	U	1.5	1.2
206-44-0	Fluoranthene	0.30	U	0.30	0.15
86-73-7	Fluorene	0.30	U	0.30	0.15
118-74-1	Hexachlorobenzene	0.30	U	0.30	0.15
87-68-3	Hexachlorobutadiene	1.5	U	1.5	0.41
77-47-4	Hexachlorocyclopentadiene	15	U	15	1.2
67-72-1	Hexachloroethane	1.5	U	1.5	1.2
193-39-5	Indeno[1,2,3-cd]pyrene	0.30	U	0.30	0.15
78-59-1	Isophorone	1.5	U	1.5	0.41
91-57-6	2-Methylnaphthalene	0.30	U	0.30	0.15
95-48-7	2-Methylphenol	1.5	U	1.5	1.2
123-91-1	1,4-Dioxane	1.5	U	1.5	0.74
15831-10-4	3 & 4 Methylphenol	3.0	U	3.0	1.1
91-20-3	Naphthalene	0.30	U	0.30	0.15
88-74-4	2-Nitroaniline	3.0	U	3.0	1.2
99-09-2	3-Nitroaniline	3.0	U	3.0	0.42
100-01-6	4-Nitroaniline	3.0	U	3.0	1.2
98-95-3	Nitrobenzene	1.5	U	1.5	0.061
88-75-5	2-Nitrophenol	3.0	U	3.0	0.42
100-02-7	4-Nitrophenol	7.6	U	7.6	3.6
621-64-7	N-Nitrosodi-n-propylamine	1.5	U	1.5	1.2
86-30-6	N-Nitrosodiphenylamine	1.5	U	1.5	0.47
108-60-1	2,2'-oxybis[1-chloropropane]	1.5	U	1.5	0.61
87-86-5	Pentachlorophenol	7.6	U	7.6	3.6
85-01-8	Phenanthrene	0.30	U	0.30	0.15
108-95-2	Phenol	1.5	U	1.5	0.91
129-00-0	Pyrene	0.30	U	0.30	0.15
95-95-4	2,4,5-Trichlorophenol	7.6	U	7.6	0.45
88-06-2	2,4,6-Trichlorophenol	7.6	U	7.6	1.2
62-75-9	N-Nitrosodimethylamine	1.5	U	1.5	0.47

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062411 Lab Sample ID: 240-1470-1

Matrix: Water Lab File ID: 1470B1A.D

Analysis Method: 8270D Date Collected: 06/24/2011 08:10

Extract. Method: 3510C Date Extracted: 06/29/2011 08:27

Sample wt/vol: 660(mL) Date Analyzed: 07/16/2011 17:10

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 8694 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	62		28-110
367-12-4	2-Fluorophenol (Surr)	72		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	70		27-111
4165-62-2	Phenol-d5 (Surr)	71		10-110
1718-51-0	Terphenyl-d14 (Surr)	40		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	71		22-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-84-062311 | Lab Sample ID: 240-1443-1

Matrix: Water | Lab File ID: 1443J1A.D

Analysis Method: 8270D | Date Collected: 06/23/2011 12:40

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1040(mL) | Date Analyzed: 07/16/2011 00:58

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.19	U	0.19	0.096
208-96-8	Acenaphthylene	0.19	U	0.19	0.096
98-86-2	Acetophenone	0.96	U	0.96	0.33
120-12-7	Anthracene	0.19	U	0.19	0.096
1912-24-9	Atrazine	0.96	U	0.96	0.33
100-52-7	Benzaldehyde	0.96	U	0.96	0.37
56-55-3	Benzo[a]anthracene	0.19	U	0.19	0.096
50-32-8	Benzo[a]pyrene	0.19	U	0.19	0.096
205-99-2	Benzo[b]fluoranthene	0.19	U	0.19	0.096
191-24-2	Benzo[g,h,i]perylene	0.19	U	0.19	0.096
207-08-9	Benzo[k]fluoranthene	0.19	U	0.19	0.096
92-52-4	1,1'-Biphenyl	0.96	U	0.96	0.77
111-91-1	Bis(2-chloroethoxy)methane	0.96	U	0.96	0.31
111-44-4	Bis(2-chloroethyl)ether	0.96	U	0.96	0.096
117-81-7	Bis(2-ethylhexyl) phthalate	1.9	U	1.9	0.77
101-55-3	4-Bromophenyl phenyl ether	1.9	U	1.9	0.77
85-68-7	Butyl benzyl phthalate	0.96	U	0.96	0.77
105-60-2	Caprolactam	4.8	U	4.8	0.77
86-74-8	Carbazole	0.96	U	0.96	0.27
106-47-8	4-Chloroaniline	1.9	U	1.9	0.77
59-50-7	4-Chloro-3-methylphenol	1.9	U	1.9	0.77
91-58-7	2-Chloronaphthalene	0.96	U	0.96	0.096
95-57-8	2-Chlorophenol	0.96	U	0.96	0.28
7005-72-3	4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29
218-01-9	Chrysene	0.19	U	0.19	0.096
53-70-3	Dibenzo(a,h)anthracene	0.19	U	0.19	0.096
132-64-9	Dibenzofuran	0.96	U	0.96	0.096
91-94-1	3,3'-Dichlorobenzidine	4.8	U	4.8	0.36
120-83-2	2,4-Dichlorophenol	1.9	U	1.9	0.77
84-66-2	Diethyl phthalate	0.96	U	0.96	0.58
105-67-9	2,4-Dimethylphenol	1.9	U	1.9	0.77
131-11-3	Dimethyl phthalate	0.96	U	0.96	0.28
84-74-2	Di-n-butyl phthalate	0.96	U	0.96	0.64
534-52-1	4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-84-062311 | Lab Sample ID: 240-1443-1

Matrix: Water | Lab File ID: 1443J1A.D

Analysis Method: 8270D | Date Collected: 06/23/2011 12:40

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1040(mL) | Date Analyzed: 07/16/2011 00:58

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	4.8	U	4.8	2.3
121-14-2	2,4-Dinitrotoluene	4.8	U	4.8	0.26
606-20-2	2,6-Dinitrotoluene	4.8	U	4.8	0.77
117-84-0	Di-n-octyl phthalate	0.96	U	0.96	0.77
206-44-0	Fluoranthene	0.19	U	0.19	0.096
86-73-7	Fluorene	0.19	U	0.19	0.096
118-74-1	Hexachlorobenzene	0.19	U	0.19	0.096
87-68-3	Hexachlorobutadiene	0.96	U	0.96	0.26
77-47-4	Hexachlorocyclopentadiene	9.6	U	9.6	0.77
67-72-1	Hexachloroethane	0.96	U	0.96	0.77
193-39-5	Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.096
78-59-1	Isophorone	0.96	U	0.96	0.26
91-57-6	2-Methylnaphthalene	0.19	U	0.19	0.096
95-48-7	2-Methylphenol	0.96	U	0.96	0.77
123-91-1	1,4-Dioxane	0.96	U	0.96	0.47
15831-10-4	3 & 4 Methylphenol	1.9	U	1.9	0.72
91-20-3	Naphthalene	0.19	U	0.19	0.096
88-74-4	2-Nitroaniline	1.9	U	1.9	0.77
99-09-2	3-Nitroaniline	1.9	U	1.9	0.27
100-01-6	4-Nitroaniline	1.9	U	1.9	0.77
98-95-3	Nitrobenzene	0.96	U	0.96	0.038
88-75-5	2-Nitrophenol	1.9	U	1.9	0.27
100-02-7	4-Nitrophenol	4.8	U	4.8	2.3
621-64-7	N-Nitrosodi-n-propylamine	0.96	U	0.96	0.77
86-30-6	N-Nitrosodiphenylamine	0.96	U	0.96	0.30
108-60-1	2,2'-oxybis[1-chloropropane]	0.96	U	0.96	0.38
87-86-5	Pentachlorophenol	4.8	U	4.8	2.3
85-01-8	Phenanthrene	0.19	U	0.19	0.096
108-95-2	Phenol	0.96	U	0.96	0.58
129-00-0	Pyrene	0.19	U	0.19	0.096
95-95-4	2,4,5-Trichlorophenol	4.8	U	4.8	0.29
88-06-2	2,4,6-Trichlorophenol	4.8	U	4.8	0.77
62-75-9	N-Nitrosodimethylamine	0.96	U	0.96	0.30

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-84-062311 | Lab Sample ID: 240-1443-1

Matrix: Water | Lab File ID: 1443J1A.D

Analysis Method: 8270D | Date Collected: 06/23/2011 12:40

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1040(mL) | Date Analyzed: 07/16/2011 00:58

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	60		28-110
367-12-4	2-Fluorophenol (Surr)	63		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	67		27-111
4165-62-2	Phenol-d5 (Surr)	56		10-110
1718-51-0	Terphenyl-d14 (Surr)	76		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	63		22-120

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-89-062311 | Lab Sample ID: 240-1443-2

Matrix: Water | Lab File ID: 1443I2A.D

Analysis Method: 8270D | Date Collected: 06/23/2011 10:40

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1050(mL) | Date Analyzed: 07/16/2011 01:18

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.19	U	0.19	0.095
208-96-8	Acenaphthylene	0.19	U	0.19	0.095
98-86-2	Acetophenone	0.95	U	0.95	0.32
120-12-7	Anthracene	0.19	U	0.19	0.095
1912-24-9	Atrazine	0.95	U	0.95	0.32
100-52-7	Benzaldehyde	0.95	U	0.95	0.37
56-55-3	Benzo[a]anthracene	0.19	U	0.19	0.095
50-32-8	Benzo[a]pyrene	0.19	U	0.19	0.095
205-99-2	Benzo[b]fluoranthene	0.19	U	0.19	0.095
191-24-2	Benzo[g,h,i]perylene	0.19	U	0.19	0.095
207-08-9	Benzo[k]fluoranthene	0.19	U	0.19	0.095
92-52-4	1,1'-Biphenyl	0.95	U	0.95	0.76
111-91-1	Bis(2-chloroethoxy)methane	0.95	U	0.95	0.30
111-44-4	Bis(2-chloroethyl)ether	0.95	U	0.95	0.095
117-81-7	Bis(2-ethylhexyl) phthalate	1.9	U	1.9	0.76
101-55-3	4-Bromophenyl phenyl ether	1.9	U	1.9	0.76
85-68-7	Butyl benzyl phthalate	0.95	U	0.95	0.76
105-60-2	Caprolactam	4.8	U	4.8	0.76
86-74-8	Carbazole	0.95	U	0.95	0.27
106-47-8	4-Chloroaniline	1.9	U	1.9	0.76
59-50-7	4-Chloro-3-methylphenol	1.9	U	1.9	0.76
91-58-7	2-Chloronaphthalene	0.95	U	0.95	0.095
95-57-8	2-Chlorophenol	0.95	U	0.95	0.28
7005-72-3	4-Chlorophenyl phenyl ether	1.9	U	1.9	0.29
218-01-9	Chrysene	0.19	U	0.19	0.095
53-70-3	Dibenzo(a,h)anthracene	0.19	U	0.19	0.095
132-64-9	Dibenzofuran	0.95	U	0.95	0.095
91-94-1	3,3'-Dichlorobenzidine	4.8	U	4.8	0.35
120-83-2	2,4-Dichlorophenol	1.9	U	1.9	0.76
84-66-2	Diethyl phthalate	0.95	U	0.95	0.57
105-67-9	2,4-Dimethylphenol	1.9	U	1.9	0.76
131-11-3	Dimethyl phthalate	0.95	U	0.95	0.28
84-74-2	Di-n-butyl phthalate	0.95	U	0.95	0.64
534-52-1	4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.3

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-89-062311 | Lab Sample ID: 240-1443-2

Matrix: Water | Lab File ID: 1443I2A.D

Analysis Method: 8270D | Date Collected: 06/23/2011 10:40

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1050(mL) | Date Analyzed: 07/16/2011 01:18

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	4.8	U	4.8	2.3
121-14-2	2,4-Dinitrotoluene	4.8	U	4.8	0.26
606-20-2	2,6-Dinitrotoluene	4.8	U	4.8	0.76
117-84-0	Di-n-octyl phthalate	0.95	U	0.95	0.76
206-44-0	Fluoranthene	0.19	U	0.19	0.095
86-73-7	Fluorene	0.19	U	0.19	0.095
118-74-1	Hexachlorobenzene	0.19	U	0.19	0.095
87-68-3	Hexachlorobutadiene	0.95	U	0.95	0.26
77-47-4	Hexachlorocyclopentadiene	9.5	U	9.5	0.76
67-72-1	Hexachloroethane	0.95	U	0.95	0.76
193-39-5	Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.095
78-59-1	Isophorone	0.95	U	0.95	0.26
91-57-6	2-Methylnaphthalene	0.19	U	0.19	0.095
95-48-7	2-Methylphenol	0.95	U	0.95	0.76
123-91-1	1,4-Dioxane	0.95	U	0.95	0.47
15831-10-4	3 & 4 Methylphenol	1.9	U	1.9	0.71
91-20-3	Naphthalene	0.19	U	0.19	0.095
88-74-4	2-Nitroaniline	1.9	U	1.9	0.76
99-09-2	3-Nitroaniline	1.9	U	1.9	0.27
100-01-6	4-Nitroaniline	1.9	U	1.9	0.76
98-95-3	Nitrobenzene	0.95	U	0.95	0.038
88-75-5	2-Nitrophenol	1.9	U	1.9	0.27
100-02-7	4-Nitrophenol	4.8	U	4.8	2.3
621-64-7	N-Nitrosodi-n-propylamine	0.95	U	0.95	0.76
86-30-6	N-Nitrosodiphenylamine	0.95	U	0.95	0.30
108-60-1	2,2'-oxybis[1-chloropropane]	0.95	U	0.95	0.38
87-86-5	Pentachlorophenol	4.8	U	4.8	2.3
85-01-8	Phenanthrene	0.19	U	0.19	0.095
108-95-2	Phenol	0.95	U	0.95	0.57
129-00-0	Pyrene	0.19	U	0.19	0.095
95-95-4	2,4,5-Trichlorophenol	4.8	U	4.8	0.29
88-06-2	2,4,6-Trichlorophenol	4.8	U	4.8	0.76
62-75-9	N-Nitrosodimethylamine	0.95	U	0.95	0.30

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-89-062311 Lab Sample ID: 240-1443-2

Matrix: Water Lab File ID: 1443I2A.D

Analysis Method: 8270D Date Collected: 06/23/2011 10:40

Extract. Method: 3510C Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1050(mL) Date Analyzed: 07/16/2011 01:18

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	58		28-110
367-12-4	2-Fluorophenol (Surr)	59		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		27-111
4165-62-2	Phenol-d5 (Surr)	49		10-110
1718-51-0	Terphenyl-d14 (Surr)	68		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	59		22-120

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-MW-8-062311 Lab Sample ID: 240-1443-5

Matrix: Water Lab File ID: P5062811.D

Analysis Method: 8015B Date Collected: 06/23/2011 10:10

Extraction Method: 3520C Date Extracted: 06/25/2011 08:17

Sample wt/vol: 1050(mL) Date Analyzed: 06/28/2011 14:52

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6358 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	480	U	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	43		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062411 Lab Sample ID: 240-1470-1

Matrix: Water Lab File ID: P14F0000011.D

Analysis Method: 8015B Date Collected: 06/24/2011 08:10

Extraction Method: 3520C Date Extracted: 06/29/2011 12:15

Sample wt/vol: 1010(mL) Date Analyzed: 07/01/2011 13:14

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6868 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	500	U	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	67		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-84-062311 Lab Sample ID: 240-1443-1

Matrix: Water Lab File ID: P14F0000010.D

Analysis Method: 8015B Date Collected: 06/23/2011 12:40

Extraction Method: 3520C Date Extracted: 06/29/2011 12:15

Sample wt/vol: 1050(mL) Date Analyzed: 07/01/2011 12:50

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6868 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	450	J B	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	68		10-110

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-89-062311 Lab Sample ID: 240-1443-2

Matrix: Water Lab File ID: P5062810.D

Analysis Method: 8015B Date Collected: 06/23/2011 10:40

Extraction Method: 3520C Date Extracted: 06/25/2011 08:17

Sample wt/vol: 1050(mL) Date Analyzed: 06/28/2011 14:24

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6358 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	740	B	480	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	34		10-110

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-MW-8-062311 Lab Sample ID: 240-1443-5

Matrix: Water Lab File ID: YF070320.D

Analysis Method: 8015B Date Collected: 06/23/2011 10:10

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2011 03:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 7018 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	39	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	105		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-66-062311 Lab Sample ID: 240-1443-4

Matrix: Water Lab File ID: YF070319.D

Analysis Method: 8015B Date Collected: 06/23/2011 08:45

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2011 02:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 7018 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	42	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	110		10-150

FORM I

GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-84-062311 Lab Sample ID: 240-1443-1

Matrix: Water Lab File ID: YF070317.D

Analysis Method: 8015B Date Collected: 06/23/2011 12:40

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2011 01:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 7018 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	38	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	94		10-150

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: GSP-SB-WP-89-062311 Lab Sample ID: 240-1443-2

Matrix: Water Lab File ID: YF070318.D

Analysis Method: 8015B Date Collected: 06/23/2011 10:40

Sample wt/vol: 5(mL) Date Analyzed: 07/04/2011 02:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 7018 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	53	J B	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	103		10-150

Appendix C

Support Documentation

HOLD TIME

PROJ_NO 03279

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1443-1	HG	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	HG	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	HG	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	HG	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	M	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	M	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	M	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	M	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/07/2011	08/05/2011	14	29	43
240-1443-1	M	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	HGF	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	HGF	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	HGF	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	HGF	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	MF	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/07/2011	08/05/2011	14	29	43
240-1443-1	MF	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	MF	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1443-1	MF	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	MF	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	PCL	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/11/2011	07/11/2011	18	0	18
240-1443-1	PCL	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/11/2011	07/11/2011	18	0	18
240-1443-1	PCL	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/12/2011	07/12/2011	19	0	19
240-1443-1	PCL	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/11/2011	07/11/2011	18	0	18
240-1443-1	OS	UG/L	GSP-SB-WP-61-062311	240-1443-3	NM	06/23/2011	06/25/2011	07/16/2011	2	21	23
240-1443-1	OS	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	06/25/2011	07/16/2011	2	21	23
240-1443-1	OS	UG/L	GSP-SB-WP-66-062411	240-1470-1	NM	06/24/2011	06/29/2011	07/16/2011	5	17	22
240-1443-1	OS	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	06/25/2011	07/21/2011	2	26	28
240-1443-1	OS	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	06/25/2011	07/16/2011	2	21	23
240-1443-1	OV	UG/L	TB-062311	240-1443-6	NM	06/23/2011	07/02/2011	07/02/2011	9	0	9
240-1443-1	OV	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/02/2011	07/02/2011	9	0	9
240-1443-1	OV	UG/L	TB-062311	240-1443-6	TB	06/23/2011	07/02/2011	07/02/2011	9	0	9
240-1443-1	OV	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/02/2011	07/02/2011	9	0	9
240-1443-1	OV	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/03/2011	07/03/2011	10	0	10
240-1443-1	OV	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/01/2011	07/01/2011	8	0	8
240-1443-1	OV	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/02/2011	07/02/2011	9	0	9
240-1443-1	DRO	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	06/25/2011	06/28/2011	2	3	5

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1443-1	DRO	UG/L	GSP-SB-WP-66-062411	240-1470-1	NM	06/24/2011	06/29/2011	07/01/2011	5	2	7
240-1443-1	DRO	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	06/25/2011	06/28/2011	2	3	5
240-1443-1	DRO	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	06/29/2011	07/01/2011	6	2	8
240-1443-1	GRO	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/04/2011	07/04/2011	11	0	11
240-1443-1	GRO	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/04/2011	07/04/2011	11	0	11
240-1443-1	GRO	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/04/2011	07/04/2011	11	0	11
240-1443-1	GRO	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/04/2011	07/04/2011	11	0	11
240-1443-1	TPH	UG/L	GSP-SB-WP-66-062411	240-1470-1	NM	06/24/2011	06/29/2011	07/01/2011	5	2	7
240-1443-1	TPH	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/04/2011	07/04/2011	11	0	11
240-1443-1	TPH	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/04/2011	07/04/2011	11	0	11
240-1443-1	TPH	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/04/2011	07/04/2011	11	0	11
240-1443-1	TPH	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	06/25/2011	06/28/2011	2	3	5
240-1443-1	TPH	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	06/29/2011	07/01/2011	6	2	8
240-1443-1	TPH	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/04/2011	07/04/2011	11	0	11
240-1443-1	TPH	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	06/25/2011	06/28/2011	2	3	5
240-1443-1	OV	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/02/2011	07/02/2011	9	0	9
240-1443-1	OV	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/03/2011	07/03/2011	10	0	10
240-1443-1	OV	UG/L	TB-062311	240-1443-6	TB	06/23/2011	07/02/2011	07/02/2011	9	0	9
240-1443-1	OV	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/01/2011	07/01/2011	8	0	8

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1443-1	OV	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/02/2011	07/02/2011	9	0	9

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 009852
Address: 20251 Century Blvd Ste 200	Telephone: (301) 528-5552	Telephone: (708) 341-8384	Telephone: (330) 497-9396	1 of 1 COCs
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@TetraTech.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only:
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client: ☐ Lab sampling: ☐ Job/SDG No.:
Project Name: GSP Phase II	Method of Shipment/Carrier:			
Project Number: 112IC03279 -04	Shipping/Tracking No:			
PO#				Sample Specific Notes / Special Instructions:

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	SVOCs +1,4-Dioxane	Perchlorate
GSP-SB-WP-84-062311	6/23/11	1240		X				2	2	5			3			G	X	X	X	X	X	X	X
GSP-SB-WP-89-062311		1040		X				2	2	5			3			G	X	X	X	X	X	X	X
GSP-SB-WP-61-062311		0830		X									1		N	G						X	
GSP-SB-WP-66-062311		0845		X					2	5			1			G	X	X	X	X			X
GSP-MW-8-062311		1010		X				2	2	5			3			G	X	X	X	X	X	X	
TB-062311				X						2							X						

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

	Company	Date/Time		Company	Date/Time
Relinquished by:	Tetra Tech	6/23/11 – 1310	Received by:	TestAmerica	6-23-2011 / 1310
Relinquished by:	TestAmerica	6-23-2011 / 1530	Received by:		
Relinquished by:			Received in Laboratory by: Jill Claire	TAL	6-24-11 0930

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CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: MSA Greater Strawberry Point PH. II 2011

Report Number: 240-1443-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/24/2011 and 06/27/2011; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 2.7, 3.6 and 4.2 C.

Multiple TestAmerica laboratories were used to support this project. Narrative for TestAmerica West Sacramento (Perchlorate) is provided in the lab's report in the Subcontract section of this report. TestAmerica Burlington's narrative for ICP/MS Metals is incorporated herein. See the Method Summary for additional information.

VOLATILE ORGANIC

Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-66-062311 (240-1443-4), GSP-MW-8-062311 (240-1443-5) and TB-062311 (240-1443-6) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 07/01/2011, 07/02/2011 and 07/03/2011.

1,2,3-Trichlorobenzene and Naphthalene were detected in method blanks MB 240-6923/5 and MB 240-7003/5 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Trichlorofluoromethane and Vinyl acetate failed the recovery criteria high for LCS 240-7003/4. Refer to the QC report for details. These have been identified as poor performing analytes when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS of sample 240-1372-28 in batch 240-6923. Trichlorofluoromethane failed the recovery criteria high.

Several analytes failed the recovery criteria low for the MSD of sample 240-1372-28 in batch 240-6923. Several analytes exceeded the rpd limit.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample 240-1461-3 in batch 240-7003.

Trichlorofluoromethane and Vinyl acetate failed the recovery criteria high.

Refer to the QC report for details.

Sample GSP-SB-WP-66-062311 (240-1443-4)[3X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Sample GSP-SB-WP-66-062311 (240-1443-4) had a reanalysis that had different results than the original analysis. Both runs are reported.

No other difficulties were encountered during the volatiles analyses. All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-61-062311 (240-1443-3) and GSP-MW-8-062311 (240-1443-5) were analyzed for Semivolatiles in accordance with EPA SW 8270D. Sample GSP-SB-WP-66-062411 (240-1470-1) was analyzed for 8270D in accordance with EPA SW 8270D. The samples were analyzed on 07/16/2011 and 07/21/2011.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 240-6094/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

There was no client requested matrix spike/matrix spike duplicate (MS/MSD) for batches 6094 and 6514.

No other difficulties were encountered during the semi-volatiles analyses. All other quality control parameters were within the acceptance limits.

GRO (C6-C10)

Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-66-062311 (240-1443-4) and GSP-MW-8-062311 (240-1443-5) were analyzed for gas range organics in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 07/04/2011.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-7018/11 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The continuing calibration verification (CCV) for C6-C10 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. Associated samples include: (240-1413-1 MS), (240-1413-1 MSD), GSP-MW-8-062311 (240-1443-5), GSP-SB-WP-66-062311 (240-1443-4), GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GW-73942-062311-JY-089 (240-1413-1)

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DRO (C10-C32)

Sample GSP-SB-WP-66-062411 (240-1470-1) was analyzed for Diesel Range Organics (DRO) in accordance with EPA Method 8015B. Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2) and GSP-MW-8-062311 (240-1443-5) were analyzed for Diesel Range Organics (DRO) in accordance with EPA Method 8015B. The samples were analyzed on 06/28/2011 and 07/01/2011.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-6092/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-6574/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The LCS associated with preparation batch 6574 had recoveries outside the acceptance criteria. Since there were no hits detected in any of the samples, no corrective action was necessary. Associated samples were: GSP-SB-WP-66-062411 (240-1470-1) and GSP-SB-WP-84-062311 (240-1443-1).

There was no client requested matrix spike/matrix spike duplicate (MS/MSD) for batches 6092 and 6574.

Refer to the QC report for details.

No other difficulties were encountered during the Diesel Range Organics (DRO) analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-66-062311 (240-1443-4) and GSP-MW-8-062311 (240-1443-5) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 08/04/2011 and 08/05/2011.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL METALS (ICPMS)
Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-66-062311 (240-1443-4) and GSP-MW-8-062311 (240-1443-5) were analyzed for total metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 08/04/2011 and 08/05/2011.

Lead, Thallium and Zinc were detected in method blank MB 200-20967/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Sample GSP-SB-WP-84-062311 (240-1443-1)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The internal standard association for As, Mo, and Se was changed from Y to In in analytical sequence 080411-02D batch 22997. Indium internal standardization was applied to all injection results for these elements , due to the possiblity of isobaric interference on the Yttrium line.

The high calibration point has been removed from the curve for Ba and Mo. The calibration for these elements is based on 4 points.

The serial dilution performed for the following sample(s) was outside control limits: (240-1443-5 SD)

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)
Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-66-062311 (240-1443-4) and GSP-MW-8-062311 (240-1443-5) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/12/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-66-062311 (240-1443-4) and GSP-MW-8-062311 (240-1443-5) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/12/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
GSP-SB-WP-84-062311	240-1443-1	88	90	102	78
GSP-SB-WP-89-062311	240-1443-2	88	88	114	90
GSP-SB-WP-66-062311	240-1443-4	98	91	97	83
GSP-SB-WP-66-062311 DL	240-1443-4 DL	87	86	89	77
GSP-MW-8-062311	240-1443-5	89	89	107	81
TB-062311	240-1443-6	89	90	95	81
	MB 240-6923/5	86	87	81	83
	MB 240-7003/5	86	90	93	82
	LCS 240-6923/4	87	91	100	102
	LCS 240-7003/4	86	86	98	99
	240-1372-D-28 MS	91	90	100	96
	240-1461-E-3 MS	86	87	97	96
	240-1372-E-28 MSD	82	88	96	101
	240-1461-F-3 MSD	86	88	99	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-121
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
TOL = Toluene-d8 (Surr)	74-115
BFB = 4-Bromofluorobenzene (Surr)	66-117

Column to be used to flag recovery values

FORM II 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: STD8260 240-4668/4 Date Analyzed: 06/14/2011 12:30

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX2318.D Heated Purge: (Y/N) N

Calibration ID: 1489

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1539533	5.11	1107062	7.79	753199	10.04
UPPER LIMIT		3079066	5.61	2214124	8.29	1506398	10.54
LOWER LIMIT		769767	4.61	553531	7.29	376600	9.54
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-4668/14		1633332	5.11	1145624	7.79	727463	10.04
CCVIS 240-6923/2		1272400	5.11	976032	7.79	586873	10.04
CCVIS 240-7003/2		1275821	5.11	909471	7.79	566269	10.04

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: CCVIS 240-6923/2 Date Analyzed: 07/01/2011 22:08

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX2923.D Heated Purge: (Y/N) N

Calibration ID: 1491

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1272400	5.11	976032	7.79	586873	10.04
UPPER LIMIT		2544800	5.61	1952064	8.29	1173746	10.54
LOWER LIMIT		636200	4.61	488016	7.29	293437	9.54
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-6923/3		1476505	5.11	974006	7.79	515609	10.04
LCS 240-6923/4		1438355	5.11	997551	7.79	602205	10.04
MB 240-6923/5		1300710	5.12	964397	7.79	529975	10.04
240-1443-1	GSP-SB-WP-84-062311	1356571	5.11	887850	7.79	508153	10.04
240-1443-2	GSP-SB-WP-89-062311	1352434	5.11	803972	7.79	493515	10.04
240-1443-4	GSP-SB-WP-66-062311	1157516	5.12	950474	7.79	507661	10.04
240-1443-5	GSP-MW-8-062311	1340637	5.11	750705	7.79	480111	10.04
240-1443-6	TB-062311	1333327	5.12	928064	7.79	491618	10.04
240-1372-D-28 MS		1268464	5.11	989028	7.79	565886	10.04
240-1372-E-28 MSD		1316112	5.12	924042	7.79	636152	10.04

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: CCVIS 240-7003/2 Date Analyzed: 07/03/2011 10:01

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXX2952.D Heated Purge: (Y/N) N

Calibration ID: 1491

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1275821	5.11	909471	7.79	566269	10.04
UPPER LIMIT		2551642	5.61	1818942	8.29	1132538	10.54
LOWER LIMIT		637911	4.61	454736	7.29	283135	9.54
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-7003/3		1303067	5.11	888719	7.79	491436	10.04
LCS 240-7003/4		1253207	5.12	910806	7.79	582966	10.04
MB 240-7003/5		1189825	5.12	857065	7.79	472471	10.04
240-1443-4 DL	GSP-SB-WP-66-062311 DL	1148546	5.11	849857	7.79	459471	10.04
240-1461-E-3 MS		1150175	5.11	838391	7.79	547355	10.04
240-1461-F-3 MSD		1179665	5.12	849007	7.79	555588	10.04

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab File ID: BFB4169.D BFB Injection Date: 06/14/2011

Instrument ID: A3UX10 BFB Injection Time: 11:23

Analysis Batch No.: 4668

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.6	
75	30.0 - 60.0 % of mass 95	50.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.6	(0.7)1
174	50.0 - 120.00 % of mass 95	84.3	
175	5.0 - 9.0 % of mass 174	6.0	(7.1)1
176	95.0 - 101.0 % of mass 174	82.2	(97.5)1
177	5.0 - 9.0 % of mass 176	5.1	(6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-4668/2	UXX2316.D	06/14/2011	11:47
	STD8260 240-4668/3	UXX2317.D	06/14/2011	12:09
	STD8260 240-4668/4	UXX2318.D	06/14/2011	12:30
	STD8260 240-4668/5	UXX2319.D	06/14/2011	12:52
	STD8260 240-4668/6	UXX2320.D	06/14/2011	13:13
	STD8260 240-4668/7	UXX2321.D	06/14/2011	13:34
	STD1 240-4668/8	UXX2322.D	06/14/2011	13:56
	STD2 240-4668/9	UXX2323.D	06/14/2011	14:18
	STD3 240-4668/10	UXX2324.D	06/14/2011	14:39
	STD4 240-4668/11	UXX2325.D	06/14/2011	15:01
	STD5 240-4668/12	UXX2326.D	06/14/2011	15:22
	STD6 240-4668/13	UXX2327.D	06/14/2011	15:43
	ICV 240-4668/14	UXX2328.D	06/14/2011	16:06

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 4668

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/14/2011 11:47 Calibration End Date: 06/14/2011 13:34 Calibration ID: 1489

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-4668/7	UXX2321.D
Level 2	STD8260 240-4668/6	UXX2320.D
Level 3	STD8260 240-4668/5	UXX2319.D
Level 4	STD8260 240-4668/4	UXX2318.D
Level 5	STD8260 240-4668/3	UXX2317.D
Level 6	STD8260 240-4668/2	UXX2316.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1892 0.1967	0.1818	0.1897	0.1870	0.1843	Ave		0.1881				2.7		15.0			
Chloromethane	0.3373 0.2726	0.3035	0.3055	0.2976	0.2919	Ave		0.3014			0.1000	7.0		15.0			
Vinyl chloride	0.3112 0.2841	0.2964	0.2999	0.2991	0.3044	Ave		0.2992				3.0		15.0			
Bromomethane	0.1220 0.0994	0.1014	0.1084	0.0836	0.0886	Ave		0.1005				14.0		15.0			
Chloroethane	0.2072 0.1669	0.1774	0.1787	0.1681	0.1757	Ave		0.1790				8.2		15.0			
Trichlorofluoromethane	0.1643 0.1658	0.1374	0.1488	0.1292	0.1369	Ave		0.1470				10.0		15.0			
Acrolein	0.0287 0.0330	0.0306	0.0321	0.0331	0.0349	Ave		0.0321	—			6.7		15.0			
1,1-Dichloroethene	0.2123 0.2197	0.2153	0.2222	0.2241	0.2266	Ave		0.2200				2.5		15.0			
Acetone	0.1217 0.0687	0.0969	0.0854	0.0774	0.0774	Lin1	0.1135	0.0702							0.9970		0.9900
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1472 0.1559	0.1372	0.1478	0.1318	0.1362	Ave		0.1427				6.3		15.0			
Iodomethane	0.3278 0.3023	0.3340	0.3366	0.3217	0.3213	Ave		0.3239				3.8		15.0			
Carbon disulfide	0.6046 0.6654	0.6194	0.6465	0.6442	0.6538	Ave		0.6390				3.5		15.0			
Acetonitrile	0.0338 0.0311	0.0339	0.0328	0.0319	0.0333	Ave		0.0328	—			3.4		15.0			
Methyl acetate	0.1862 0.1769	0.1927	0.1827	0.1830	0.1921	Ave		0.1856				3.3		15.0			
Methylene Chloride	0.7151 0.2539	0.4695	0.3436	0.3047	0.2825	Lin1	0.4667	0.2490							0.9990		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 4668

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/14/2011 11:47 Calibration End Date: 06/14/2011 13:34 Calibration ID: 1489

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0146 0.0141	0.0153	0.0145	0.0150	0.0155	Ave		0.0148	-			3.4		15.0			
Acrylonitrile	0.0908 0.0914	0.0896	0.0938	0.0941	0.0973	Ave		0.0928				3.0		15.0			
Methyl tert-butyl ether	0.5757 0.6248	0.5953	0.6046	0.6389	0.6661	Ave		0.6176				5.3		15.0			
trans-1,2-Dichloroethene	0.2428 0.2420	0.2517	0.2549	0.2596	0.2596	Ave		0.2518				3.1		15.0			
Hexane	0.0390 0.0558	0.0500	0.0495	0.0492	0.0512	Ave		0.0491	-			11.0		15.0			
1,1-Dichloroethane	0.4290 0.4242	0.4440	0.4433	0.4503	0.4592	Ave		0.4417			0.1000	3.0		15.0			
Vinyl acetate	0.0179 0.0289	0.0185	0.0234	0.0260	0.0290	Lin1	-0.016	0.0290							0.9980		0.9900
2-Butanone	0.0997 0.0820	0.0925	0.0885	0.0863	0.0874	Ave		0.0894				6.8		15.0			
cis-1,2-Dichloroethene	0.2471 0.2529	0.2568	0.2630	0.2659	0.2720	Ave		0.2596				3.5		15.0			
2,2-Dichloropropane	0.1797 0.2049	0.1938	0.2013	0.2087	0.2168	Ave		0.2009				6.4		15.0			
Bromochloromethane	0.1220 0.1176	0.1267	0.1212	0.1253	0.1273	Ave		0.1233				3.0		15.0			
Tetrahydrofuran	0.0802 0.0573	0.0692	0.0597	0.0617	0.0602	Ave		0.0647				13.0		15.0			
Chloroform	0.4270 0.4043	0.4229	0.4281	0.4319	0.4373	Ave		0.4253				2.7		15.0			
1,1,1-Trichloroethane	0.2790 0.2867	0.2793	0.2929	0.2969	0.3021	Ave		0.2895				3.3		15.0			
Cyclohexane	0.3385 0.4381	0.3650	0.3892	0.4064	0.4191	Ave		0.3927				9.3		15.0			
1,1-Dichloropropene	0.2741 0.3104	0.2874	0.3024	0.3121	0.3192	Ave		0.3009				5.7		15.0			
Carbon tetrachloride	0.1713 0.2310	0.1744	0.1984	0.2092	0.2233	Ave		0.2013				12.0		15.0			
1,2-Dichloroethane	0.3115 0.3071	0.3249	0.3175	0.3210	0.3267	Ave		0.3181				2.4		15.0			
Benzene	0.9813 0.9473	0.9798	0.9580	0.9851	0.9991	Ave		0.9751				1.9		15.0			
Trichloroethene	0.2247 0.2195	0.2281	0.2244	0.2285	0.2293	Ave		0.2257				1.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 4668

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/14/2011 11:47 Calibration End Date: 06/14/2011 13:34 Calibration ID: 1489

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichloropropane	0.2131 0.2207	0.2186	0.2207	0.2281	0.2306	Ave		0.2220				2.9		15.0			
Methylcyclohexane	0.3048 0.4370	0.3352	0.3712	0.3832	0.4042	Ave		0.3726				13.0		15.0			
Dibromomethane	0.1229 0.1248	0.1324	0.1268	0.1305	0.1305	Ave		0.1280				2.9		15.0			
1,4-Dioxane	0.0020 0.0020	0.0023	0.0023	0.0024	0.0024	Ave		0.0022				8.7		15.0			
Bromodichloromethane	0.2193 0.2595	0.2377	0.2413	0.2508	0.2637	Ave		0.2454				6.6		15.0			
2-Chloroethyl vinyl ether	0.0801 0.1136	0.0905	0.0968	0.1075	0.1158	Ave		0.1007				14.0		15.0			
cis-1,3-Dichloropropene	0.2280 0.3132	0.2618	0.2739	0.3029	0.3146	Ave		0.2824				12.0		15.0			
4-Methyl-2-pentanone	0.1345 0.1681	0.1413	0.1518	0.1628	0.1743	Ave		0.1554				10.0		15.0			
Toluene	1.1665 1.3048	1.2588	1.3059	1.3721	1.3777	Ave		1.2976				6.0		15.0			
trans-1,3-Dichloropropene	0.2488 0.3731	0.2979	0.3238	0.3606	0.3762	Ave		0.3301				15.0		15.0			
Ethyl methacrylate	0.2181 0.3264	0.2455	0.2796	0.3100	0.3367	Lin1	-0.146	0.3317							0.9990		0.9900
1,1,2-Trichloroethane	0.2347 0.2366	0.2508	0.2484	0.2596	0.2547	Ave		0.2474				4.0		15.0			
1,3-Dichloropropane	0.4270 0.4485	0.4472	0.4575	0.4758	0.4726	Ave		0.4548				4.0		15.0			
Tetrachloroethene	0.2417 0.2499	0.2513	0.2631	0.2655	0.2636	Ave		0.2559				3.8		15.0			
2-Hexanone	0.1152 0.1415	0.1280	0.1419	0.1520	0.1533	Ave		0.1387				11.0		15.0			
Dibromochloromethane	0.1979 0.2520	0.2046	0.2161	0.2378	0.2486	Ave		0.2261				10.0		15.0			
1,2-Dibromoethane	0.2210 0.2376	0.2384	0.2394	0.2528	0.2526	Ave		0.2403				4.9		15.0			
Chlorobenzene	0.8752 0.8471	0.9024	0.8821	0.9065	0.9006	Ave		0.8856			0.3000	2.5		15.0			
1,1,1,2-Tetrachloroethane	0.2584 0.2971	0.2768	0.2820	0.2978	0.3085	Ave		0.2868				6.3		15.0			
Ethylbenzene	0.3772 0.4695	0.4253	0.4450	0.4786	0.4915	Ave		0.4478				9.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 4668

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/14/2011 11:47 Calibration End Date: 06/14/2011 13:34 Calibration ID: 1489

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.4563 0.6068	0.5473	0.5908	0.6225	0.6354	Ave		0.5765				12.0		15.0			
o-Xylene	0.4519 0.6123	0.5233	0.5720	0.6245	0.6446	Ave		0.5714				13.0		15.0			
Styrene	0.6925 1.0020	0.8309	0.9178	1.0100	1.0502	Ave		0.9172				15.0		15.0			
Bromoform	0.1116 0.1595	0.1317	0.1294	0.1467	0.1590	Ave		0.1396			0.1000	13.0		15.0			
Isopropylbenzene	1.1084 1.6116	1.2887	1.4465	1.5712	1.6704	Ave		1.4495				15.0		15.0			
1,1,2,2-Tetrachloroethane	0.5452 0.5312	0.5636	0.5509	0.5713	0.5662	Ave		0.5547			0.3000	2.7		15.0			
Bromobenzene	0.5229 0.5578	0.5611	0.5787	0.5882	0.5909	Ave		0.5666				4.5		15.0			
1,2,3-Trichloropropane	0.1751 0.1670	0.1811	0.1787	0.1771	0.1775	Ave		0.1761				2.8		15.0			
trans-1,4-Dichloro-2-butene	0.1235 0.1483	0.1353	0.1321	0.1439	0.1484	Ave		0.1386				7.2		15.0			
n-Propylbenzene	0.4578 0.6438	0.5573	0.6219	0.6585	0.6656	Ave		0.6008				13.0		15.0			
2-Chlorotoluene	0.4781 0.5601	0.5240	0.5690	0.5900	0.5912	Ave		0.5521				7.9		15.0			
1,3,5-Trimethylbenzene	1.3894 2.0809	1.7312	1.9607	2.0982	2.1629	Ave		1.9039				15.0		15.0			
4-Chlorotoluene	0.5018 0.5827	0.5691	0.6093	0.6219	0.6180	Ave		0.5838				7.7		15.0			
tert-Butylbenzene	1.1929 1.8077	1.4422	1.6181	1.7660	2.0819	Lin1	-0.814	1.9059							0.9940		0.9900
1,2,4-Trimethylbenzene	1.4761 2.1145	1.8321	2.0584	2.1723	2.2655	Ave		1.9865				15.0		15.0			
sec-Butylbenzene	1.7529 2.6066	2.1456	2.3874	2.5313	2.6744	Ave		2.3497				15.0		15.0			
1,3-Dichlorobenzene	1.1569 1.1565	1.2360	1.2224	1.2360	1.2579	Ave		1.2109				3.6		15.0			
p-Isopropyltoluene	1.4796 2.2465	1.8209	2.0670	2.2171	2.3396	Lin1	-0.874	2.3016							0.9990		0.9900
1,4-Dichlorobenzene	1.2935 1.2167	1.3335	1.2881	1.3251	1.3134	Ave		1.2950				3.3		15.0			
n-Butylbenzene	1.3675 1.9918	1.6270	1.7815	1.9578	2.0763	Ave		1.8003				15.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 4668

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/14/2011 11:47 Calibration End Date: 06/14/2011 13:34 Calibration ID: 1489

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.1387 1.1438	1.2472	1.2354	1.2437	1.2577	Ave		1.2111				4.5		15.0			
1,2-Dibromo-3-Chloropropane	0.0746 0.0914	0.0788	0.0838	0.0869	0.0985	Ave		0.0857				10.0		15.0			
1,3,5-Trichlorobenzene	0.8485 0.8452	0.8931	0.8738	0.8933	0.9403	Ave		0.8824				4.0		15.0			
1,2,4-Trichlorobenzene	0.7049 0.7600	0.7723	0.7549	0.7846	0.8472	Ave		0.7707				6.0		15.0			
Hexachlorobutadiene	0.3520 0.3214	0.3563	0.3468	0.3404	0.3462	Ave		0.3439				3.6		15.0			
Naphthalene	1.2084 1.7286	1.4463	1.5843	1.8064	2.0327	Lin1	-0.675	1.8453							0.9930		0.9900
1,2,3-Trichlorobenzene	0.6867 0.6757	0.7825	0.7576	0.7795	0.8084	Ave		0.7484				7.3		15.0			
Dibromofluoromethane (Surr)	0.1923 0.1966	0.2047	0.2041	0.2055	0.2060	Ave		0.2016				2.8		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2656 0.2572	0.2743	0.2569	0.2649	0.2696	Ave		0.2647				2.6		15.0			
Toluene-d8 (Surr)	0.9717 1.0700	0.9841	1.0809	1.1112	1.1016	Ave		1.0532				5.7		15.0			
4-Bromofluorobenzene (Surr)	0.3777 0.4149	0.3867	0.4164	0.4466	0.4366	Ave		0.4131				6.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 4668

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/14/2011 13:56 Calibration End Date: 06/14/2011 15:43 Calibration ID: 1491

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD6 240-4668/13	UXX2327.D
Level 2	STD5 240-4668/12	UXX2326.D
Level 3	STD4 240-4668/11	UXX2325.D
Level 4	STD3 240-4668/10	UXX2324.D
Level 5	STD2 240-4668/9	UXX2323.D
Level 6	STD1 240-4668/8	UXX2322.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.3668 0.3592	0.3661	0.3879	0.3803	0.3654	Ave		0.3710				2.9		15.0			
Ethyl ether	0.2199 0.2027	0.2087	0.2070	0.2037	0.2020	Ave		0.2073				3.2		15.0			
3-Chloro-1-propene	0.0994 0.1243	0.1025	0.1063	0.1170	0.1201	Ave		0.1116				9.2		15.0			
Diisopropyl ether	0.1676 0.2124	0.1789	0.1894	0.2027	0.2064	Ave		0.1929				9.0		15.0			
2-Chloro-1,3-butadiene	0.3192 0.3652	0.3254	0.3406	0.3582	0.3637	Ave		0.3454				5.8		15.0			
Ethyl-t-butyl ether (ETBE)	0.4964 0.6420	0.5306	0.5488	0.5909	0.6190	Ave		0.5713				9.7		15.0			
Propionitrile	0.0302 0.0312	0.0315	0.0326	0.0304	0.0312	Ave		0.0312				2.7		15.0			
Ethyl acetate	0.1886 0.1675	0.1837	0.1606	0.1653	0.1555	Ave		0.1702				7.7		15.0			
Methacrylonitrile	0.1147 0.1218	0.1172	0.1300	0.1262	0.1194	Ave		0.1216				4.7		15.0			
Isobutyl alcohol	0.0095 0.0095	0.0107	0.0105	0.0095	0.0092	Ave		0.0098				6.3		15.0			
Tert-amyl-methyl ether (TAME)	0.3921 0.5421	0.4181	0.4484	0.4906	0.5133	Ave		0.4674				12.0		15.0			
n-Heptane	0.0386 0.0480	0.0422	0.0458	0.0472	0.0457	Ave		0.0446				7.9		15.0			
n-Butanol	0.0056 0.0073	0.0068	0.0072	0.0069	0.0071	Ave		0.0068				9.2		15.0			
Methyl methacrylate	0.1249 0.1522	0.1372	0.1392	0.1327	0.1403	Ave		0.1377				6.6		15.0			
2-Nitropropane	0.0306 0.0376	0.0311	0.0292	0.0309	0.0324	Ave		0.0320				9.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 4668

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/14/2011 13:56 Calibration End Date: 06/14/2011 15:43 Calibration ID: 1491

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
n-Butyl acetate	0.0911 0.1678	0.1020	0.1212	0.1273	0.1538	Lin1	-0.222	0.1619							0.9920		0.9900
Cyclohexanone	0.0391 0.0576	0.0448	0.0545	0.0547	0.0590	Ave		0.0516				15.0		15.0			
1,2,3-Trimethylbenzene # not used	1.6069 2.5260	1.7155	1.9492	2.2905	2.4281	Lin1	-1.338	2.5041							0.9980		0.9900
2-Methylnaphthalene	0.5337 0.9727	0.6470	0.9302	1.1148	1.2672	Qua	-4.037	1.5847	-0.007						0.9960		0.9900

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICV 240-4668/14 Calibration Date: 06/14/2011 16:06

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 11:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 13:34

Lab File ID: UXX2328.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1881	0.2061		11.0	10.0	9.6	50.0
Chloromethane	Ave	0.3014	0.2864	0.1000	9.50	10.0	-5.0	50.0
Vinyl chloride	Ave	0.2992	0.2856		9.55	10.0	-4.5	20.0
Bromomethane	Ave	0.1005	0.0858		8.53	10.0	-14.7	50.0
Chloroethane	Ave	0.1790	0.1542		8.61	10.0	-13.9	50.0
Trichlorofluoromethane	Ave	0.1470	0.1857		12.6	10.0	26.3	50.0
1,1-Dichloroethene	Ave	0.2200	0.2161		9.82	10.0	-1.8	20.0
Acetone	Lin1		0.0871		23.2	20.0	16.0	50.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1427	0.1571		11.0	10.0	10.1	50.0
Iodomethane	Ave	0.3239	0.3266		10.1	10.0	0.8	50.0
Carbon disulfide	Ave	0.6390	0.6198		9.70	10.0	-3.0	50.0
Methyl acetate	Ave	0.1856	0.1879		10.1	10.0	1.2	50.0
Methylene Chloride	Lin1		0.2895		9.75	10.0	-2.5	50.0
tert-Butyl alcohol	Ave	0.0148	0.0155		209	200	4.4	50.0
Methyl tert-butyl ether	Ave	0.6176	0.5666		9.18	10.0	-8.2	50.0
trans-1,2-Dichloroethene	Ave	0.2518	0.2354		9.35	10.0	-6.5	50.0
Hexane	Ave	0.0491	0.0595		12.1	10.0	21.2*	20.0
1,1-Dichloroethane	Ave	0.4417	0.4274	0.1000	9.68	10.0	-3.2	50.0
Vinyl acetate	Lin1		0.0415		14.9	10.0	49.0	50.0
2-Butanone	Ave	0.0894	0.0945		21.1	20.0	5.7	50.0
cis-1,2-Dichloroethene	Ave	0.2596	0.2428		9.35	10.0	-6.5	50.0
2,2-Dichloropropane	Ave	0.2009	0.1940		9.66	10.0	-3.4	50.0
Bromochloromethane	Ave	0.1233	0.1181		9.58	10.0	-4.2	50.0
Tetrahydrofuran	Ave	0.0647	0.0654		10.1	10.0	1.0	50.0
Chloroform	Ave	0.4253	0.4087		9.61	10.0	-3.9	20.0
1,1,1-Trichloroethane	Ave	0.2895	0.2720		9.39	10.0	-6.1	50.0
Cyclohexane	Ave	0.3927	0.3872		9.86	10.0	-1.4	50.0
1,1-Dichloropropene	Ave	0.3009	0.3200		10.6	10.0	6.3	50.0
Carbon tetrachloride	Ave	0.2013	0.2147		10.7	10.0	6.7	50.0
1,2-Dichloroethane	Ave	0.3181	0.3182		10.0	10.0	0.0	50.0
Benzene	Ave	0.9751	0.9562		9.81	10.0	-1.9	50.0
Trichloroethene	Ave	0.2257	0.2214		9.81	10.0	-1.9	50.0
1,2-Dichloropropane	Ave	0.2220	0.2221		10.0	10.0	0.0	20.0
Methylcyclohexane	Ave	0.3726	0.3818		10.2	10.0	2.5	50.0
Dibromomethane	Ave	0.1280	0.1298		10.1	10.0	1.4	50.0
Bromodichloromethane	Ave	0.2454	0.2456		10.0	10.0	0.0	50.0
2-Chloroethyl vinyl ether	Ave	0.1007	0.1090		10.8	10.0	8.2	50.0
cis-1,3-Dichloropropene	Ave	0.2824	0.2789		9.88	10.0	-1.2	50.0
4-Methyl-2-pentanone	Ave	0.1554	0.1776		22.9	20.0	14.3	50.0
Toluene	Ave	1.298	1.388		10.7	10.0	6.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICV 240-4668/14 Calibration Date: 06/14/2011 16:06

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 11:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 13:34

Lab File ID: UXX2328.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
trans-1,3-Dichloropropene	Ave	0.3301	0.3547		10.7	10.0	7.5	50.0
1,1,2-Trichloroethane	Ave	0.2474	0.2609		10.5	10.0	5.5	50.0
1,3-Dichloropropane	Ave	0.4548	0.4907		10.8	10.0	7.9	50.0
Tetrachloroethene	Ave	0.2559	0.2657		10.4	10.0	3.8	50.0
2-Hexanone	Ave	0.1387	0.1667		24.0	20.0	20.2	50.0
Dibromochloromethane	Ave	0.2261	0.2356		10.4	10.0	4.2	50.0
1,2-Dibromoethane	Ave	0.2403	0.2503		10.4	10.0	4.2	50.0
Chlorobenzene	Ave	0.8856	0.8944	0.3000	10.1	10.0	1.0	50.0
1,1,1,2-Tetrachloroethane	Ave	0.2868	0.2795		9.75	10.0	-2.5	50.0
Ethylbenzene	Ave	0.4478	0.4758		10.6	10.0	6.2	20.0
m-Xylene & p-Xylene	Ave	0.5765	0.6136		21.3	20.0	6.4	50.0
o-Xylene	Ave	0.5714	0.5954		10.4	10.0	4.2	50.0
Styrene	Ave	0.9172	0.9892		10.8	10.0	7.9	50.0
Bromoform	Ave	0.1396	0.1412	0.1000	10.1	10.0	1.1	50.0
Isopropylbenzene	Ave	1.449	1.482		10.2	10.0	2.2	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5547	0.5900	0.3000	10.6	10.0	6.3	50.0
Bromobenzene	Ave	0.5666	0.5967		10.5	10.0	5.3	50.0
1,2,3-Trichloropropane	Ave	0.1761	0.1928		11.0	10.0	9.5	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1386	0.1675		24.2	20.0	20.9	50.0
n-Propylbenzene	Ave	0.6008	0.6977		11.6	10.0	16.1	50.0
2-Chlorotoluene	Ave	0.5521	0.5857		10.6	10.0	6.1	50.0
1,3,5-Trimethylbenzene	Ave	1.904	2.059		10.8	10.0	8.1	50.0
4-Chlorotoluene	Ave	0.5838	0.6285		10.8	10.0	7.6	50.0
tert-Butylbenzene	Lin1		1.728		9.50	10.0	-5.0	50.0
1,2,4-Trimethylbenzene	Ave	1.986	2.187		11.0	10.0	10.1	50.0
sec-Butylbenzene	Ave	2.350	2.504		10.7	10.0	6.6	50.0
1,3-Dichlorobenzene	Ave	1.211	1.209		9.98	10.0	-0.2	50.0
p-Isopropyltoluene	Lin1		2.256		10.2	10.0	2.0	50.0
1,4-Dichlorobenzene	Ave	1.295	1.266		9.78	10.0	-2.2	50.0
n-Butylbenzene	Ave	1.800	1.911		10.6	10.0	6.1	50.0
1,2-Dichlorobenzene	Ave	1.211	1.197		9.88	10.0	-1.2	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.0857	0.0821		9.58	10.0	-4.2	50.0
1,2,4-Trichlorobenzene	Ave	0.7707	0.6673		8.66	10.0	-13.4	50.0
Hexachlorobutadiene	Ave	0.3439	0.3000		8.72	10.0	-12.8	50.0
Naphthalene	Lin1		1.495		8.47	10.0	-15.3	50.0
1,2,3-Trichlorobenzene	Ave	0.7484	0.6707		8.96	10.0	-10.4	50.0
Dibromofluoromethane (Surr)	Ave	0.2016	0.1731		10.3	12.0	-14.1	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2647	0.2388		10.9	12.0	-9.8	50.0
Toluene-d8 (Surr)	Ave	1.053	1.018		11.6	12.0	-3.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4131	0.4109		12.0	12.0	-0.5	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICV 240-4668/14 Calibration Date: 06/14/2011 16:06

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 13:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 15:43

Lab File ID: UXX2328.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.2073	0.2150		10.4	10.0	3.7	50.0
Diisopropyl ether	Ave	0.1929	0.1948		10.1	10.0	1.0	50.0
Isobutyl alcohol	Ave	0.0098	0.0111		565	500	13.0	50.0
Cyclohexanone	Ave	0.0516	0.0145		56.3	200	-71.9*	50.0
1,2,3-Trimethylbenzene	Lin1		2.198		9.31	10.0	-6.9	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab File ID: BFB4189.D BFB Injection Date: 07/01/2011

Instrument ID: A3UX10 BFB Injection Time: 21:46

Analysis Batch No.: 6923

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.9	
75	30.0 - 60.0 % of mass 95	50.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.2	(0.2)1
174	50.0 - 120.00 % of mass 95	86.9	
175	5.0 - 9.0 % of mass 174	6.1	(7.0)1
176	95.0 - 101.0 % of mass 174	83.9	(96.6)1
177	5.0 - 9.0 % of mass 176	5.8	(6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-6923/2	UXX2923.D	07/01/2011	22:08
	CCV 240-6923/3	UXX2924.D	07/01/2011	22:29
	LCS 240-6923/4	UXX2925.D	07/01/2011	22:50
	MB 240-6923/5	UXX2926.D	07/01/2011	23:11
GSP-SB-WP-84-062311	240-1443-1	UXX2928.D	07/01/2011	23:54
GSP-SB-WP-89-062311	240-1443-2	UXX2929.D	07/02/2011	00:15
GSP-SB-WP-66-062311	240-1443-4	UXX2930.D	07/02/2011	00:37
GSP-MW-8-062311	240-1443-5	UXX2931.D	07/02/2011	00:58
TB-062311	240-1443-6	UXX2932.D	07/02/2011	01:19
	240-1372-D-28 MS	UXX2945.D	07/02/2011	05:57
	240-1372-E-28 MSD	UXX2946.D	07/02/2011	06:19

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCVIS 240-6923/2 Calibration Date: 07/01/2011 22:08

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 11:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 13:34

Lab File ID: UXX2923.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1881	0.2231		11.9	10.0	18.6	50.0
Chloromethane	Ave	0.3014	0.3430	0.1000	11.4	10.0	13.8	50.0
Vinyl chloride	Ave	0.2992	0.2939		9.82	10.0	-1.8	20.0
Bromomethane	Ave	0.1005	0.1030		10.2	10.0	2.4	50.0
Chloroethane	Ave	0.1790	0.1610		8.99	10.0	-10.1	50.0
Trichlorofluoromethane	Ave	0.1470	0.2880		19.6	10.0	95.9*	50.0
Acrolein	Ave	0.0321	0.0314		98.0	100	-2.0	50.0
1,1-Dichloroethene	Ave	0.2200	0.1951		8.87	10.0	-11.3	20.0
Acetone	Lin1		0.0817		21.7	20.0	8.5	50.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1427	0.1446		10.1	10.0	1.3	50.0
Iodomethane	Ave	0.3239	0.3288		10.1	10.0	1.5	50.0
Carbon disulfide	Ave	0.6390	0.5513		8.63	10.0	-13.7	50.0
Acetonitrile	Ave	0.0328	0.0293		89.2	100	-10.8	50.0
Methyl acetate	Ave	0.1856	0.2126		22.9	20.0	14.5	50.0
Methylene Chloride	Lin1		0.2671		8.85	10.0	-11.5	50.0
tert-Butyl alcohol	Ave	0.0148	0.0161		217	200	8.3	50.0
Acrylonitrile	Ave	0.0928	0.1095		23.6	20.0	18.0	50.0
Methyl tert-butyl ether	Ave	0.6176	0.6237		10.1	10.0	1.0	50.0
trans-1,2-Dichloroethene	Ave	0.2518	0.2356		9.36	10.0	-6.4	50.0
Hexane	Ave	0.0491	0.0467		9.52	10.0	-4.8	20.0
1,1-Dichloroethane	Ave	0.4417	0.4220	0.1000	9.55	10.0	-4.5	50.0
Vinyl acetate	Lin1		0.0307		11.1	10.0	11.0	50.0
2-Butanone	Ave	0.0894	0.1109		24.8	20.0	24.0	50.0
cis-1,2-Dichloroethene	Ave	0.2596	0.2496		9.62	10.0	-3.8	50.0
2,2-Dichloropropane	Ave	0.2009	0.1580		7.87	10.0	-21.3	50.0
Bromochloromethane	Ave	0.1233	0.1161		9.42	10.0	-5.8	50.0
Chloroform	Ave	0.4253	0.3842		9.04	10.0	-9.6	20.0
Tetrahydrofuran	Ave	0.0647	0.0594		9.17	10.0	-8.3	50.0
1,1,1-Trichloroethane	Ave	0.2895	0.2530		8.74	10.0	-12.6	50.0
Cyclohexane	Ave	0.3927	0.3042		7.75	10.0	-22.5	50.0
1,1-Dichloropropene	Ave	0.3009	0.2694		8.95	10.0	-10.5	50.0
Carbon tetrachloride	Ave	0.2013	0.2201		10.9	10.0	9.3	50.0
1,2-Dichloroethane	Ave	0.3181	0.3078		9.68	10.0	-3.2	50.0
Benzene	Ave	0.9751	0.8966		9.20	10.0	-8.0	50.0
Trichloroethene	Ave	0.2257	0.2117		9.38	10.0	-6.2	50.0
1,2-Dichloropropane	Ave	0.2220	0.2183		9.83	10.0	-1.7	20.0
Methylcyclohexane	Ave	0.3726	0.2985		8.01	10.0	-19.9	50.0
Dibromomethane	Ave	0.1280	0.1313		10.3	10.0	2.6	50.0
1,4-Dioxane	Ave	0.0022	0.0017		379	500	-24.2	50.0
Bromodichloromethane	Ave	0.2454	0.2579		10.5	10.0	5.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCVIS 240-6923/2 Calibration Date: 07/01/2011 22:08

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 11:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 13:34

Lab File ID: UXX2923.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1007	0.1354		26.9	20.0	34.5	50.0
cis-1,3-Dichloropropene	Ave	0.2824	0.3043		10.8	10.0	7.8	50.0
4-Methyl-2-pentanone	Ave	0.1554	0.1985		25.5	20.0	27.7	50.0
Toluene	Ave	1.298	1.283		9.89	10.0	-1.1	20.0
trans-1,3-Dichloropropene	Ave	0.3301	0.3508		10.6	10.0	6.3	50.0
Ethyl methacrylate	Lin1		0.3374		10.6	10.0	6.0	50.0
1,1,2-Trichloroethane	Ave	0.2474	0.2687		10.9	10.0	8.6	50.0
1,3-Dichloropropane	Ave	0.4548	0.4859		10.7	10.0	6.9	50.0
Tetrachloroethene	Ave	0.2559	0.2418		9.45	10.0	-5.5	50.0
2-Hexanone	Ave	0.1387	0.1736		25.0	20.0	25.2	50.0
Dibromochloromethane	Ave	0.2261	0.2330		10.3	10.0	3.0	50.0
1,2-Dibromoethane	Ave	0.2403	0.2500		10.4	10.0	4.0	50.0
Chlorobenzene	Ave	0.8856	0.8316	0.3000	9.39	10.0	-6.1	50.0
1,1,1,2-Tetrachloroethane	Ave	0.2868	0.2761		9.63	10.0	-3.7	50.0
Ethylbenzene	Ave	0.4478	0.4239		9.46	10.0	-5.4	20.0
m-Xylene & p-Xylene	Ave	0.5765	0.5346		18.5	20.0	-7.3	50.0
o-Xylene	Ave	0.5714	0.5265		9.21	10.0	-7.9	50.0
Styrene	Ave	0.9172	0.8533		9.30	10.0	-7.0	50.0
Bromoform	Ave	0.1396	0.1315	0.1000	9.42	10.0	-5.8	50.0
Isopropylbenzene	Ave	1.449	1.199		8.27	10.0	-17.3	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5547	0.5880	0.3000	10.6	10.0	6.0	50.0
Bromobenzene	Ave	0.5666	0.5708		10.1	10.0	0.7	50.0
1,2,3-Trichloropropane	Ave	0.1761	0.1906		10.8	10.0	8.3	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1386	0.1173		8.46	10.0	-15.4	50.0
n-Propylbenzene	Ave	0.6008	0.5973		9.94	10.0	-0.6	50.0
2-Chlorotoluene	Ave	0.5521	0.5570		10.1	10.0	0.9	50.0
1,3,5-Trimethylbenzene	Ave	1.904	1.926		10.1	10.0	1.1	50.0
4-Chlorotoluene	Ave	0.5838	0.5840		10.0	10.0	0.0	50.0
tert-Butylbenzene	Lin1		1.738		9.55	10.0	-4.5	50.0
1,2,4-Trimethylbenzene	Ave	1.986	1.973		9.93	10.0	-0.7	50.0
sec-Butylbenzene	Ave	2.350	2.210		9.40	10.0	-6.0	50.0
1,3-Dichlorobenzene	Ave	1.211	1.121		9.26	10.0	-7.4	50.0
p-Isopropyltoluene	Lin1		1.916		8.71	10.0	-12.9	50.0
1,4-Dichlorobenzene	Ave	1.295	1.192		9.20	10.0	-8.0	50.0
n-Butylbenzene	Ave	1.800	1.559		8.66	10.0	-13.4	50.0
1,2-Dichlorobenzene	Ave	1.211	1.132		9.34	10.0	-6.6	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.0857	0.0922		10.8	10.0	7.6	50.0
1,3,5-Trichlorobenzene	Ave	0.8824	0.7319		8.29	10.0	-17.1	50.0
1,2,4-Trichlorobenzene	Ave	0.7707	0.6184		8.02	10.0	-19.8	50.0
Hexachlorobutadiene	Ave	0.3439	0.2425		7.05	10.0	-29.5	50.0
Naphthalene	Lin1		1.391		7.91	10.0	-20.9	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCVIS 240-6923/2 Calibration Date: 07/01/2011 22:08

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 11:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 13:34

Lab File ID: UXX2923.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.7484	0.5750		7.68	10.0	-23.2	50.0
Dibromofluoromethane (Surr)	Ave	0.2016	0.1869		11.2	12.0	-7.3	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2647	0.2385		10.8	12.0	-9.9	50.0
Toluene-d8 (Surr)	Ave	1.053	1.084		12.4	12.0	3.0	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4131	0.3860		11.3	12.0	-6.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-6923/3 Calibration Date: 07/01/2011 22:29

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 11:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 13:34

Lab File ID: UXX2924.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2016	0.1663		9.93	12.0	-17.5	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2647	0.2183		9.93	12.0	-17.5	50.0
Toluene-d8 (Surr)	Ave	1.053	0.9815		11.2	12.0	-6.8	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4131	0.3872		11.3	12.0	-6.3	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-6923/3 Calibration Date: 07/01/2011 22:29

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 13:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 15:43

Lab File ID: UXX2924.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.3710	0.3000		8.09	10.0	-19.1	50.0
Ethyl ether	Ave	0.2073	0.1643		7.92	10.0	-20.8	50.0
3-Chloro-1-propene	Ave	0.1116	0.0992		8.89	10.0	-11.1	50.0
Diisopropyl ether	Ave	0.1929	0.1775		46.0	50.0	-8.0	50.0
2-Chloro-1,3-butadiene	Ave	0.3454	0.3087		8.94	10.0	-10.6	50.0
Ethyl-t-butyl ether (ETBE)	Ave	0.5713	0.5118		8.96	10.0	-10.4	50.0
Propionitrile	Ave	0.0312	0.0294		18.8	20.0	-5.8	50.0
Ethyl acetate	Ave	0.1702	0.1751		20.6	20.0	2.9	50.0
Methacrylonitrile	Ave	0.1216	0.1190		9.79	10.0	-2.1	50.0
Isobutyl alcohol	Ave	0.0098	0.0093		190	200	-4.9	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.4674	0.4364		9.34	10.0	-6.6	50.0
n-Heptane	Ave	0.0446	0.0495		11.1	10.0	11.1	50.0
n-Butanol	Ave	0.0068	0.0065		191	200	-4.7	50.0
Methyl methacrylate	Ave	0.1377	0.1386		10.1	10.0	0.6	50.0
2-Nitropropane	Ave	0.0320	0.0333		20.8	20.0	4.2	50.0
Cyclohexanone	Ave	0.0516	0.0284		55.0	100	-45.0	50.0
1,2,3-Trimethylbenzene	Lin1		1.954		8.34	10.0	-16.6	50.0
2-Methylnaphthalene	Qua		0.4026		7.90	20.0	-60.5*	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab File ID: UXX2926.D Lab Sample ID: MB 240-6923/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX10 Date Analyzed: 07/01/2011 23:11

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-6923/4	UXX2925.D	07/01/2011 22:50
GSP-SB-WP-84-062311	240-1443-1	UXX2928.D	07/01/2011 23:54
GSP-SB-WP-89-062311	240-1443-2	UXX2929.D	07/02/2011 00:15
GSP-SB-WP-66-062311	240-1443-4	UXX2930.D	07/02/2011 00:37
GSP-MW-8-062311	240-1443-5	UXX2931.D	07/02/2011 00:58
TB-062311	240-1443-6	UXX2932.D	07/02/2011 01:19
	240-1372-D-28 MS	UXX2945.D	07/02/2011 05:57
	240-1372-E-28 MSD	UXX2946.D	07/02/2011 06:19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-6923/5

Matrix: Water Lab File ID: UXX2926.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/01/2011 23:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	0.508	J	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-6923/5

Matrix: Water Lab File ID: UXX2926.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/01/2011 23:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	0.784	J	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-6923/5

Matrix: Water Lab File ID: UXX2926.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/01/2011 23:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	81		74-115
1868-53-7	Dibromofluoromethane (Surr)	86		75-121
460-00-4	4-Bromofluorobenzene (Surr)	83		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	87		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-6923/5

Matrix: Water Lab File ID: UXX2926.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/01/2011 23:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 6923 Units: ug/L

Number TICs Found: 2 TIC Result Total: 11.79

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
108-94-1	Cyclohexanone	8.83	9.04	J
91-57-6	2-Methylnaphthalene	13.56	2.75	J

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX2925.D

Lab ID: LCS 240-6923/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	8.93	89	72-116	
1,1,1-Trichloroethane	10.0	8.28	83	74-118	
1,1,2,2-Tetrachloroethane	10.0	10.1	101	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	11.0	110	74-151	
1,1-Dichloroethane	10.0	8.47	85	82-115	
1,1-Dichloroethene	10.0	8.73	87	78-131	
1,1-Dichloropropene	10.0	9.04	90	83-114	
1,2,3-Trichlorobenzene	10.0	6.99	70	54-126	
1,2,3-Trichloropropane	10.0	10.3	103	73-129	
1,2,3-Trimethylbenzene	10.0	8.43	84	70-130	
1,2,4-Trichlorobenzene	10.0	6.96	70	48-135	
1,2,4-Trimethylbenzene	10.0	9.48	95	76-120	
1,2-Dibromo-3-Chloropropane	10.0	9.64	96	42-136	
1,2-Dichlorobenzene	10.0	8.67	87	81-110	
1,2-Dichloroethane	10.0	8.81	88	71-127	
1,2-Dichloropropane	10.0	8.55	86	81-115	
1,3-Dichlorobenzene	10.0	8.73	87	80-110	
1,3-Dichloropropane	10.0	9.78	98	79-116	
1,4-Dichlorobenzene	10.0	8.49	85	82-110	
2,2-Dichloropropane	10.0	6.79	68	50-129	
2-Butanone	20.0	20.2	101	60-126	
2-Chloroethyl vinyl ether	10.0	9.32 J	93	52-131	
2-Chlorotoluene	10.0	9.35	94	76-116	
2-Hexanone	20.0	22.5	113	55-133	
4-Chlorotoluene	10.0	9.19	92	77-115	
p-Isopropyltoluene	10.0	8.65	87	74-120	
4-Methyl-2-pentanone	20.0	20.8	104	63-128	
Acetone	20.0	18.1	91	43-136	
Benzene	10.0	8.89	89	83-112	
Bromobenzene	10.0	9.47	95	76-115	
Bromoform	10.0	8.90	89	40-131	
Bromomethane	10.0	4.98	50	11-185	
Carbon disulfide	10.0	7.63	76	62-142	
Carbon tetrachloride	10.0	10.7	107	66-128	
Chlorobenzene	10.0	8.73	87	85-110	
Dibromochloromethane	10.0	9.49	95	64-119	
Chloroethane	10.0	5.21	52	25-153	
Chloroform	10.0	8.35	84	79-117	
Chloromethane	10.0	6.70	67	44-126	
cis-1,2-Dichloroethene	10.0	8.27	83	80-113	
cis-1,3-Dichloropropene	10.0	8.07	81	61-115	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX2925.D

Lab ID: LCS 240-6923/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dibromomethane	10.0	8.89	89	81-120	
Bromochloromethane	10.0	8.28	83	77-120	
Dichlorodifluoromethane	10.0	5.24	52	19-129	
Bromodichloromethane	10.0	8.83	88	72-121	
tert-Butyl alcohol	200	148	74	70-130	
Ethylbenzene	10.0	8.85	89	83-112	
Hexachlorobutadiene	10.0	6.42	64	36-134	
Diisopropyl ether	10.0	9.19 J	92	77-118	
Isopropylbenzene	10.0	8.54	85	75-114	
Methyl tert-butyl ether	10.0	8.45	85	52-144	
Methylene Chloride	10.0	6.94	69	66-131	
m-Xylene & p-Xylene	20.0	17.7	89	83-113	
Naphthalene	10.0	7.12	71	32-141	
n-Butylbenzene	10.0	8.66	87	66-125	
n-Propylbenzene	10.0	9.83	98	74-121	
o-Xylene	10.0	8.76	88	83-113	
sec-Butylbenzene	10.0	9.15	92	70-117	
Styrene	10.0	8.84	88	79-114	
Tetrachloroethene	10.0	9.17	92	79-114	
Toluene	10.0	9.42	94	84-111	
trans-1,2-Dichloroethene	10.0	8.30	83	83-117	
trans-1,3-Dichloropropene	10.0	9.54	95	58-117	
Trichloroethene	10.0	8.32	83	76-117	
Trichlorofluoromethane	10.0	14.3	143	49-157	
Vinyl acetate	10.0	10.5	105	46-161	
Vinyl chloride	10.0	6.91	69	53-127	
tert-Butylbenzene	10.0	9.27	93	71-115	
1,2-Dibromoethane	10.0	9.65	97	79-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX2945.D

Lab ID: 240-1372-D-28 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	1.0 U	9.05	91	64-118	
1,1,1-Trichloroethane	10.0	1.0 U	9.67	97	68-121	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	10.1	101	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	1.0 U	14.6	146	70-152	
1,1-Dichloroethane	10.0	1.0 U	9.64	96	79-116	
1,1-Dichloroethene	10.0	1.0 U	10.6	106	74-135	
1,1-Dichloropropene	10.0	1.0 U	10.3	103	80-114	
1,2,3-Trichlorobenzene	10.0	1.0 U	7.49	75	45-129	
1,2,3-Trichloropropane	10.0	1.0 U	9.87	99	67-132	
1,2,3-Trimethylbenzene	10.0	5.0 U	8.48	85	70-130	
1,2,4-Trichlorobenzene	10.0	1.0 U	6.96	70	38-138	
1,2,4-Trimethylbenzene	10.0	1.0 U	10.7	107	67-124	
1,2-Dibromo-3-Chloropropane	10.0	2.0 U	8.64	86	32-139	
1,2-Dichlorobenzene	10.0	1.0 U	8.98	90	75-111	
1,2-Dichloroethane	10.0	1.0 U	8.92	89	68-129	
1,2-Dichloropropane	10.0	1.0 U	9.97	100	78-115	
1,3-Dichlorobenzene	10.0	1.0 U	8.73	87	73-110	
1,3-Dichloropropane	10.0	1.0 U	9.71	97	74-118	
1,4-Dichlorobenzene	10.0	1.0 U	8.63	86	75-110	
2,2-Dichloropropane	10.0	1.0 U	7.42	74	38-127	
2-Butanone	20.0	10 U	20.7	104	54-129	
2-Chloroethyl vinyl ether	10.0	10 U	10 U	0	10-150	F
2-Chlorotoluene	10.0	1.0 U	10.4	104	69-117	
2-Hexanone	20.0	10 U	20.1	101	47-139	
4-Chlorotoluene	10.0	1.0 U	9.73	97	71-116	
p-Isopropyltoluene	10.0	1.0 U	8.89	89	64-122	
4-Methyl-2-pentanone	20.0	10 U	22.1	111	56-131	
Acetone	20.0	10 U	20.6	103	33-145	
Benzene	10.0	1.0 U	8.72	87	72-121	
Bromobenzene	10.0	1.0 U	9.55	96	71-116	
Bromoform	10.0	1.0 U	8.72	87	32-128	
Bromomethane	10.0	1.0 U	7.74	77	10-186	
Carbon disulfide	10.0	1.0 U	11.0	110	57-147	
Carbon tetrachloride	10.0	1.0 U	12.5	125	59-129	
Chlorobenzene	10.0	1.0 U	9.03	90	80-110	
Dibromochloromethane	10.0	1.0 U	9.47	95	56-118	
Chloroethane	10.0	1.0 U	7.53	75	21-165	
Chloroform	10.0	1.0 U	9.05	91	76-118	
Chloromethane	10.0	1.0 U	6.98	70	33-132	
cis-1,2-Dichloroethene	10.0	1.0 U	9.27	93	70-120	
cis-1,3-Dichloropropene	10.0	1.0 U	8.80	88	51-110	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX2945.D

Lab ID: 240-1372-D-28 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dibromomethane	10.0	1.0 U	10.4	104	77-121	
Bromochloromethane	10.0	1.0 U	8.73	87	73-121	
Dichlorodifluoromethane	10.0	1.0 U	7.15	72	17-128	
Bromodichloromethane	10.0	1.0 U	10.3	103	67-120	
tert-Butyl alcohol	200	50 U	212	106	70-130	
Ethylbenzene	10.0	1.0 U	9.39	94	75-116	
Hexachlorobutadiene	10.0	1.0 U	7.49	75	27-132	
Diisopropyl ether	10.0	10 U	10.1	101	73-118	
Isopropylbenzene	10.0	1.0 U	9.11	91	68-116	
Methyl tert-butyl ether	10.0	5.0 U	9.21	92	46-144	
Methylene Chloride	10.0	1.0 U	8.29	83	63-128	
m-Xylene & p-Xylene	20.0	2.0 U	18.7	94	75-117	
Naphthalene	10.0	1.0 U	6.67	67	15-158	
n-Butylbenzene	10.0	1.0 U	8.75	88	56-127	
n-Propylbenzene	10.0	1.0 U	10.7	107	64-124	
o-Xylene	10.0	1.0 U	9.28	93	76-116	
sec-Butylbenzene	10.0	1.0 U	9.38	94	60-119	
Styrene	10.0	1.0 U	9.18	92	71-117	
Tetrachloroethene	10.0	1.0 U	9.58	96	70-117	
Toluene	10.0	1.0 U	9.71	97	78-114	
trans-1,2-Dichloroethene	10.0	1.0 U	9.45	95	80-119	
trans-1,3-Dichloropropene	10.0	1.0 U	8.87	89	46-116	
Trichloroethene	10.0	1.0 U	9.21	92	66-120	
Trichlorofluoromethane	10.0	1.0 U	17.0	170	46-157	F
Vinyl acetate	10.0	2.0 U	11.1	111	43-157	
Vinyl chloride	10.0	1.0 U	8.42	84	49-130	
tert-Butylbenzene	10.0	1.0 U	9.49	95	61-119	
1,2-Dibromoethane	10.0	1.0 U	9.42	94	74-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX2946.D

Lab ID: 240-1372-E-28 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	7.75	78	15	30	64-118	
1,1,1-Trichloroethane	10.0	7.32	73	28	30	68-121	
1,1,2,2-Tetrachloroethane	10.0	7.74	77	26	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	9.53	95	42	30	70-152	F
1,1-Dichloroethane	10.0	7.43	74	26	30	79-116	F
1,1-Dichloroethene	10.0	7.31	73	37	30	74-135	F
1,1-Dichloropropene	10.0	7.55	76	31	30	80-114	F
1,2,3-Trichlorobenzene	10.0	6.96	70	7	30	45-129	
1,2,3-Trichloropropane	10.0	7.92	79	22	30	67-132	
1,2,3-Trimethylbenzene	10.0	6.94	69	20	30	70-130	F
1,2,4-Trichlorobenzene	10.0	6.31	63	10	30	38-138	
1,2,4-Trimethylbenzene	10.0	7.54	75	35	30	67-124	F
1,2-Dibromo-3-Chloropropane	10.0	8.03	80	7	30	32-139	
1,2-Dichlorobenzene	10.0	7.35	74	20	30	75-111	F
1,2-Dichloroethane	10.0	7.82	78	13	30	68-129	
1,2-Dichloropropane	10.0	7.91	79	23	30	78-115	
1,3-Dichlorobenzene	10.0	7.22	72	19	30	73-110	F
1,3-Dichloropropane	10.0	8.67	87	11	30	74-118	
1,4-Dichlorobenzene	10.0	7.01	70	21	30	75-110	F
2,2-Dichloropropane	10.0	5.73	57	26	30	38-127	
2-Butanone	20.0	16.4	82	23	30	54-129	
2-Chloroethyl vinyl ether	10.0	10 U	0	NC	30	10-150	F
2-Chlorotoluene	10.0	7.22	72	36	30	69-117	F
2-Hexanone	20.0	18.5	93	8	30	47-139	
4-Chlorotoluene	10.0	7.31	73	28	30	71-116	
p-Isopropyltoluene	10.0	6.62	66	29	30	64-122	
4-Methyl-2-pentanone	20.0	17.5	88	23	30	56-131	
Acetone	20.0	15.0	75	31	30	33-145	F
Benzene	10.0	7.44	74	16	30	72-121	
Bromobenzene	10.0	7.44	74	25	30	71-116	
Bromoform	10.0	7.81	78	11	30	32-128	
Bromomethane	10.0	5.97	60	26	30	10-186	
Carbon disulfide	10.0	7.23	72	41	30	57-147	F
Carbon tetrachloride	10.0	9.14	91	31	30	59-129	F
Chlorobenzene	10.0	7.52	75	18	30	80-110	F
Dibromochloromethane	10.0	8.12	81	15	30	56-118	
Chloroethane	10.0	5.95	60	23	30	21-165	
Chloroform	10.0	7.07	71	25	30	76-118	F
Chloromethane	10.0	4.89	49	35	30	33-132	F
cis-1,2-Dichloroethene	10.0	7.14	71	26	30	70-120	
cis-1,3-Dichloropropene	10.0	6.82	68	25	30	51-110	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX2946.D

Lab ID: 240-1372-E-28 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dibromomethane	10.0	8.14	81	24	30	77-121	
Bromochloromethane	10.0	7.10	71	21	30	73-121	F
Dichlorodifluoromethane	10.0	5.42	54	28	30	17-128	
Bromodichloromethane	10.0	8.10	81	24	30	67-120	
tert-Butyl alcohol	200	168	84	23	30	70-130	
Ethylbenzene	10.0	7.33	73	25	30	75-116	F
Hexachlorobutadiene	10.0	5.82	58	25	30	27-132	
Diisopropyl ether	10.0	7.76 J	78	26	30	73-118	
Isopropylbenzene	10.0	6.66	67	31	30	68-116	F
Methyl tert-butyl ether	10.0	7.11	71	26	30	46-144	
Methylene Chloride	10.0	5.69	57	37	30	63-128	F
m-Xylene & p-Xylene	20.0	14.6	73	25	30	75-117	F
Naphthalene	10.0	6.77	68	1	30	15-158	
n-Butylbenzene	10.0	6.51	65	29	30	56-127	
n-Propylbenzene	10.0	6.89	69	43	30	64-124	F
o-Xylene	10.0	7.37	74	23	30	76-116	F
sec-Butylbenzene	10.0	6.73	67	33	30	60-119	F
Styrene	10.0	7.61	76	19	30	71-117	
Tetrachloroethene	10.0	7.56	76	24	30	70-117	
Toluene	10.0	8.00	80	19	30	78-114	
trans-1,2-Dichloroethene	10.0	6.93	69	31	30	80-119	F
trans-1,3-Dichloropropene	10.0	7.74	77	14	30	46-116	
Trichloroethene	10.0	7.53	75	20	30	66-120	
Trichlorofluoromethane	10.0	12.4	124	31	30	46-157	F
Vinyl acetate	10.0	8.28	83	29	30	43-157	
Vinyl chloride	10.0	6.50	65	26	30	49-130	
tert-Butylbenzene	10.0	6.54	65	37	30	61-119	F
1,2-Dibromoethane	10.0	8.37	84	12	30	74-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab File ID: BFB4190.D BFB Injection Date: 07/03/2011

Instrument ID: A3UX10 BFB Injection Time: 08:52

Analysis Batch No.: 7003

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.4	
75	30.0 - 60.0 % of mass 95	51.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	87.1	
175	5.0 - 9.0 % of mass 174	6.4	(7.3)1
176	95.0 - 101.0 % of mass 174	83.5	(95.9)1
177	5.0 - 9.0 % of mass 176	5.3	(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-7003/2	UXX2952.D	07/03/2011	10:01
	CCV 240-7003/3	UXX2953.D	07/03/2011	10:38
	LCS 240-7003/4	UXX2954.D	07/03/2011	11:00
	MB 240-7003/5	UXX2955.D	07/03/2011	11:21
GSP-SB-WP-66-062311 DL	240-1443-4 DL	UXX2956.D	07/03/2011	12:05
(acetone only)	240-1461-E-3 MS	UXX2962.D	07/03/2011	14:13
	240-1461-F-3 MSD	UXX2963.D	07/03/2011	14:35

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCVIS 240-7003/2 Calibration Date: 07/03/2011 10:01

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 11:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 13:34

Lab File ID: UXX2952.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1881	0.2993		15.9	10.0	59.1*	50.0
Chloromethane	Ave	0.3014	0.3770	0.1000	12.5	10.0	25.1	50.0
Vinyl chloride	Ave	0.2992	0.2993		10.0	10.0	0.0	20.0
Bromomethane	Ave	0.1005	0.1020		10.1	10.0	1.4	50.0
Chloroethane	Ave	0.1790	0.1512		8.45	10.0	-15.5	50.0
Trichlorofluoromethane	Ave	0.1470	0.3238		22.0	10.0	120.2*	50.0
Acrolein	Ave	0.0321	0.0299		93.2	100	-6.8	50.0
1,1-Dichloroethene	Ave	0.2200	0.2131		9.68	10.0	-3.2	20.0
Acetone	Lin1		0.0762		20.1	20.0	0.5 ✓	50.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1427	0.1900		13.3	10.0	33.1	50.0
Iodomethane	Ave	0.3239	0.3385		10.4	10.0	4.5	50.0
Carbon disulfide	Ave	0.6390	0.6703		10.5	10.0	4.9	50.0
Acetonitrile	Ave	0.0328	0.0348		106	100	6.1	50.0
Methyl acetate	Ave	0.1856	0.2131		23.0	20.0	14.8	50.0
Methylene Chloride	Lin1		0.2820		9.45	10.0	-5.5	50.0
tert-Butyl alcohol	Ave	0.0148	0.0168		227	200	13.4	50.0
Acrylonitrile	Ave	0.0928	0.1020		22.0	20.0	9.9	50.0
Methyl tert-butyl ether	Ave	0.6176	0.6320		10.2	10.0	2.3	50.0
trans-1,2-Dichloroethene	Ave	0.2518	0.2429		9.65	10.0	-3.5	50.0
Hexane	Ave	0.0491	0.0556		11.3	10.0	13.2	20.0
1,1-Dichloroethane	Ave	0.4417	0.3756	0.1000	8.50	10.0	-15.0	50.0
Vinyl acetate	Lin1		0.0326		11.8	10.0	18.0	50.0
2-Butanone	Ave	0.0894	0.0938		21.0	20.0	4.9	50.0
cis-1,2-Dichloroethene	Ave	0.2596	0.2305		8.88	10.0	-11.2	50.0
2,2-Dichloropropane	Ave	0.2009	0.1860		9.26	10.0	-7.4	50.0
Bromochloromethane	Ave	0.1233	0.1113		9.02	10.0	-9.8	50.0
Chloroform	Ave	0.4253	0.3713		8.73	10.0	-12.7	20.0
Tetrahydrofuran	Ave	0.0647	0.0571		8.82	10.0	-11.8	50.0
1,1,1-Trichloroethane	Ave	0.2895	0.2732		9.44	10.0	-5.6	50.0
Cyclohexane	Ave	0.3927	0.3962		10.1	10.0	0.9	50.0
1,1-Dichloropropene	Ave	0.3009	0.3077		10.2	10.0	2.2	50.0
Carbon tetrachloride	Ave	0.2013	0.2572		12.8	10.0	27.8	50.0
1,2-Dichloroethane	Ave	0.3181	0.3083		9.69	10.0	-3.1	50.0
Benzene	Ave	0.9751	0.9161		9.39	10.0	-6.1	50.0
Trichloroethene	Ave	0.2257	0.2257		10.0	10.0	0.0	50.0
1,2-Dichloropropane	Ave	0.2220	0.2214		9.98	10.0	-0.2	20.0
Methylcyclohexane	Ave	0.3726	0.3972		10.7	10.0	6.6	50.0
Dibromomethane	Ave	0.1280	0.1282		10.0	10.0	0.1	50.0
1,4-Dioxane	Ave	0.0022	0.0021		464	500	-7.2	50.0
Bromodichloromethane	Ave	0.2454	0.2551		10.4	10.0	4.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCVIS 240-7003/2 Calibration Date: 07/03/2011 10:01

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 11:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 13:34

Lab File ID: UXX2952.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Ave	0.1007	0.1208		24.0	20.0	20.0	50.0
cis-1,3-Dichloropropene	Ave	0.2824	0.3151		11.2	10.0	11.6	50.0
4-Methyl-2-pentanone	Ave	0.1554	0.1845		23.7	20.0	18.7	50.0
Toluene	Ave	1.298	1.403		10.8	10.0	8.1	20.0
trans-1,3-Dichloropropene	Ave	0.3301	0.4267		12.9	10.0	29.3	50.0
Ethyl methacrylate	Lin1		0.4093		12.8	10.0	28.0	50.0
1,1,2-Trichloroethane	Ave	0.2474	0.3053		12.3	10.0	23.4	50.0
1,3-Dichloropropane	Ave	0.4548	0.5427		11.9	10.0	19.3	50.0
Tetrachloroethene	Ave	0.2559	0.3078		12.0	10.0	20.3	50.0
2-Hexanone	Ave	0.1387	0.1819		26.2	20.0	31.2	50.0
Dibromochloromethane	Ave	0.2261	0.2646		11.7	10.0	17.0	50.0
1,2-Dibromoethane	Ave	0.2403	0.2498		10.4	10.0	4.0	50.0
Chlorobenzene	Ave	0.8856	0.8654	0.3000	9.77	10.0	-2.3	50.0
1,1,1,2-Tetrachloroethane	Ave	0.2868	0.2789		9.73	10.0	-2.7	50.0
Ethylbenzene	Ave	0.4478	0.4551		10.2	10.0	1.6	20.0
m-Xylene & p-Xylene	Ave	0.5765	0.5886		20.4	20.0	2.1	50.0
o-Xylene	Ave	0.5714	0.5588		9.78	10.0	-2.2	50.0
Styrene	Ave	0.9172	0.9357		10.2	10.0	2.0	50.0
Bromoform	Ave	0.1396	0.1524	0.1000	10.9	10.0	9.2	50.0
Isopropylbenzene	Ave	1.449	1.462		10.1	10.0	0.9	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5547	0.5742	0.3000	10.4	10.0	3.5	50.0
Bromobenzene	Ave	0.5666	0.5956		10.5	10.0	5.1	50.0
1,2,3-Trichloropropane	Ave	0.1761	0.1820		10.3	10.0	3.4	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1386	0.1082		7.81	10.0	-21.9	50.0
n-Propylbenzene	Ave	0.6008	0.6567		10.9	10.0	9.3	50.0
2-Chlorotoluene	Ave	0.5521	0.5768		10.4	10.0	4.5	50.0
1,3,5-Trimethylbenzene	Ave	1.904	2.059		10.8	10.0	8.2	50.0
4-Chlorotoluene	Ave	0.5838	0.5994		10.3	10.0	2.7	50.0
tert-Butylbenzene	Lin1		1.980		10.8	10.0	8.0	50.0
1,2,4-Trimethylbenzene	Ave	1.986	2.110		10.6	10.0	6.2	50.0
sec-Butylbenzene	Ave	2.350	2.687		11.4	10.0	14.4	50.0
1,3-Dichlorobenzene	Ave	1.211	1.232		10.2	10.0	1.7	50.0
p-Isopropyltoluene	Lin1		2.201		9.94	10.0	-0.6	50.0
1,4-Dichlorobenzene	Ave	1.295	1.276		9.85	10.0	-1.5	50.0
n-Butylbenzene	Ave	1.800	1.807		10.0	10.0	0.4	50.0
1,2-Dichlorobenzene	Ave	1.211	1.182		9.76	10.0	-2.4	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.0857	0.1040		12.1	10.0	21.5	50.0
1,3,5-Trichlorobenzene	Ave	0.8824	0.8630		9.78	10.0	-2.2	50.0
1,2,4-Trichlorobenzene	Ave	0.7707	0.7432		9.64	10.0	-3.6	50.0
Hexachlorobutadiene	Ave	0.3439	0.3339		9.71	10.0	-2.9	50.0
Naphthalene	Lin1		1.626		9.18	10.0	-8.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCVIS 240-7003/2 Calibration Date: 07/03/2011 10:01

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 11:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 13:34

Lab File ID: UXX2952.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.7484	0.6714		8.97	10.0	-10.3	50.0
Dibromofluoromethane (Surr)	Ave	0.2016	0.1767		10.6	12.0	-12.3	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2647	0.2375		10.8	12.0	-10.3	50.0
Toluene-d8 (Surr)	Ave	1.053	1.071		12.2	12.0	1.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4131	0.3927		11.4	12.0	-4.9	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-7003/3 Calibration Date: 07/03/2011 10:38

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 11:47

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 13:34

Lab File ID: UXX2953.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2016	0.1631		9.74	12.0	-19.1	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2647	0.2146		9.76	12.0	-18.9	50.0
Toluene-d8 (Surr)	Ave	1.053	0.9572		10.9	12.0	-9.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4131	0.3781		11.0	12.0	-8.5	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-7003/3 Calibration Date: 07/03/2011 10:38

Instrument ID: A3UX10 Calib Start Date: 06/14/2011 13:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/14/2011 15:43

Lab File ID: UXX2953.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.3710	0.2987		8.05	10.0	-19.5	50.0
Ethyl ether	Ave	0.2073	0.1660		8.00	10.0	-20.0	50.0
3-Chloro-1-propene	Ave	0.1116	0.1044		9.35	10.0	-6.5	50.0
Diisopropyl ether	Ave	0.1929	0.1853		48.0	50.0	-3.9	50.0
2-Chloro-1,3-butadiene	Ave	0.3454	0.3330		9.64	10.0	-3.6	50.0
Ethyl-t-butyl ether (ETBE)	Ave	0.5713	0.5248		9.19	10.0	-8.1	50.0
Ethyl acetate	Ave	0.1702	0.1618		19.0	20.0	-4.9	50.0
Propionitrile	Ave	0.0312	0.0276		17.7	20.0	-11.4	50.0
Methacrylonitrile	Ave	0.1216	0.1188		9.77	10.0	-2.3	50.0
Isobutyl alcohol	Ave	0.0098	0.0089		181	200	-9.3	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.4674	0.4497		9.62	10.0	-3.8	50.0
n-Heptane	Ave	0.0446	0.0598		13.4	10.0	34.1	50.0
n-Butanol	Ave	0.0068	0.0064		187	200	-6.4	50.0
Methyl methacrylate	Ave	0.1377	0.1429		10.4	10.0	3.7	50.0
2-Nitropropane	Ave	0.0320	0.0393		24.6	20.0	23.1	50.0
Cyclohexanone	Ave	0.0516	0.0367		71.1	100	-28.9	50.0
1,2,3-Trimethylbenzene	Lin1		2.130		9.04	10.0	-9.6	50.0
2-Methylnaphthalene	Qua		0.4445		8.47	20.0	-57.7*	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab File ID: UXX2955.D Lab Sample ID: MB 240-7003/5

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX10 Date Analyzed: 07/03/2011 11:21

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-7003/4	UXX2954.D	07/03/2011 11:00
GSP-SB-WP-66-062311 DL	240-1443-4 DL	UXX2956.D	07/03/2011 12:05
	240-1461-E-3 MS	UXX2962.D	07/03/2011 14:13
	240-1461-F-3 MSD	UXX2963.D	07/03/2011 14:35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-7003/5

Matrix: Water | Lab File ID: UXX2955.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 07/03/2011 11:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 7003 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.23
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.22
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	1.0	U	1.0	0.28
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.15
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.19
563-58-6	1,1-Dichloropropene	1.0	U	1.0	0.13
87-61-6	1,2,3-Trichlorobenzene	< 0.451	J	1.0	0.17
96-18-4	1,2,3-Trichloropropane	1.0	U	1.0	0.43
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.0059
120-82-1	1,2,4-Trichlorobenzene	1.0	U	1.0	0.15
95-63-6	1,2,4-Trimethylbenzene	1.0	U	1.0	0.12
96-12-8	1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.67
95-50-1	1,2-Dichlorobenzene	1.0	U	1.0	0.13
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.22
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.18
541-73-1	1,3-Dichlorobenzene	1.0	U	1.0	0.14
142-28-9	1,3-Dichloropropane	1.0	U	1.0	0.16
106-46-7	1,4-Dichlorobenzene	1.0	U	1.0	0.13
594-20-7	2,2-Dichloropropane	1.0	U	1.0	0.13
78-93-3	2-Butanone	10	U	10	0.57
110-75-8	2-Chloroethyl vinyl ether	10	U	10	0.99
95-49-8	2-Chlorotoluene	1.0	U	1.0	0.11
591-78-6	2-Hexanone	10	U	10	0.41
106-43-4	4-Chlorotoluene	1.0	U	1.0	0.18
99-87-6	p-Isopropyltoluene	1.0	U	1.0	0.12
108-10-1	4-Methyl-2-pentanone	10	U	10	0.32
67-64-1	Acetone	10	U	10	1.1
71-43-2	Benzene	1.0	U	1.0	0.13
108-86-1	Bromobenzene	1.0	U	1.0	0.13
75-25-2	Bromoform	1.0	U	1.0	0.64
74-83-9	Bromomethane	1.0	U	1.0	0.41
75-15-0	Carbon disulfide	1.0	U	1.0	0.13
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.13
108-90-7	Chlorobenzene	1.0	U	1.0	0.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-7003/5

Matrix: Water Lab File ID: UXX2955.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2011 11:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 7003 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	1.0	U	1.0	0.18
75-00-3	Chloroethane	1.0	U	1.0	0.29
67-66-3	Chloroform	1.0	U	1.0	0.16
74-87-3	Chloromethane	1.0	U	1.0	0.30
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.17
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.14
74-95-3	Dibromomethane	1.0	U	1.0	0.28
74-97-5	Bromochloromethane	1.0	U	1.0	0.29
75-71-8	Dichlorodifluoromethane	1.0	U	1.0	0.31
75-27-4	Bromodichloromethane	1.0	U	1.0	0.15
75-65-0	tert-Butyl alcohol	50	U	50	3.9
100-41-4	Ethylbenzene	1.0	U	1.0	0.17
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.30
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	1.0	U	1.0	0.13
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.17
75-09-2	Methylene Chloride	1.0	U	1.0	0.33
179601-23-1	m-Xylene & p-Xylene	2.0	U	2.0	0.24
91-20-3	Naphthalene	0.720	J	1.0	0.24
104-51-8	n-Butylbenzene	1.0	U	1.0	0.12
103-65-1	n-Propylbenzene	1.0	U	1.0	0.14
95-47-6	o-Xylene	1.0	U	1.0	0.14
135-98-8	sec-Butylbenzene	1.0	U	1.0	0.13
100-42-5	Styrene	1.0	U	1.0	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.067
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.11
127-18-4	Tetrachloroethene	1.0	U	1.0	0.29
108-88-3	Toluene	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.19
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.19
79-01-6	Trichloroethene	1.0	U	1.0	0.17
75-69-4	Trichlorofluoromethane	1.0	U	1.0	0.21
108-05-4	Vinyl acetate	2.0	U	2.0	0.19
75-01-4	Vinyl chloride	1.0	U	1.0	0.22
1330-20-7	Xylenes, Total	2.0	U	2.0	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-7003/5

Matrix: Water Lab File ID: UXX2955.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2011 11:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 7003 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	1.0	U	1.0	0.13
106-93-4	1,2-Dibromoethane	1.0	U	1.0	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	93		74-115
1868-53-7	Dibromofluoromethane (Surr)	86		75-121
460-00-4	4-Bromofluorobenzene (Surr)	82		66-117
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		63-129

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-7003/5

Matrix: Water Lab File ID: UXX2955.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2011 11:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 7003 Units: ug/L

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX2954.D

Lab ID: LCS 240-7003/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	10.3	103	72-116	
1,1,1-Trichloroethane	10.0	9.54	95	74-118	
1,1,2,2-Tetrachloroethane	10.0	10.3	103	68-118	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	13.0	130	74-151	
1,1-Dichloroethane	10.0	9.11	91	82-115	
1,1-Dichloroethene	10.0	9.80	98	78-131	
1,1-Dichloropropene	10.0	10.5	105	83-114	
1,2,3-Trichlorobenzene	10.0	9.10	91	54-126	
1,2,3-Trichloropropane	10.0	10.7	107	73-129	
1,2,3-Trimethylbenzene	10.0	9.66	97	70-130	
1,2,4-Trichlorobenzene	10.0	9.04	90	48-135	
1,2,4-Trimethylbenzene	10.0	11.1	111	76-120	
1,2-Dibromo-3-Chloropropane	10.0	10.6	106	42-136	
1,2-Dichlorobenzene	10.0	10.1	101	81-110	
1,2-Dichloroethane	10.0	10.2	102	71-127	
1,2-Dichloropropane	10.0	10.2	102	81-115	
1,3-Dichlorobenzene	10.0	10.2	102	80-110	
1,3-Dichloropropane	10.0	10.6	106	79-116	
1,4-Dichlorobenzene	10.0	9.99	100	82-110	
2,2-Dichloropropane	10.0	9.28	93	50-129	
2-Butanone	20.0	20.4	102	60-126	
2-Chloroethyl vinyl ether	10.0	11.2	112	52-131	
2-Chlorotoluene	10.0	10.7	107	76-116	
2-Hexanone	20.0	22.6	113	55-133	
4-Chlorotoluene	10.0	11.0	110	77-115	
p-Isopropyltoluene	10.0	10.2	102	74-120	
4-Methyl-2-pentanone	20.0	23.2	116	63-128	
Acetone	20.0	17.4	87	43-136	
Benzene	10.0	9.94	99	83-112	
Bromobenzene	10.0	10.9	109	76-115	
Bromoform	10.0	11.2	112	40-131	
Bromomethane	10.0	7.67	77	11-185	
Carbon disulfide	10.0	9.44	94	62-142	
Carbon tetrachloride	10.0	12.7	127	66-128	
Chlorobenzene	10.0	10.2	102	85-110	
Dibromochloromethane	10.0	11.0	110	64-119	
Chloroethane	10.0	7.00	70	25-153	
Chloroform	10.0	9.37	94	79-117	
Chloromethane	10.0	7.95	80	44-126	
cis-1,2-Dichloroethene	10.0	9.28	93	80-113	
cis-1,3-Dichloropropene	10.0	10.6	106	61-115	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX2954.D

Lab ID: LCS 240-7003/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dibromomethane	10.0	10.7	107	81-120	
Bromochloromethane	10.0	9.40	94	77-120	
Dichlorodifluoromethane	10.0	9.24	92	19-129	
Bromodichloromethane	10.0	10.6	106	72-121	
tert-Butyl alcohol	200	214	107	70-130	
Ethylbenzene	10.0	10.7	107	83-112	
Hexachlorobutadiene	10.0	9.07	91	36-134	
Diisopropyl ether	10.0	10.2	102	77-118	
Isopropylbenzene	10.0	10.3	103	75-114	
Methyl tert-butyl ether	10.0	9.49	95	52-144	
Methylene Chloride	10.0	8.45	85	66-131	
m-Xylene & p-Xylene	20.0	21.2	106	83-113	
Naphthalene	10.0	8.52	85	32-141	
n-Butylbenzene	10.0	10.8	108	66-125	
n-Propylbenzene	10.0	11.5	115	74-121	
o-Xylene	10.0	10.4	104	83-113	
sec-Butylbenzene	10.0	10.8	108	70-117	
Styrene	10.0	10.5	105	79-114	
Tetrachloroethene	10.0	11.0	110	79-114	
Toluene	10.0	10.7	107	84-111	
trans-1,2-Dichloroethene	10.0	9.14	91	83-117	
trans-1,3-Dichloropropene	10.0	11.4	114	58-117	
Trichloroethene	10.0	10.4	104	76-117	
Trichlorofluoromethane	10.0	19.4	194	49-157	*
Vinyl acetate	10.0	16.6	166	46-161	*
Vinyl chloride	10.0	8.22	82	53-127	
tert-Butylbenzene	10.0	9.97	100	71-115	
1,2-Dibromoethane	10.0	10.7	107	79-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX2962.D

Lab ID: 240-1461-E-3 MS N/A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	1.0 U	9.83	98	64-118	
1,1,1-Trichloroethane	10.0	0.78 J	9.80	90	68-121	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	10.0	100	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	1.0 U	12.2	122	70-152	
1,1-Dichloroethane	10.0	1.0 U	8.92	89	79-116	
1,1-Dichloroethene	10.0	1.0 U	9.84	98	74-135	
1,1-Dichloropropene	10.0	1.0 U	10.1	101	80-114	
1,2,3-Trichlorobenzene	10.0	1.0 U	8.53	85	45-129	
1,2,3-Trichloropropane	10.0	1.0 U	10.2	102	67-132	
1,2,3-Trimethylbenzene	10.0	5.0 U	9.14	91	70-130	
1,2,4-Trichlorobenzene	10.0	1.0 U	8.34	83	38-138	
1,2,4-Trimethylbenzene	10.0	1.0 U	10.4	104	67-124	
1,2-Dibromo-3-Chloropropane	10.0	2.0 U	9.86	99	32-139	
1,2-Dichlorobenzene	10.0	1.0 U	9.83	98	75-111	
1,2-Dichloroethane	10.0	1.0 U	10.1	101	68-129	
1,2-Dichloropropane	10.0	1.0 U	9.98	100	78-115	
1,3-Dichlorobenzene	10.0	1.0 U	9.64	96	73-110	
1,3-Dichloropropane	10.0	1.0 U	10.4	104	74-118	
1,4-Dichlorobenzene	10.0	1.0 U	9.63	96	75-110	
2,2-Dichloropropane	10.0	1.0 U	8.44	84	38-127	
2-Butanone	20.0	10 U	19.6	98	54-129	
2-Chloroethyl vinyl ether	10.0	10 U	10 U	0	10-150	F
2-Chlorotoluene	10.0	1.0 U	9.99	100	69-117	
2-Hexanone	20.0	10 U	21.8	109	47-139	
4-Chlorotoluene	10.0	1.0 U	10.0	100	71-116	
p-Isopropyltoluene	10.0	1.0 U	9.67	97	64-122	
4-Methyl-2-pentanone	20.0	10 U	21.8	109	56-131	
Acetone	20.0	10 U	17.9	90	33-145	
Benzene	10.0	1.0 U	9.59	96	72-121	
Bromobenzene	10.0	1.0 U	10.3	103	71-116	
Bromoform	10.0	1.0 U	10.5	105	32-128	
Bromomethane	10.0	1.0 U	9.16	92	10-186	
Carbon disulfide	10.0	1.0 U	9.17	92	57-147	
Carbon tetrachloride	10.0	1.0 U	12.2	122	59-129	
Chlorobenzene	10.0	1.0 U	9.86	99	80-110	
Dibromochloromethane	10.0	1.0 U	10.4	104	56-118	
Chloroethane	10.0	1.0 U	7.88	79	21-165	
Chloroform	10.0	1.0 U	9.17	92	76-118	
Chloromethane	10.0	1.0 U	8.28	83	33-132	
cis-1,2-Dichloroethene	10.0	1.0 U	8.93	89	70-120	
cis-1,3-Dichloropropene	10.0	1.0 U	9.34	93	51-110	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX2962.D

Lab ID: 240-1461-E-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Dibromomethane	10.0	1.0 U	10.4	104	77-121	
Bromochloromethane	10.0	1.0 U	9.26	93	73-121	
Dichlorodifluoromethane	10.0	1.0 U	8.88	89	17-128	
Bromodichloromethane	10.0	1.0 U	10.4	104	67-120	
tert-Butyl alcohol	200	50 U	206	103	70-130	
Ethylbenzene	10.0	1.0 U	10.0	100	75-116	
Hexachlorobutadiene	10.0	1.0 U	8.39	84	27-132	
Diisopropyl ether	10.0	10 U	9.73 J	97	73-118	
Isopropylbenzene	10.0	1.0 U	9.64	96	68-116	
Methyl tert-butyl ether	10.0	5.0 U	9.09	91	46-144	
Methylene Chloride	10.0	1.0 U	7.62	76	63-128	
m-Xylene & p-Xylene	20.0	2.0 U	20.4	102	75-117	
Naphthalene	10.0	1.0 U	7.94	79	15-158	
n-Butylbenzene	10.0	1.0 U	10.0	100	56-127	
n-Propylbenzene	10.0	1.0 U	10.5	105	64-124	
o-Xylene	10.0	1.0 U	9.97	100	76-116	
sec-Butylbenzene	10.0	1.0 U	9.92	99	60-119	
Styrene	10.0	1.0 U	10.1	101	71-117	
Tetrachloroethene	10.0	1.0 U	10.6	106	70-117	
Toluene	10.0	1.0 U	10.4	104	78-114	
trans-1,2-Dichloroethene	10.0	1.0 U	9.03	90	80-119	
trans-1,3-Dichloropropene	10.0	1.0 U	10.4	104	46-116	
Trichloroethene	10.0	9.3	18.9	96	66-120	
Trichlorofluoromethane	10.0	1.0 U	19.2	192	46-157	F
Vinyl acetate	10.0	2.0 U	15.8	158	43-157	F
Vinyl chloride	10.0	1.0 U	8.25	83	49-130	
tert-Butylbenzene	10.0	1.0 U	10.0	100	61-119	
1,2-Dibromoethane	10.0	1.0 U	10.4	104	74-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX2963.D

Lab ID: 240-1461-F-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	10.0	10.2	102	4	30	64-118	
1,1,1-Trichloroethane	10.0	10.0	92	2	30	68-121	
1,1,2,2-Tetrachloroethane	10.0	10.0	100	0	30	63-122	
1,1,2-Trichloro-1,2,2-trichfluoroethane	10.0	12.1	121	1	30	70-152	
1,1-Dichloroethane	10.0	9.09	91	2	30	79-116	
1,1-Dichloroethene	10.0	10.0	100	2	30	74-135	
1,1-Dichloropropene	10.0	10.2	102	1	30	80-114	
1,2,3-Trichlorobenzene	10.0	9.27	93	8	30	45-129	
1,2,3-Trichloropropane	10.0	10.4	104	2	30	67-132	
1,2,3-Trimethylbenzene	10.0	9.37	94	2	30	70-130	
1,2,4-Trichlorobenzene	10.0	8.98	90	7	30	38-138	
1,2,4-Trimethylbenzene	10.0	10.7	107	3	30	67-124	
1,2-Dibromo-3-Chloropropane	10.0	10.5	105	6	30	32-139	
1,2-Dichlorobenzene	10.0	9.94	99	1	30	75-111	
1,2-Dichloroethane	10.0	10.2	102	1	30	68-129	
1,2-Dichloropropane	10.0	9.97	100	0	30	78-115	
1,3-Dichlorobenzene	10.0	9.99	100	4	30	73-110	
1,3-Dichloropropane	10.0	10.5	105	1	30	74-118	
1,4-Dichlorobenzene	10.0	9.71	97	1	30	75-110	
2,2-Dichloropropane	10.0	8.79	88	4	30	38-127	
2-Butanone	20.0	21.4	107	9	30	54-129	
2-Chloroethyl vinyl ether	10.0	10 U	0	NC	30	10-150	F
2-Chlorotoluene	10.0	10.2	102	2	30	69-117	
2-Hexanone	20.0	22.4	112	3	30	47-139	
4-Chlorotoluene	10.0	10.4	104	4	30	71-116	
p-Isopropyltoluene	10.0	9.89	99	2	30	64-122	
4-Methyl-2-pentanone	20.0	22.5	113	3	30	56-131	
Acetone	20.0	17.6	88	2	30	33-145	
Benzene	10.0	9.72	97	1	30	72-121	
Bromobenzene	10.0	10.4	104	1	30	71-116	
Bromoform	10.0	10.5	105	0	30	32-128	
Bromomethane	10.0	7.05	71	26	30	10-186	
Carbon disulfide	10.0	9.10	91	1	30	57-147	
Carbon tetrachloride	10.0	12.3	123	1	30	59-129	
Chlorobenzene	10.0	10.0	100	1	30	80-110	
Dibromochloromethane	10.0	10.7	107	3	30	56-118	
Chloroethane	10.0	6.68	67	16	30	21-165	
Chloroform	10.0	9.22	92	1	30	76-118	
Chloromethane	10.0	7.91	79	5	30	33-132	
cis-1,2-Dichloroethene	10.0	9.21	92	3	30	70-120	
cis-1,3-Dichloropropene	10.0	9.48	95	1	30	51-110	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXX2963.D

Lab ID: 240-1461-F-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dibromomethane	10.0	10.4	104	0	30	77-121	
Bromochloromethane	10.0	9.41	94	2	30	73-121	
Dichlorodifluoromethane	10.0	9.17	92	3	30	17-128	
Bromodichloromethane	10.0	10.4	104	0	30	67-120	
tert-Butyl alcohol	200	204	102	1	30	70-130	
Ethylbenzene	10.0	10.3	103	3	30	75-116	
Hexachlorobutadiene	10.0	8.73	87	4	30	27-132	
Diisopropyl ether	10.0	9.97 J	100	2	30	73-118	
Isopropylbenzene	10.0	10.0	100	4	30	68-116	
Methyl tert-butyl ether	10.0	9.38	94	3	30	46-144	
Methylene Chloride	10.0	7.55	76	1	30	63-128	
m-Xylene & p-Xylene	20.0	20.6	103	1	30	75-117	
Naphthalene	10.0	8.83	88	11	30	15-158	
n-Butylbenzene	10.0	10.3	103	3	30	56-127	
n-Propylbenzene	10.0	10.9	109	4	30	64-124	
o-Xylene	10.0	10.3	103	3	30	76-116	
sec-Butylbenzene	10.0	10.3	103	4	30	60-119	
Styrene	10.0	10.2	102	1	30	71-117	
Tetrachloroethene	10.0	10.7	107	1	30	70-117	
Toluene	10.0	10.6	106	2	30	78-114	
trans-1,2-Dichloroethene	10.0	9.14	91	1	30	80-119	
trans-1,3-Dichloropropene	10.0	10.9	109	5	30	46-116	
Trichloroethene	10.0	19.4	101	3	30	66-120	
Trichlorofluoromethane	10.0	18.1	181	6	30	46-157	F
Vinyl acetate	10.0	16.5	165	4	30	43-157	F
Vinyl chloride	10.0	8.52	85	3	30	49-130	
tert-Butylbenzene	10.0	9.47	95	5	30	61-119	
1,2-Dibromoethane	10.0	10.5	105	1	30	74-113	

Column to be used to flag recovery and RPD values

FORM III 8260B

MARTIN STATE AIRPORT - GREATER STRAWBERRY POINT
SDG 240-1443-1

SAMPLE IDENTIFICATION	GSP-SB-WP-89-062311
COMPOUND	TRICHLOROETHENE
COMPOUND AREA	760920
INTERNAL STANDARD AMOUNT (ng)	50
VOLUME WATER PURGED (ml)	5
DILUTION FACTOR	1
INTERNAL STANDARD AREA	1352434
AVERAGE RRF	0.2257
ml to µl	1000
ng to µg	1000
=	24.93 µg/L

760920 x 50 ng x 1 x 1000ml x 1µg /1352434 x 0.2257 x 5ml x 1L x 1000ng

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\NCChrom\ChromData\A3UX10\20110701-1563.b\UXX2929.D
Lims ID: 240-1443-A-2 Client ID: GSP-SB-WP-89-062311
Inject. Date: 02-Jul-2011 00:15:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 240-0001563-008
Misc. Info.: P10701B,8260LLUX10,,1904 =P10701B,8260LLUX10,,1904
Operator: Instrument ID: A3UX10
Vol. Injected: 1.0000 ALS Bottle#: 38
Lims Batch ID: 6923 Lims Sample ID: 8
Detector: MS SCAN

Method: \\NCChrom\ChromData\A3UX10\20110701-1563.b\8260_10.m
Last Update: 03-Jul-2011 08:16:32 Calib Date: 14-Jun-2011 15:43:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCChrom\ChromData\A3UX10\20110614-1087.b\UXX2327.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Process Host: CORP-CTX-18

First Level Reviewer: quayler Date: 05-Jul-2011 10:57:13

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
* 1 Fluorobenzene	96	5.113	5.113	0.0	99	1352434	10.0	
* 2 Chlorobenzene-d5	117	7.788	7.788	0.0	84	803972	10.0	
* 3 1,4-Dichlorobenzene-d4	152	10.036	10.036	0.0	95	493515	10.0	
$ 5 Dibromofluoromethane (Surr)	113	4.534	4.534	0.0	58	290175	10.6	
$ 6 1,2-Dichloroethane-d4 (Surr)	65	4.818	4.818	0.0	0	380455	10.6	
$ 7 Toluene-d8 (Surr)	98	6.474	6.474	0.0	93	1158588	13.7	
$ 131 4-Bromofluorobenzene (Surr)	95	8.900	8.900	0.0	88	358428	10.8	
12 Dichlorodifluoromethane	85		1.481					
13 Chloromethane	50		1.611					
14 Vinyl chloride	62		1.717					
15 Bromomethane	94		2.001					
16 Chloroethane	64		2.084					
18 Trichlorofluoromethane	101		2.309					
21 1,1-Dichloroethene	96	2.711	2.711	0.0	89	29476	0.99	
22 Acetone	43		2.735					
23 1,1,2-Trichloro-1,2,2-trifluoroethane	151		2.747					
26 Carbon disulfide	76		2.924					
30 Methylene Chloride	84		3.102					
31 2-Methyl-2-propanol	59		3.173					
34 Methyl tert-butyl ether	73		3.339					
33 trans-1,2-Dichloroethene	96	3.338	3.339	-0.001	64	6433	0.1889	
36 1,1-Dichloroethane	63		3.682					
37 Vinyl acetate	86		3.705					
38 Isopropyl ether	87		3.740					
40 Tert-butyl ethyl ether	59		4.036					
41 2-Butanone (MEK)	43		4.143					
42 cis-1,2-Dichloroethene	96	4.155	4.155	0.0	80	145428	4.14	
43 2,2-Dichloropropane	77		4.167					
47 Chlorobromomethane	128		4.344					
49 Chloroform	83		4.403					
50 1,1,1-Trichloroethane	97		4.581					

Report Date: 05-Jul-2011 10:57:13 Chrom Revision: 1.2 30-Jun-2011 15:02:28
Data File: \\NCChrom\ChromData\A3UX10\20110701-1563.b\UXX2929.D

Compound	Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Flags
52 1,1-Dichloropropene	75		4.723					
53 Carbon tetrachloride	117		4.735					
55 Benzene	78		4.889					
56 1,2-Dichloroethane	62		4.889					
57 Tert-amyl methyl ether	73		4.971					
60 Trichloroethene	130	5.433	5.433	0.0	98	760920	24.9	
62 1,2-Dichloropropane	63		5.610					
65 Dibromomethane	93		5.705					
67 Dichlorobromomethane	83		5.835					
69 2-Chloroethyl vinyl ether	63		6.084					
70 cis-1,3-Dichloropropene	75		6.226					
71 4-Methyl-2-pentanone (MIBK)	43		6.356					
72 Toluene	91		6.545					
73 trans-1,3-Dichloropropene	75		6.711					
76 1,3-Dichloropropane	76		7.030					
77 Tetrachloroethene	164		7.042					
78 2-Hexanone	43		7.101					
79 Chlorodibromomethane	129		7.243					
123 Ethylene Dibromide	107		7.362					
82 Chlorobenzene	112		7.823					
83 1,1,1,2-Tetrachloroethane	131		7.894					
84 Ethylbenzene	106		7.918					
10 m-Xylene & p-Xylene	106		8.024					
85 o-Xylene	106		8.403					
86 Styrene	104		8.415					
87 Bromoform	173		8.592					
88 Isopropylbenzene	105		8.758					
90 1,1,2,2-Tetrachloroethane	83		9.018					
91 Bromobenzene	156		9.054					
92 1,2,3-Trichloropropane	110		9.066					
94 N-Propylbenzene	120		9.160					
95 2-Chlorotoluene	126		9.243					
104 4-Chlorotoluene	126		9.350					
97 tert-Butylbenzene	119		9.645					
98 1,2,4-Trimethylbenzene	105		9.693					
99 sec-Butylbenzene	105		9.870					
100 1,3-Dichlorobenzene	146		9.977					
101 4-Isopropyltoluene	119		10.012					
102 1,4-Dichlorobenzene	146		10.060					
103 1,2,3-Trimethylbenzene	105		10.106					
105 n-Butylbenzene	91		10.415					
106 1,2-Dichlorobenzene	146		10.426					
107 1,2-Dibromo-3-Chloropropane	157		11.196					
109 1,2,4-Trichlorobenzene	180		12.036					
110 Hexachlorobutadiene	225		12.213					
111 Naphthalene	128		12.284					
112 1,2,3-Trichlorobenzene	180		12.533					
S 114 Xylenes, Total	106		16.530					7

RRF = 0.2257

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
GSP-SB-WP-84-06231 1	240-1443-1	63	56	67	60	63	76
GSP-SB-WP-89-06231 1	240-1443-2	59	49	62	58	59	68
GSP-SB-WP-61-06231 1	240-1443-3	63	55	65	60	64	77
GSP-MW-8-062311	240-1443-5	62	61	65	59	71	80
GSP-SB-WP-66-06241 1	240-1470-1	72	71	70	62	71	40
	MB 240-6094/1-A	69	72	65	64	63	75
	MB 240-6514/14-A	67	70	67	64	61	84
	LCS 240-6094/2-A	73	75	72	68	71	76
	LCS 240-6514/15-A	70	73	71	66	67	74

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	10-110
PHL = Phenol-d5 (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	27-111
FBP = 2-Fluorobiphenyl (Surr)	28-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
TPH = Terphenyl-d14 (Surr)	37-119

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: STD6 240-8519/10 Date Analyzed: 07/14/2011 10:23

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0714.D Heated Purge: (Y/N) N

Calibration ID: 2328

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		160508	3.95	606881	4.91	335325	6.21
UPPER LIMIT		321016	4.45	1213762	5.41	670650	6.71
LOWER LIMIT		80254	3.45	303441	4.41	167663	5.71
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-8519/11		199012	3.95	756353	4.91	433009	6.21
CCV 240-8683/2 CCVIS		159485	3.87	607840	4.83	350312	6.13
CCV 240-8683/3		175478	3.87	656792	4.83	386466	6.13
CCV 240-8694/2 CCVIS		168554	3.86	625669	4.82	355352	6.12
CCV 240-8694/3		174949	3.86	683522	4.82	403380	6.12

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: STD6 240-8519/10 Date Analyzed: 07/14/2011 10:23

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0714.D Heated Purge: (Y/N) N

Calibration ID: 2328

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		598446	7.30	627312	9.29	525856	10.75
UPPER LIMIT		1196892	7.80	1254624	9.79	1051712	11.25
LOWER LIMIT		299223	6.80	313656	8.79	262928	10.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-8519/11		773447	7.30	828955	9.28	690267	10.74
CCV 240-8683/2 CCVIS		613815	7.22	636292	9.21	548771	10.62
CCV 240-8683/3		676696	7.22	705093	9.23	600516	10.64
CCV 240-8694/2 CCVIS		616792	7.21	640275	9.18	541704	10.57
CCV 240-8694/3		704796	7.21	720916	9.18	622635	10.58

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: CCV 240-8683/2 Date Analyzed: 07/15/2011 14:17

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0715.D Heated Purge: (Y/N) N

Calibration ID: 2324

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		159485	3.87	607840	4.83	350312	6.13
UPPER LIMIT		318970	4.37	1215680	5.33	700624	6.63
LOWER LIMIT		79743	3.37	303920	4.33	175156	5.63
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-8683/3		175478	3.87	656792	4.83	386466	6.13
MB 240-6514/14-A		139623	3.87	519902	4.83	309294	6.13
LCS 240-6514/15-A		132153	3.87	497872	4.84	300856	6.13
MB 240-6094/1-A		152064	3.87	585101	4.83	341388	6.13
LCS 240-6094/2-A		141956	3.87	553066	4.83	325557	6.13
240-1443-1	GSP-SB-WP-84-062311	178686	3.87	591968	4.84	358701	6.13
240-1443-2	GSP-SB-WP-89-062311	176805	3.87	577646	4.83	341083	6.13
240-1443-3	GSP-SB-WP-61-062311	164169	3.87	561552	4.83	313145	6.13

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: CCV 240-8683/2 Date Analyzed: 07/15/2011 14:17

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0715.D Heated Purge: (Y/N) N

Calibration ID: 2324

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		613815	7.22	636292	9.21	548771	10.62
UPPER LIMIT		1227630	7.72	1272584	9.71	1097542	11.12
LOWER LIMIT		306908	6.72	318146	8.71	274386	10.12
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-8683/3		676696	7.22	705093	9.23	600516	10.64
MB 240-6514/14-A		544849	7.22	571335	9.19	495157	10.59
LCS 240-6514/15-A		535136	7.21	563649	9.18	478014	10.58
MB 240-6094/1-A		613683	7.21	652481	9.18	560353	10.58
LCS 240-6094/2-A		597257	7.22	614464	9.18	518174	10.58
240-1443-1	GSP-SB-WP-84-062311	687007	7.22	726590	9.17	617081	10.57
240-1443-2	GSP-SB-WP-89-062311	659503	7.21	710753	9.17	609663	10.57
240-1443-3	GSP-SB-WP-61-062311	608236	7.22	660536	9.17	558438	10.57

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: CCV 240-8694/2 Date Analyzed: 07/16/2011 09:38

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0716.D Heated Purge: (Y/N) N

Calibration ID: 2324

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		168554	3.86	625669	4.82	355352	6.12
UPPER LIMIT		337108	4.36	1251338	5.32	710704	6.62
LOWER LIMIT		84277	3.36	312835	4.32	177676	5.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-8694/3		174949	3.86	683522	4.82	403380	6.12
240-1470-1	GSP-SB-WP-66-062411	156474	3.86	575229	4.82	356223	6.11

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: CCV 240-8694/2 Date Analyzed: 07/16/2011 09:38

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0716.D Heated Purge: (Y/N) N

Calibration ID: 2324

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		616792	7.21	640275	9.18	541704	10.57
UPPER LIMIT		1233584	7.71	1280550	9.68	1083408	11.07
LOWER LIMIT		308396	6.71	320138	8.68	270852	10.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-8694/3		704796	7.21	720916	9.18	622635	10.58
240-1470-1	GSP-SB-WP-66-062411	647316	7.20	689522	9.15	584014	10.55

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: STD6 240-9362/10 Date Analyzed: 07/21/2011 11:26

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0721.D Heated Purge: (Y/N) N

Calibration ID: 2606

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		203436	3.74	781219	4.71	438992	6.00
UPPER LIMIT		406872	4.24	1562438	5.21	877984	6.50
LOWER LIMIT		101718	3.24	390610	4.21	219496	5.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-9362/11		247327	3.75	937908	4.71	537789	6.00
ICV 240-9362/21		189768	3.75	731199	4.71	421359	6.00
240-1443-5	GSP-MW-8-062311	197157	3.75	717408	4.71	422244	6.00

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: STD6 240-9362/10 Date Analyzed: 07/21/2011 11:26

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0721.D Heated Purge: (Y/N) N

Calibration ID: 2606

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		765456	7.08	790789	9.04	654809	10.35
UPPER LIMIT		1530912	7.58	1581578	9.54	1309618	10.85
LOWER LIMIT		382728	6.58	395395	8.54	327405	9.85
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-9362/11		934068	7.09	967513	9.05	798075	10.36
ICV 240-9362/21		742372	7.09	742739	9.04	622678	10.36
240-1443-5	GSP-MW-8-062311	772847	7.09	794732	9.04	679227	10.35

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Batch Number: 6094 Batch Start Date: 06/25/11 09:30 Batch Analyst: Howell, Leslie

Batch Method: 3510C Batch End Date: 06/26/11 03:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount	EXBNALCS1 00003	EXBNASURRW 00002	EXRESTEKSPKW 00002
240-1443-J-1	GSP-SB-WP-84-062311	3510C, 8270D	T	7 SU	1040 mL	2 mL		1 mL	
240-1443-I-2	GSP-SB-WP-89-062311	3510C, 8270D	T	7 SU	1050 mL	2 mL		1 mL	
240-1443-A-3	GSP-SB-WP-61-062311	3510C, 8270D	T	7 SU	1040 mL	2 mL		1 mL	
240-1443-I-5	GSP-MW-8-062311	3510C, 8270D	T	7 SU	1040 mL	2 mL		1 mL	

Batch Notes	
Batch Comment	s/s lah
Na2SO4 Lot Number	010342
Prep Solvent Lot #	069398

Basis	Basis Description
T	Total/NA

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Batch Number: 6094 Batch Start Date: 06/25/11 09:30 Batch Analyst: Howell, Leslie

Batch Method: 3520C Batch End Date: 06/26/11 03:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount	EXBNALCS1 00003	EXBNASURRW 00002	EXRESTEKSPKW 00002
MB 240-6094/1		3520C, 8270D		7 SU	1000 mL	2 mL		1 mL	
LCS 240-6094/2		3520C, 8270D		7 SU	1000 mL	2 mL	1 mL	1 mL	1 mL

Batch Notes	
Batch Comment	s/s lah
Na2SO4 Lot Number	010342
Prep Solvent Lot #	069398

Basis	Basis Description
T	Total/NA

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Batch Number: 6514 Batch Start Date: 06/29/11 12:00 Batch Analyst: Earle, Steve

Batch Method: 3510C Batch End Date: 06/30/11 06:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	EXBNALCS1 00003	EXBNASURRW 00002
240-1470-B-1	GSP-SB-WP-66-062 411	3510C, 8270D	T	660 mL	2 mL	7	2		1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXRESTEKSPKW 00002
240-1470-B-1	GSP-SB-WP-66-062 411	3510C, 8270D	T	

Batch Notes	
Acid used for pH adjust Lot #	010428
Batch Comment	SS EM
Na2SO4 Lot Number	010356
Prep Solvent Lot #	069398

Basis	Basis Description
T	Total/NA

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Batch Number: 6514 Batch Start Date: 06/29/11 12:00 Batch Analyst: Earle, Steve

Batch Method: 3520C Batch End Date: 06/30/11 06:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	EXBNALCS1 00003	EXBNASURRW 00002
MB 240-6514/14		3520C, 8270D		1000 mL	2 mL	7	2		1 mL
LCS 240-6514/15		3520C, 8270D		1000 mL	2 mL	7	2	1 mL	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	EXRESTEKSPKW 00002					
MB 240-6514/14		3520C, 8270D							
LCS 240-6514/15		3520C, 8270D		1 mL					

Batch Notes	
Acid used for pH adjust Lot #	010428
Batch Comment	SS EM
Na2SO4 Lot Number	010356
Prep Solvent Lot #	069398

Basis	Basis Description
T	Total/NA

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab File ID: MB6094.D Lab Sample ID: MB 240-6094/1-A

Matrix: Water Date Extracted: 06/25/2011 08:27

Instrument ID: A4HP9 Date Analyzed: 07/15/2011 16:01

Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-6094/2-A	LCS6094.D	07/15/2011 16:20
GSP-SB-WP-84-062311	240-1443-1	1443J1A.D	07/16/2011 00:58
GSP-SB-WP-89-062311	240-1443-2	1443I2A.D	07/16/2011 01:18
GSP-SB-WP-61-062311	240-1443-3	1443A3A.D	07/16/2011 01:37
GSP-MW-8-062311	240-1443-5	1443I5A.D	07/21/2011 20:53

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6094/1-A

Matrix: Water | Lab File ID: MB6094.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1000(mL) | Date Analyzed: 07/15/2011 16:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.20	U	0.20	0.10
208-96-8	Acenaphthylene	0.20	U	0.20	0.10
98-86-2	Acetophenone	1.0	U	1.0	0.34
120-12-7	Anthracene	0.20	U	0.20	0.10
1912-24-9	Atrazine	1.0	U	1.0	0.34
100-52-7	Benzaldehyde	1.0	U	1.0	0.39
56-55-3	Benzo[a]anthracene	0.20	U	0.20	0.10
50-32-8	Benzo[a]pyrene	0.20	U	0.20	0.10
205-99-2	Benzo[b]fluoranthene	0.20	U	0.20	0.10
191-24-2	Benzo[g,h,i]perylene	0.20	U	0.20	0.10
207-08-9	Benzo[k]fluoranthene	0.20	U	0.20	0.10
92-52-4	1,1'-Biphenyl	1.0	U	1.0	0.80
111-91-1	Bis(2-chloroethoxy)methane	1.0	U	1.0	0.32
111-44-4	Bis(2-chloroethyl)ether	1.0	U	1.0	0.10
117-81-7	Bis(2-ethylhexyl) phthalate	1.56	J	2.0	0.80
101-55-3	4-Bromophenyl phenyl ether	2.0	U	2.0	0.80
85-68-7	Butyl benzyl phthalate	1.0	U	1.0	0.80
105-60-2	Caprolactam	5.0	U	5.0	0.80
86-74-8	Carbazole	1.0	U	1.0	0.28
106-47-8	4-Chloroaniline	2.0	U	2.0	0.80
59-50-7	4-Chloro-3-methylphenol	2.0	U	2.0	0.80
91-58-7	2-Chloronaphthalene	1.0	U	1.0	0.10
95-57-8	2-Chlorophenol	1.0	U	1.0	0.29
7005-72-3	4-Chlorophenyl phenyl ether	2.0	U	2.0	0.30
218-01-9	Chrysene	0.20	U	0.20	0.10
53-70-3	Dibenzo(a,h)anthracene	0.20	U	0.20	0.10
132-64-9	Dibenzofuran	1.0	U	1.0	0.10
91-94-1	3,3'-Dichlorobenzidine	5.0	U	5.0	0.37
120-83-2	2,4-Dichlorophenol	2.0	U	2.0	0.80
84-66-2	Diethyl phthalate	1.0	U	1.0	0.60
105-67-9	2,4-Dimethylphenol	2.0	U	2.0	0.80
131-11-3	Dimethyl phthalate	1.0	U	1.0	0.29
84-74-2	Di-n-butyl phthalate	1.0	U	1.0	0.67
534-52-1	4,6-Dinitro-2-methylphenol	5.0	U	5.0	2.4

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6094/1-A

Matrix: Water | Lab File ID: MB6094.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1000(mL) | Date Analyzed: 07/15/2011 16:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	5.0	U	5.0	2.4
121-14-2	2,4-Dinitrotoluene	5.0	U	5.0	0.27
606-20-2	2,6-Dinitrotoluene	5.0	U	5.0	0.80
117-84-0	Di-n-octyl phthalate	1.0	U	1.0	0.80
206-44-0	Fluoranthene	0.20	U	0.20	0.10
86-73-7	Fluorene	0.20	U	0.20	0.10
118-74-1	Hexachlorobenzene	0.20	U	0.20	0.10
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.27
77-47-4	Hexachlorocyclopentadiene	10	U	10	0.80
67-72-1	Hexachloroethane	1.0	U	1.0	0.80
193-39-5	Indeno[1,2,3-cd]pyrene	0.20	U	0.20	0.10
78-59-1	Isophorone	1.0	U	1.0	0.27
91-57-6	2-Methylnaphthalene	0.20	U	0.20	0.10
95-48-7	2-Methylphenol	1.0	U	1.0	0.80
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49
15831-10-4	3 & 4 Methylphenol	2.0	U	2.0	0.75
91-20-3	Naphthalene	0.20	U	0.20	0.10
88-74-4	2-Nitroaniline	2.0	U	2.0	0.80
99-09-2	3-Nitroaniline	2.0	U	2.0	0.28
100-01-6	4-Nitroaniline	2.0	U	2.0	0.80
98-95-3	Nitrobenzene	1.0	U	1.0	0.040
88-75-5	2-Nitrophenol	2.0	U	2.0	0.28
100-02-7	4-Nitrophenol	5.0	U	5.0	2.4
621-64-7	N-Nitrosodi-n-propylamine	1.0	U	1.0	0.80
86-30-6	N-Nitrosodiphenylamine	1.0	U	1.0	0.31
108-60-1	2,2'-oxybis[1-chloropropane]	1.0	U	1.0	0.40
87-86-5	Pentachlorophenol	5.0	U	5.0	2.4
85-01-8	Phenanthrene	0.20	U	0.20	0.10
108-95-2	Phenol	1.0	U	1.0	0.60
129-00-0	Pyrene	0.20	U	0.20	0.10
95-95-4	2,4,5-Trichlorophenol	5.0	U	5.0	0.30
88-06-2	2,4,6-Trichlorophenol	5.0	U	5.0	0.80
62-75-9	N-Nitrosodimethylamine	1.0	U	1.0	0.31

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6094/1-A

Matrix: Water | Lab File ID: MB6094.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/25/2011 08:27

Sample wt/vol: 1000(mL) | Date Analyzed: 07/15/2011 16:01

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	64		28-110
367-12-4	2-Fluorophenol (Surr)	69		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	65		27-111
4165-62-2	Phenol-d5 (Surr)	72		10-110
1718-51-0	Terphenyl-d14 (Surr)	75		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	63		22-120

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: LCS6094.D

Lab ID: LCS 240-6094/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Acenaphthene	20.0	13.0	65	40-110	
Acenaphthylene	20.0	13.6	68	43-110	
Acetophenone	20.0	14.3	72	50-130	
Anthracene	20.0	13.2	66	54-114	
Atrazine	20.0	15.2	76	50-130	
Benzaldehyde	20.0	16.1	80	10-130	
Benzo[a]anthracene	20.0	13.7	69	55-115	
Benzo[a]pyrene	20.0	11.8	59	43-116	
Benzo[b]fluoranthene	20.0	13.6	68	43-122	
Benzo[g,h,i]perylene	20.0	14.7	73	45-120	
Benzo[k]fluoranthene	20.0	14.2	71	43-124	
1,1'-Biphenyl	20.0	12.9	65	50-130	
Bis(2-chloroethoxy)methane	20.0	15.2	76	39-110	
Bis(2-chloroethyl)ether	20.0	14.9	75	34-113	
Bis(2-ethylhexyl) phthalate	20.0	15.3	77	36-163	
4-Bromophenyl phenyl ether	20.0	13.3	67	51-114	
Butyl benzyl phthalate	20.0	14.7	73	53-126	
Caprolactam	20.0	15.4	77	50-130	
Carbazole	20.0	13.4	67	53-120	
4-Chloroaniline	20.0	12.3	62	10-110	
4-Chloro-3-methylphenol	20.0	14.3	72	39-110	
2-Chloronaphthalene	20.0	13.6	68	39-110	
2-Chlorophenol	20.0	14.5	73	27-110	
4-Chlorophenyl phenyl ether	20.0	13.8	69	50-115	
Chrysene	20.0	13.5	68	55-115	
Dibenzo(a,h)anthracene	20.0	14.4	72	46-122	
Dibenzofuran	20.0	13.7	69	46-111	
3,3'-Dichlorobenzidine	20.0	9.34	47	19-110	
2,4-Dichlorophenol	20.0	14.9	74	33-110	
Diethyl phthalate	20.0	14.4	72	33-134	
2,4-Dimethylphenol	20.0	11.5	58	12-110	
Dimethyl phthalate	20.0	14.1	71	15-143	
Di-n-butyl phthalate	20.0	14.3	71	55-122	
4,6-Dinitro-2-methylphenol	20.0	13.1	66	28-112	
2,4-Dinitrophenol	20.0	10.9	55	17-112	
2,4-Dinitrotoluene	20.0	15.2	76	52-123	
2,6-Dinitrotoluene	20.0	15.0	75	52-119	
Di-n-octyl phthalate	20.0	13.6	68	44-128	
Fluoranthene	20.0	13.7	69	54-122	
Fluorene	20.0	13.6	68	47-112	
Hexachlorobenzene	20.0	13.9	70	51-112	
Hexachlorobutadiene	20.0	12.8	64	13-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: LCS6094.D

Lab ID: LCS 240-6094/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Hexachlorocyclopentadiene	20.0	7.84 J	39	10-110	
Hexachloroethane	20.0	13.6	68	12-110	
Indeno[1,2,3-cd]pyrene	20.0	14.1	70	46-121	
Isophorone	20.0	14.3	71	44-128	
2-Methylnaphthalene	20.0	16.5	83	35-110	
2-Methylphenol	20.0	14.5	72	30-110	
1,4-Dioxane	20.0	12.1	61	10-110	
3 & 4 Methylphenol	40.0	29.4	74	32-110	
Naphthalene	20.0	14.1	70	31-110	
2-Nitroaniline	20.0	14.3	72	43-130	
3-Nitroaniline	20.0	14.1	71	45-116	
4-Nitroaniline	20.0	14.7	73	45-120	
Nitrobenzene	20.0	15.0	75	37-115	
2-Nitrophenol	20.0	14.5	72	29-110	
4-Nitrophenol	20.0	13.4	67	12-130	
N-Nitrosodi-n-propylamine	20.0	15.0	75	37-121	
N-Nitrosodiphenylamine	20.0	12.8	64	53-113	
2,2'-oxybis[1-chloropropane]	20.0	15.4	77	25-128	
Pentachlorophenol	20.0	12.3	62	26-110	
Phenanthrene	20.0	13.0	65	52-114	
Phenol	20.0	14.9	75	14-112	
Pyrene	20.0	13.3	67	55-120	
2,4,5-Trichlorophenol	20.0	14.1	71	39-110	
2,4,6-Trichlorophenol	20.0	14.4	72	35-110	
N-Nitrosodimethylamine	20.0	14.7	73	10-130	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab File ID: MB6514.D Lab Sample ID: MB 240-6514/14-A

Matrix: Water Date Extracted: 06/29/2011 08:27

Instrument ID: A4HP9 Date Analyzed: 07/15/2011 15:22

Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-6514/15-A	LCS6514.D	07/15/2011 15:42
GSP-SB-WP-66-062411	240-1470-1	1470B1A.D	07/16/2011 17:10

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6514/14-A

Matrix: Water | Lab File ID: MB6514.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/29/2011 08:27

Sample wt/vol: 1000(mL) | Date Analyzed: 07/15/2011 15:22

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	0.20	U	0.20	0.10
208-96-8	Acenaphthylene	0.20	U	0.20	0.10
98-86-2	Acetophenone	1.0	U	1.0	0.34
120-12-7	Anthracene	0.20	U	0.20	0.10
1912-24-9	Atrazine	1.0	U	1.0	0.34
100-52-7	Benzaldehyde	1.0	U	1.0	0.39
56-55-3	Benzo[a]anthracene	0.20	U	0.20	0.10
50-32-8	Benzo[a]pyrene	0.20	U	0.20	0.10
205-99-2	Benzo[b]fluoranthene	0.20	U	0.20	0.10
191-24-2	Benzo[g,h,i]perylene	0.20	U	0.20	0.10
207-08-9	Benzo[k]fluoranthene	0.20	U	0.20	0.10
92-52-4	1,1'-Biphenyl	1.0	U	1.0	0.80
111-91-1	Bis(2-chloroethoxy)methane	1.0	U	1.0	0.32
111-44-4	Bis(2-chloroethyl)ether	1.0	U	1.0	0.10
117-81-7	Bis(2-ethylhexyl) phthalate	2.0	U	2.0	0.80
101-55-3	4-Bromophenyl phenyl ether	2.0	U	2.0	0.80
85-68-7	Butyl benzyl phthalate	1.0	U	1.0	0.80
105-60-2	Caprolactam	5.0	U	5.0	0.80
86-74-8	Carbazole	1.0	U	1.0	0.28
106-47-8	4-Chloroaniline	2.0	U	2.0	0.80
59-50-7	4-Chloro-3-methylphenol	2.0	U	2.0	0.80
91-58-7	2-Chloronaphthalene	1.0	U	1.0	0.10
95-57-8	2-Chlorophenol	1.0	U	1.0	0.29
7005-72-3	4-Chlorophenyl phenyl ether	2.0	U	2.0	0.30
218-01-9	Chrysene	0.20	U	0.20	0.10
53-70-3	Dibenzo(a,h)anthracene	0.20	U	0.20	0.10
132-64-9	Dibenzofuran	1.0	U	1.0	0.10
91-94-1	3,3'-Dichlorobenzidine	5.0	U	5.0	0.37
120-83-2	2,4-Dichlorophenol	2.0	U	2.0	0.80
84-66-2	Diethyl phthalate	1.0	U	1.0	0.60
105-67-9	2,4-Dimethylphenol	2.0	U	2.0	0.80
131-11-3	Dimethyl phthalate	1.0	U	1.0	0.29
84-74-2	Di-n-butyl phthalate	1.0	U	1.0	0.67
534-52-1	4,6-Dinitro-2-methylphenol	5.0	U	5.0	2.4

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6514/14-A

Matrix: Water | Lab File ID: MB6514.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/29/2011 08:27

Sample wt/vol: 1000(mL) | Date Analyzed: 07/15/2011 15:22

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
51-28-5	2,4-Dinitrophenol	5.0	U	5.0	2.4
121-14-2	2,4-Dinitrotoluene	5.0	U	5.0	0.27
606-20-2	2,6-Dinitrotoluene	5.0	U	5.0	0.80
117-84-0	Di-n-octyl phthalate	1.0	U	1.0	0.80
206-44-0	Fluoranthene	0.20	U	0.20	0.10
86-73-7	Fluorene	0.20	U	0.20	0.10
118-74-1	Hexachlorobenzene	0.20	U	0.20	0.10
87-68-3	Hexachlorobutadiene	1.0	U	1.0	0.27
77-47-4	Hexachlorocyclopentadiene	10	U	10	0.80
67-72-1	Hexachloroethane	1.0	U	1.0	0.80
193-39-5	Indeno[1,2,3-cd]pyrene	0.20	U	0.20	0.10
78-59-1	Isophorone	1.0	U	1.0	0.27
91-57-6	2-Methylnaphthalene	0.20	U	0.20	0.10
95-48-7	2-Methylphenol	1.0	U	1.0	0.80
123-91-1	1,4-Dioxane	1.0	U	1.0	0.49
15831-10-4	3 & 4 Methylphenol	2.0	U	2.0	0.75
91-20-3	Naphthalene	0.20	U	0.20	0.10
88-74-4	2-Nitroaniline	2.0	U	2.0	0.80
99-09-2	3-Nitroaniline	2.0	U	2.0	0.28
100-01-6	4-Nitroaniline	2.0	U	2.0	0.80
98-95-3	Nitrobenzene	1.0	U	1.0	0.040
88-75-5	2-Nitrophenol	2.0	U	2.0	0.28
100-02-7	4-Nitrophenol	5.0	U	5.0	2.4
621-64-7	N-Nitrosodi-n-propylamine	1.0	U	1.0	0.80
86-30-6	N-Nitrosodiphenylamine	1.0	U	1.0	0.31
108-60-1	2,2'-oxybis[1-chloropropane]	1.0	U	1.0	0.40
87-86-5	Pentachlorophenol	5.0	U	5.0	2.4
85-01-8	Phenanthrene	0.20	U	0.20	0.10
108-95-2	Phenol	1.0	U	1.0	0.60
129-00-0	Pyrene	0.20	U	0.20	0.10
95-95-4	2,4,5-Trichlorophenol	5.0	U	5.0	0.30
88-06-2	2,4,6-Trichlorophenol	5.0	U	5.0	0.80
62-75-9	N-Nitrosodimethylamine	1.0	U	1.0	0.31

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6514/14-A

Matrix: Water | Lab File ID: MB6514.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3510C | Date Extracted: 06/29/2011 08:27

Sample wt/vol: 1000(mL) | Date Analyzed: 07/15/2011 15:22

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8683 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	64		28-110
367-12-4	2-Fluorophenol (Surr)	67		10-110
4165-60-0	Nitrobenzene-d5 (Surr)	67		27-111
4165-62-2	Phenol-d5 (Surr)	70		10-110
1718-51-0	Terphenyl-d14 (Surr)	84		37-119
118-79-6	2,4,6-Tribromophenol (Surr)	61		22-120

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: LCS6514.D

Lab ID: LCS 240-6514/15-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Acenaphthene	20.0	12.7	63	40-110	
Acenaphthylene	20.0	13.0	65	43-110	
Acetophenone	20.0	14.4	72	50-130	
Anthracene	20.0	13.1	65	54-114	
Atrazine	20.0	15.3	77	50-130	
Benzaldehyde	20.0	15.7	79	10-130	
Benzo[a]anthracene	20.0	13.1	65	55-115	
Benzo[a]pyrene	20.0	11.1	56	43-116	
Benzo[b]fluoranthene	20.0	14.4	72	43-122	
Benzo[g,h,i]perylene	20.0	14.0	70	45-120	
Benzo[k]fluoranthene	20.0	12.0	60	43-124	
1,1'-Biphenyl	20.0	12.4	62	50-130	
Bis(2-chloroethoxy)methane	20.0	14.9	74	39-110	
Bis(2-chloroethyl)ether	20.0	14.3	71	34-113	
Bis(2-ethylhexyl) phthalate	20.0	13.3	66	36-163	
4-Bromophenyl phenyl ether	20.0	13.2	66	51-114	
Butyl benzyl phthalate	20.0	13.3	66	53-126	
Caprolactam	20.0	15.4	77	50-130	
Carbazole	20.0	13.1	66	53-120	
4-Chloroaniline	20.0	12.2	61	10-110	
4-Chloro-3-methylphenol	20.0	14.2	71	39-110	
2-Chloronaphthalene	20.0	13.2	66	39-110	
2-Chlorophenol	20.0	14.0	70	27-110	
4-Chlorophenyl phenyl ether	20.0	13.3	66	50-115	
Chrysene	20.0	13.5	68	55-115	
Dibenzo(a,h)anthracene	20.0	13.4	67	46-122	
Dibenzofuran	20.0	13.3	66	46-111	
3,3'-Dichlorobenzidine	20.0	8.86	44	19-110	
2,4-Dichlorophenol	20.0	14.9	74	33-110	
Diethyl phthalate	20.0	13.7	69	33-134	
2,4-Dimethylphenol	20.0	11.3	56	12-110	
Dimethyl phthalate	20.0	13.6	68	15-143	
Di-n-butyl phthalate	20.0	14.0	70	55-122	
4,6-Dinitro-2-methylphenol	20.0	13.2	66	28-112	
2,4-Dinitrophenol	20.0	10.5	53	17-112	
2,4-Dinitrotoluene	20.0	14.4	72	52-123	
2,6-Dinitrotoluene	20.0	14.3	72	52-119	
Di-n-octyl phthalate	20.0	12.9	65	44-128	
Fluoranthene	20.0	13.8	69	54-122	
Fluorene	20.0	13.0	65	47-112	
Hexachlorobenzene	20.0	13.3	66	51-112	
Hexachlorobutadiene	20.0	13.2	66	13-110	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: LCS6514.D

Lab ID: LCS 240-6514/15-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Hexachlorocyclopentadiene	20.0	5.90 J	30	10-110	
Hexachloroethane	20.0	13.4	67	12-110	
Indeno[1,2,3-cd]pyrene	20.0	13.4	67	46-121	
Isophorone	20.0	13.9	69	44-128	
2-Methylnaphthalene	20.0	16.5	83	35-110	
2-Methylphenol	20.0	13.1	66	30-110	
1,4-Dioxane	20.0	13.0	65	10-110	
3 & 4 Methylphenol	40.0	27.6	69	32-110	
Naphthalene	20.0	13.7	69	31-110	
2-Nitroaniline	20.0	13.7	68	43-130	
3-Nitroaniline	20.0	13.8	69	45-116	
4-Nitroaniline	20.0	13.7	68	45-120	
Nitrobenzene	20.0	14.8	74	37-115	
2-Nitrophenol	20.0	14.3	72	29-110	
4-Nitrophenol	20.0	13.4	67	12-130	
N-Nitrosodi-n-propylamine	20.0	14.1	71	37-121	
N-Nitrosodiphenylamine	20.0	12.5	63	53-113	
2,2'-oxybis[1-chloropropane]	20.0	14.4	72	25-128	
Pentachlorophenol	20.0	11.5	57	26-110	
Phenanthrene	20.0	12.9	65	52-114	
Phenol	20.0	14.3	71	14-112	
Pyrene	20.0	13.1	65	55-120	
2,4,5-Trichlorophenol	20.0	13.3	67	39-110	
2,4,6-Trichlorophenol	20.0	14.4	72	35-110	
N-Nitrosodimethylamine	20.0	14.3	72	10-130	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab File ID: 9DF0714.D DFTPP Injection Date: 07/14/2011

Instrument ID: A4HP9 DFTPP Injection Time: 10:04

Analysis Batch No.: 8519

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.3	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	70.9	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	56.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	26.0	
365	Greater than 0.75% of mass 198	3.8	
441	Present, but less than mass 443	13.6	
442	40.0 - 110.0% of mass 198	78.2	
443	15.0 - 24.0% of mass 442	15.3	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-8519/10	9SMH0714.D	07/14/2011	10:23
	STD5 240-8519/2	9SMM0714.D	07/14/2011	10:46
	STD4 240-8519/3	9SM0714.D	07/14/2011	11:06
	STD3 240-8519/4	9SML0714.D	07/14/2011	11:25
	STD2 240-8519/5	9SL0714.D	07/14/2011	11:45
	STD1 240-8519/6	9SLL0714.D	07/14/2011	12:04
	STD7 240-8519/9	9SH0714.D	07/14/2011	12:24
	STD8 240-8519/8	9SHH0714.D	07/14/2011	12:43
	STD9 240-8519/7	9HHH0714.D	07/14/2011	13:03
	ICV 240-8519/11	9TCLICV.D	07/14/2011	13:22

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-8519/6	9SLL0714.D
Level 2	STD2 240-8519/5	9SL0714.D
Level 3	STD3 240-8519/4	9SML0714.D
Level 4	STD4 240-8519/3	9SM0714.D
Level 5	STD5 240-8519/2	9SMM0714.D
Level 6	STD6 240-8519/10	9SMH0714.D
Level 7	STD7 240-8519/9	9SH0714.D
Level 8	STD8 240-8519/8	9SHH0714.D
Level 9	STD9 240-8519/7	9HHH0714.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.7587	0.8043 0.7199	0.7702 0.6658	0.8026 0.7097	0.7368	Ave		0.7460				6.4		20.0			
N-Nitrosodimethylamine	1.3991	1.3232 1.3161	1.3928 1.3290	1.4622 1.3424	1.3439	Ave		1.3636				3.7		20.0			
Pyridine	2.1529	1.3459 2.0091	1.6427 2.1085	2.1613 2.1891	2.0902	Ave		1.9625				16.0		20.0			
Ethyl methacrylate	2.0326	2.1052 1.9970	2.0678 1.9396	2.1894 2.0042	1.9516	Ave		2.0359				4.1		20.0			
3-Chloropropionitrile	0.8164	0.8373 0.8386	0.8159 0.8260	0.9091 0.8429	0.8210	Ave		0.8384				3.6		20.0			
Malononitrile	2.3645	2.2613 2.3288	2.3080 2.2648	2.4927 2.2389	2.3657	Ave		2.3281				3.5		20.0			
Benzaldehyde	1.4947	1.9807 1.4267	1.9784 +++++	2.0479	1.9279	Ave		1.8094			0.0100	15.0		20.0			
Phenol	2.3398	2.3104 2.3310	2.2407 2.3426	2.4539 2.4335	2.2936	Ave		2.3432			0.8000	3.0		20.0			
Aniline	2.9948	2.6137 2.8451	2.5545 2.9465	2.9691 3.1817	2.9682	Ave		2.8842				7.2		20.0			
Bis(2-chloroethyl)ether	1.8417	2.0750 1.9499	1.9533 1.8813	1.9331 1.8823	2.0679	Ave		1.9481			0.7000	4.4		20.0			
2-Chlorophenol	1.3882	1.3606 1.3742	1.3754 1.3784	1.4402 1.4374	1.3903	Ave		1.3931			0.8000	2.1		20.0			
1,3-Dichlorobenzene	1.3331	1.4194 1.3489	1.3890 1.3363	1.4480 1.4030	1.3609	Ave		1.3798				3.0		20.0			
1,4-Dichlorobenzene	1.3842	1.4754 1.4072	1.4702 1.4122	1.5141 1.4775	1.4269	Ave		1.4460				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzyl alcohol	1.0422	0.8975 1.0243	0.9436 1.0516	1.0611 1.0778	1.0959	Ave		1.0243				6.7		20.0			
1,2-Dichlorobenzene	1.2793	1.3721 1.2820	1.2917 1.3013	1.3866 1.3678	1.2926	Ave		1.3217				3.4		20.0			
2-Methylphenol	1.5307	1.3655 1.4953	1.5117 1.5190	1.5891 1.5792	1.5488	Ave		1.5174			0.7000	4.6		20.0			
Benzoic acid	0.2824	+++++ 0.2620	0.1041 0.3099	0.1704 0.3324	0.2382	Qua	-0.138	0.2172	0.0023						0.9970		0.9900
2,2'-oxybis[1-chloropropane]	1.5598	1.6730 1.5662	1.6291 1.5994	1.6911 1.6266	1.6447	Ave		1.6237				2.9		20.0			
3 & 4 Methylphenol	1.5793	1.4669 1.5789	1.3924 1.5890	1.5901 1.6641	1.6243	Ave		1.5606				5.6		20.0			
N-Nitrosodi-n-propylamine	1.7162	1.7163 1.7350	1.7206 1.7719	1.7458 1.8175	1.8192	Ave		1.7553			0.5000	2.5		20.0			
Acetophenone	2.3445	2.3786 2.3893	2.3968 2.4334	2.4540 2.4627	2.3996	Ave		2.4073			0.0100	1.7		20.0			
Hexachloroethane	0.6588	0.6388 0.6407	0.6660 0.6618	0.6838 0.6810	0.6755	Ave		0.6633			0.3000	2.6		20.0			
Nitrobenzene	0.6513	0.6905 0.6693	0.6630 0.6629	0.6688 0.7073	0.6622	Ave		0.6719			0.2000	2.7		20.0			
Isophorone	1.1419	1.1931 1.1685	1.1083 1.1800	1.1769 1.2549	1.1407	Ave		1.1705			0.4000	3.7		20.0			
2-Nitrophenol	0.1928	0.1677 0.1981	0.1822 0.2020	0.1991 0.2206	0.1918	Ave		0.1943			0.1000	7.9		20.0			
2,4-Dimethylphenol	0.5010	0.4931 0.4998	0.4917 0.5046	0.4959 0.5536	0.4980	Ave		0.5047			0.2000	4.0		20.0			
1,3,5-Trichlorobenzene	0.3005	0.3189 0.3108	0.3036 0.3211	0.3299 0.3549	0.3075	Ave		0.3184				5.6		20.0			
Bis(2-chloroethoxy)methane	0.5627	0.5403 0.5594	0.5394 0.5674	0.5852 0.6062	0.5712	Ave		0.5665			0.3000	3.9		20.0			
2,4-Dichlorophenol	0.2677	0.2123 0.2709	0.2575 0.2694	0.2681 0.2943	0.2755	Ave		0.2645			0.2000	8.9		20.0			
1,2,4-Trichlorobenzene	0.2977	0.2999 0.3018	0.3023 0.3049	0.3166 0.3287	0.3054	Ave		0.3072				3.4		20.0			
Naphthalene	1.1920 1.0757	1.1074 1.1144	1.0908 1.1077	1.1032 1.2104	1.0572	Ave		1.1176			0.7000	4.5		20.0			
4-Chloroaniline	0.4619	0.4510 0.4627	0.4381 0.4713	0.4568 0.5070	0.4338	Ave		0.4603			0.0100	4.9		20.0			
Hexachlorobutadiene	0.1814	0.1926 0.1902	0.1904 0.1923	0.1912 0.2066	0.1872	Ave		0.1915			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,2,3-Trichlorobenzene	0.2788	0.2799 0.2858	0.2914 0.2836	0.2815 0.3090	0.2798	Ave		0.2862				3.5		20.0			
2,4-Toluene diamine	0.2162	0.2003 0.1650	0.2193 +++++	0.2965 0.1329	0.2252	Qua	0.0384	0.2404	-0.004						0.9920		0.9900
1,1'-Biphenyl	+++++ 1.5185	1.5208 1.5901	1.5345 1.6610	1.5292 1.8550	1.4603	Ave		1.5837			0.0100	7.9		20.0			
2-Chloronaphthalene	+++++ 1.0894	1.0817 1.1031	1.1284 1.1155	1.1189 1.1844	1.0842	Ave		1.1132			0.8000	3.0		20.0			
Caprolactam	0.1419	0.1026 0.1405	0.1260 0.1404	0.1328 0.1513	0.1422	Ave		0.1347			0.0100	11.0		20.0			
4-Chloro-3-methylphenol	0.4242	0.4073 0.4311	0.3923 0.4357	0.4270 0.4618	0.4221	Ave		0.4252			0.2000	4.8		20.0			
2-Methylnaphthalene	0.6066 0.5628	0.6007 0.5742	0.5628 0.5778	0.5914 0.6334	0.5644	Ave		0.5860			0.4000	4.1		20.0			
2,4-Dinitrophenol	0.2542	+++++ 0.2644	0.1280 0.2753	0.1822 0.3101	0.2315	Qua	-0.068	0.2061	0.0020		0.0100				0.9990		0.9900
4-Nitrophenol	0.3348	+++++ 0.3081	0.2025 0.3102	0.3099 0.3245	0.2854	Ave		0.2965				15.0		20.0			
1-Methylnaphthalene	0.7499 0.6336	0.6818 0.6630	0.6615 0.6615	0.6783 0.7277	0.6451	Ave		0.6781				5.6		20.0			
1,2,3,5-Tetrachlorobenzene	0.5260	0.4944 0.5622	0.5335 0.5681	0.5304 0.6338	0.5019	Ave		0.5438				8.2		20.0			
Hexachlorocyclopentadiene	0.4049	0.3156 0.4273	0.3335 0.4347	0.3765 0.4723	0.3738	Ave		0.3923			0.0500	13.0		20.0			
2,3,5,6-Tetrachlorophenol	0.3344	+++++ 0.3326	0.3153 0.3433	0.3205 0.3646	0.3176	Ave		0.3326				5.2		20.0			
2,4,6-Trichlorophenol	0.3653	0.2920 0.3547	0.3253 0.3615	0.3399 0.3910	0.3424	Ave		0.3465			0.2000	8.5		20.0			
Dibenzofuran	+++++ 1.6514	1.7000 1.7106	1.6765 1.7622	1.7018 1.8660	1.6221	Ave		1.7113			0.8000	4.4		20.0			
2,4,5-Trichlorophenol	0.4076	0.3829 0.3597	0.3827 0.3875	0.3738 0.4203	0.3827	Ave		0.3871			0.2000	4.9		20.0			
1,2,3,4 -Tetrachlorobenzene	0.5038	0.4968 0.5386	0.4910 0.5486	0.5111 0.6073	0.4824	Ave		0.5225				7.9		20.0			
4,6-Dinitro-2-methylphenol	0.1504	+++++ 0.1507	0.0982 0.1517	0.1234 0.1662	0.1429	Ave		0.1405			0.0100	16.0		20.0			
2-Nitroaniline	0.6182	0.5998 0.6270	0.5808 0.6250	0.6636 0.6433	0.6241	Ave		0.6227			0.0100	4.0		20.0			
Dimethyl phthalate	1.3552	1.2903 1.3439	1.3375 1.3695	1.3905 1.4617	1.3227	Ave		1.3589			0.0100	3.8		20.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,6-Dinitrotoluene	0.3030	0.2697 0.2971	0.2798 0.2975	0.2944 0.3129	0.2973	Ave		0.2940				4.6		20.0			
1,2-Dinitrobenzene	0.1634	0.1316 0.1528	0.1462 0.1565	0.1531 0.1672	0.1518	Ave		0.1528				7.1		20.0			
Acenaphthylene	2.0042 1.9242	1.9026 1.9559	1.9501 1.9806	1.9692 2.1310	1.8869	Ave		1.9672			0.9000	3.7		20.0			
3-Nitroaniline	0.3531	0.2983 0.3448	0.3273 0.3391	0.3376 0.3618	0.3428	Ave		0.3381			0.0100	5.7		20.0			
Acenaphthene	1.3429 1.2089	1.2033 1.2552	1.2609 1.2980	1.2102 1.4090	1.1716	Ave		1.2622			0.9000	6.0		20.0			
2,4-Dinitrotoluene	0.4045	0.3515 0.4047	0.3851 0.4157	0.4157 0.4266	0.3891	Ave		0.3991			0.2000	5.9		20.0			
Diethyl phthalate	1.4761	1.4805 1.5043	1.4507 1.5316	1.5137 1.6616	1.4662	Ave		1.5106			0.0100	4.4		20.0			
4-Chlorophenyl phenyl ether	0.6360	0.6752 0.6603	0.6392 0.6640	0.6643 0.7351	0.6226	Ave		0.6621			0.4000	5.2		20.0			
4-Nitroaniline	0.3781	0.3333 0.3817	0.3761 0.3912	0.3708 0.4096	0.3683	Ave		0.3761			0.0100	5.8		20.0			
Fluorene	1.3386 1.2866	1.2420 1.3390	1.3034 1.3871	1.2986 1.4854	1.2469	Ave		1.3253			0.9000	5.7		20.0			
N-Nitrosodiphenylamine	0.5560	0.5492 0.5953	0.5755 0.5918	0.5711 0.6507	0.5697	Ave		0.5824			0.0100	5.4		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.4707	1.4050 1.5156	1.4478 1.4995	1.5045 1.5277	1.4639	Ave		1.4785				2.8		20.0			
Azobenzene	1.4718	1.4053 1.5167	1.4422 1.4957	1.5065 1.5277	1.4621	Ave		1.4785				2.8		20.0			
4-Bromophenyl phenyl ether	0.1997	0.1946 0.2062	0.1974 0.2085	0.1981 0.2271	0.2022	Ave		0.2042			0.1000	5.1		20.0			
Hexachlorobenzene	0.2175 0.1926	0.1915 0.1986	0.1895 0.1995	0.2024 0.2242	0.1932	Ave		0.2010			0.1000	6.0		20.0			
Atrazine	0.2105	0.1905 0.1960	0.2059 0.1839	0.2058 0.1840	0.2177	Ave		0.1993			0.0100	6.3		20.0			
Pentachlorophenol	0.1478	0.0795 0.1527	0.1215 0.1638	0.1279 0.1776	0.1423	Qua	0.0077	0.1224	0.0011		0.0500				1.0000		0.9900
Phenanthrene	1.1987 1.0588	1.0713 1.1112	1.0793 1.1179	1.0874 1.2700	1.0520	Ave		1.1163			0.7000	6.5		20.0			
Anthracene	1.0379 1.0893	1.0824 1.1531	1.0817 1.1741	1.1140 1.3073	1.0742	Ave		1.1238			0.7000	7.2		20.0			
Carbazole	1.0557	1.0652 1.0956	1.0781 1.1016	1.0738 1.2252	1.0357	Ave		1.0914			0.0100	5.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Di-n-butyl phthalate	1.4178	1.3552 1.5045	1.3962 1.4989	1.4148 1.4629	1.4096	Ave		1.4325			0.0100	3.6		20.0			
Fluoranthene	1.1887 1.1727	1.1082 1.2641	1.2177 1.3015	1.1842 1.4319	1.1747	Ave		1.2271			0.6000	7.7		20.0			
Benzidine	0.6434	0.4961 0.6181	0.4956 0.6518	0.6194 0.6981	0.6498	Ave		0.6090				12.0		20.0			
Pyrene	1.2178 1.2011	1.1840 1.2171	1.2198 1.2836	1.1838 1.3788	1.1978	Ave		1.2315			0.6000	5.1		20.0			
Butyl benzyl phthalate	0.6120	0.5618 0.6041	0.6355 0.6331	0.7000 0.6471	0.6068	Ave		0.6251			0.0100	6.4		20.0			
3,3'-Dimethoxybenzidine	0.2613	0.1768 0.2343	0.2179 0.2488	0.2277 0.2865	0.2549	Ave		0.2385				14.0		20.0			
Bis(2-ethylhexyl) phthalate	0.8565	0.7725 0.8781	0.8684 0.8946	0.8342 0.9763	0.8698	Ave		0.8688			0.0100	6.6		20.0			
4,4'-Methylene bis(2-chloroaniline)	0.2264	0.1993 0.2364	0.2165 0.2445	0.2169 0.2630	0.2299	Ave		0.2291				8.5		20.0			
3,3'-Dichlorobenzidine	0.4312	0.3683 0.4380	0.4040 0.4510	0.4064 0.4927	0.4316	Ave		0.4279			0.0100	8.6		20.0			
Benzo[a]anthracene	1.2110 1.1340	1.0945 1.1555	1.1739 1.1704	1.1365 1.2554	1.1137	Ave		1.1605			0.8000	4.3		20.0			
Chrysene	1.2394 1.1231	1.0804 1.1183	1.1143 1.1409	1.0881 1.2145	1.0840	Ave		1.1337			0.7000	5.0		20.0			
Di-n-octyl phthalate	1.7336	1.4389 1.7619	1.5649 1.8117	1.6060 1.9378	1.6406	Ave		1.6869			0.0100	9.3		20.0			
Benzo[b]fluoranthene	1.1064 1.4585	1.1713 1.2539	1.1854 1.3061	1.2356 1.5219	1.2281	Ave		1.2741			0.7000	11.0		20.0			
Benzo[k]fluoranthene	1.4546 1.1580	1.2638 1.3782	1.3536 1.3828	1.2948 1.3816	1.2840	Ave		1.3279			0.7000	6.6		20.0			
Benzo[a]pyrene	1.1401 1.1741	1.0762 1.2035	1.1106 1.2212	1.1297 1.3029	1.1475	Ave		1.1673			0.7000	5.8		20.0			
Indeno[1,2,3-cd]pyrene	1.2705 1.3033	1.1882 1.3309	1.2235 1.3505	1.2401 1.4368	1.2740	Ave		1.2909			0.5000	5.8		20.0			
Dibenzo(a,h)anthracene	1.0061 1.0889	0.9215 1.1157	1.0240 1.1250	1.0288 1.2106	1.0478	Ave		1.0632			0.4000	7.8		20.0			
Benzo[g,h,i]perylene	0.9424 1.0527	0.9400 1.0674	0.9864 1.0813	1.0173 1.1331	1.0548	Ave		1.0306			0.5000	6.3		20.0			
2-Fluorophenol (Surr)	1.4758	1.4065 1.4396	1.3532 1.4441	1.5566 1.5052	1.4952	Ave		1.4595				4.3		20.0			
Phenol-d5 (Surr)	2.0412	1.9990 2.0291	1.9480 2.0551	2.1175 2.0894	2.0563	Ave		2.0420				2.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Nitrobenzene-d5 (Surr)	0.7581 0.6688	0.6974 0.6160	0.6589 0.6132	0.7017 0.6610	0.6192	Ave		0.6660				7.2		20.0			
2-Fluorobiphenyl (Surr)	1.2615 1.3100	1.2963 1.3260	1.3419 1.3578	1.3322 1.4452	1.2942	Ave		1.3295				3.9		20.0			
2,4,6-Tribromophenol (Surr)	 0.1599	0.1390 0.1644	0.1526 0.1679	0.1601 0.1797	0.1538	Ave		0.1597				7.5		20.0			
Terphenyl-d14 (Surr)	0.7105 0.7125	0.7008 0.7382	0.7216 0.7764	0.7347 0.8331	0.7264	Ave		0.7394				5.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICV 240-8519/11 Calibration Date: 07/14/2011 13:22

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7460	0.7470		10.0	10.0	0.1	30.0
N-Nitrosodimethylamine	Ave	1.364	1.404		10.3	10.0	2.9	30.0
Pyridine	Ave	1.962	2.200		11.2	10.0	12.1	30.0
Ethyl methacrylate	Ave	2.036	2.062		10.1	10.0	1.3	30.0
3-Chloropropionitrile	Ave	0.8384	0.8567		10.2	10.0	2.2	30.0
Malononitrile	Ave	2.328	2.452		10.5	10.0	5.3	30.0
Benzaldehyde	Ave	1.809	1.694	0.0100	9.36	10.0	-6.4	30.0
Phenol	Ave	2.343	2.370	0.8000	10.1	10.0	1.1	30.0
Aniline	Ave	2.884	3.050		10.6	10.0	5.8	30.0
Bis(2-chloroethyl)ether	Ave	1.948	1.873	0.7000	9.62	10.0	-3.8	30.0
2-Chlorophenol	Ave	1.393	1.412	0.8000	10.1	10.0	1.4	30.0
1,3-Dichlorobenzene	Ave	1.380	1.401		10.2	10.0	1.5	30.0
1,4-Dichlorobenzene	Ave	1.446	1.440		9.96	10.0	-0.4	30.0
Benzyl alcohol	Ave	1.024	1.039		10.1	10.0	1.4	30.0
1,2-Dichlorobenzene	Ave	1.322	1.328		10.1	10.0	0.5	30.0
2-Methylphenol	Ave	1.517	1.485	0.7000	9.79	10.0	-2.1	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.624	1.618		9.97	10.0	-0.3	30.0
3 & 4 Methylphenol	Ave	1.561	1.611		10.3	10.0	3.2	30.0
N-Nitrosodi-n-propylamine	Ave	1.755	1.780	0.5000	10.1	10.0	1.4	30.0
Acetophenone	Ave	2.407	2.379	0.0100	9.88	10.0	-1.2	30.0
Hexachloroethane	Ave	0.6633	0.6700	0.3000	10.1	10.0	1.0	30.0
Nitrobenzene	Ave	0.6719	0.6754	0.2000	10.1	10.0	0.5	30.0
Isophorone	Ave	1.171	1.211	0.4000	10.3	10.0	3.5	30.0
2-Nitrophenol	Ave	0.1943	0.1939	0.1000	9.98	10.0	-0.2	30.0
2,4-Dimethylphenol	Ave	0.5047	0.5176	0.2000	10.3	10.0	2.5	30.0
1,3,5-Trichlorobenzene	Ave	0.3184	0.3166		9.94	10.0	-0.6	30.0
Bis(2-chloroethoxy)methane	Ave	0.5665	0.5857	0.3000	10.3	10.0	3.4	30.0
Benzoic acid	Qua		0.3015		22.8	20.0	14.0	30.0
2,4-Dichlorophenol	Ave	0.2645	0.2707	0.2000	10.2	10.0	2.3	30.0
1,2,4-Trichlorobenzene	Ave	0.3072	0.3090		10.1	10.0	0.6	30.0
Naphthalene	Ave	1.118	1.110	0.7000	9.93	10.0	-0.7	30.0
4-Chloroaniline	Ave	0.4603	0.4575	0.0100	9.94	10.0	-0.6	30.0
Hexachlorobutadiene	Ave	0.1915	0.1945	0.0100	10.2	10.0	1.6	30.0
1,2,3-Trichlorobenzene	Ave	0.2862	0.2911		10.2	10.0	1.7	30.0
Caprolactam	Ave	0.1347	0.1493	0.0100	11.1	10.0	10.8	30.0
4-Chloro-3-methylphenol	Ave	0.4252	0.4492	0.2000	10.6	10.0	5.7	30.0
2-Methylnaphthalene	Ave	0.5860	0.5868	0.4000	10.0	10.0	0.1	30.0
1-Methylnaphthalene	Ave	0.6781	0.6727		9.92	10.0	-0.8	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5438	0.5550		10.2	10.0	2.1	30.0
Hexachlorocyclopentadiene	Ave	0.3923	0.4172	0.0500	10.6	10.0	6.3	30.0
2,4,6-Trichlorophenol	Ave	0.3465	0.3701	0.2000	10.7	10.0	6.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICV 240-8519/11 Calibration Date: 07/14/2011 13:22

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3871	0.4013	0.2000	10.4	10.0	3.7	30.0
2,4-Toluene diamine	Qua		0.2015		10.1	10.0	1.0	30.0
1,1'-Biphenyl	Ave	1.584	1.591	0.0100	10.0	10.0	0.5	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5225	0.5356		10.3	10.0	2.5	30.0
2-Chloronaphthalene	Ave	1.113	1.118	0.8000	10.0	10.0	0.4	30.0
2-Nitroaniline	Ave	0.6227	0.6559	0.0100	10.5	10.0	5.3	30.0
Dimethyl phthalate	Ave	1.359	1.421	0.0100	10.5	10.0	4.6	30.0
2,6-Dinitrotoluene	Ave	0.2940	0.3102		10.6	10.0	5.5	30.0
1,2-Dinitrobenzene	Ave	0.1528	0.1617		10.6	10.0	5.8	30.0
Acenaphthylene	Ave	1.967	1.980	0.9000	10.1	10.0	0.6	30.0
3-Nitroaniline	Ave	0.3381	0.3549	0.0100	10.5	10.0	5.0	30.0
2,4-Dinitrophenol	Qua		0.2585	0.0100	21.1	20.0	5.5	30.0
Acenaphthene	Ave	1.262	1.260	0.9000	9.99	10.0	-0.1	30.0
4-Nitrophenol	Ave	0.2965	0.2863		9.65	10.0	-3.5	30.0
2,4-Dinitrotoluene	Ave	0.3991	0.4240	0.2000	10.6	10.0	6.2	30.0
Dibenzofuran	Ave	1.711	1.736	0.8000	10.1	10.0	1.5	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3326	0.3359		10.1	10.0	1.0	30.0
Diethyl phthalate	Ave	1.511	1.585	0.0100	10.5	10.0	4.9	30.0
4-Chlorophenyl phenyl ether	Ave	0.6621	0.6744	0.4000	10.2	10.0	1.9	30.0
4-Nitroaniline	Ave	0.3761	0.3944	0.0100	10.5	10.0	4.9	30.0
Fluorene	Ave	1.325	1.357	0.9000	10.2	10.0	2.4	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1405	0.1523	0.0100	10.8	10.0	8.4	30.0
N-Nitrosodiphenylamine	Ave	0.5824	0.6081	0.0100	10.4	10.0	4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.479	1.508		10.2	10.0	2.0	30.0
Azobenzene	Ave	1.479	1.508		10.2	10.0	2.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2042	0.2061	0.1000	10.1	10.0	0.9	30.0
Hexachlorobenzene	Ave	0.2010	0.2014	0.1000	10.0	10.0	0.2	30.0
Atrazine	Ave	0.1993	0.2126	0.0100	10.7	10.0	6.7	30.0
Pentachlorophenol	Qua		0.1528	0.0500	21.0	20.0	5.0	30.0
Phenanthrene	Ave	1.116	1.131	0.7000	10.1	10.0	1.3	30.0
Anthracene	Ave	1.124	1.149	0.7000	10.2	10.0	2.3	30.0
Carbazole	Ave	1.091	1.114	0.0100	10.2	10.0	2.1	30.0
Di-n-butyl phthalate	Ave	1.432	1.502	0.0100	10.5	10.0	4.8	30.0
Fluoranthene	Ave	1.227	1.264	0.6000	10.3	10.0	3.0	30.0
Benzidine	Ave	0.6090	0.7094		11.6	10.0	16.5	30.0
Pyrene	Ave	1.232	1.256	0.6000	10.2	10.0	2.0	30.0
Butyl benzyl phthalate	Ave	0.6251	0.6315	0.0100	10.1	10.0	1.0	30.0
3,3'-Dimethoxybenzidine	Ave	0.2385	0.2647		11.1	10.0	11.0	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8688	0.8960	0.0100	10.3	10.0	3.1	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2291	0.2402		10.5	10.0	4.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICV 240-8519/11 Calibration Date: 07/14/2011 13:22

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4279	0.4419	0.0100	10.3	10.0	3.3	30.0
Benzo[a]anthracene	Ave	1.161	1.172	0.8000	10.1	10.0	1.0	30.0
Chrysene	Ave	1.134	1.118	0.7000	9.86	10.0	-1.4	30.0
Di-n-octyl phthalate	Ave	1.687	1.795	0.0100	10.6	10.0	6.4	30.0
Benzo[b]fluoranthene	Ave	1.274	1.239	0.7000	9.73	10.0	-2.7	30.0
Benzo[k]fluoranthene	Ave	1.328	1.415	0.7000	10.7	10.0	6.6	30.0
Benzo[a]pyrene	Ave	1.167	1.213	0.7000	10.4	10.0	3.9	30.0
Dibenzo(a,h)anthracene	Ave	1.063	1.125	0.4000	10.6	10.0	5.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.291	1.349	0.5000	10.4	10.0	4.5	30.0
Benzo[g,h,i]perylene	Ave	1.031	1.079	0.5000	10.5	10.0	4.7	30.0
2-Fluorophenol (Surr)	Ave	1.460	1.504		10.3	10.0	3.0	30.0
Phenol-d5 (Surr)	Ave	2.042	2.073		10.2	10.0	1.5	30.0
Nitrobenzene-d5 (Surr)	Ave	0.6660	0.6335		9.51	10.0	-4.9	30.0
2-Fluorobiphenyl (Surr)	Ave	1.329	1.367		10.3	10.0	2.8	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1597	0.1629		10.2	10.0	2.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7394	0.7550		10.2	10.0	2.1	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab File ID: 9DF0715.D DFTPP Injection Date: 07/15/2011

Instrument ID: A4HP9 DFTPP Injection Time: 13:55

Analysis Batch No.: 8683

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	68.8	
70	Less than 2.0% of mass 69	0.4	(0.6)1
127	25.0 - 75.0% of mass 198	54.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	26.9	
365	Greater than 0.75% of mass 198	4.0	
441	Present, but less than mass 443	14.2	
442	40.0 - 110.0% of mass 198	83.8	
443	15.0 - 24.0% of mass 442	15.6	(18.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-8683/2	9SMH0715.D	07/15/2011	14:17
	CCV 240-8683/3	9AMH0715.D	07/15/2011	15:03
	MB 240-6514/14-A	MB6514.D	07/15/2011	15:22
	LCS 240-6514/15-A	LCS6514.D	07/15/2011	15:42
	MB 240-6094/1-A	MB6094.D	07/15/2011	16:01
	LCS 240-6094/2-A	LCS6094.D	07/15/2011	16:20
GSP-SB-WP-84-062311	240-1443-1	1443J1A.D	07/16/2011	00:58
GSP-SB-WP-89-062311	240-1443-2	1443I2A.D	07/16/2011	01:18
GSP-SB-WP-61-062311	240-1443-3	1443A3A.D	07/16/2011	01:37

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-8683/2 Calibration Date: 07/15/2011 14:17

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0715.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7460	0.8042		10.8	10.0	7.8	20.0
N-Nitrosodimethylamine	Ave	1.364	1.476		10.8	10.0	8.2	20.0
Pyridine	Ave	1.962	2.333		11.9	10.0	18.9	20.0
Ethyl methacrylate	Ave	2.036	2.166		10.6	10.0	6.4	20.0
3-Chloropropionitrile	Ave	0.8384	0.8880		10.6	10.0	5.9	20.0
Malononitrile	Ave	2.328	2.494		10.7	10.0	7.1	20.0
Benzaldehyde	Ave	1.809	1.656	0.0100	9.15	10.0	-8.5	20.0
Phenol	Ave	2.343	2.436	0.8000	10.4	10.0	4.0	20.0
Aniline	Ave	2.884	3.060		10.6	10.0	6.1	20.0
Bis(2-chloroethyl)ether	Ave	1.948	1.899	0.7000	9.75	10.0	-2.5	20.0
2-Chlorophenol	Ave	1.393	1.416	0.8000	10.2	10.0	1.6	20.0
1,3-Dichlorobenzene	Ave	1.380	1.375		9.96	10.0	-0.4	20.0
1,4-Dichlorobenzene	Ave	1.446	1.458		10.1	10.0	0.9	20.0
Benzyl alcohol	Ave	1.024	1.061		10.4	10.0	3.6	20.0
1,2-Dichlorobenzene	Ave	1.322	1.305		9.88	10.0	-1.2	20.0
2-Methylphenol	Ave	1.517	1.551	0.7000	10.2	10.0	2.2	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.624	1.613		9.93	10.0	-0.7	20.0
3 & 4 Methylphenol	Ave	1.561	1.621		10.4	10.0	3.9	20.0
N-Nitrosodi-n-propylamine	Ave	1.755	1.821	0.5000	10.4	10.0	3.7	20.0
Acetophenone	Ave	2.407	2.470	0.0100	10.3	10.0	2.6	20.0
Hexachloroethane	Ave	0.6633	0.6780	0.3000	10.2	10.0	2.2	20.0
Nitrobenzene	Ave	0.6719	0.6814	0.2000	10.1	10.0	1.4	20.0
Isophorone	Ave	1.171	1.198	0.4000	10.2	10.0	2.4	20.0
2-Nitrophenol	Ave	0.1943	0.1974	0.1000	10.2	10.0	1.6	20.0
1,3,5-Trichlorobenzene	Ave	0.3184	0.3095		9.72	10.0	-2.8	20.0
2,4-Dimethylphenol	Ave	0.5047	0.5246	0.2000	10.4	10.0	3.9	20.0
Bis(2-chloroethoxy)methane	Ave	0.5665	0.5887	0.3000	10.4	10.0	3.9	20.0
Benzoic acid	Qua		0.2770		21.3	20.0	6.5	20.0
2,4-Dichlorophenol	Ave	0.2645	0.2840	0.2000	10.7	10.0	7.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3072	0.3045		9.91	10.0	-0.9	20.0
Naphthalene	Ave	1.118	1.096	0.7000	9.81	10.0	-1.9	20.0
4-Chloroaniline	Ave	0.4603	0.4619	0.0100	10.0	10.0	0.3	20.0
Hexachlorobutadiene	Ave	0.1915	0.1896	0.0100	9.90	10.0	-1.0	20.0
1,2,3-Trichlorobenzene	Ave	0.2862	0.2881		10.1	10.0	0.7	20.0
Caprolactam	Ave	0.1347	0.1512	0.0100	11.2	10.0	12.3	20.0
4-Chloro-3-methylphenol	Ave	0.4252	0.4407	0.2000	10.4	10.0	3.6	20.0
2-Methylnaphthalene	Ave	0.5860	0.5774	0.4000	9.85	10.0	-1.5	20.0
1-Methylnaphthalene	Ave	0.6781	0.6536		9.64	10.0	-3.6	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5438	0.5208		9.58	10.0	-4.2	20.0
Hexachlorocyclopentadiene	Ave	0.3923	0.3884	0.0500	9.90	10.0	-1.0	20.0
2,4,6-Trichlorophenol	Ave	0.3465	0.3657	0.2000	10.6	10.0	5.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-8683/2 Calibration Date: 07/15/2011 14:17

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0715.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3871	0.3958	0.2000	10.2	10.0	2.2	20.0
2,4-Toluene diamine	Qua		0.2201		11.4	10.0	14.0	20.0
1,1'-Biphenyl	Ave	1.584	1.506	0.0100	9.51	10.0	-4.9	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5225	0.5030		9.63	10.0	-3.7	20.0
2-Chloronaphthalene	Ave	1.113	1.096	0.8000	9.84	10.0	-1.6	20.0
2-Nitroaniline	Ave	0.6227	0.6248	0.0100	10.0	10.0	0.3	20.0
Dimethyl phthalate	Ave	1.359	1.344	0.0100	9.89	10.0	-1.1	20.0
2,6-Dinitrotoluene	Ave	0.2940	0.3090		10.5	10.0	5.1	20.0
1,2-Dinitrobenzene	Ave	0.1528	0.1560		10.2	10.0	2.1	20.0
Acenaphthylene	Ave	1.967	1.893	0.9000	9.62	10.0	-3.8	20.0
3-Nitroaniline	Ave	0.3381	0.3505	0.0100	10.4	10.0	3.7	20.0
2,4-Dinitrophenol	Qua		0.2402	0.0100	19.8	20.0	-1.0	20.0
Acenaphthene	Ave	1.262	1.200	0.9000	9.51	10.0	-4.9	20.0
4-Nitrophenol	Ave	0.2965	0.3359		11.3	10.0	13.3	20.0
2,4-Dinitrotoluene	Ave	0.3991	0.4046	0.2000	10.1	10.0	1.4	20.0
Dibenzofuran	Ave	1.711	1.671	0.8000	9.77	10.0	-2.3	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3326	0.3170		9.53	10.0	-4.7	20.0
Diethyl phthalate	Ave	1.511	1.481	0.0100	9.80	10.0	-2.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.6621	0.6413	0.4000	9.69	10.0	-3.1	20.0
4-Nitroaniline	Ave	0.3761	0.3813	0.0100	10.1	10.0	1.4	20.0
Fluorene	Ave	1.325	1.299	0.9000	9.80	10.0	-2.0	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1405	0.1476	0.0100	10.5	10.0	5.1	20.0
N-Nitrosodiphenylamine	Ave	0.5824	0.5764	0.0100	9.90	10.0	-1.0	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.479	1.499		10.1	10.0	1.4	20.0
Azobenzene	Ave	1.479	1.499		10.1	10.0	1.4	20.0
4-Bromophenyl phenyl ether	Ave	0.2042	0.1989	0.1000	9.74	10.0	-2.6	20.0
Hexachlorobenzene	Ave	0.2010	0.1974	0.1000	9.82	10.0	-1.8	20.0
Atrazine	Ave	0.1993	0.2129	0.0100	10.7	10.0	6.9	20.0
Pentachlorophenol	Qua		0.1423	0.0500	19.8	20.0	-1.0	20.0
Phenanthrene	Ave	1.116	1.088	0.7000	9.74	10.0	-2.6	20.0
Anthracene	Ave	1.124	1.093	0.7000	9.73	10.0	-2.7	20.0
Carbazole	Ave	1.091	1.082	0.0100	9.92	10.0	-0.8	20.0
Di-n-butyl phthalate	Ave	1.432	1.446	0.0100	10.1	10.0	1.0	20.0
Fluoranthene	Ave	1.227	1.204	0.6000	9.81	10.0	-1.9	20.0
Benzidine	Ave	0.6090	0.6332		10.4	10.0	4.0	20.0
Pyrene	Ave	1.232	1.233	0.6000	10.0	10.0	0.1	20.0
Butyl benzyl phthalate	Ave	0.6251	0.6186	0.0100	9.90	10.0	-1.0	20.0
3,3'-Dimethoxybenzidine	Ave	0.2385	0.2506		10.5	10.0	5.1	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8688	0.8735	0.0100	10.1	10.0	0.5	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2291	0.2379		10.4	10.0	3.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-8683/2 Calibration Date: 07/15/2011 14:17

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0715.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4279	0.4414	0.0100	10.3	10.0	3.2	20.0
Benzo[a]anthracene	Ave	1.161	1.198	0.8000	10.3	10.0	3.2	20.0
Chrysene	Ave	1.134	1.106	0.7000	9.75	10.0	-2.5	20.0
Di-n-octyl phthalate	Ave	1.687	1.743	0.0100	10.3	10.0	3.3	20.0
Benzo[b]fluoranthene	Ave	1.274	1.414	0.7000	11.1	10.0	11.0	20.0
Benzo[k]fluoranthene	Ave	1.328	1.173	0.7000	8.83	10.0	-11.7	20.0
Benzo[a]pyrene	Ave	1.167	1.169	0.7000	10.0	10.0	0.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.291	1.287	0.5000	9.97	10.0	-0.3	20.0
Dibenzo(a,h)anthracene	Ave	1.063	1.090	0.4000	10.3	10.0	2.6	20.0
Benzo[g,h,i]perylene	Ave	1.031	1.067	0.5000	10.4	10.0	3.5	20.0
2-Fluorophenol (Surr)	Ave	1.460	1.511		10.4	10.0	3.5	20.0
Phenol-d5 (Surr)	Ave	2.042	2.151		10.5	10.0	5.3	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6660	0.6870		10.3	10.0	3.2	20.0
2-Fluorobiphenyl (Surr)	Ave	1.329	1.301		9.79	10.0	-2.1	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1597	0.1616		10.1	10.0	1.2	20.0
Terphenyl-d14 (Surr)	Ave	0.7394	0.7410		10.0	10.0	0.2	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab File ID: 9DF0716.D DFTPP Injection Date: 07/16/2011

Instrument ID: A4HP9 DFTPP Injection Time: 09:18

Analysis Batch No.: 8694

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	68.5	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	25.0 - 75.0% of mass 198	54.2	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	26.2	
365	Greater than 0.75% of mass 198	3.7	
441	Present, but less than mass 443	14.0	
442	40.0 - 110.0% of mass 198	82.5	
443	15.0 - 24.0% of mass 442	15.9	(19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-8694/2	9SMH0716.D	07/16/2011	09:38
	CCV 240-8694/3	9AMH0716.D	07/16/2011	10:08
GSP-SB-WP-66-062411	240-1470-1	1470B1A.D	07/16/2011	17:10

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-8694/2 Calibration Date: 07/16/2011 09:38

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0716.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7460	0.8097		10.9	10.0	8.5	20.0
N-Nitrosodimethylamine	Ave	1.364	1.483		10.9	10.0	8.8	20.0
Pyridine	Ave	1.962	2.300		11.7	10.0	17.2	20.0
Ethyl methacrylate	Ave	2.036	2.193		10.8	10.0	7.7	20.0
3-Chloropropionitrile	Ave	0.8384	0.8777		10.5	10.0	4.7	20.0
Malononitrile	Ave	2.328	2.478		10.6	10.0	6.4	20.0
Benzaldehyde	Ave	1.809	1.651	0.0100	9.12	10.0	-8.8	20.0
Phenol	Ave	2.343	2.393	0.8000	10.2	10.0	2.1	20.0
Aniline	Ave	2.884	3.076		10.7	10.0	6.7	20.0
Bis(2-chloroethyl)ether	Ave	1.948	1.840	0.7000	9.45	10.0	-5.5	20.0
2-Chlorophenol	Ave	1.393	1.392	0.8000	10.0	10.0	-0.0	20.0
1,3-Dichlorobenzene	Ave	1.380	1.349		9.78	10.0	-2.2	20.0
1,4-Dichlorobenzene	Ave	1.446	1.415		9.79	10.0	-2.1	20.0
Benzyl alcohol	Ave	1.024	1.040		10.2	10.0	1.5	20.0
1,2-Dichlorobenzene	Ave	1.322	1.281		9.69	10.0	-3.1	20.0
2-Methylphenol	Ave	1.517	1.527	0.7000	10.1	10.0	0.6	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.624	1.580		9.73	10.0	-2.7	20.0
3 & 4 Methylphenol	Ave	1.561	1.611		10.3	10.0	3.2	20.0
N-Nitrosodi-n-propylamine	Ave	1.755	1.760	0.5000	10.0	10.0	0.3	20.0
Acetophenone	Ave	2.407	2.390	0.0100	9.93	10.0	-0.7	20.0
Hexachloroethane	Ave	0.6633	0.6596	0.3000	9.94	10.0	-0.6	20.0
Nitrobenzene	Ave	0.6719	0.6865	0.2000	10.2	10.0	2.2	20.0
Isophorone	Ave	1.171	1.181	0.4000	10.1	10.0	0.9	20.0
2-Nitrophenol	Ave	0.1943	0.1987	0.1000	10.2	10.0	2.3	20.0
2,4-Dimethylphenol	Ave	0.5047	0.5118	0.2000	10.1	10.0	1.4	20.0
1,3,5-Trichlorobenzene	Ave	0.3184	0.3142		9.87	10.0	-1.3	20.0
Bis(2-chloroethoxy)methane	Ave	0.5665	0.5785	0.3000	10.2	10.0	2.1	20.0
Benzoic acid	Qua		0.2608		20.2	20.0	1.0	20.0
2,4-Dichlorophenol	Ave	0.2645	0.2822	0.2000	10.7	10.0	6.7	20.0
1,2,4-Trichlorobenzene	Ave	0.3072	0.3040		9.90	10.0	-1.0	20.0
Naphthalene	Ave	1.118	1.099	0.7000	9.84	10.0	-1.6	20.0
4-Chloroaniline	Ave	0.4603	0.4671	0.0100	10.1	10.0	1.5	20.0
Hexachlorobutadiene	Ave	0.1915	0.1874	0.0100	9.78	10.0	-2.2	20.0
1,2,3-Trichlorobenzene	Ave	0.2862	0.2822		9.86	10.0	-1.4	20.0
Caprolactam	Ave	0.1347	0.1455	0.0100	10.8	10.0	8.0	20.0
4-Chloro-3-methylphenol	Ave	0.4252	0.4296	0.2000	10.1	10.0	1.0	20.0
2-Methylnaphthalene	Ave	0.5860	0.5691	0.4000	9.71	10.0	-2.9	20.0
1-Methylnaphthalene	Ave	0.6781	0.6501		9.59	10.0	-4.1	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5438	0.5240		9.64	10.0	-3.6	20.0
Hexachlorocyclopentadiene	Ave	0.3923	0.3802	0.0500	9.69	10.0	-3.1	20.0
2,4,6-Trichlorophenol	Ave	0.3465	0.3627	0.2000	10.5	10.0	4.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-8694/2 Calibration Date: 07/16/2011 09:38

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0716.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3871	0.3864	0.2000	9.98	10.0	-0.2	20.0
2,4-Toluene diamine	Qua		0.2382		12.7	10.0	27.0*	20.0
1,1'-Biphenyl	Ave	1.584	1.515	0.0100	9.56	10.0	-4.4	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5225	0.4968		9.51	10.0	-4.9	20.0
2-Chloronaphthalene	Ave	1.113	1.085	0.8000	9.74	10.0	-2.6	20.0
2-Nitroaniline	Ave	0.6227	0.6259	0.0100	10.1	10.0	0.5	20.0
Dimethyl phthalate	Ave	1.359	1.322	0.0100	9.73	10.0	-2.7	20.0
2,6-Dinitrotoluene	Ave	0.2940	0.2940		10.0	10.0	0.0	20.0
1,2-Dinitrobenzene	Ave	0.1528	0.1553		10.2	10.0	1.6	20.0
Acenaphthylene	Ave	1.967	1.905	0.9000	9.69	10.0	-3.1	20.0
3-Nitroaniline	Ave	0.3381	0.3435	0.0100	10.2	10.0	1.6	20.0
2,4-Dinitrophenol	Qua		0.2422	0.0100	19.9	20.0	-0.5	20.0
Acenaphthene	Ave	1.262	1.193	0.9000	9.45	10.0	-5.5	20.0
4-Nitrophenol	Ave	0.2965	0.3242		10.9	10.0	9.3	20.0
2,4-Dinitrotoluene	Ave	0.3991	0.4028	0.2000	10.1	10.0	0.9	20.0
Dibenzofuran	Ave	1.711	1.659	0.8000	9.69	10.0	-3.1	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3326	0.3160		9.50	10.0	-5.0	20.0
Diethyl phthalate	Ave	1.511	1.466	0.0100	9.71	10.0	-2.9	20.0
4-Chlorophenyl phenyl ether	Ave	0.6621	0.6332	0.4000	9.56	10.0	-4.4	20.0
4-Nitroaniline	Ave	0.3761	0.3832	0.0100	10.2	10.0	1.9	20.0
Fluorene	Ave	1.325	1.273	0.9000	9.60	10.0	-4.0	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1405	0.1469	0.0100	10.5	10.0	4.5	20.0
N-Nitrosodiphenylamine	Ave	0.5824	0.5758	0.0100	9.89	10.0	-1.1	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.479	1.504		10.2	10.0	1.7	20.0
Azobenzene	Ave	1.479	1.504		10.2	10.0	1.7	20.0
4-Bromophenyl phenyl ether	Ave	0.2042	0.2019	0.1000	9.89	10.0	-1.1	20.0
Hexachlorobenzene	Ave	0.2010	0.1988	0.1000	9.89	10.0	-1.1	20.0
Atrazine	Ave	0.1993	0.2087	0.0100	10.5	10.0	4.7	20.0
Pentachlorophenol	Qua		0.1434	0.0500	19.9	20.0	-0.5	20.0
Phenanthrene	Ave	1.116	1.081	0.7000	9.69	10.0	-3.1	20.0
Anthracene	Ave	1.124	1.095	0.7000	9.74	10.0	-2.6	20.0
Carbazole	Ave	1.091	1.083	0.0100	9.92	10.0	-0.8	20.0
Di-n-butyl phthalate	Ave	1.432	1.450	0.0100	10.1	10.0	1.2	20.0
Fluoranthene	Ave	1.227	1.199	0.6000	9.77	10.0	-2.3	20.0
Benzidine	Ave	0.6090	0.7109		11.7	10.0	16.7	20.0
Pyrene	Ave	1.232	1.227	0.6000	9.97	10.0	-0.3	20.0
Butyl benzyl phthalate	Ave	0.6251	0.6150	0.0100	9.84	10.0	-1.6	20.0
3,3'-Dimethoxybenzidine	Ave	0.2385	0.2835		11.9	10.0	18.8	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8688	0.8659	0.0100	9.97	10.0	-0.3	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2291	0.2318		10.1	10.0	1.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-8694/2 Calibration Date: 07/16/2011 09:38

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0716.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4279	0.4362	0.0100	10.2	10.0	1.9	20.0
Benzo[a]anthracene	Ave	1.161	1.194	0.8000	10.3	10.0	2.9	20.0
Chrysene	Ave	1.134	1.063	0.7000	9.38	10.0	-6.2	20.0
Di-n-octyl phthalate	Ave	1.687	1.764	0.0100	10.5	10.0	4.5	20.0
Benzo[b]fluoranthene	Ave	1.274	1.330	0.7000	10.4	10.0	4.4	20.0
Benzo[k]fluoranthene	Ave	1.328	1.216	0.7000	9.16	10.0	-8.4	20.0
Benzo[a]pyrene	Ave	1.167	1.167	0.7000	10.0	10.0	0.0	20.0
Dibenzo(a,h)anthracene	Ave	1.063	1.082	0.4000	10.2	10.0	1.7	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.291	1.318	0.5000	10.2	10.0	2.1	20.0
Benzo[g,h,i]perylene	Ave	1.031	1.060	0.5000	10.3	10.0	2.9	20.0
2-Fluorophenol (Surr)	Ave	1.460	1.508		10.3	10.0	3.3	20.0
Phenol-d5 (Surr)	Ave	2.042	2.101		10.3	10.0	2.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6660	0.6433		9.66	10.0	-3.4	20.0
2-Fluorobiphenyl (Surr)	Ave	1.329	1.287		9.68	10.0	-3.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1597	0.1525		9.55	10.0	-4.5	20.0
Terphenyl-d14 (Surr)	Ave	0.7394	0.7377		9.98	10.0	-0.2	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab File ID: 9DF0721.D DFTPP Injection Date: 07/21/2011

Instrument ID: A4HP9 DFTPP Injection Time: 11:09

Analysis Batch No.: 9362

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.6	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	76.9	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	56.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	24.0	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	11.0	
442	40.0 - 110.0% of mass 198	67.6	
443	15.0 - 24.0% of mass 442	13.2	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-9362/10	9SMH0721.D	07/21/2011	11:26
	STD5 240-9362/2	9SMM0721.D	07/21/2011	11:51
	STD4 240-9362/3	9SM0721.D	07/21/2011	12:10
	STD3 240-9362/4	9SML0721.D	07/21/2011	12:30
	STD2 240-9362/5	9SL0721.D	07/21/2011	12:49
	STD1 240-9362/6	9SLL0721.D	07/21/2011	13:08
	STD7 240-9362/9	9SH0721.D	07/21/2011	13:28
	STD8 240-9362/8	9SHH0721.D	07/21/2011	13:47
	STD9 240-9362/7	9HHH0721.D	07/21/2011	14:07
	ICV 240-9362/11	9TCLICV.D	07/21/2011	14:26
	ICV 240-9362/21	9AP9ICV.D	07/21/2011	17:39
GSP-MW-8-062311	240-1443-5	1443I5A.D	07/21/2011	20:53

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-9362/6	9SLL0721.D
Level 2	STD2 240-9362/5	9SL0721.D
Level 3	STD3 240-9362/4	9SML0721.D
Level 4	STD4 240-9362/3	9SM0721.D
Level 5	STD5 240-9362/2	9SMM0721.D
Level 6	STD6 240-9362/10	9SMH0721.D
Level 7	STD7 240-9362/9	9SH0721.D
Level 8	STD8 240-9362/8	9SHH0721.D
Level 9	STD9 240-9362/7	9HHH0721.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.7934	0.8650 0.7847	0.8556 0.7688	0.8432 0.7714	0.7826	Ave		0.8081				4.9		20.0			
N-Nitrosodimethylamine	1.4911	1.5655 1.4965	1.4194 1.4551	1.5572 1.5057	1.4302	Ave		1.4901				3.6		20.0			
Pyridine	2.3127	2.4043 2.3190	2.2376 2.3338	2.4188 2.3968	2.2488	Ave		2.3340				3.0		20.0			
Ethyl methacrylate	2.1398	2.1987 2.1317	2.0505 2.1185	2.2585 2.1547	2.0730	Ave		2.1407				3.1		20.0			
3-Chloropropionitrile	0.8940	0.9752 0.9392	0.8425 0.9017	0.9644 0.9005	0.8651	Ave		0.9103				5.1		20.0			
Malononitrile	2.5669	2.5733 2.5519	2.5011 2.4219	2.6823 2.3607	2.4945	Ave		2.5191				3.9		20.0			
Benzaldehyde	1.6211	2.1017 1.1297	2.0183 +++++	2.0638	1.8591	Qua	-0.406	2.4864	-0.088		0.0100				0.9970		0.9900
Phenol	2.4260	2.5641 2.5086	2.5828 2.4793	2.6371 2.5422	2.4160	Ave		2.5195			0.8000	3.1		20.0			
Aniline	3.0614	3.1074 3.2280	3.2243 3.1333	3.3249 3.2908	3.0048	Ave		3.1718				3.6		20.0			
Bis(2-chloroethyl)ether	1.9019	2.1318 1.9388	2.2165 1.9071	2.0774 1.9693	1.9206	Ave		2.0079			0.7000	5.9		20.0			
2-Chlorophenol	1.3872	1.5698 1.4536	1.4884 1.4068	1.5410 1.4535	1.3732	Ave		1.4592			0.8000	4.9		20.0			
1,3-Dichlorobenzene	1.3710	1.4270 1.4117	1.4737 1.3754	1.4955 1.4384	1.3633	Ave		1.4195				3.4		20.0			
1,4-Dichlorobenzene	1.4116	1.5150 1.4731	1.5410 1.4451	1.5796 1.5010	1.4272	Ave		1.4867				3.9		20.0			

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzyl alcohol	1.0941	1.1478 1.1411	1.1621 1.1150	1.1659 1.1546	1.0986	Ave		1.1349				2.5		20.0			
1,2-Dichlorobenzene	1.2977	1.3627 1.3661	1.4645 1.3169	1.3962 1.3814	1.3051	Ave		1.3613				4.1		20.0			
2-Methylphenol	1.5542	1.5992 1.6285	1.6396 1.5788	1.6846 1.6486	1.5554	Ave		1.6111			0.7000	2.9		20.0			
2,2'-oxybis[1-chloropropane]	1.7018	1.9586 1.8231	1.9756 1.7575	1.8702 1.8013	1.7618	Ave		1.8312				5.3		20.0			
3 & 4 Methylphenol	1.6388	1.7175 1.7246	1.7860 1.6738	1.7932 1.7380	1.6895	Ave		1.7202				3.1		20.0			
N-Nitrosodi-n-propylamine	1.7934	1.8689 1.8409	1.9461 1.8016	1.9356 1.8658	1.8044	Ave		1.8571			0.5000	3.2		20.0			
Acetophenone	2.3621	2.4682 2.5193	2.6480 2.4374	2.5655 2.5630	2.4096	Ave		2.4966			0.0100	3.8		20.0			
Hexachloroethane	0.6551	0.6481 0.6747	0.6902 0.6518	0.6983 0.6839	0.6566	Ave		0.6699			0.3000	2.9		20.0			
Nitrobenzene	0.6783	0.6860 0.6906	0.6869 0.6803	0.6973 0.7107	0.6523	Ave		0.6853			0.2000	2.5		20.0			
Isophorone	1.1650	1.1176 1.2117	1.1808 1.2077	1.2056 1.2682	1.1448	Ave		1.1877			0.4000	3.9		20.0			
2-Nitrophenol	0.1950	0.1975 0.2013	0.2002 0.1987	0.2022 0.2080	0.1917	Ave		0.1993			0.1000	2.5		20.0			
2,4-Dimethylphenol	0.4949	0.4741 0.5139	0.5104 0.5091	0.5112 0.5444	0.4964	Ave		0.5068			0.2000	4.0		20.0			
1,3,5-Trichlorobenzene	0.2978	0.3035 0.3081	0.3089 0.3181	0.3120 0.3410	0.2919	Ave		0.3102				4.8		20.0			
Bis(2-chloroethoxy)methane	0.5706	0.6011 0.5937	0.6131 0.5764	0.6030 0.6127	0.5759	Ave		0.5933			0.3000	2.9		20.0			
Benzoic acid	0.2938	0.1574 0.3261	0.1808 0.3119	0.2020 0.3473	0.2690	Qua	-0.188	0.2741	0.0014						0.9980		0.9900
2,4-Dichlorophenol	0.2787	0.2570 0.2781	0.2757 0.2793	0.2865 0.2924	0.2667	Ave		0.2768			0.2000	4.0		20.0			
1,2,4-Trichlorobenzene	0.2940	0.3173 0.3008	0.3021 0.3004	0.3086 0.3177	0.2908	Ave		0.3040				3.3		20.0			
Naphthalene	1.3248 1.0818	1.1098 1.1286	1.1454 1.1305	1.1284 1.1573	1.0493	Ave		1.1395			0.7000	6.8		20.0			
4-Chloroaniline	0.4662	0.4806 0.4728	0.4667 0.4670	0.4968 0.4863	0.4591	Ave		0.4744			0.0100	2.6		20.0			
Hexachlorobutadiene	0.1774	0.1695 0.1811	0.1818 0.1823	0.1718 0.1941	0.1715	Ave		0.1787			0.0100	4.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,2,3-Trichlorobenzene	0.2759	0.2818 0.2804	0.2866 0.2811	0.2905 0.2971	0.2698	Ave		0.2829				3.0		20.0			
1,1'-Biphenyl	+++++ 1.4941	1.5333 1.5562	1.5833 1.6517	1.5592 1.8117	1.4219	Ave		1.5764			0.0100	7.4		20.0			
2-Chloronaphthalene	+++++ 1.0547	1.0996 1.0721	1.1180 1.0971	1.1153 1.1729	1.0448	Ave		1.0968			0.8000	3.7		20.0			
Caprolactam	0.1460	0.1378 0.1527	0.1481 0.1501	0.1428 0.1593	0.1448	Ave		0.1477			0.0100	4.4		20.0			
4-Chloro-3-methylphenol	0.4368	0.4019 0.4497	0.4297 0.4371	0.4342 0.4635	0.4198	Ave		0.4341			0.2000	4.3		20.0			
2-Methylnaphthalene	0.6665 0.5622	0.5544 0.5809	0.5947 0.5738	0.5792 0.6192	0.5600	Ave		0.5879			0.4000	6.0		20.0			
1-Methylnaphthalene	0.7711 0.6399	0.6806 0.6735	0.6792 0.6642	0.6782 0.7085	0.6398	Ave		0.6817				5.8		20.0			
1,2,3,5-Tetrachlorobenzene	0.5034	0.5190 0.5120	0.5134 0.5382	0.5236 0.5857	0.4868	Ave		0.5228				5.6		20.0			
Hexachlorocyclopentadiene	0.3839	0.3435 0.3922	0.3287 0.4151	0.3544 0.4517	0.3529	Ave		0.3778			0.0500	11.0		20.0			
2,4,6-Trichlorophenol	0.3750	0.3208 0.3516	0.3668 0.3619	0.3740 0.3929	0.3479	Ave		0.3614			0.2000	6.0		20.0			
2,4,5-Trichlorophenol	0.3783	0.3671 0.3863	0.3727 0.3979	0.3801 0.4131	0.3700	Ave		0.3832			0.2000	4.1		20.0			
Dibenzofuran	+++++ 1.6518	1.7119 1.6886	1.6530 1.7252	1.6993 1.8675	1.6037	Ave		1.7001			0.8000	4.6		20.0			
2,4-Toluene diamine	0.2289	0.3008	0.2748	0.3045	0.1694	Ave		0.2557				22.0	*	20.0			
1,2,3,4 -Tetrachlorobenzene	0.4767	0.4965 0.4936	0.4884 0.5183	0.4841 0.5639	0.4645	Ave		0.4983				6.2		20.0			
2-Nitroaniline	0.6170	0.6350 0.6270	0.6286 0.6566	0.6654 0.6786	0.6105	Ave		0.6398			0.0100	3.8		20.0			
Dimethyl phthalate	1.2914	1.3194 1.3340	1.3287 1.3484	1.3512 1.4239	1.2946	Ave		1.3364			0.0100	3.1		20.0			
2,6-Dinitrotoluene	0.2906	0.2663 0.2866	0.2719 0.2999	0.2925 0.3167	0.2833	Ave		0.2885				5.5		20.0			
1,2-Dinitrobenzene	0.1512	0.1323 0.1559	0.1451 0.1591	0.1565 0.1661	0.1516	Ave		0.1522				6.7		20.0			
Acenaphthylene	2.1768 1.8929	1.9248 1.9492	1.9198 2.0139	1.9876 2.1337	1.8570	Ave		1.9840			0.9000	5.5		20.0			
3-Nitroaniline	0.3518	0.3182 0.3523	0.3225 0.3576	0.3519 0.3734	0.3389	Ave		0.3458			0.0100	5.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Acenaphthene	1.4348 1.1713	1.2248 1.2021	1.2110 1.2504	1.2464 1.3190	1.1536	Ave		1.2459			0.9000	6.9		20.0			
2,4-Dinitrophenol	0.2530	0.1437 0.2650	0.1627 0.2740	0.2028 0.2908	0.2284	Qua	-0.118	0.2311	0.0012		0.0100				1.0000		0.9900
4-Nitrophenol	0.3245	0.2643 0.3233	0.3045 0.3297	0.3143 0.3386	0.3083	Ave		0.3134				7.3		20.0			
2,4-Dinitrotoluene	0.3940	0.3756 0.3988	0.3796 0.4138	0.3983 0.4337	0.3988	Ave		0.3991			0.2000	4.6		20.0			
2,3,5,6-Tetrachlorophenol	0.3222	0.3128 0.3268	0.2980 0.3262	0.3103 0.3545	0.3017	Ave		0.3191				5.6		20.0			
Diethyl phthalate	1.4395	1.4496 1.4691	1.4587 1.5032	1.4658 1.6247	1.4217	Ave		1.4790			0.0100	4.3		20.0			
4-Chlorophenyl phenyl ether	0.6237	0.6139 0.6310	0.6417 0.6613	0.6481 0.7006	0.6118	Ave		0.6415			0.4000	4.6		20.0			
4-Nitroaniline	0.3737	0.3376 0.3839	0.3576 0.3931	0.3839 0.4146	0.3670	Ave		0.3764			0.0100	6.2		20.0			
Fluorene	1.4074 1.2824	1.3190 1.3000	1.3061 1.3425	1.3214 1.4526	1.2291	Ave		1.3289			0.9000	5.0		20.0			
4,6-Dinitro-2-methylphenol	0.1516	0.1100 0.1584	0.1189 0.1571	0.1399 0.1650	0.1414	Ave		0.1428			0.0100	14.0		20.0			
N-Nitrosodiphenylamine	0.5617	0.5786 0.5668	0.5664 0.5839	0.5898 0.6310	0.5578	Ave		0.5795			0.0100	4.1		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.5060	1.4555 1.5526	1.5425 1.5569	1.5692 1.4728	1.5009	Ave		1.5197				2.8		20.0			
Azobenzene	1.5062	1.4557 1.5528	1.5425 1.5569	1.5692 1.4728	1.5012	Ave		1.5197				2.8		20.0			
4-Bromophenyl phenyl ether	0.1923	0.1939 0.1946	0.1964 0.1972	0.1969 0.2081	0.1905	Ave		0.1962			0.1000	2.7		20.0			
Hexachlorobenzene	0.2005 0.1876	0.1972 0.1950	0.2077 0.1934	0.1978 0.2060	0.1870	Ave		0.1969			0.1000	3.6		20.0			
Atrazine	0.2008	0.2090 0.1942	0.2181 0.1980	0.2113 0.2007	0.2044	Ave		0.2045			0.0100	3.8		20.0			
Pentachlorophenol	0.1501	0.1152 0.1584	0.1271 0.1613	0.1323 0.1704	0.1424	Ave		0.1447			0.0500	13.0		20.0			
Phenanthrene	1.2994 1.0582	1.0964 1.1165	1.1167 1.1222	1.1456 1.2033	1.0486	Ave		1.1341			0.7000	6.8		20.0			
Anthracene	1.2956 1.0670	1.0810 1.1245	1.0873 1.1459	1.1183 1.2441	1.0695	Ave		1.1370			0.7000	7.1		20.0			
Carbazole	1.0726	1.0505 1.1132	1.0811 1.1222	1.0944 1.2053	1.0388	Ave		1.0973			0.0100	4.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Di-n-butyl phthalate	1.4042	1.3057 1.4562	1.3646 1.3957	1.4014 1.3187	1.3894	Ave		1.3795			0.0100	3.5		20.0			
Fluoranthene	1.2888 1.1563	1.1198 1.2306	1.1681 1.2504	1.1743 1.3401	1.1511	Ave		1.2088			0.6000	6.0		20.0			
Benzidine	0.6413	0.5247 0.6739	0.5614 0.7024	0.6229 0.7191	0.6146	Ave		0.6325				11.0		20.0			
Pyrene	1.3265 1.2043	1.1784 1.2362	1.2179 1.2550	1.2068 1.2999	1.1725	Ave		1.2330			0.6000	4.3		20.0			
Butyl benzyl phthalate	0.6083	0.5364 0.6120	0.5692 0.6038	0.6318 0.6608	0.5965	Ave		0.6023			0.0100	6.2		20.0			
3,3'-Dimethoxybenzidine	0.2525	0.2172 0.2818	0.2106 0.2729	0.2732 0.2822	0.2544	Ave		0.2556				11.0		20.0			
Bis(2-ethylhexyl) phthalate	0.8530	0.7628 0.8639	0.7993 0.8756	0.8287 0.9289	0.8181	Ave		0.8413			0.0100	6.0		20.0			
4,4'-Methylene bis(2-chloroaniline)	0.2280	0.1858 0.2376	0.2072 0.2415	0.2239 0.2567	0.2155	Ave		0.2245				9.8		20.0			
3,3'-Dichlorobenzidine	0.4261	0.3736 0.4429	0.3912 0.4461	0.4300 0.4817	0.4065	Ave		0.4248			0.0100	8.0		20.0			
Benzo[a]anthracene	1.3976 1.1536	1.1773 1.1442	1.0753 1.1671	1.1273 1.2618	1.0858	Ave		1.1767			0.8000	8.4		20.0			
Chrysene	1.3615 1.0697	1.0521 1.1461	1.0901 1.1285	1.1094 1.1929	1.0466	Ave		1.1330			0.7000	8.6		20.0			
Di-n-octyl phthalate	1.7057	1.3566 1.7786	1.4502 1.7754	1.5689 1.9221	1.6447	Ave		1.6503			0.0100	11.0		20.0			
Benzo[b]fluoranthene	1.2817 1.3971	1.1349 1.3870	1.1158 1.3192	1.2341 1.5942	1.3320	Ave		1.3107			0.7000	11.0		20.0			
Benzo[k]fluoranthene	1.6231 1.2380	1.2680 1.3138	1.3660 1.4003	1.2531 1.3423	1.2332	Ave		1.3375			0.7000	9.1		20.0			
Benzo[a]pyrene	1.1887 1.1873	1.0781 1.2141	1.1154 1.2143	1.1374 1.3054	1.1480	Ave		1.1765			0.7000	5.7		20.0			
Indeno[1,2,3-cd]pyrene	1.1855 1.3052	1.0996 1.3402	1.1603 1.3418	1.2330 1.4219	1.2555	Ave		1.2603			0.5000	8.1		20.0			
Dibenzo(a,h)anthracene	1.0821 1.0520	0.8534 1.1068	0.9577 1.1141	0.9859 1.2020	1.0151	Ave		1.0410			0.4000	9.8		20.0			
Benzo[g,h,i]perylene	1.0398 1.0535	0.9680 1.0914	0.9634 1.0728	1.0029 1.1334	1.0373	Ave		1.0403			0.5000	5.4		20.0			
2-Fluorophenol (Surr)	1.4943	1.4688 1.5169	1.5366 1.4900	1.5892 1.5757	1.4943	Ave		1.5207				2.8		20.0			
Phenol-d5 (Surr)	2.1602	2.2184 2.2253	2.2887 2.1609	2.2631 2.2441	2.1140	Ave		2.2093				2.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 9362

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/21/2011 11:26 Calibration End Date: 07/21/2011 14:07 Calibration ID: 2606

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Nitrobenzene-d5 (Surr)	0.7096 0.6759	0.6221 0.6257	0.6474 0.6233	0.6622 0.6648	0.6594	Ave		0.6545				4.4		20.0			
2-Fluorobiphenyl (Surr)	1.4465 1.2840	1.3483 1.2975	1.3545 1.3480	1.3538 1.4490	1.2528	Ave		1.3483				5.0		20.0			
2,4,6-Tribromophenol (Surr)	 0.1525	0.1560 0.1600	0.1508 0.1612	0.1553 0.1717	0.1485	Ave		0.1570				4.7		20.0			
Terphenyl-d14 (Surr)	0.8214 0.7162	0.6809 0.7373	0.7083 0.7433	0.7127 0.8109	0.6927	Ave		0.7360				6.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton | Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICV 240-9362/11 | Calibration Date: 07/21/2011 14:26

Instrument ID: A4HP9 | Calib Start Date: 07/21/2011 11:26

GC Column: RXI-5SILMS ID: 0.45(mm) | Calib End Date: 07/21/2011 14:07

Lab File ID: 9TCLICV.D | Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8081	0.7832		9.69	10.0	-3.1	30.0
N-Nitrosodimethylamine	Ave	1.490	1.496		10.0	10.0	0.4	30.0
Pyridine	Ave	2.334	2.293		9.83	10.0	-1.7	30.0
Ethyl methacrylate	Ave	2.141	2.183		10.2	10.0	2.0	30.0
3-Chloropropionitrile	Ave	0.9103	0.9168		10.1	10.0	0.7	30.0
Malononitrile	Ave	2.519	2.610		10.4	10.0	3.6	30.0
Benzaldehyde	Qua		1.469	0.0100	8.82	10.0	-11.8	30.0
Phenol	Ave	2.520	2.501	0.8000	9.93	10.0	-0.7	30.0
Aniline	Ave	3.172	3.152		9.94	10.0	-0.6	30.0
Bis(2-chloroethyl)ether	Ave	2.008	1.896	0.7000	9.44	10.0	-5.6	30.0
2-Chlorophenol	Ave	1.459	1.453	0.8000	9.96	10.0	-0.4	30.0
1,3-Dichlorobenzene	Ave	1.420	1.383		9.74	10.0	-2.6	30.0
1,4-Dichlorobenzene	Ave	1.487	1.455		9.79	10.0	-2.1	30.0
Benzyl alcohol	Ave	1.135	1.136		10.0	10.0	0.1	30.0
1,2-Dichlorobenzene	Ave	1.361	1.333		9.79	10.0	-2.1	30.0
2-Methylphenol	Ave	1.611	1.580	0.7000	9.81	10.0	-1.9	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.831	1.781		9.72	10.0	-2.8	30.0
3 & 4 Methylphenol	Ave	1.720	1.664		9.67	10.0	-3.3	30.0
N-Nitrosodi-n-propylamine	Ave	1.857	1.828	0.5000	9.84	10.0	-1.6	30.0
Acetophenone	Ave	2.497	2.430	0.0100	9.74	10.0	-2.6	30.0
Hexachloroethane	Ave	0.6699	0.6662	0.3000	9.94	10.0	-0.6	30.0
Nitrobenzene	Ave	0.6853	0.6938	0.2000	10.1	10.0	1.2	30.0
Isophorone	Ave	1.188	1.218	0.4000	10.3	10.0	2.6	30.0
2-Nitrophenol	Ave	0.1993	0.2043	0.1000	10.2	10.0	2.5	30.0
2,4-Dimethylphenol	Ave	0.5068	0.5137	0.2000	10.1	10.0	1.4	30.0
1,3,5-Trichlorobenzene	Ave	0.3102	0.3081		9.93	10.0	-0.7	30.0
Bis(2-chloroethoxy)methane	Ave	0.5933	0.5965	0.3000	10.1	10.0	0.5	30.0
Benzoic acid	Qua		0.1990		14.1	20.0	-29.5	30.0
2,4-Dichlorophenol	Ave	0.2768	0.2800	0.2000	10.1	10.0	1.2	30.0
1,2,4-Trichlorobenzene	Ave	0.3040	0.3009		9.90	10.0	-1.0	30.0
Naphthalene	Ave	1.140	1.122	0.7000	9.85	10.0	-1.5	30.0
4-Chloroaniline	Ave	0.4744	0.4744	0.0100	10.0	10.0	-0.0	30.0
Hexachlorobutadiene	Ave	0.1787	0.1803	0.0100	10.1	10.0	0.9	30.0
1,2,3-Trichlorobenzene	Ave	0.2829	0.2853		10.1	10.0	0.8	30.0
Caprolactam	Ave	0.1477	0.1573	0.0100	10.7	10.0	6.5	30.0
4-Chloro-3-methylphenol	Ave	0.4341	0.4387	0.2000	10.1	10.0	1.1	30.0
2-Methylnaphthalene	Ave	0.5879	0.5887	0.4000	10.0	10.0	0.1	30.0
1-Methylnaphthalene	Ave	0.6817	0.6618		9.71	10.0	-2.9	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5228	0.5081		9.72	10.0	-2.8	30.0
Hexachlorocyclopentadiene	Ave	0.3778	0.3899	0.0500	10.3	10.0	3.2	30.0
2,4,6-Trichlorophenol	Ave	0.3614	0.3555	0.2000	9.84	10.0	-1.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICV 240-9362/11 Calibration Date: 07/21/2011 14:26

Instrument ID: A4HP9 Calib Start Date: 07/21/2011 11:26

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/21/2011 14:07

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3832	0.4030	0.2000	10.5	10.0	5.2	30.0
2,4-Toluene diamine	Ave	0.2557	0.2049		8.01	10.0	-19.9	30.0
1,1'-Biphenyl	Ave	1.576	1.532	0.0100	9.72	10.0	-2.8	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4983	0.4920		9.87	10.0	-1.3	30.0
2-Chloronaphthalene	Ave	1.097	1.089	0.8000	9.93	10.0	-0.7	30.0
2-Nitroaniline	Ave	0.6398	0.6485	0.0100	10.1	10.0	1.4	30.0
Dimethyl phthalate	Ave	1.336	1.349	0.0100	10.1	10.0	0.9	30.0
2,6-Dinitrotoluene	Ave	0.2885	0.3020		10.5	10.0	4.7	30.0
1,2-Dinitrobenzene	Ave	0.1522	0.1605		10.5	10.0	5.5	30.0
Acenaphthylene	Ave	1.984	1.961	0.9000	9.88	10.0	-1.2	30.0
3-Nitroaniline	Ave	0.3458	0.3628	0.0100	10.5	10.0	4.9	30.0
2,4-Dinitrophenol	Qua		0.2625	0.0100	20.9	20.0	4.5	30.0
Acenaphthene	Ave	1.246	1.205	0.9000	9.67	10.0	-3.3	30.0
4-Nitrophenol	Ave	0.3134	0.3071		9.80	10.0	-2.0	30.0
2,4-Dinitrotoluene	Ave	0.3991	0.4181	0.2000	10.5	10.0	4.8	30.0
Dibenzofuran	Ave	1.700	1.698	0.8000	9.99	10.0	-0.1	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3191	0.3188		10.0	10.0	-0.0	30.0
Diethyl phthalate	Ave	1.479	1.490	0.0100	10.1	10.0	0.8	30.0
4-Chlorophenyl phenyl ether	Ave	0.6415	0.6435	0.4000	10.0	10.0	0.3	30.0
4-Nitroaniline	Ave	0.3764	0.3904	0.0100	10.4	10.0	3.7	30.0
Fluorene	Ave	1.329	1.311	0.9000	9.86	10.0	-1.4	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1428	0.1597	0.0100	11.2	10.0	11.8	30.0
N-Nitrosodiphenylamine	Ave	0.5795	0.5972	0.0100	10.3	10.0	3.1	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.520	1.569		10.3	10.0	3.2	30.0
Azobenzene	Ave	1.520	1.569		10.3	10.0	3.2	30.0
4-Bromophenyl phenyl ether	Ave	0.1962	0.1960	0.1000	9.99	10.0	-0.1	30.0
Hexachlorobenzene	Ave	0.1969	0.1949	0.1000	9.90	10.0	-1.0	30.0
Atrazine	Ave	0.2045	0.2142	0.0100	10.5	10.0	4.7	30.0
Pentachlorophenol	Ave	0.1447	0.1540	0.0500	21.3	20.0	6.4	30.0
Phenanthrene	Ave	1.134	1.111	0.7000	9.79	10.0	-2.1	30.0
Anthracene	Ave	1.137	1.126	0.7000	9.91	10.0	-0.9	30.0
Carbazole	Ave	1.097	1.123	0.0100	10.2	10.0	2.3	30.0
Di-n-butyl phthalate	Ave	1.380	1.473	0.0100	10.7	10.0	6.8	30.0
Fluoranthene	Ave	1.209	1.213	0.6000	10.0	10.0	0.3	30.0
Benzidine	Ave	0.6325	0.6417		10.1	10.0	1.5	30.0
Pyrene	Ave	1.233	1.255	0.6000	10.2	10.0	1.7	30.0
Butyl benzyl phthalate	Ave	0.6023	0.6245	0.0100	10.4	10.0	3.7	30.0
3,3'-Dimethoxybenzidine	Ave	0.2556	0.2830		11.1	10.0	10.7	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8413	0.8794	0.0100	10.5	10.0	4.5	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2245	0.2369		10.6	10.0	5.5	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICV 240-9362/11 Calibration Date: 07/21/2011 14:26

Instrument ID: A4HP9 Calib Start Date: 07/21/2011 11:26

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/21/2011 14:07

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4248	0.4458	0.0100	10.5	10.0	5.0	30.0
Benzo[a]anthracene	Ave	1.177	1.189	0.8000	10.1	10.0	1.0	30.0
Chrysene	Ave	1.133	1.149	0.7000	10.1	10.0	1.4	30.0
Di-n-octyl phthalate	Ave	1.650	1.762	0.0100	10.7	10.0	6.8	30.0
Benzo[b]fluoranthene	Ave	1.311	1.362	0.7000	10.4	10.0	3.9	30.0
Benzo[k]fluoranthene	Ave	1.338	1.391	0.7000	10.4	10.0	4.0	30.0
Benzo[a]pyrene	Ave	1.177	1.221	0.7000	10.4	10.0	3.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.260	1.341	0.5000	10.6	10.0	6.4	30.0
Dibenzo(a,h)anthracene	Ave	1.041	1.113	0.4000	10.7	10.0	6.9	30.0
Benzo[g,h,i]perylene	Ave	1.040	1.068	0.5000	10.3	10.0	2.6	30.0
2-Fluorophenol (Surr)	Ave	1.521	1.516		9.97	10.0	-0.3	30.0
Phenol-d5 (Surr)	Ave	2.209	2.202		9.97	10.0	-0.3	30.0
Nitrobenzene-d5 (Surr)	Ave	0.6545	0.6341		9.69	10.0	-3.1	30.0
2-Fluorobiphenyl (Surr)	Ave	1.348	1.318		9.77	10.0	-2.3	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1570	0.1568		9.99	10.0	-0.1	30.0
Terphenyl-d14 (Surr)	Ave	0.7360	0.7357		10.0	10.0	-0.0	30.0

FORM II
DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	C91 #
GSP-SB-WP-84-062311	240-1443-1	68
GSP-SB-WP-89-062311	240-1443-2	34
GSP-MW-8-062311	240-1443-5	43
GSP-SB-WP-66-062411	240-1470-1	67
	MB 240-6092/1-A	53
	MB 240-6574/1-A	49
	LCS 240-6092/2-A	50
	LCS 240-6574/2-A	55

	QC LIMITS
C9 = n-Nonane	10-110

Column to be used to flag recovery values

FORM II 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: MB 240-6092/1-A

Matrix: Water Date Extracted: 06/25/2011 08:17

Lab File ID:(1) P5062812.D Lab File ID:(2)

Date Analyzed:(1) 06/28/2011 15:20 Date Analyzed:(2)

Instrument ID:(1) A2HP5 Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-SB-WP-89-062311	240-1443-2	06/28/2011 14:24	
GSP-MW-8-062311	240-1443-5	06/28/2011 14:52	
	LCS 240-6092/2-A	06/28/2011 15:48	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-6092/1-A

Matrix: Water Lab File ID: P5062812.D

Analysis Method: 8015B Date Collected:

Extraction Method: 3520C Date Extracted: 06/25/2011 08:17

Sample wt/vol: 1000(mL) Date Analyzed: 06/28/2011 15:20

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6358 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	334	J	500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	53		10-110

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P5062813.D

Lab ID: LCS 240-6092/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	2610	104	36-124	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: MB 240-6574/1-A

Matrix: Water Date Extracted: 06/29/2011 12:15

Lab File ID:(1) P14F0000013.D Lab File ID:(2)

Date Analyzed:(1) 07/01/2011 14:03 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-SB-WP-84-062311	240-1443-1	07/01/2011 12:50	
GSP-SB-WP-66-062411	240-1470-1	07/01/2011 13:14	
	LCS 240-6574/2-A	07/01/2011 14:28	

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-6574/1-A

Matrix: Water Lab File ID: P14F0000013.D

Analysis Method: 8015B Date Collected:

Extraction Method: 3520C Date Extracted: 06/29/2011 12:15

Sample wt/vol: 1000(mL) Date Analyzed: 07/01/2011 14:03

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 6868 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	538		500	240

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	49		10-110

FORM III
DIESEL RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: P14F0000014.D

Lab ID: LCS 240-6574/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Diesel	2500	3170	127	36-124	*

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: CCVRT 240-6358/4 Date Analyzed: 06/28/2011 11:34

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53 (mm)

Lab File ID (Standard): P5062804.D Heated Purge: (Y/N) N

Calibration ID: 1777

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9 RT #		
CONTINUING CALIBRATION SURROGATE				3.12		
UPPER LIMIT				3.22		
LOWER LIMIT				3.02		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-6358/4		06/28/2011 11:34	P5062804.D	3.12		
240-1443-2	GSP-SB-WP-89-062311	06/28/2011 14:24	P5062810.D	3.12		
240-1443-5	GSP-MW-8-062311	06/28/2011 14:52	P5062811.D	3.12		
MB 240-6092/1-A		06/28/2011 15:20	P5062812.D	3.12		
LCS 240-6092/2-A		06/28/2011 15:48	P5062813.D	3.12		
CCV 240-6358/14		06/28/2011 16:16	P5062814.D	3.12		

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 6176

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 11:08 Calibration End Date: 06/27/2011 13:00 Calibration ID: 1777

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6176/4	P5062704.D
Level 2	STD2 240-6176/5	P5062705.D
Level 3	ICRT 240-6176/6	P5062706.D
Level 4	STD4 240-6176/7	P5062707.D
Level 5	STD5 240-6176/8	P5062708.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	159484 170115	171167	187950	174295	Ave		172602.240				5.9		20.0			
n-Nonane	194827 231187	227414	244778	237482	Ave		227137.555				8.5		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICV 240-6176/9 Calibration Date: 06/27/2011 13:28

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062709.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	172602	183333		531	500	6.2	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCVRT 240-6358/4 Calibration Date: 06/28/2011 11:34

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062804.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	172602	184323		534	500	6.8	15.0
n-Nonane	Ave	227138	244997		53.9	50.0	7.9	15.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-6358/14 Calibration Date: 06/28/2011 16:16

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062814.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	172602	196754		570	500	14.0	15.0
n-Nonane	Ave	227138	257629		56.7	50.0	13.4	15.0

FORM VIII
DIESEL RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: CCVRT 240-6868/4 Date Analyzed: 07/01/2011 12:01

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P14F0000008.D Heated Purge: (Y/N) N

Calibration ID: 1051

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9 RT #		
CONTINUING CALIBRATION SURROGATE				1.73		
UPPER LIMIT				1.83		
LOWER LIMIT				1.63		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-6868/4		07/01/2011 12:01	P14F0000008.D	1.73		
240-1443-1	GSP-SB-WP-84-062311	07/01/2011 12:50	P14F0000010.D	1.73		
240-1470-1	GSP-SB-WP-66-062411	07/01/2011 13:14	P14F0000011.D	1.73		
MB 240-6574/1-A		07/01/2011 14:03	P14F0000013.D	1.73		
LCS 240-6574/2-A		07/01/2011 14:28	P14F0000014.D	1.73		
CCV 240-6868/11		07/01/2011 14:52	P14F0000015.D	1.73		
CCV 240-6868/17		07/01/2011 17:18	P14F0000021.D	1.73		

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VI
DIESEL RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 2166

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2166/4	P14F0000004.D
Level 2	STD2 240-2166/5	P14F0000005.D
Level 3	STD3 240-2166/6	P14F0000006.D
Level 4	STD4 240-2166/7	P14F0000007.D
Level 5	STD5 240-2166/8	P14F0000008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	705763 336646	515461	435657	351683	Lin	44348394.0	314402.704							0.9980		0.9900
n-Nonane	413140 382989	431927	436350	381033	Ave		409087.891				6.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICV 240-2166/9 Calibration Date: 05/19/2011 14:02

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		411800		514	500	2.8	20.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCVRT 240-6868/4 Calibration Date: 07/01/2011 12:01

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000008.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		423479		532	500	6.5	15.0
n-Nonane	Ave	409088	410255		50.1	50.0	0.3	15.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-6868/11 Calibration Date: 07/01/2011 14:52

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000015.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		429938		543	500	8.5	15.0
n-Nonane	Ave	409088	418536		51.2	50.0	2.3	15.0

FORM VII
DIESEL RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-6868/17 Calibration Date: 07/01/2011 17:18

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000021.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		421788		530	500	5.9	15.0
n-Nonane	Ave	409088	425675		52.0	50.0	4.1	15.0

FORM II
GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): RTX-VRX ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	TFT1 #
GSP-SB-WP-84-062311	240-1443-1	94
GSP-SB-WP-89-062311	240-1443-2	103
GSP-SB-WP-66-062311	240-1443-4	110
GSP-MW-8-062311	240-1443-5	105
	MB 240-7018/11	104
	LCS 240-7018/12	115
	240-1413-K-1 MS	117
	240-1413-K-1 MSD	117

	QC LIMITS
TFT = Trifluorotoluene (Surr)	10-150

Column to be used to flag recovery values

FORM II 8015B

FORM IV
GASOLINE RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: MB 240-7018/11

Matrix: Water Date Extracted: 07/03/2011 21:43

Lab File ID:(1) YF070311.D Lab File ID:(2)

Date Analyzed:(1) 07/03/2011 21:43 Date Analyzed:(2)

Instrument ID:(1) YPID Instrument ID:(2)

GC Column:(1) RTX-VRX ID: 0.45(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-7018/12	07/03/2011 22:22	
	240-1413-K-1 MS	07/04/2011 00:18	
	240-1413-K-1 MSD	07/04/2011 00:57	
GSP-SB-WP-84-062311	240-1443-1	07/04/2011 01:36	
GSP-SB-WP-89-062311	240-1443-2	07/04/2011 02:15	
GSP-SB-WP-66-062311	240-1443-4	07/04/2011 02:53	
GSP-MW-8-062311	240-1443-5	07/04/2011 03:32	

FORM I
GASOLINE RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-7018/11

Matrix: Water Lab File ID: YF070311.D

Analysis Method: 8015B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 07/03/2011 21:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-VRX ID: 0.45(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 7018 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Total Petroleum Hydrocarbons (C6-C10)	33.6	J	100	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	Trifluorotoluene (Surr)	104		10-150

FORM III
GASOLINE RANGE ORGANICS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF070312.D

Lab ID: LCS 240-7018/12 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	948	118	72-140	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF070315.D

Lab ID: 240-1413-K-1 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	51 J	891	105	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM III
GASOLINE RANGE ORGANICS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YF070316.D

Lab ID: 240-1413-K-1 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Total Petroleum Hydrocarbons (C6-C10)	800	916	108	3	20	63-143	

Column to be used to flag recovery and RPD values

FORM III 8015B

FORM VIII
GASOLINE RANGE ORGANICS ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Sample No.: CCVRT 240-7018/10 Date Analyzed: 07/03/2011 21:04

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm)

Lab File ID (Standard): YF070310.D Heated Purge: (Y/N) N

Calibration ID: 1594

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TFT RT #		
CONTINUING CALIBRATION SURROGATE				9.25		
UPPER LIMIT				9.35		
LOWER LIMIT				9.15		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 240-7018/10		07/03/2011 21:04	YF070310.D	9.25		
MB 240-7018/11		07/03/2011 21:43	YF070311.D	9.26		
LCS 240-7018/12		07/03/2011 22:22	YF070312.D	9.25		
240-1413-K-1 MS		07/04/2011 00:18	YF070315.D	9.25		
240-1413-K-1 MSD		07/04/2011 00:57	YF070316.D	9.25		
240-1443-1	GSP-SB-WP-84-062311	07/04/2011 01:36	YF070317.D	9.26		
240-1443-2	GSP-SB-WP-89-062311	07/04/2011 02:15	YF070318.D	9.26		
240-1443-4	GSP-SB-WP-66-062311	07/04/2011 02:53	YF070319.D	9.26		
240-1443-5	GSP-MW-8-062311	07/04/2011 03:32	YF070320.D	9.26		
CCV 240-7018/23		07/04/2011 05:28	YF070323.D	9.25		

TFT = Trifluorotoluene (Surr)

TFT RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015B

FORM VI
GASOLINE RANGE ORGANICS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-1443-1 Analy Batch No.: 5655

SDG No.:

Instrument ID: YPID GC Column: RTX-VRX ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/22/2011 14:07 Calibration End Date: 06/22/2011 17:30 Calibration ID: 1594

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5655/4	YF062204.D
Level 2	STD2 240-5655/5	YF062205.D
Level 3	STD3 240-5655/6	YF062206.D
Level 4	STD4 240-5655/7	YF062207.D
Level 5	STD5 240-5655/8	YF062208.D
Level 6	STD6 240-5655/9	YF062209.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Total Petroleum Hydrocarbons (C6-C10)	302470 208450	252295 210278	214454	228347	Ave		236048.859				15.0		20.0			
C6-C12	346250 223395	277091 226126	233001	247805	Ave		258944.938				18.0		20.0			
Trifluorotoluene (Surr)	211649 226938	171207 226738	185123	251863	Ave		212253.083				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICV 240-5655/10 Calibration Date: 06/22/2011 18:11

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF062210.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	221204		750	800	-6.3	20.0
C6-C12	Ave	258945	242972		751	800	-6.2	20.0
Trifluorotoluene (Surr)	Ave	212253	193830		9.13	10.0	-8.7	20.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCVRT 240-7018/10 Calibration Date: 07/03/2011 21:04

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF070310.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	264119		895	800	11.9	15.0
C6-C12	Ave	258945	283692		877	800	9.6	15.0
Trifluorotoluene (Surr)	Ave	212253	257085		12.1	10.0	21.1*	15.0

FORM VII
GASOLINE RANGE ORGANICS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-1443-1

SDG No.:

Lab Sample ID: CCV 240-7018/23 Calibration Date: 07/04/2011 05:28

Instrument ID: YPID Calib Start Date: 06/22/2011 14:07

GC Column: RTX-VRX ID: 0.45(mm) Calib End Date: 06/22/2011 17:30

Lab File ID: YF070323.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Total Petroleum Hydrocarbons (C6-C10)	Ave	236049	271640		921	800	15.1*	15.0
C6-C12	Ave	258945	291406		900	800	12.5	15.0
Trifluorotoluene (Surr)	Ave	212253	267904		12.6	10.0	26.2*	15.0

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **A. APANAVAGE** **DATE: SEPTEMBER 15, 2011**

FROM: **TERRI L. SOLOMON** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – SELECT TOTAL AND DISSOLVED METALS AND PERCHLORATE**
MARTIN STATE AIRPORT – GREATER STRAWBERRY POINT
SAMPLE DELIVERY GROUP (SDG) – 240-1443-1

SAMPLES: 4/Aqueous/

GSP-MW-8-062311	GSP-SB-WP-66-062311
GSP-SB-WP-84-062311	GSP-SB-WP-89-062311

Overview

The sample set for Martin State Airport – Greater Strawberry Point, SDG 240-1443-1, consists of four (4) aqueous environmental samples. No field duplicate pairs were included within this SDG.

All samples were analyzed for select total and dissolved metals including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, tungsten, vanadium and zinc and perchlorate. The samples were collected by Tetra Tech on June 23, 2011 and analyzed by TestAmerica. Metals analyses were conducted using SW-846 method 6020. Mercury analyses were conducted using SW-846 method 7470A. Perchlorate analyses were conducted using EPA method 314.0

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike/matrix spike duplicate recoveries, ICP serial dilution results, internal standard recoveries, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems

None.

Minor Problems

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Arsenic	0.155 ug/L	0.775 ug/L
Lead[(1)]	0.150 ug/L	0.75 ug/L
Thallium	0.189 ug/L	0.945 ug/L
Zinc	0.507 ug/L	2.535 ug/L
Perchlorate	0.623 ug/L	3.115 ug/L

  (1) Maximum concentration present in a preparation blank.

  An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive results less than the blank action level reported for arsenic, lead and thallium were qualified "B" as a result of laboratory blank contamination.

- The ICP serial dilutions were > 10% quality control limit (sample results > 50X MDL) for total and dissolved zinc. The positive results reported for total and dissolved zinc were qualified as estimated, "J".

- The ICP internal standard recovery for yttrium-89 was > 120% quality control limit affecting dissolved sample GSP-SB-WP-84-062311. The positive result reported for dissolved zinc in the affected sample was qualified as estimated, "J'.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, "J".

Notes

Nondetected results are reported to the method detection limits.

It was noted that the laboratory analyzed for perchlorate for sample GSP-MW-8-062311 although it was not listed on the chain of custody.

The laboratory did not include raw data for the metals or mercury analyses. The laboratory submitted the missing data.

The laboratory did not analyze a CRDL standard. No validation actions were warranted.

Executive Summary

Laboratory Performance: Several contaminants were present in the laboratory method / preparation blanks.

Other Factors Affecting Data Quality: Positive results reported below the RL but above the MDL were qualified as estimated. The ICP serial dilutions were > 10% quality control limit for total and dissolved zinc. The ICP internal standard recovery for yttrium-89 was > 120% quality control limit affecting dissolved sample GSP-SB-WP-84-062311.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993.

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Terri L. Solomon
Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS-GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O - Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DOT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279	NSAMPLE	GSP-MW-8-062311			GSP-SB-WP-66-062311			GSP-SB-WP-84-062311			GSP-SB-WP-89-062311		
SDG: 240-1443-1	LAB_ID	240-1443-5			240-1443-4			240-1443-1			240-1443-2		
FRACTION: M	SAMP_DATE	6/23/2011			6/23/2011			6/23/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.43	J	P	0.53	J	P	0.073	U		0.073	U	
ARSENIC		0.48	B	A	7.1			6.4			4.8	J	P
BARIUM		110			60			74			49		
BERYLLIUM		0.18	J	P	0.12	J	P	0.64	J	P	0.6	J	P
CADMIUM		0.32	J	P	0.15	J	P	1			0.1	J	P
CHROMIUM		0.79	J	P	8.2			2.2			3.6		
COBALT		15			11			210			38		
COPPER		6.5			23			3			1.8	J	P
LEAD		1			8.5			3.1			0.75	B	A
MERCURY		0.066	U		0.066	U		0.073	J	P	0.066	U	
MOLYBDENUM		0.47	J	P	1.2	J	P	0.42	U		0.42	U	
NICKEL		23			9.7			380			47		
SELENIUM		5.2			0.6	J	P	0.36	J	P	1.2	J	P
SILVER		0.014	U		0.014	U		0.014	U		0.014	U	
THALLIUM		0.22	B	A	0.26	B	A	1.1	J	P	0.36	B	A
TUNGSTEN		0.16	U		0.16	U		0.16	U		0.16	U	
VANADIUM		0.55	J	P	23			14	J	P	4.2	J	P
ZINC		37	J	I	26	J	I	1500	J	I	100	J	I

PROJ_NO: 03279	NSAMPLE	GSP-MW-8-062311			GSP-SB-WP-66-062311			GSP-SB-WP-84-062311			GSP-SB-WP-89-062311		
SDG: 240-1443-1	LAB_ID	240-1443-5			240-1443-4			240-1443-1			240-1443-2		
FRACTION: MF	SAMP_DATE	6/23/2011			6/23/2011			6/23/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.23	J	P	0.49	J	P	0.073	U		0.073	U	
ARSENIC		0.37	B	A	6.6			6.9			4.3	J	P
BARIUM		110			46			76			48		
BERYLLIUM		0.16	J	P	0.092	U		0.64	J	P	0.61	J	P
CADMIUM		0.31	J	P	0.046	U		1.1			0.074	J	P
CHROMIUM		0.11	J	P	3.4			1.4	J	P	2		
COBALT		16			13			220			38		
COPPER		6.1			12			2.4			0.83	J	P
LEAD		0.48	B	A	2.7			2.6			0.27	B	A
MERCURY		0.066	U		0.066	U		0.066	U		0.066	U	
MOLYBDENUM		0.42	U		1	J	P	0.42	U		0.42	U	
NICKEL		24			8.1			410			48		
SELENIUM		5.2			0.62	J	P	0.32	U		0.96	J	P
SILVER		0.014	U		0.014	U		0.014	U		0.014	U	
THALLIUM		0.22	B	A	0.21	B	A	1.1	J	P	0.34	B	A
TUNGSTEN		0.16	U		0.16	U		0.16	U		0.16	U	
VANADIUM		0.3	U		13	J	P	13	J	P	0.51	J	P
ZINC		39	J	I	20	J	I	1600	J	IN	100	J	I

PROJ_NO: 03279	NSAMPLE	GSP-MW-8-062311			GSP-SB-WP-66-062311			GSP-SB-WP-84-062311			GSP-SB-WP-89-062311		
SDG: 240-1443-1	LAB_ID	240-1443-5			240-1443-4			240-1443-1			240-1443-2		
FRACTION: MISC	SAMP_DATE	6/23/2011			6/23/2011			6/23/2011			6/23/2011		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PERCHLORATE		0.36	U		1.8	U		0.36	U		0.36	U	

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-MW-8-062311 Lab Sample ID: 240-1443-5

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG ID.:

Matrix: Water Date Sampled: 06/23/2011 10:10

Reporting Basis: WET Date Received: 06/24/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.43	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	0.48	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	110	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	0.18	1.0	0.092	ug/L	J		1	6020
7440-43-9	Cadmium	0.32	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	0.79	2.0	0.11	ug/L	J		1	6020
7440-48-4	Cobalt	15	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	6.5	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	1.0	1.0	0.024	ug/L		B	1	6020
7439-98-7	Molybdenum	0.47	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	23	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	5.2	5.0	0.32	ug/L			1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.22	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	0.55	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	37	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-WP-66-062311 Lab Sample ID: 240-1443-4

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG ID.:

Matrix: Water Date Sampled: 06/23/2011 08:45

Reporting Basis: WET Date Received: 06/24/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.53	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	7.1	5.0	0.092	ug/L			1	6020
7440-39-3	Barium	60	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	0.12	1.0	0.092	ug/L	J		1	6020
7440-43-9	Cadmium	0.15	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	8.2	2.0	0.11	ug/L			1	6020
7440-48-4	Cobalt	11	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	23	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	8.5	1.0	0.024	ug/L		B	1	6020
7439-98-7	Molybdenum	1.2	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	9.7	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	0.60	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.26	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	23	20	0.30	ug/L			1	6020
7440-66-6	Zinc	26	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-WP-84-062311 Lab Sample ID: 240-1443-1

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG ID.:

Matrix: Water Date Sampled: 06/23/2011 12:40

Reporting Basis: WET Date Received: 06/24/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.073	ug/L	U		1	6020
7440-38-2	Arsenic	6.4	5.0	0.092	ug/L			1	6020
7440-39-3	Barium	74	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	0.64	1.0	0.092	ug/L	J		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L			1	6020
7440-47-3	Chromium	2.2	2.0	0.11	ug/L			1	6020
7440-48-4	Cobalt	210	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	3.0	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	3.1	1.0	0.024	ug/L		B	1	6020
7439-98-7	Molybdenum	2.0	2.0	0.42	ug/L	U		1	6020
7440-02-0	Nickel	380	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	0.36	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	1.1	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	14	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	1500	200	5.0	ug/L			10	6020
7439-97-6	Mercury	0.073	0.20	0.066	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-WP-89-062311 Lab Sample ID: 240-1443-2

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG ID.:

Matrix: Water Date Sampled: 06/23/2011 10:40

Reporting Basis: WET Date Received: 06/24/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.073	ug/L	U		1	6020
7440-38-2	Arsenic	4.8	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	49	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	0.60	1.0	0.092	ug/L	J		1	6020
7440-43-9	Cadmium	0.10	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	3.6	2.0	0.11	ug/L			1	6020
7440-48-4	Cobalt	38	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	1.8	2.0	0.23	ug/L	J		1	6020
7439-92-1	Lead	0.75	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	2.0	2.0	0.42	ug/L	U		1	6020
7440-02-0	Nickel	47	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	1.2	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.36	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	4.2	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	100	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-MW-8-062311 Lab Sample ID: 240-1443-5

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG ID.:

Matrix: Water Date Sampled: 06/23/2011 10:10

Reporting Basis: WET Date Received: 06/24/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.23	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	0.37	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	110	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	0.16	1.0	0.092	ug/L	J		1	6020
7440-43-9	Cadmium	0.31	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	0.11	2.0	0.11	ug/L	J		1	6020
7440-48-4	Cobalt	16	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	6.1	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	0.48	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	2.0	2.0	0.42	ug/L	U		1	6020
7440-02-0	Nickel	24	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	5.2	5.0	0.32	ug/L			1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.22	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	20	20	0.30	ug/L	U		1	6020
7440-66-6	Zinc	39	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-SB-WP-66-062311 Lab Sample ID: 240-1443-4

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG ID.:

Matrix: Water Date Sampled: 06/23/2011 08:45

Reporting Basis: WET Date Received: 06/24/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.49	2.0	0.073	ug/L	J		1	6020
7440-38-2	Arsenic	6.6	5.0	0.092	ug/L			1	6020
7440-39-3	Barium	46	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	1.0	1.0	0.092	ug/L	U		1	6020
7440-43-9	Cadmium	1.0	1.0	0.046	ug/L	U		1	6020
7440-47-3	Chromium	3.4	2.0	0.11	ug/L			1	6020
7440-48-4	Cobalt	13	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	12	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	2.7	1.0	0.024	ug/L		B	1	6020
7439-98-7	Molybdenum	1.0	2.0	0.42	ug/L	J		1	6020
7440-02-0	Nickel	8.1	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	0.62	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.21	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	13	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	20	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-SB-WP-84-062311 Lab Sample ID: 240-1443-1

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG ID.:

Matrix: Water Date Sampled: 06/23/2011 12:40

Reporting Basis: WET Date Received: 06/24/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.073	ug/L	U		1	6020
7440-38-2	Arsenic	6.9	5.0	0.092	ug/L			1	6020
7440-39-3	Barium	76	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	0.64	1.0	0.092	ug/L	J		1	6020
7440-43-9	Cadmium	1.1	1.0	0.046	ug/L			1	6020
7440-47-3	Chromium	1.4	2.0	0.11	ug/L	J		1	6020
7440-48-4	Cobalt	220	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	2.4	2.0	0.23	ug/L			1	6020
7439-92-1	Lead	2.6	1.0	0.024	ug/L		B	1	6020
7439-98-7	Molybdenum	2.0	2.0	0.42	ug/L	U		1	6020
7440-02-0	Nickel	410	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	5.0	5.0	0.32	ug/L	U		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	1.1	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	13	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	1600	200	5.0	ug/L			10	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: GSP-SB-WP-89-062311 Lab Sample ID: 240-1443-2

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG ID.:

Matrix: Water Date Sampled: 06/23/2011 10:40

Reporting Basis: WET Date Received: 06/24/2011 09:30

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.073	ug/L	U		1	6020
7440-38-2	Arsenic	4.3	5.0	0.092	ug/L	J		1	6020
7440-39-3	Barium	48	5.0	0.42	ug/L			1	6020
7440-41-7	Beryllium	0.61	1.0	0.092	ug/L	J		1	6020
7440-43-9	Cadmium	0.074	1.0	0.046	ug/L	J		1	6020
7440-47-3	Chromium	2.0	2.0	0.11	ug/L			1	6020
7440-48-4	Cobalt	38	1.0	0.049	ug/L			1	6020
7440-50-8	Copper	0.83	2.0	0.23	ug/L	J		1	6020
7439-92-1	Lead	0.27	1.0	0.024	ug/L	J	B	1	6020
7439-98-7	Molybdenum	2.0	2.0	0.42	ug/L	U		1	6020
7440-02-0	Nickel	48	2.0	0.63	ug/L			1	6020
7782-49-2	Selenium	0.96	5.0	0.32	ug/L	J		1	6020
7440-22-4	Silver	1.0	1.0	0.014	ug/L	U		1	6020
7440-28-0	Thallium	0.34	2.0	0.079	ug/L	J	B	1	6020
7440-33-7	Tungsten	10	10	0.16	ug/L	U		1	6020
7440-62-2	Vanadium	0.51	20	0.30	ug/L	J		1	6020
7440-66-6	Zinc	100	20	0.50	ug/L		B	1	6020
7439-97-6	Mercury	0.20	0.20	0.066	ug/L	U		1	7470A

TestAmerica North Canton

Client Sample ID: GSP-MW-8-062311

General Chemistry

Lot-Sample #...: G1F210484-014 **Work Order #...:** MKJL3 **Matrix.....:** WATER
Date Sampled...: 06/23/11 **Date Received..:** 06/28/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

TestAmerica North Canton

Client Sample ID: GSP-SB-WP-66-062311

General Chemistry

Lot-Sample #...: G1F210484-013 **Work Order #...:** MKJL2 **Matrix.....:** WATER
Date Sampled...: 06/23/11 **Date Received..:** 06/28/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND G	5.0	ug/L	MCAWW 314.0	07/12/11	1192193

Dilution Factor: 5 MDL.....: 1.8

NOTE(S):

RL Reporting Limit

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

TestAmerica North Canton

Client Sample ID: GSP-SB-WP-84-062311

General Chemistry

Lot-Sample #...: G1F210484-011 **Work Order #...:** MKJLX **Matrix.....:** WATER
Date Sampled...: 06/23/11 **Date Received..:** 06/28/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

TestAmerica North Canton

Client Sample ID: GSP-SB-WP-89-062311

General Chemistry

Lot-Sample #...: G1F210484-012 **Work Order #...:** MKJL1 **Matrix.....:** WATER
Date Sampled...: 06/23/11 **Date Received..:** 06/28/11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193

Dilution Factor: 1 MDL.....: 0.36

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: MSA Greater Strawberry Point PH. II 2011

Report Number: 240-1443-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/24/2011 and 06/27/2011; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 2.7, 3.6 and 4.2 C.

Multiple TestAmerica laboratories were used to support this project. Narrative for TestAmerica West Sacramento (Perchlorate) is provided in the lab's report in the Subcontract section of this report. TestAmerica Burlington's narrative for ICP/MS Metals is incorporated herein. See the Method Summary for additional information.

VOLATILE ORGANIC

Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-66-062311 (240-1443-4), GSP-MW-8-062311 (240-1443-5) and TB-062311 (240-1443-6) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 07/01/2011, 07/02/2011 and 07/03/2011.

1,2,3-Trichlorobenzene and Naphthalene were detected in method blanks MB 240-6923/5 and MB 240-7003/5 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Trichlorofluoromethane and Vinyl acetate failed the recovery criteria high for LCS 240-7003/4. Refer to the QC report for details. These have been identified as poor performing analytes when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS of sample 240-1372-28 in batch 240-6923. Trichlorofluoromethane failed the recovery criteria high.

Several analytes failed the recovery criteria low for the MSD of sample 240-1372-28 in batch 240-6923. Several analytes exceeded the rpd limit.

2-Chloroethyl vinyl ether failed the recovery criteria low for the MS/MSD of sample 240-1461-3 in batch 240-7003.

Trichlorofluoromethane and Vinyl acetate failed the recovery criteria high.

Refer to the QC report for details.

Sample GSP-SB-WP-66-062311 (240-1443-4)[3X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Sample GSP-SB-WP-66-062311 (240-1443-4) had a reanalysis that had different results than the original analysis. Both runs are reported.

No other difficulties were encountered during the volatiles analyses. All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-61-062311 (240-1443-3) and GSP-MW-8-062311 (240-1443-5) were analyzed for Semivolatiles in accordance with EPA SW 8270D. Sample GSP-SB-WP-66-062411 (240-1470-1) was analyzed for 8270D in accordance with EPA SW 8270D. The samples were analyzed on 07/16/2011 and 07/21/2011.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 240-6094/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

There was no client requested matrix spike/matrix spike duplicate (MS/MSD) for batches 6094 and 6514.

No other difficulties were encountered during the semi-volatiles analyses. All other quality control parameters were within the acceptance limits.

GRO (C6-C10)

Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-66-062311 (240-1443-4) and GSP-MW-8-062311 (240-1443-5) were analyzed for gas range organics in accordance with EPA SW-846 Method 8015B - GRO. The samples were analyzed on 07/04/2011.

Total Petroleum Hydrocarbons (C6-C10) was detected in method blank MB 240-7018/11 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The continuing calibration verification (CCV) for C6-C10 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. Associated samples include: (240-1413-1 MS), (240-1413-1 MSD), GSP-MW-8-062311 (240-1443-5), GSP-SB-WP-66-062311 (240-1443-4), GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GW-73942-062311-JY-089 (240-1413-1)

No other difficulties were encountered during the GRO analyses. All other quality control parameters were within the acceptance limits.

DRO (C10-C32)

Sample GSP-SB-WP-66-062411 (240-1470-1) was analyzed for Diesel Range Organics (DRO) in accordance with EPA Method 8015B. Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2) and GSP-MW-8-062311 (240-1443-5) were analyzed for Diesel Range Organics (DRO) in accordance with EPA Method 8015B. The samples were analyzed on 06/28/2011 and 07/01/2011.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required. Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-6092/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-6574/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The LCS associated with preparation batch 6574 had recoveries outside the acceptance criteria. Since there were no hits detected in any of the samples, no corrective action was necessary. Associated samples were: GSP-SB-WP-66-062411 (240-1470-1) and GSP-SB-WP-84-062311 (240-1443-1).

There was no client requested matrix spike/matrix spike duplicate (MS/MSD) for batches 6092 and 6574.

Refer to the QC report for details.

No other difficulties were encountered during the Diesel Range Organics (DRO) analysis. All other quality control parameters were within the acceptance limits.

DISSOLVED METALS (ICPMS)
Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-66-062311 (240-1443-4) and GSP-MW-8-062311 (240-1443-5) were analyzed for dissolved metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 08/04/2011 and 08/05/2011.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL METALS (ICPMS)
Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-66-062311 (240-1443-4) and GSP-MW-8-062311 (240-1443-5) were analyzed for total metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were analyzed on 08/04/2011 and 08/05/2011.

Lead, Thallium and Zinc were detected in method blank MB 200-20967/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Sample GSP-SB-WP-84-062311 (240-1443-1)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The internal standard association for As, Mo, and Se was changed from Y to In in analytical sequence 080411-02D batch 22997. Indium internal standardization was applied to all injection results for these elements , due to the possiblity of isobaric interference on the Yttrium line.

The high calibration point has been removed from the curve for Ba and Mo. The calibration for these elements is based on 4 points.

The serial dilution performed for the following sample(s) was outside control limits: (240-1443-5 SD)

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

DISSOLVED MERCURY (CVAA)
Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-66-062311 (240-1443-4) and GSP-MW-8-062311 (240-1443-5) were analyzed for dissolved mercury (CVAA) in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/12/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

TOTAL MERCURY
Samples GSP-SB-WP-84-062311 (240-1443-1), GSP-SB-WP-89-062311 (240-1443-2), GSP-SB-WP-66-062311 (240-1443-4) and GSP-MW-8-062311 (240-1443-5) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were analyzed on 07/12/2011.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

METHOD SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-1443-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Purge and Trap	TAL NC		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Liquid-Liquid Extraction (Separatory Funnel)			SW846 3510C
Gasoline Range Organics - (GC)	TAL NC	SW846 8015B	
Purge and Trap	TAL NC		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL NC	SW846 8015B	
Liquid-Liquid Extraction (Continuous)			SW846 3520C
Metals (ICP/MS)	TAL BUR	SW846 6020	
Preparation, Total Metals			SW846 3010A
Metals (ICP/MS)	TAL BUR	SW846 6020	
Preparation, Total Metals			SW846 3010A
Sample Filtration, Field			FIELD_FLTRD
Mercury (CVAA)	TAL BUR	SW846 7470A	
Preparation, Mercury			SW846 7470A
Mercury (CVAA)	TAL BUR	SW846 7470A	
Preparation, Mercury			SW846 7470A
Sample Filtration, Field			FIELD_FLTRD
EPA 314.0 Perchlorate	TAL WSC	EPA 314.0	

Lab References:

TAL BUR = TestAmerica Burlington

TAL NC = TestAmerica North Canton

TAL WSC = TestAmerica West Sacramento

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara
Address: 20251 Century Blvd Ste 200	Telephone: (301) 528-5552	Telephone: (708) 341-8384	Telephone: (330) 497-9396
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@TetraTech.com		
Phone: (301) 528-5552			
Project Name: GSP Phase II	Method of Shipment/Carrier:		
Project Number: 112IC03279 -04	Shipping/Tracking No:		
PO #			

COC No: 009852
1 of 1 COCs

Analysis Turnaround Time (in BUS days)
TAT if different from below _____
☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day

For lab use only
Walk-in client: ☐
Lab pickup: ☐
Lab sampling: ☐
Job/SDG No.:

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	Analyses: VOCs	Total Metals	Dissolved Metals	TPH-GRO	TPH-DRO	SVOCs + 1,4-Dioxane	Perchlorate	Sample Specific Notes / Special Instructions:
GSP-SB-WP-84-062311	6/23/11	1240		X				2	2	5			3			G	X	X	X	X	X	X	X	
GSP-SB-WP-89-062311		1040		X				2	2	5			3			G	X	X	X	X	X	X	X	
GSP-SB-WP-61-062311		0830		X									1		N	G						X		
GSP-SB-WP-66-062311		1045		X					2	5			1			G	X	X	X	X			X	
GSP-MW-8-062311		1010		X				2	2	5			3			G	X	X	X	X	X	X		
TB-062311				X						2							X							

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

	Company	Date/Time		Company	Date/Time
Relinquished by:	Tetra Tech	6/23/11 - 1310	Received by:	TestAmerica	6-23-2011 / 1310
Relinquished by:	TestAmerica	6-23-2011 / 1530	Received by:		
Relinquished by:			Received in Laboratory by: Jill Clarke	TAL	6-24-11 0930

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 009854
Address: 20251 Century Blvd Ste 200	Telephone: (301) 528-5552	Telephone: (703) 342-8389	Telephone: (330) 497-9396	1 of 1 COCs
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@tetratech.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: GSP Phase II	Method of Shipment/Carrier:			
Project Number: 112IC03279-04	Shipping/Tracking No:			Job/SDG No:
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	SVOCs + 1,4 Dioxane	TPH-DRO	Sample Specific Notes / Special Instructions:
GSP-SB-WP-66-062411	6-24-11	0810		X				1					1			G	X	X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	6/24/11-1050	[signature]	TestAmerica	6-24-2011/1050
[signature]	TestAmerica	6-24-2011/1440			
			Received in Laboratory by: [signature]	TA	6/25/11 930

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TAL 0018-1 (04/10)

HOLDTIME

PROJ_NO 03279

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1443-1	HG	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	HG	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	HG	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	HG	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	M	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	M	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	M	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	M	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/07/2011	08/05/2011	14	29	43
240-1443-1	M	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	HGF	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	HGF	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	HGF	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	HGF	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/11/2011	07/12/2011	18	1	19
240-1443-1	MF	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/07/2011	08/05/2011	14	29	43
240-1443-1	MF	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	MF	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-1443-1	MF	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	MF	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/07/2011	08/04/2011	14	28	42
240-1443-1	PCL	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/11/2011	07/11/2011	18	0	18
240-1443-1	PCL	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/11/2011	07/11/2011	18	0	18
240-1443-1	PCL	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/12/2011	07/12/2011	19	0	19
240-1443-1	PCL	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/11/2011	07/11/2011	18	0	18
240-1443-1	OS	UG/L	GSP-SB-WP-61-062311	240-1443-3	NM	06/23/2011	06/25/2011	07/16/2011	2	21	23
240-1443-1	OS	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	06/25/2011	07/16/2011	2	21	23
240-1443-1	OS	UG/L	GSP-SB-WP-66-062411	240-1470-1	NM	06/24/2011	06/29/2011	07/16/2011	5	17	22
240-1443-1	OS	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	06/25/2011	07/21/2011	2	26	28
240-1443-1	OS	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	06/25/2011	07/16/2011	2	21	23
240-1443-1	OV	UG/L	TB-062311	240-1443-6	NM	06/23/2011	07/02/2011	07/02/2011	9	0	9
240-1443-1	OV	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/02/2011	07/02/2011	9	0	9
240-1443-1	OV	UG/L	TB-062311	240-1443-6	TB	06/23/2011	07/02/2011	07/02/2011	9	0	9
240-1443-1	OV	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	07/02/2011	07/02/2011	9	0	9
240-1443-1	OV	UG/L	GSP-SB-WP-66-062311	240-1443-4	NM	06/23/2011	07/03/2011	07/03/2011	10	0	10
240-1443-1	OV	UG/L	GSP-SB-WP-84-062311	240-1443-1	NM	06/23/2011	07/01/2011	07/01/2011	8	0	8
240-1443-1	OV	UG/L	GSP-SB-WP-89-062311	240-1443-2	NM	06/23/2011	07/02/2011	07/02/2011	9	0	9
240-1443-1	DRO	UG/L	GSP-MW-8-062311	240-1443-5	NM	06/23/2011	06/25/2011	06/28/2011	2	3	5

COVER PAGE
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1443-1

SDG No.:

Project: MSA Greater Strawberry Point PH. II 2011

Client Sample ID	Lab Sample ID
GSP-SB-WP-84-062311	240-1443-1
GSP-SB-WP-89-062311	240-1443-2
GSP-SB-WP-66-062311	240-1443-4
GSP-MW-8-062311	240-1443-5

Comments:

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Instrument ID: METICPMS2 Method: 6020

Start Date: 08/04/2011 10:17 End Date: 08/04/2011 19:41

Lab Sample ID	D/F	Type	Time	Analytes																
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn
ITUNE 200-22997/1			10:17																	
STD0 200-22997/2 IC	1		11:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STDLL2 200-22997/3 IC	1		11:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD1 200-22997/4 IC	1		11:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD2 200-22997/5 IC	1		12:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD3 200-22997/6 IC	1		12:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 200-22997/7	1		12:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICBIS 200-22997/8	1		12:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSA 200-22997/9	1		12:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 200-22997/10	1		12:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-22997/11	1		12:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-22997/12	1		12:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-22997/13	1		15:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-22997/14	1		16:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MB 200-20967/1-A	1	T	16:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 200-20967/2-A	1	T	16:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			16:41																	
ZZZZZZ			16:48																	
ZZZZZZ			16:55																	
ZZZZZZ			17:01																	
ZZZZZZ			17:08																	
ZZZZZZ			17:14																	
ZZZZZZ			17:21																	
ZZZZZZ			17:28																	
CCV 200-22997/25	1		17:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-22997/26	1		17:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1443-1	1	T	17:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
240-1443-2	1	T	17:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1443-4	1	T	18:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1443-5	1	T	18:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1443-5 SD	5	T	18:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1443-1	1	D	18:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
240-1443-2	1	D	18:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1443-4	1	D	18:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1443-5	1	D	18:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-1443-5 SD	5	D	18:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-22997/37	1		18:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-22997/38	1		19:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			19:08																	
ZZZZZZ			19:15																	
ZZZZZZ			19:21																	
ZZZZZZ			19:28																	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Instrument ID: METICPMS2 Method: 6020

Start Date: 08/04/2011 10:17 End Date: 08/04/2011 19:41

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	W	Zn			
CCV 200-22997/43			19:35																				
CCB 200-22997/44			19:41																				

Prep Types

D = Dissolved

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Instrument ID: METICPMS2 Method: 6020

Start Date: 08/05/2011 11:28 End Date: 08/05/2011 13:44

Lab Sample ID	D / F	Type	Time	Analytes: Zn
ITUNE 200-23067/1			11:28	
STD0 200-23067/2 IC	1		12:11	X
STDLL2 200-23067/3 IC	1		12:18	X
STD1 200-23067/4 IC	1		12:24	X
STD2 200-23067/5 IC	1		12:31	X
STD3 200-23067/6 IC	1		12:37	X
ICV 200-23067/7	1		12:44	X
ICBIS 200-23067/8	1		12:51	X
ICSA 200-23067/9	1		12:57	X
ICSAB 200-23067/10	1		13:04	X
CCV 200-23067/11	1		13:11	X
CCB 200-23067/12	1		13:17	X
240-1443-1	10	T	13:24	X
240-1443-1	10	D	13:30	X
CCV 200-23067/15	1		13:37	X
CCB 200-23067/16	1		13:44	X

Prep Types
D = Dissolved
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Instrument ID: MEPCV3 II Method: 7470A

Start Date: 07/12/2011 09:51 End Date: 07/12/2011 11:18

Lab Sample ID	D/F	Type	Time	Analytes: Hg
ZZZZZZ			09:51	
ZZZZZZ			09:53	
ZZZZZZ			09:55	
ZZZZZZ			09:58	
ZZZZZZ			10:00	
ZZZZZZ			10:02	
ZZZZZZ			10:04	
IC 200-21199/1-A			10:06	X
IC 200-21199/2-A			10:08	X
IC 200-21199/3-A			10:10	X
IC 200-21199/4-A			10:13	X
IC 200-21199/5-A			10:15	X
IC 200-21199/6-A			10:17	X
ICV 200-21199/7-A	1		10:19	X
ICB 200-21199/8-A	1		10:21	X
CCV 200-21199/9-A	1		10:23	X
CCB 200-21199/10-A	1		10:25	X
MB 200-21199/11-A	1	T	10:27	X
LCS 200-21199/12-A	1	T	10:29	X
ZZZZZZ			10:31	
ZZZZZZ			10:33	
ZZZZZZ			10:35	
ZZZZZZ			10:37	
ZZZZZZ			10:39	
ZZZZZZ			10:41	
ZZZZZZ			10:43	
CCV 200-21199/9-A	1		10:45	X
CCB 200-21199/10-A	1		10:47	X
ZZZZZZ			10:49	
ZZZZZZ			10:51	
ZZZZZZ			10:53	
240-1443-1	1	T	10:55	X
240-1443-1	1	D	10:57	X
240-1443-2	1	T	10:59	X
240-1443-2	1	D	11:01	X
240-1443-4	1	T	11:03	X
240-1443-4	1	D	11:05	X
CCV 200-21199/9-A	1		11:08	X
CCB 200-21199/10-A	1		11:10	X
240-1443-5	1	T	11:12	X
240-1443-5	1	D	11:14	X
CCV 200-21199/9-A	1		11:16	X

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Instrument ID: MEPCV3 II Method: 7470A

Start Date: 07/12/2011 09:51 End Date: 07/12/2011 11:18

Lab Sample ID	D/F	Type	Time	Analytes: Hg
CCB 200-21199/10-A	1		11:18	X

Prep Types
D = Dissolved
T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	ICV 200-22997/7 08/04/2011 12:18				CCV 200-22997/11 08/04/2011 12:45				CCV 200-22997/13 08/04/2011 15:57			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	46.3		50.0	93	19.7		20.0	99	20.0		20.0	100
Arsenic	25.3		25.0	101	9.71		10.0	97	9.85		10.0	98
Barium	1280		1250	102	249		250	100	252		250	101
Beryllium	25.8		25.0	103	10.1		10.0	101	10.2		10.0	102
Cadmium	25.4		25.0	102	9.82		10.0	98	10.3		10.0	103
Chromium	50.7		50.0	101	19.8		20.0	99	20.2		20.0	101
Cobalt	126		125	101	49.4		50.0	99	50.7		50.0	101
Copper	51.6		50.0	103	20.5		20.0	102	20.7		20.0	103
Lead	24.3		25.0	97	9.68		10.0	97	9.82		10.0	98
Molybdenum	259		250	104	98.7		100	99	99.6		100	100
Nickel	50.4		50.0	101	20.1		20.0	101	20.6		20.0	103
Selenium	26.2		25.0	105	9.85		10.0	98	9.97		10.0	100
Silver	25.3		25.0	101	9.90		10.0	99	10.1		10.0	101
Thallium	24.3		25.0	97	9.58		10.0	96	9.71		10.0	97
Tungsten	24.6		25.0	98	9.80	J	10.0	98	9.84	J	10.0	98
Vanadium	50.8		50.0	102	19.8	J	20.0	99	20.0		20.0	100
Zinc	51.6		50.0	103	20.7		20.0	103	20.8		20.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	CCV 200-22997/25 08/04/2011 17:35				CCV 200-22997/37 08/04/2011 18:55							
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	19.8		20.0	99	20.0		20.0	100				
Arsenic	9.92		10.0	99	9.45		10.0	95				
Barium	252		250	101	254		250	102				
Beryllium	9.63		10.0	96	9.89		10.0	99				
Cadmium	10.2		10.0	102	10.2		10.0	102				
Chromium	19.8		20.0	99	20.2		20.0	101				
Cobalt	49.7		50.0	99	50.1		50.0	100				
Copper	20.3		20.0	102	20.7		20.0	103				
Lead	9.80		10.0	98	9.75		10.0	98				
Molybdenum	98.5		100	98	98.4		100	98				
Nickel	20.1		20.0	101	20.5		20.0	103				
Selenium	10.2		10.0	102	9.67		10.0	97				
Silver	10.1		10.0	101	10.1		10.0	101				
Thallium	9.69		10.0	97	9.65		10.0	96				
Tungsten	9.77	J	10.0	98	9.83	J	10.0	98				
Vanadium	19.0	J	20.0	95	19.5	J	20.0	97				
Zinc	20.4		20.0	102	21.0		20.0	105				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

ICV Source: MEICPMSICVi_00018 Concentration Units: ug/L

CCV Source: MEICPMSCALi_00017

	ICV 200-23067/7 08/05/2011 12:44				CCV 200-23067/11 08/05/2011 13:11				CCV 200-23067/15 08/05/2011 13:37			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Zinc	53.1		50.0	106	21.0		20.0	105	20.5		20.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

ICV Source: MEHGICVw_00010 Concentration Units: ug/L

CCV Source: MEHGCCVw_00284

	ICV 200-21199/7-A 07/12/2011 10:19				CCV 200-21199/9-A 07/12/2011 10:23				CCV 200-21199/9-A 07/12/2011 10:45			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.84		3.00	95	5.26		5.00	105	5.35		5.00	107

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

ICV Source: MEHGICVw_00010 Concentration Units: ug/L

CCV Source: MEHGCCVw_00284

	CCV 200-21199/9-A 07/12/2011 11:08				CCV 200-21199/9-A 07/12/2011 11:16							
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.46		5.00	109	5.58		5.00	112				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 200-22997/8 08/04/2011 12:25 Found	C	CCB 200-22997/12 08/04/2011 12:51 Found	C	CCB 200-22997/14 08/04/2011 16:04 Found	C	CCB 200-22997/26 08/04/2011 17:41 Found	C
Antimony	2.0	0.342	J	2.0	U	2.0	U	2.0	U
Arsenic	5.0	0.149	J	0.114	J	0.0960	J	0.134	J
Barium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Beryllium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Cadmium	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Chromium	2.0	2.0	U	0.110	J	2.0	U	2.0	U
Cobalt	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Copper	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Lead	1.0	0.146	J	0.144	J	0.138	J	0.137	J
Molybdenum	2.0	0.562	J	0.649	J	2.0	U	2.0	U
Nickel	2.0	2.0	U	2.0	U	2.0	U	2.0	U
Selenium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Silver	1.0	1.0	U	1.0	U	1.0	U	1.0	U
Thallium	2.0	0.188	J	0.195	J	0.188	J	0.189	J
Tungsten	10	0.288	J	10	U	10	U	10	U
Vanadium	20	20	U	20	U	20	U	20	U
Zinc	20	20	U	20	U	20	U	20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 200-22997/38 08/04/2011 19:01 Found	C	Found	C	Found	C	Found	C
Antimony	2.0	2.0	U						
Arsenic	5.0	0.155	J						
Barium	5.0	5.0	U						
Beryllium	1.0	1.0	U						
Cadmium	1.0	1.0	U						
Chromium	2.0	2.0	U						
Cobalt	1.0	1.0	U						
Copper	2.0	2.0	U						
Lead	1.0	0.134	J						
Molybdenum	2.0	2.0	U						
Nickel	2.0	2.0	U						
Selenium	5.0	5.0	U						
Silver	1.0	1.0	U						
Thallium	2.0	0.187	J						
Tungsten	10	10	U						
Vanadium	20	20	U						
Zinc	20	20	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICBIS 200-23067/8 08/05/2011 12:51 Found	C	CCB 200-23067/12 08/05/2011 13:17 Found	C	CCB 200-23067/16 08/05/2011 13:44 Found	C	Found	C
Zinc	20	20	U	20	U	20	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Concentration Units: ug/L

		ICB 200-21199/8-A 07/12/2011 10:21		CCB 200-21199/10-A 07/12/2011 10:25		CCB 200-21199/10-A 07/12/2011 10:47		CCB 200-21199/10-A 07/12/2011 11:10	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U	0.20	U	0.20	U	0.20	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 200-21199/10-A 07/12/2011 11:18 Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.20	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 200-20967/1-A

Instrument Code: METICPMS2 Batch No.: 22997

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6020
7440-38-2	Arsenic	5.0	U		6020
7440-39-3	Barium	5.0	U		6020
7440-41-7	Beryllium	1.0	U		6020
7440-43-9	Cadmium	1.0	U		6020
7440-47-3	Chromium	2.0	U		6020
7440-48-4	Cobalt	1.0	U		6020
7440-50-8	Copper	2.0	U		6020
7439-92-1	Lead	0.150	J		6020
7439-98-7	Molybdenum	2.0	U		6020
7440-02-0	Nickel	2.0	U		6020
7782-49-2	Selenium	5.0	U		6020
7440-22-4	Silver	1.0	U		6020
7440-28-0	Thallium	0.187	J		6020
7440-33-7	Tungsten	10	U		6020
7440-62-2	Vanadium	20	U		6020
7440-66-6	Zinc	0.507	J		6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 200-21199/11-A

Instrument Code: MEPCV3 II Batch No.: 21332

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.20	U		7470A

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICSA 200-22997/9 Instrument ID: METICPMS2

Lab File ID: 080411-02D.xml ICS Source: MEMSICSAW_00022

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.442**	
Arsenic		**0.239**	
Barium		**0.547**	
Beryllium		**-0.0570**	
Cadmium		**0.714**	
Chromium		**0.900**	
Cobalt		**0.101**	
Copper		**1.10**	
Lead		**0.282**	
Molybdenum	**2000**	**2287**	**114**
Nickel		**-1.99**	
Selenium		**-0.535**	
Silver		**0.0040**	
Thallium		**0.203**	
Tungsten		**0.298**	
Vanadium		**0.393**	
Zinc		**-1.74**	
Aluminum	*100000*	*97277*	*97*
Boron		*24.4*	
Calcium	*100000*	*102233*	*102*
Iron	*100000*	*100117*	*100*
Magnesium	*100000*	*107967*	*108*
Manganese		*0.117*	
Potassium	*100000*	*108867*	*109*
Sodium	*100000*	*106033*	*106*
Th		*0.315*	
U		*0.245*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICSAB 200-22997/10 Instrument ID: METICPMS2

Lab File ID: 080411-02D.xml ICS Source: MEMSABw_00026

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**100**	**103**	**103**
Arsenic	**20.0**	**20.1**	**101**
Barium	**500**	**539**	**108**
Beryllium	**20.0**	**20.3**	**102**
Cadmium	**20.0**	**20.5**	**102**
Chromium	**40.0**	**42.4**	**106**
Cobalt	**50.0**	**49.5**	**99**
Copper	**100**	**95.7**	**96**
Lead	**20.0**	**21.3**	**106**
Molybdenum	**2000**	**2409**	**120**
Nickel	**100**	**95.0**	**95**
Selenium	**20.0**	**19.1**	**96**
Silver	**20.0**	**18.9**	**94**
Thallium	**20.0**	**21.0**	**105**
Tungsten	**20.0**	**21.8**	**109**
Vanadium	**40.0**	**41.6**	**104**
Zinc	**100**	**92.4**	**92**
Aluminum	*100000*	*102400*	*102*
Boron	*200*	*258*	*129*
Calcium	*100000*	*108933*	*109*
Iron	*100000*	*106133*	*106*
Magnesium	*100000*	*117067*	*117*
Manganese	*40.0*	*41.7*	*104*
Potassium	*100000*	*120633*	*121*
Sodium	*100000*	*115667*	*116*
Th	*20.0*	*21.6*	*108*
U	*20.0*	*22.8*	*114*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICSA 200-23067/9 Instrument ID: METICPMS2

Lab File ID: 080511-02.xml ICS Source: MEMSICSAW_00022

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Zinc		**-1.82**	
Aluminum	*100000*	*96910*	*97*
Antimony		*0.514*	
Arsenic		*0.0280*	
Barium		*0.626*	
Beryllium		*-0.0160*	
Boron		*25.5*	
Cadmium		*0.747*	
Calcium	*100000*	*107300*	*107*
Chromium		*0.899*	
Cobalt		*0.429*	
Copper		*1.45*	
Iron	*100000*	*101267*	*101*
Lead		*0.288*	
Magnesium	*100000*	*109667*	*110*
Manganese		*0.230*	
Molybdenum	*2000*	*2232*	*112*
Nickel		*-1.60*	
Potassium	*100000*	*111533*	*112*
Selenium		*-1.25*	
Silver		*0.0630*	
Sodium	*100000*	*109333*	*109*
Th		*0.346*	
Thallium		*0.254*	
Tungsten		*0.278*	
U		*0.272*	
Vanadium		*0.574*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Lab Sample ID: ICSAB 200-23067/10 Instrument ID: METICPMS2

Lab File ID: 080511-02.xml ICS Source: MEMSABw_00026

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Zinc	**100**	**94.3**	**94**
Aluminum	*100000*	*103200*	*103*
Antimony	*100*	*103*	*103*
Arsenic	*20.0*	*20.4*	*102*
Barium	*500*	*545*	*109*
Beryllium	*20.0*	*19.9*	*99*
Boron	*200*	*264*	*132*
Cadmium	*20.0*	*20.9*	*104*
Calcium	*100000*	*117233*	*117*
Chromium	*40.0*	*42.6*	*106*
Cobalt	*50.0*	*50.2*	*100*
Copper	*100*	*97.1*	*97*
Iron	*100000*	*109000*	*109*
Lead	*20.0*	*21.4*	*107*
Magnesium	*100000*	*124067*	*124*
Manganese	*40.0*	*42.0*	*105*
Molybdenum	*2000*	*2381*	*119*
Nickel	*100*	*95.4*	*95*
Potassium	*100000*	*129133*	*129*
Selenium	*20.0*	*18.4*	*92*
Silver	*20.0*	*18.8*	*94*
Sodium	*100000*	*123400*	*123*
Th	*20.0*	*21.8*	*109*
Thallium	*20.0*	*21.2*	*106*
Tungsten	*20.0*	*21.7*	*108*
U	*20.0*	*22.7*	*114*
Vanadium	*40.0*	*42.2*	*105*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-20967/2-A

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

Sample Matrix: Water LCS Source: MEICPMSICVi_00018

Analyte	Water(ug/L) True	Found	C	%R	Limits		Q	Method
Antimony	50.0	50.7		101	80	120		6020
Arsenic	25.0	24.3		97	80	120		6020
Barium	1250	1400		112	80	120		6020
Beryllium	25.0	25.1		100	80	120		6020
Cadmium	25.0	26.1		104	80	120		6020
Chromium	50.0	54.8		110	80	120		6020
Cobalt	125	140		112	80	120		6020
Copper	50.0	55.2		110	80	120		6020
Lead	25.0	26.9		108	80	120		6020
Molybdenum	250	284		114	80	120		6020
Nickel	50.0	54.9		110	80	120		6020
Selenium	25.0	22.3		89	80	120		6020
Silver	25.0	26.1		104	80	120		6020
Thallium	25.0	26.3		105	80	120		6020
Tungsten	25.0	26.0		104	80	120		6020
Vanadium	50.0	54.7		109	80	120		6020
Zinc	50.0	50.5		101	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-21199/12-A

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

Sample Matrix: Water LCS Source: MEHGCCVw_00284

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	1.00	1.08		108	85	115		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 240-1443-5

SDG No:

Lab Name: TestAmerica Burlington Job No: 240-1443-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.43	J	0.465	J	NC		6020
Arsenic	0.48	J	0.935	J	NC		6020
Barium	110		104		1.5		6020
Beryllium	0.18	J	5.0	U	NC		6020
Cadmium	0.32	J	5.0	U	NC		6020
Chromium	0.79	J	10	U	NC		6020
Cobalt	15		15.4		0.13		6020
Copper	6.5		6.32	J	NC		6020
Lead	1.0		1.54	J	NC		6020
Molybdenum	0.47	J	10	U	NC		6020
Nickel	23		23.1		NC		6020
Selenium	5.2		6.04	J	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.22	J	0.955	J	NC		6020
Tungsten	10	U	50	U	NC		6020
Vanadium	0.55	J	100	U	NC		6020
Zinc	37		42.8	J	15	V	6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - DISSOLVED

Lab ID: 240-1443-5

SDG No:

Lab Name: TestAmerica Burlington Job No: 240-1443-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.23	J	10	U	NC		6020
Arsenic	0.37	J	1.03	J	NC		6020
Barium	110		106		1.4		6020
Beryllium	0.16	J	5.0	U	NC		6020
Cadmium	0.31	J	5.0	U	NC		6020
Chromium	0.11	J	10	U	NC		6020
Cobalt	16		15.9		0.38		6020
Copper	6.1		5.73	J	NC		6020
Lead	0.48	J	1.02	J	NC		6020
Molybdenum	2.0	U	10	U	NC		6020
Nickel	24		24.1		NC		6020
Selenium	5.2		6.25	J	NC		6020
Silver	1.0	U	5.0	U	NC		6020
Thallium	0.22	J	0.945	J	NC		6020
Tungsten	10	U	50	U	NC		6020
Vanadium	20	U	100	U	NC		6020
Zinc	39		43.2	J	12	V	6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1443-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 MDL Date: 08/06/2010 10:09

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.014
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1443-1

SDG Number:

Matrix: Water Instrument ID: METICPMS2

Method: 6020 MDL Date: 08/06/2010 10:09

Prep Method: 3010A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Antimony		2	0.073
Arsenic		5	0.092
Barium		5	0.42
Beryllium		1	0.092
Cadmium		1	0.046
Chromium		2	0.11
Cobalt		1	0.049
Copper		2	0.23
Lead		1	0.024
Molybdenum		2	0.42
Nickel		2	0.63
Selenium		5	0.32
Silver		1	0.014
Thallium		2	0.079
Tungsten		10	0.16
Vanadium		20	0.3
Zinc		20	0.5

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 240-1443-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A MDL Date: 05/05/2011 17:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury		0.2	0.066

9-IN
DETECTION LIMITS
METALS - DISSOLVED

Lab Name: TestAmerica Burlington Job Number: 240-1443-1

SDG Number:

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A MDL Date: 05/05/2011 17:06

Prep Method: 7470A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury		0.2	0.066

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 240-1443-1

SDG No.:

Instrument ID: METICPMS2 Date: 05/07/2011 00:00

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Antimony		500	6020
Arsenic		500	6020
Barium		12500	6020
Beryllium		500	6020
Cadmium		500	6020
Chromium		1000	6020
Cobalt		2500	6020
Copper		1000	6020
Lead		100	6020
Molybdenum		5000	6020
Nickel		1000	6020
Selenium		500	6020
Silver		500	6020
Thallium		500	6020
Tungsten		500	6020
Vanadium		1000	6020
Zinc		500	6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-20967/1-A	07/07/2011 09:43	20967		100	100
LCS 200-20967/2-A	07/07/2011 09:43	20967		100	100
240-1443-1	07/07/2011 09:43	20967		100	100
240-1443-2	07/07/2011 09:43	20967		100	100
240-1443-4	07/07/2011 09:43	20967		100	100
240-1443-5	07/07/2011 09:43	20967		100	100
240-1443-1	07/07/2011 09:43	20967		100	100
240-1443-2	07/07/2011 09:43	20967		100	100
240-1443-4	07/07/2011 09:43	20967		100	100
240-1443-5	07/07/2011 09:43	20967		100	100

FORM XII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-21199/11-A	07/11/2011 09:00	21199		50	50
LCS 200-21199/12-A	07/11/2011 09:00	21199		50	50
240-1443-1	07/11/2011 09:00	21199		50	50
240-1443-1	07/11/2011 09:00	21199		50	50
240-1443-2	07/11/2011 09:00	21199		50	50
240-1443-2	07/11/2011 09:00	21199		50	50
240-1443-4	07/11/2011 09:00	21199		50	50
240-1443-4	07/11/2011 09:00	21199		50	50
240-1443-5	07/11/2011 09:00	21199		50	50
240-1443-5	07/11/2011 09:00	21199		50	50

14-IN
ICP-MS TUNE
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Analysis Date: 08/04/11

Lab ID: ITUNE 200-22997/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Li-6	6.0151	0.73	0.820	
Be-9	8.9522	0.76	1.911	
Mg-24	23.965	0.77	2.176	
Mg-25	24.9758	0.78	2.843	
Mg-26	25.9726	0.78	1.832	
Al-27	26.9715	0.78	0.612	
Sc-45	44.9459	0.77	0.445	
V-51	50.944	0.79	0.692	
Co-59	58.9032	0.79	0.471	
Y-89	88.8959	0.79	0.752	
In-113	112.9041	0.78	1.612	
In-115	114.9039	0.77	0.199	
Ba-137	136.9058	0.75	0.849	
Ce-140	139.9054	0.75	0.680	
Tb-159	158.9254	0.77	0.536	
Pb-206	205.9745	0.72	0.476	
Pb-207	206.9759	0.72	0.809	
Pb-208	207.9766	0.73	0.290	
Th-232	232.0381	0.69	0.608	
U-238	238.0508	0.69	0.802	

14-IN
ICP-MS TUNE
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Analysis Date: 08/05/11

Lab ID: ITUNE 200-23067/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Li-6	6.0451	0.72	0.968	
Be-9	8.9822	0.75	1.400	
Mg-24	23.985	0.75	0.617	
Mg-25	24.9858	0.74	2.102	
Mg-26	25.9826	0.78	2.211	
Al-27	26.9815	0.75	0.786	
Sc-45	44.9659	0.77	0.609	
V-51	50.954	0.78	0.546	
Co-59	58.9232	0.79	0.802	
Y-89	88.8959	0.79	0.926	
In-113	112.9041	0.73	1.491	
In-115	114.9039	0.78	0.260	
Ba-137	136.9058	0.75	0.711	
Ce-140	139.9054	0.75	0.437	
Tb-159	158.9254	0.75	0.479	
Pb-206	205.9745	0.71	0.474	
Pb-207	206.9759	0.72	0.195	
Pb-208	207.9766	0.71	0.312	
Th-232	232.0481	0.68	0.329	
U-238	238.0608	0.68	0.241	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 08/04/2011 End Date: 08/04/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element In-115	Q	Element Tb-159	Q
STD0 200-22997/2 IC	11:45	100		100		100		100		100	
STDLL2 200-22997/3	11:51	99		99		98		99		99	
STD1 200-22997/4 IC	11:58	100		101		100		101		101	
STD2 200-22997/5 IC	12:05	100		101		99		100		100	
STD3 200-22997/6 IC	12:11	96		99		97		96		98	
ICV 200-22997/7	12:18	98		102		100		99		101	
ICBIS 200-22997/8	12:25	101		102		101		101		101	
ICSA 200-22997/9	12:31	83		92		90		90		90	
ICSAB 200-22997/10	12:38	83		95		94		94		96	
CCV 200-22997/11	12:45	94		102		104		106		107	
CCB 200-22997/12	12:51	95		102		104		105		106	
CCV 200-22997/13	15:57	96		96		98		99		101	
CCB 200-22997/14	16:04	99		95		97		98		101	
MB 200-20967/1-A	16:28	106		101		102		102		104	
LCS 200-20967/2-A	16:34	104		101		100		100		102	
CCV 200-22997/25	17:35	112		105		106		107		109	
CCB 200-22997/26	17:41	118		104		105		106		108	
240-1443-1	17:48	101		102		115		102		106	
240-1443-2	17:55	104		104		110		104		107	
240-1443-4	18:02	97		101		109		100		104	
240-1443-5	18:08	98		102		107		103		107	
240-1443-5 SD	18:15	103		102		107		107		109	
240-1443-1	18:22	104		102		116		105		108	
240-1443-2	18:28	100		104		110		105		108	
240-1443-4	18:35	99		99		106		101		105	
240-1443-5	18:41	96		98		103		100		105	
240-1443-5 SD	18:48	103		100		103		105		107	
CCV 200-22997/37	18:55	99		96		99		100		103	
CCB 200-22997/38	19:01	101		95		99		100		102	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 08/04/2011 End Date: 08/04/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Bi-209	Q	Element	Q	Element	Q	Element	Q	Element	Q
STD0 200-22997/2 IC	11:45	100									
STDLL2 200-22997/3	11:51	99									
STD1 200-22997/4 IC	11:58	100									
STD2 200-22997/5 IC	12:05	98									
STD3 200-22997/6 IC	12:11	91									
ICV 200-22997/7	12:18	96									
ICBIS 200-22997/8	12:25	99									
ICSA 200-22997/9	12:31	80									
ICSAB 200-22997/10	12:38	84									
CCV 200-22997/11	12:45	104									
CCB 200-22997/12	12:51	105									
CCV 200-22997/13	15:57	99									
CCB 200-22997/14	16:04	100									
MB 200-20967/1-A	16:28	100									
LCS 200-20967/2-A	16:34	94									
CCV 200-22997/25	17:35	105									
CCB 200-22997/26	17:41	106									
240-1443-1	17:48	99									
240-1443-2	17:55	98									
240-1443-4	18:02	96									
240-1443-5	18:08	99									
240-1443-5 SD	18:15	106									
240-1443-1	18:22	100									
240-1443-2	18:28	100									
240-1443-4	18:35	97									
240-1443-5	18:41	98									
240-1443-5 SD	18:48	105									
CCV 200-22997/37	18:55	101									
CCB 200-22997/38	19:01	102									

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 08/05/2011 End Date: 08/05/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Li-6	Q	Element Sc-45	Q	Element Y-89	Q	Element In-115	Q	Element Tb-159	Q
STD0 200-23067/2 IC	12:11	100		100		100		100		100	
STDLL2 200-23067/3	12:18	100		100		100		100		100	
STD1 200-23067/4 IC	12:24	100		100		101		100		101	
STD2 200-23067/5 IC	12:31	101		101		100		100		101	
STD3 200-23067/6 IC	12:37	97		100		99		97		100	
ICV 200-23067/7	12:44	100		104		103		102		103	
ICBIS 200-23067/8	12:51	105		108		106		106		104	
ICSA 200-23067/9	12:57	83		96		95		96		97	
ICSAB 200-23067/10	13:04	81		99		100		101		103	
CCV 200-23067/11	13:11	93		109		112		113		115	
CCB 200-23067/12	13:17	97		111		114		115		115	
240-1443-1 -T	13:24	95		112		116		115		115	
240-1443-1 -D	13:30	95		118		122	*	120		118	
CCV 200-23067/15	13:37	98		113		115		115		116	
CCB 200-23067/16	13:44	102		112		115		115		115	

Zinc only

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Burlington Job No.: 240-1443-1

SDG No.:

ICP-MS Instrument ID: METICPMS2 Start Date: 08/05/2011 End Date: 08/05/2011

Lab Sample ID	Time	Internal Standards %RI For: Element Bi-209	Q	Element	Q	Element	Element Q	Element Q	Element	Q
STD0 200-23067/2 IC	12:11	100								
STDLL2 200-23067/3	12:18	99								
STD1 200-23067/4 IC	12:24	99								
STD2 200-23067/5 IC	12:31	98								
STD3 200-23067/6 IC	12:37	93								
ICV 200-23067/7	12:44	97								
ICBIS 200-23067/8	12:51	103								
ICSA 200-23067/9	12:57	85								
ICSAB 200-23067/10	13:04	90								
CCV 200-23067/11	13:11	112								
CCB 200-23067/12	13:17	114								
240-1443-1	13:24	113								
240-1443-1	13:30	115								
CCV 200-23067/15	13:37	111								
CCB 200-23067/16	13:44	113								

Sample GSP-MW-8-062311
total Cobalt rep. result 15 ug/L

240-1443-h-5-a 08/04/2011 06:08:43 PM
User Pre-dilution: 1.000

Run	Time	6Li	7Li	9Be	11B	23Na	24Mg	25Mg	26Mg	27Al
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:09:47	97.453%	0.000	0.215	66.120	T 16970.000	T 7983.000	T 7991.000	T 7940.000	T 661.800
2	18:10:50	97.595%	0.000	0.148	68.060	T 17000.000	T 8045.000	T 7989.000	T 8053.000	T 655.100
3	18:11:56	97.995%	0.000	0.180	67.940	T 16570.000	T 8004.000	T 8033.000	T 7956.000	T 664.400
x		97.681%	0.000	0.181	67.370	T 16850.000	T 8011.000	T 8004.000	T 7983.000	T 660.500
σ		0.281%	0.000	0.034	1.087	T 239.900	T 31.430	T 25.130	T 60.810	T 4.806
%RSD		0.288	0.000	18.670	1.613	T 1.424	T 0.392	T 0.314	T 0.762	T 0.728

Run	Time	31P	33S	39K	44Ca	45Sc	47Ti	51V	52Cr	53Cl O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:09:47	0.000	T 0.000	T 2414.000	11600.000	101.364%	0.000	0.436	0.802	17.620
2	18:10:50	0.000	T 0.000	T 2454.000	11640.000	102.929%	0.000	0.497	0.739	17.880
3	18:11:56	0.000	T 0.000	T 2413.000	11650.000	101.733%	0.000	0.714	0.813	18.040
x		0.000	T 0.000	T 2427.000	11630.000	102.009%	0.000	0.549	0.785	17.850
σ		0.000	T 0.000	T 22.980	30.100	0.818%	0.000	0.146	0.040	0.210
%RSD		0.000	T 0.000	T 0.947	0.259	0.802	0.000	26.620	5.108	1.176

Run	Time	54Fe	55Mn	56Fe	59Co	60Ni	62Ni	65Cu	66Zn	67Zn
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:09:47	1160.000	M 206.100	T 1192.000	15.390	23.540	20.870	6.427	37.170	28.190
2	18:10:50	1146.000	M 205.700	T 1195.000	15.320	23.390	22.060	6.479	36.660	29.420
3	18:11:56	1162.000	M 207.300	T 1198.000	15.450	23.280	22.950	6.650	37.750	27.300
x		1156.000	M 206.400	T 1195.000	15.380	23.410	21.960	6.519	37.190	28.300
σ		8.334	M 0.835	T 2.647	0.065	0.130	1.046	0.116	0.548	1.066
%RSD		0.721	M 0.404	T 0.222	0.423	0.556	4.763	1.786	1.472	3.767

Run	Time	68Zn	75As	78Se	82Se	89Y	95Mo	98Mo	107Ag	108Mo O
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:09:47	30.000	0.495	4.947	5.298	106.055%	1.250	0.491	-0.027	-2.889
2	18:10:50	30.230	0.493	4.962	5.264	108.174%	1.291	0.457	-0.025	-2.519
3	18:11:56	30.440	0.460	5.095	5.129	107.923%	1.233	0.460	-0.021	-2.708
x		30.220	0.483	5.001	5.230	107.384%	1.258	0.469	-0.024	-2.705
σ		0.219	0.020	0.082	0.090	1.158%	0.030	0.019	0.003	0.185
%RSD		0.724	4.046	1.631	1.713	1.078	2.365	4.057	13.170	6.839

Run	Time	109Ag	111Cd	114Cd	115In	121Sb	123Sb	135Ba	137Ba	159Tb
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:09:47	-0.018	0.343	0.312	102.183%	0.439	0.436	106.000	104.000	106.163%
2	18:10:50	-0.009	0.334	0.284	103.910%	0.434	0.424	105.700	103.800	107.091%
3	18:11:56	-0.020	0.293	0.309	103.790%	0.449	0.422	105.800	104.100	106.704%
x		-0.015	0.323	0.302	103.294%	0.441	0.427	105.800	104.000	106.652%
σ		0.006	0.027	0.015	0.964%	0.008	0.007	0.143	0.187	0.466%
%RSD		36.680	8.244	4.999	0.933	1.777	1.753	0.135	0.180	0.437

Run	Time	182W	184W	203Tl	205Tl	208Pb	209Bi	220Bkg	232Th	238U
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:09:47	0.029	0.003	0.185	0.223	1.018	97.937%	0.000	0.611	0.531
2	18:10:50	0.020	-0.009	0.178	0.223	1.012	99.730%	0.000	0.610	0.534
3	18:11:56	0.021	0.008	0.185	0.221	1.006	100.577%	0.000	0.610	0.540
x		0.023	0.000	0.183	0.222	1.012	99.415%	0.000	0.610	0.535
σ		0.005	0.009	0.004	0.002	0.006	1.348%	0.000	0.000	0.004
%RSD		20.820	2110.000	2.336	0.718	0.589	1.356	0.000	0.056	0.808

240-1443-h-5-aSD@5 08/04/2011 06:15:23 PM

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09/15/2011

10:55:39 12 Jul 2011 Folder: 052411XX
Protocol: CV4

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 1443H1B 071211CC Seq: 1578 10:55:39 12 Jul 11 HG

Hg .073 ppb 480

Sample GSP-SB-WP-84-060311 rep result Hg total 0.073 ug/L

*** Sample ID: 1443G1B 071211CC Seq: 1579 10:57:35 12 Jul 11 HG

Hg -.011 ppb 228

*** Sample ID: 1443H2B 071211CC Seq: 1580 10:59:29 12 Jul 11 HG

Hg -.012 ppb 225

*** Sample ID: 1443G2B 071211CC Seq: 1581 11:01:37 12 Jul 11 HG

Hg -.005 ppb 244

*** Sample ID: 1443H4B 071211CC Seq: 1582 11:03:35 12 Jul 11 HG

Hg -.028 ppb 176

*** Sample ID: 1443G4B 071211CC Seq: 1583 11:05:28 12 Jul 11 HG

Hg .018 ppb 314

*** Sample ID: CCV 071211CC Seq: 1584 11:08:06 12 Jul 11 HG

Hg 5.46 ppb 16770

*** Sample ID: CCB 071211CC Seq: 1585 11:10:01 12 Jul 11 HG

Hg -.083 ppb 9

*** Sample ID: 1443H5B 071211CC Seq: 1586 11:12:27 12 Jul 11 HG

Hg .024 ppb 334

*** Sample ID: 1443G5B 071211CC Seq: 1587 11:14:22 12 Jul 11 HG

Hg -.022 ppb 195

*** Sample ID: CCV 071211CC Seq: 1588 11:16:16 12 Jul 11 HG

Hg 5.58 ppb 17149

*** Sample ID: CCB 071211CC Seq: 1589 11:18:14 12 Jul 11 HG

Hg -.060 ppb 80

Case Narrative

TestAmerica West Sacramento Project Number G1F210484D

WATER, 314.0, Perchlorate
Sample(s): 11, 12, 13, 14
A mid continuing calibration blank had a positive result of 0.623 ug/L. Since the associated sample results were all non-detect, no corrective action was performed.

Sample(s): 13
This sample was analyzed at a dilution due to matrix interferences.

There were no other anomalies associated with this project.

ANALYTICAL METHODS SUMMARY

G1F210484

PARAMETER	ANALYTICAL METHOD
Perchlorate	MCAWW 314.0

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

QC DATA ASSOCIATION SUMMARY

G1F210484

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	MCAWW 314.0		1192193	1192116
002	WATER	MCAWW 314.0		1192193	1192116
003	WATER	MCAWW 314.0		1192193	1192116
004	WATER	MCAWW 314.0		1192193	1192116
005	WATER	MCAWW 314.0		1192193	1192116
006	WATER	MCAWW 314.0		1192193	1192116
007	WATER	MCAWW 314.0		1192193	1192116
008	WATER	MCAWW 314.0		1192193	1192116
009	WATER	MCAWW 314.0		1192193	1192116
010	WATER	MCAWW 314.0		1192193	1192116
011	WATER	MCAWW 314.0		1192193	1192116
012	WATER	MCAWW 314.0		1192193	1192116
013	WATER	MCAWW 314.0		1192193	1192116
014	WATER	MCAWW 314.0		1192193	1192116
015	WATER	MCAWW 314.0		1192193	1192116
016	WATER	MCAWW 314.0		1192193	1192116

METHOD BLANK REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		Work Order #: MKTP71AA		MB Lot-Sample #:	G1G110000-193	
	ND	1.0	ug/L	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G1F210484 Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		Work Order #: MKTP71AC	LCS Lot-Sample#: G1G110000-193		
	98	(85 - 115)	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		Work Order #: MKTP71AC LCS Lot-Sample#: G1G110000-193					
	50.0	49.2	ug/L	98	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER
Date Sampled...: 06/17/11 **Date Received..:** 06/21/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate		WO#: MKEG31AC-MS/MKEG31AD-MSD				MS Lot-Sample #: G1F210484-001	
	104	(80 - 120)			MCAWW 314.0	07/11/11	1192193
	104	(80 - 120)	0.11	(0-20)	MCAWW 314.0	07/11/11	1192193
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G1F210484 **Matrix.....:** WATER
Date Sampled...: 06/17/11 **Date Received..:** 06/21/11

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Perchlorate			WO#: MKEG31AC-MS/MKEG31AD-MSD				MS Lot-Sample #: G1F210484-001		
	ND	50.0	52.1	ug/L	104		MCAWW 314.0	07/11/11	1192193
	ND	50.0	52.1	ug/L	104	0.11	MCAWW 314.0	07/11/11	1192193
			Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Title:
Datasource: SACP205B_local
Location: ICS-2000\2011\JULY 11
Timebase: ICS-2000
#Samples: 46
Created: 7/11/2011 12:04:41 by rogersj
Last Update: 7/12/2011 09:58:42 by rogersj

No.	Name	Amount	Dil. Factor	Weight	Inj. Date/Time	Program	Type
		Perchlorate ECD_1					
1	S0	n.a.	1.0000	1.0000	7/6/2011 17:31:48	ICS-2000	Standard
2	STD1	1.117	1.0000	1.0000	7/6/2011 17:47:12	ICS-2000	Standard
3	STD2	3.474	1.0000	1.0000	7/6/2011 18:02:37	ICS-2000	Standard
4	STD3	20.202	1.0000	1.0000	7/6/2011 18:18:01	ICS-2000	Standard
5	STD4	39.722	1.0000	1.0000	7/6/2011 18:33:25	ICS-2000	Standard
6	STD5	61.050	1.0000	1 0000	7/6/2011 18:48:50	ICS-2000	Standard
7	STD6	79.711	1.0000	1.0000	7/6/2011 19:04:14	ICS-2000	Standard
8	STD7	99.718	1.0000	1.0000	7/6/2011 19:19:38	ICS-2000	Standard
9	BLANK	n.a.	1.0000	1.0000	7/11/2011 13:03:20	ICS-2000	Unknown
10	QCS/ICV 50 PPB	49.239	1.0000	1.0000	7/11/2011 13:18:44	ICS-2000	Unknown
11	ICB	n.a.	1.0000	1.0000	7/11/2011 13:34:09	ICS-2000	Unknown
12	ICCS 1 PPB	1.073	1.0000	1.0000	7/11/2011 13:49:33	ICS-2000	Unknown
13	IPC/MCT 25 PPB @ 600 PPM	22.835	1.0000	1.0000	7/11/2011 14:04:57	ICS-2000	Unknown
14	G1F210484-1	n.a.	1.0000	1.0000	7/11/2011 14:20:23	ICS-2000	Unknown
15	G1F210484-2	n.a.	1.0000	1.0000	7/11/2011 14:35:47	ICS-2000	Unknown
16	G1F210484-3	n.a.	1.0000	1.0000	7/11/2011 14:51:12	ICS-2000	Unknown
17	G1F210484-4	n.a.	1.0000	1.0000	7/11/2011 15:06:37	ICS-2000	Unknown
18	G1F210484-5	n.a.	1.0000	1.0000	7/11/2011 15:22:01	ICS-2000	Unknown
19	~~G1F210484-6~~ (do not report)	n.a.	1.0000	1.0000	7/11/2011 15:37:26	ICS-2000	Unknown
20	G1F210484-7	n.a.	1.0000	1.0000	7/11/2011 15:52:50	ICS-2000	Unknown
21	G1F210484-8	n.a.	1.0000	1.0000	7/11/2011 16:08:15	ICS-2000	Unknown
22	G1F210484-9	0.532	1.0000	1.0000	7/11/2011 16:23:40	ICS-2000	Unknown
23	G1F210484-10	n.a.	1.0000	1.0000	7/11/2011 16:39:04	ICS-2000	Unknown
24	CCV 60 PPB %rec 105	63.288	1.0000	1.0000	7/11/2011 16:54:29	ICS-2000	Unknown
25	CCB	0.623	1.0000	1.0000	7/11/2011 17:09.53	ICS-2000	Unknown
26	G1F210484-11 ✓	n.a.	1.0000	1.0000	7/11/2011 17:25:18	ICS-2000	Unknown
27	G1F210484-12 ✓	n.a.	1.0000	1.0000	7/11/2011 17:40:43	ICS-2000	Unknown
28	G1F210484-13 ✓	n.a.	1.0000	1.0000	7/11/2011 17:56:07	ICS-2000	Unknown
29	G1F210484-14 ✓	n.a.	1.0000	1.0000	7/11/2011 18:11:31	ICS-2000	Unknown
30	G1F210484-15	n.a.	1.0000	1.0000	7/11/2011 18:26:55	ICS-2000	Unknown
31	G1F210484-16	n.a.	1.0000	1.0000	7/11/2011 18:42:20	ICS-2000	Unknown
32	G1F210484-1S	52.127	1.0000	1.0000	7/11/2011 18:57:45	ICS-2000	Unknown
33	G1F210484-1D	52.069	1.0000	1.0000	7/11/2011 19:13:10	ICS-2000	Unknown
34	G1F210484-6 5X	n.a.	5.0000	1.0000	7/11/2011 19:28:34	ICS-2000	Unknown
35	CCV 100 PPB %rec 102%	102.367	1.0000	1.0000	7/11/2011 19:43:59	ICS-2000	Unknown
36	CCB	n.a.	1.0000	1.0000	7/11/2011 19:59:23	ICS-2000	Unknown
37	SHUTDOWN	n.a.	1.0000	1.0000	7/11/2011 20:14:48	SHUTDOWN	Unknown
38	BLANK	n.a.	1.0000	1.0000	7/12/2011 09:18:34	ICS-2000	Unknown
39	ICCS 1 PPB	1.397	1.0000	1.0000	7/12/2011 09:34:00	ICS-2000	Unknown
40	ICCS 1 PPB	0.862	1.0000	1.0000	7/12/2011 09:59:32	ICS-2000	Unknown

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Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **A. APANAVAGE** **DATE:** **SEPTEMBER 7, 2011**

FROM: **A. COGNETTI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION - VOC/SVOC/PCB/TPH (GASOLINE & DIESEL)**
GREATER STRAWBERRY POINT MSA
SAMPLE DELIVERY GROUP (SDG) – 240-635-1

SAMPLES: 24/Soil/VOC/SVOC/GRO/DRO

GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-115-18-20
GSP-SB-117-0-2	GSP-SB-117-20-22	GSP-SB-117-6-8
GSP-SB-118-0-2	GSP-SB-118-20-22	GSP-SB-118-6-8
GSP-SB-119-0-2	GSP-SB-119-20-22	GSP-SB-119-6-8
GSP-SB-120-0-2	GSP-SB-120-18-20	GSP-SB-120-6-8
GSP-SB-121-0-3	GSP-SB-121-18-20	GSP-SB-121-6-8
GSP-SB-122-0-2	GSP-SB-122-20-22	GSP-SB-122-6-8
GSP-SB-129-0-2	GSP-SB-129-20-22	GSP-SB-129-6-8

16/Soil/PCB

GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-117-0-2
GSP-SB-117-6-8	GSP-SB-118-0-2	GSP-SB-118-6-8
GSP-SB-119-0-2	GSP-SB-119-6-8	GSP-SB-120-0-2
GSP-SB-120-6-8	GSP-SB-121-0-3	GSP-SB-121-6-8
GSP-SB-122-0-2	GSP-SB-122-6-8	GSP-SB-129-0-2
GSP-SB-129-6-8		

Overview

The sample set for Greater Strawberry Point MSA, SDG 240-635-1 consisted of twenty-four (24) soil environmental samples analyzed for Target Compound List (TCL) volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), total petroleum hydrocarbons (TPH) gasoline and total petroleum hydrocarbons (TPH) diesel. Sixteen (16) environmental soil samples were analyzed for polychlorinated biphenyls (PCBs).

The samples were collected on May 31, 2011 and analyzed by Test America Laboratories Inc. All analyses were conducted in accordance with SW-846 Methods 8260B for VOCs, 8270C for SVOCs, 8015B for TPH (gasoline and diesel), and 8082 for PCBs analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The VOC initial calibration relative response factors (RRFs) for tert-butyl alcohol and vinyl acetate were less than the 0.05 quality control limit on May 13, 2011 on instrument A3UX14 and the continuing calibrations on June 1, 2011 @ 11:38 and June 12, 2011 @ 8:40. The nondetected tert-

butyl alcohol and vinyl acetate results in the affected samples were qualified as rejected (UR).

- The percent recoveries (%Rs) of all SVOC surrogates were less than 10% in sample GSP-SB-119-0-2. The sample was re-extracted outside of the hold time greater than two times the 14 day extraction hold time criteria. The re-extracted sample analysis was used for validation and reporting purposes because of the acceptable surrogate recoveries. All positive and nondetected results were qualified as estimated (L) and rejected (UR), respectively.

- The %R of SVOC surrogate 2,4,6-tribromophenol was 0% in samples GSP-SB-121-6-8 and GSP-SB-120-18-20. The acid fraction positive results were qualified as biased low (L) and the nondetected results rejected (UR) in sample GSP-SB-120-18-20.

- The matrix spike/matrix spike duplicate (MS/MSD) %Rs of several SVOC target analytes were outside quality control limits in sample GSP-SB-115-0-2. The analytes with 0%Rs were 2,4-dinitrophenol, 3,3'-dichlorobenzidine (MS only), 4,6-dinitro-2-methylphenol (MS only), 4-chloro-3-methylphenol (MS only), hexachlorocyclopentadiene, pentachlorophenol, and 4-nitrophenol. The relative percent differences (%RPDs) exceeded quality control limits for several analytes. The analytes with 0%R were qualified as rejected (UR). The MS had %Rs of anthracene, benzo(a)anthracene, chrysene, fluoranthene, fluorene, phenanthrene and pyrene exceeding quality control limits. These analytes also had relative percent differences (RPDs) that exceeded quality control limits. The positive anthracene, benzo(a)anthracene, chrysene, fluoranthene, fluorene, phenanthrene and pyrene results were qualified as biased high (K) in sample GSP-SB-115-0-2. No action was taken on the analytes with only high RPDs. These analytes include 2,4,6-trichlorophenol, 2,4,5-trichlorophenol, 2-methylphenol, acenaphthene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, bis(2-chloroethyl)ether, indeno(1,2,3-cd)pyrene, N-nitrosodiphenylamine and nitrobenzene.

- The %Rs of 2,4-dinitrophenol (MS only) and hexachlorocyclopentadiene (MS/MSD) were 0% in sample GSP-SB-119-6-8. The %R of caprolactam was less than the lower quality control limit in the MS/MSD. The nondetected 2,4-dinitrophenol and hexachlorocyclopentadiene results were qualified as rejected (UR). The nondetected caprolactam result was qualified as biased low (UL). No action was taken on the fluoranthene and pyrene results because of the high RPD. It should be noted that the MS/MSD was analyzed outside of hold time. No action was taken due to this noncompliance.

Minor

- The continuing calibration percent difference (%D) for chloroethane exceeded 50% on June 11, 2011 @ 11:38 on instrument A3UX14. The nondetected chloroethane results were qualified as estimated (UJ) in the affected samples GSP-SB-115-0-2, GSP-SB-115-10-12, GSP-SB-115-18-20, GSP-SB-117-0-2, GSP-SB-117-6-8, GSP-SB-117-20-22, GSP-SB-119-0-2, GSP-SB-119-6-8, GSP-SB-119-20-22, GSP-SB-118-0-2, GSP-SB-121-18-20, GSP-SB-120-0-2 and GSP-SB-121-6-8.

- The continuing calibration %D for carbon disulfide was greater than the 20% quality control limit but less than 50% on June 12, 2011 @ 8:40. The positive carbon disulfide results were qualified as estimated (J) in the affected samples GSP-SB-121-0-3 and GSP-SB-122-20-22.

- The following VOC contaminants were detected in the laboratory method blanks at the following maximum concentrations:

Contaminant	Maximum Concentration (ug/kg)	Action Level (ug/kg)
Acetone [1]	7.93	79.3
Methylene chloride [1]	6.20	62.0
Naphthalene [1]	0.417	2.085
Acetone [2]	8.55	85.5
Methylene chloride [2]	10.9	109.0
Methylene chloride [3]	550	5500
Naphthalene [3]	13.7	68.5

(1) Maximum concentration of contaminants detected in laboratory method blank 240-4446/6 analyzed on June 12, 2011 on instrument A3UX14.
(2) Maximum concentration of contaminants detected in laboratory method blank 240-4426/28 analyzed on June 11, 2011 on instrument A3UX14.
(3) Maximum concentration of contaminants detected in laboratory method blank 240-3928/1-A analyzed on June 11, 2011 on instrument A3UX14.

An action level of ten times the maximum level for the common laboratory contaminants, acetone and methylene chloride, and five times the maximum level for other contaminants has been used to evaluate sample data for blank contamination. Sample aliquot, percent solid and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level reported for the above analytes were qualified (B) as a result of laboratory blank contamination.

- The %Rs of VOC surrogates 1,2-dichloroethane-d4 and toluene-d8 were less than the lower quality control limit in sample GSP-SB-120-0-2. The positive results were qualified as estimated (J) due to conflicting directional bias. The nondetected results were qualified as biased low (UL).

- The %R of VOC surrogate dibromofluoromethane was less than the lower quality control limit in sample GSP-SB-121-6-8. The positive and nondetected results were qualified as estimated (J) and (UJ), respectively.

- The %R of methylene chloride was greater than the upper quality control limit in the laboratory control sample (LCS) associated with batch 240-3928/2-A analyzed on June 11, 2011 on instrument A3UX14. The positive methylene chloride results in the affected samples were qualified due to blank contamination. No further action was taken.

- The following contaminants were detected in the SVOC soil laboratory method blanks at the following concentrations:

Contaminant	Maximum Concentration (ug/kg)	Action Level (ug/kg)
di-n-butyl-phthalate (1)	19.5	195.0
Bis(2-ethylhexyl)phthalate (2)	26.1	261.0

(1) Maximum concentration of contaminant detected in laboratory method blank 240-6980/18-A analyzed on July 14, 2011 on instrument A4HP7.
(2) Maximum concentration of contaminant detected in laboratory method blank 240-3689/1-A analyzed on June 27, 2011 on instrument A4HP9.

An action level of ten times the maximum level for the phthalates has been used to evaluate sample data for blank contamination. Sample aliquot, percent solid and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified (B) as a result of laboratory blank contamination.

- The %Rs of 3,3'-dichlorobenzidine and caprolactam were less than the lower quality control limit in the LCS associated with batch 240-3689/2-A analyzed on June 27, 2011 on instrument A4HP9. The nondetected 3,3'-dichlorobenzidine and caprolactam results were qualified as biased low (UL) in the affected samples.

- The %Rs of all SVOC surrogates were less than the lower quality control limit but greater than 10% in sample GSP-SB-119-6-8. The sample was re-extracted outside of hold time. The original sample analysis was used for validation and reporting purposes because of the large RPD in positive sample results in the re-extracted sample analysis. The positive and nondetected results were qualified as biased low (L) and (UL), respectively.

- The internal standard area of 1,4-dichlorobenzene-d4 and naphthene-d8 were less than the lower quality control limit in sample GSP-SB-121-0-3. The positive and nondetected results in sample GSP-SB-121-0-3 quanitiated using these internal standards were qualified as estimated (J) and (UJ), respectively.

- The TPH as diesel laboratory method blank 240-3872/23-A analyzed on June 14, 2011 contained contaminant.

Contaminant	Maximum Concentration (ug/kg)	Action Level (ug/kg)
TPH as diesel	10.7	53.5

An action level of 5x the maximum concentration of contaminant was used in order to evaluate the affected samples. Positive results less than the action limit were qualified as (B). The affected samples were G-SP-SB-122-20-22, G-SP-SB-129-0-2, G-SP-SB-129-6-8 and G-SP-SB-129-20-22.

- The %R of DRO surrogate n-nonane was 4% in sample GSP-SB-119-20-22. Sample GSP-SB-119-20-22 was re-extracted 3 days outside of 14 day extraction hold time criteria and the surrogate %R was within quality control limits. The re-extracted sample analysis of sample GSP-SB-119-20-22 was used for validation and reporting purposes. The positive DRO results in sample GSP-SB-119-20-22 was

qualified as biased low (L).

- According to the case narrative, sample GSP-SB-119-0-2 positive Aroclor 1260 had poor correlation in the chromatogram with the Aroclor standard. A copy of the chromatogram is included in Appendix C. The lab felt that there was uncertainty in quantifying the positive Aroclor 1260 result. The positive Aroclor 1260 result in sample GSP-SB-96-0-2 was qualified as estimated (J).

- Positive results reported below the quantitation limit but above the method detection limit (MDL) were qualified as estimated, (J).

Notes

Form 1s of the VOC Tentatively Identified Compounds (TICs) are included in this SDG in Appendix B. The most commonly identified TICs were methyl acetate, 1,3,5-trimethylbenzene, 2-methylnaphthalene, 1-methylnaphthalene, cyclopentane, methylcyclohexane,and cyclohexane. No action was taken on these findings. TICS were qualified as (NJ).

The form 1s, EDD and all of the forms from the laboratory within this data package identify the samples as G-SP-SB-XXXX. According to the chain of custody, sample identifications should be GSP-SB-XXX. The EDD was manually corrected by the data validator.

The VOC continuing calibration %Ds for dichlorodifluoromethane, bromoform and 1,2-dibromo-3-chloropropane were greater than 20% but less than 50% on June 11, 2011 @ 11:38 on instrument A3UX14. No action was taken on the nondetected dichlorodifluoromethane, bromoform and 1,2-dibromo-3-chloropropane results in the affected samples.

The VOC continuing calibration %Ds for chloroethane, trichlorofluoromethane, tert-butyl alcohol, bromoform and 1,2-dibromo-3-chloropropane were greater than 20% but less than 50% on June 12, 2011 @ 8:40 on instrument A3UX14. No action was taken on the nondetected chloroethane, trichlorofluoromethane, tert-butyl alcohol, bromoform and 1,2-dibromo-3-chloropropane in the affected samples.

The %R of chloroethane exceeded quality control limits in the LCSs associated with batches 240-4426/6 and 240-4446/5. No action was taken on the nondetected chloroethane results in the affected samples.

The %Rs of 1,2,3-trimethylbenzene, 1,2-dichloropropane, chloroethane, dibromomethane, styrene, and vinyl acetate were outside quality control limits in the matrix spike associated with lab sample 240-699-F-3-A. This sample was not included in this SDG. No action was taken on these noncompliances.

The %Rs of several analytes were outside quality control limits in the matrix spike associated with lab sample 240-699-H-3-A. This sample was not included in this SDG. No action was taken on these noncompliances.

In the SVOC initial calibration of instrument A4HP9 on June 25, 2011, 4,6-dinitro-2-methylphenol had a percent relative standard deviation (%RSD) greater than the 15% quality control limit but less than 50%. No action was taken on the nondetected 4,6-dinitro-2-methylphenol results in the affected samples.

In the SVOC continuing calibration %D for benzaldehyde was greater than the 20% quality control limit but less than 50% on June 28, 2011 @ 16:19 on instrument A4HP9. No action was taken on the nondetected benzaldehyde results in the affected samples.

In the SVOC initial calibration of instrument A4HP9 on July 1, 2011, 4,6-dinitro-2-methylphenol had %RSD greater than the 15% quality control limit but less than 50%. No action was taken on the nondetected 4,6-

dinitro-2-methylphenol results in the affected samples.
In the SVOC initial calibration of instrument A4HP9 on July 14, 2011, 4,6-dinitro-2-methylphenol had %RSD greater than the 15% quality control limit but less than 50%. No action was taken on the nondetected 4,6-dinitro-2-methylphenol results in the affected samples.

In the SVOC initial calibration of instrument A4HP7 on July 6, 2011, benzaldehyde, 4-nitrophenol and butyl benzyl phthalate had %RSDs greater than the 15% quality control limit but less than 50%. No action was taken on the nondetected benzaldehyde, 4-nitrophenol and butyl benzyl phthalate results in the affected samples.

The SVOC continuing calibration %Ds for benzaldehyde was greater than the 20% quality control limit but less than 50% on July 14, 2011 @ 9:03 on instrument A4HP7. No action was taken on the nondetected benzaldehyde results in the affected samples.

The %Rs several target SVOC analytes were less than the lower quality control limit in the LCS associated with batch 240-7865/5-A analyzed on July 14, 2011 on instrument A4HP9. The analytes were 1,1-biphenyl, 2,4,6-trichlorophenol, 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, benzo(a)anthracene, caprolactam, chrysene, hexachlorobutadiene, hexachloroethane, pyrene and 4-nitrophenol. This noncompliance affected the re-extracted sample GSP-SB-119-6-8. No action was taken. The re-extracted sample was not used for reporting and validation purposes.

The matrix spike/matrix spike duplicate %Rs of DRO and relative percent difference (RPD) were greater than the upper quality control limit in sample G-SP-SB-115-0-2. The sample concentration was greater than 4X the spiked DRO concentration. No action was taken.

Naphthalene and hexachlorobutadiene were reported in both the VOC and the SVOC fractions.

Nondetected results were reported to the MDL.

Executive Summary

Laboratory Performance: The VOC RRFs for tert-butyl alcohol and vinyl acetate were less than the quality control limit resulting in the rejection of nondetected results. VOC, SVOC and TPH as diesel results were qualified due to method blank contamination. Continuing calibration verification percent differences exceeded quality control limits in the VOC fraction for chloroethane and carbon disulfide resulting in the qualification data. The %Rs of surrogates were outside quality control limits in the DRO, SVOC and VOC fractions. LCS percent recovery noncompliances were found in the VOC and SVOC fractions. The SVOC internal standard areas for 1,4-dichlorobenzene-d4 and naphthalene-d8 were less than the lower quality control limit in sample GSP-SB-121-0-3.

Other Factors Affecting Data Quality: MS/MSD percent recovery noncompliances were found in samples GSP-SB-115-0-2 and GSP-119-6-8 in the VOC fraction. Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

Ann Cognetti

Tetra Tech NUS
Ann Cognetti
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279	NSAMPLE	GSP-SB-115-0-2			GSP-SB-115-10-12			GSP-SB-115-18-20			GSP-SB-117-0-2		
SDG: 240-635-1	LAB_ID	240-635-1			240-635-2			240-635-3			240-635-4		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	80.7			85.9			82.3			90.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.64	U		0.52	U		0.7	U		0.64	U	
1,1,1-TRICHLOROETHANE		0.58	U		0.47	U		0.63	U		0.58	U	
1,1,2,2-TETRACHLOROETHANE		0.35	U		0.29	U		0.38	U		0.35	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.4	U		1.1	U		1.5	U		1.3	U	
1,1-DICHLOROETHANE		0.37	U		0.3	U		0.4	U		0.37	U	
1,1-DICHLOROETHENE		0.54	U		0.44	U		0.58	U		0.53	U	
1,1-DICHLOROPROPENE		0.31	U		0.25	U		0.34	U		0.31	U	
1,2,3-TRICHLOROBENZENE		0.4	U		0.32	U		0.43	U		0.39	U	
1,2,3-TRICHLOROPROPANE		0.94	U		0.76	U		1	U		0.92	U	
1,2,3-TRIMETHYLBENZENE		0.18	U		0.14	U		0.19	U		0.17	U	
1,2,4-TRICHLOROBENZENE		0.28	U		0.23	U		0.3	U		0.28	U	
1,2,4-TRIMETHYLBENZENE		0.68	U		0.55	U		0.73	U		0.67	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.4	U		1.1	U		1.5	U		1.3	U	
1,2-DIBROMOETHANE		0.52	U		0.42	U		0.56	U		0.51	U	
1,2-DICHLOROBENZENE		0.37	U		0.3	U		0.4	U		0.37	U	
1,2-DICHLOROETHANE		0.35	U		0.29	U		0.38	U		0.35	U	
1,2-DICHLOROPROPANE		0.72	U		0.58	U		0.78	U		0.71	U	
1,3-DICHLOROBENZENE		0.36	U		0.3	U		0.39	U		0.36	U	
1,3-DICHLOROPROPANE		0.35	U		0.29	U		0.38	U		0.35	U	
1,4-DICHLOROBENZENE		0.69	U		0.56	U		0.74	U		0.68	U	
2,2-DICHLOROPROPANE		0.98	U		0.79	U		1.1	U		0.97	U	
2-BUTANONE		1.5	U		1.2	U		1.6	U		1.4	U	
2-CHLOROETHYL VINYL ETHER		1.5	U		1.2	U		1.6	U		1.4	U	
2-CHLOROTOLUENE		0.42	U		0.34	U		0.45	U		0.41	U	
2-HEXANONE		0.66	U		0.53	U		0.71	U		0.65	U	
4-CHLOROTOLUENE		0.43	U		0.35	U		0.46	U		0.42	U	
4-ISOPROPYLTOLUENE		0.22	U		0.18	U		0.24	U		0.22	U	
4-METHYL-2-PENTANONE		0.56	U		0.46	U		0.61	U		0.55	U	
ACETONE		6.6	U		5.3	U		13	B	A	6.5	U	
BENZENE		0.24	U		0.19	U		0.26	U		0.24	U	
BROMOBENZENE		0.34	U		0.28	U		0.37	U		0.34	U	
BROMOCHLOROMETHANE		0.74	U		0.6	U		0.8	U		0.73	U	
BROMODICHLOROMETHANE		0.29	U		0.24	U		0.31	U		0.29	U	
BROMOFORM		0.34	U		0.28	U		0.37	U		0.34	U	
BROMOMETHANE		0.56	U		0.46	U		0.61	U		0.55	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-117-20-22			GSP-SB-117-6-8			GSP-SB-118-0-2			GSP-SB-118-20-22		
SDG: 240-635-1	LAB_ID	240-635-6			240-635-5			240-635-13			240-635-15		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.8			87.5			87.1			80.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.51	U		0.52	U		0.49	U		0.44	U	
1,1,1-TRICHLOROETHANE		0.46	U		0.47	U		0.44	U		0.4	U	
1,1,2,2-TETRACHLOROETHANE		0.28	U		0.28	U		0.27	U		0.24	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.1	U		1.1	U		1	U		0.93	U	
1,1-DICHLOROETHANE		0.29	U		0.3	U		0.28	U		0.26	U	
1,1-DICHLOROETHENE		0.42	U		0.44	U		0.41	U		0.37	U	
1,1-DICHLOROPROPENE		0.24	U		0.25	U		0.23	U		0.21	U	
1,2,3-TRICHLOROBENZENE		0.31	U		0.32	U		0.3	U		0.27	U	
1,2,3-TRICHLOROPROPANE		0.73	U		0.75	U		0.7	U		0.64	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.13	U		0.12	U	
1,2,4-TRICHLOROBENZENE		0.22	U		0.23	U		0.21	U		0.19	U	
1,2,4-TRIMETHYLBENZENE		0.53	U		0.54	U		0.51	U		0.46	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.1	U		1.1	U		1	U		0.93	U	
1,2-DIBROMOETHANE		0.41	U		0.42	U		0.39	U		0.36	U	
1,2-DICHLOROBENZENE		0.29	U		0.3	U		0.28	U		0.26	U	
1,2-DICHLOROETHANE		0.28	U		0.28	U		0.27	U		0.24	U	
1,2-DICHLOROPROPANE		0.56	U		0.58	U		0.54	U		0.49	U	
1,3-DICHLOROBENZENE		0.29	U		0.29	U		0.27	U		0.25	U	
1,3-DICHLOROPROPANE		0.28	U		0.28	U		0.27	U		0.24	U	
1,4-DICHLOROBENZENE		0.54	U		0.55	U		0.52	U		0.47	U	
2,2-DICHLOROPROPANE		0.77	U		0.79	U		0.74	U		0.67	U	
2-BUTANONE		1.1	U		1.2	U		1.1	U		1	U	
2-CHLOROETHYL VINYL ETHER		1.1	U		1.2	U		1.1	U		1	U	
2-CHLOROTOLUENE		0.33	U		0.33	U		0.31	U		0.29	U	
2-HEXANONE		0.51	U		0.53	U		0.49	U		0.45	U	
4-CHLOROTOLUENE		0.33	U		0.34	U		0.32	U		0.29	U	
4-ISOPROPYLTOLUENE		0.17	U		0.18	U		0.16	U		0.15	U	
4-METHYL-2-PENTANONE		0.44	U		0.45	U		0.42	U		0.39	U	
ACETONE		5.1	U		5.3	U		4.9	U		10	B	A
BENZENE		0.19	U		0.19	U		0.18	U		0.5	J	P
BROMOBENZENE		0.27	U		0.28	U		0.26	U		0.24	U	
BROMOCHLOROMETHANE		0.58	U		0.59	U		0.56	U		0.51	U	
BROMODICHLOROMETHANE		0.23	U		0.23	U		0.22	U		0.2	U	
BROMOFORM		0.27	U		0.28	U		0.26	U		0.24	U	
BROMOMETHANE		0.44	U		0.45	U		0.42	U		0.39	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-118-6-8			GSP-SB-119-0-2			GSP-SB-119-20-22			GSP-SB-119-6-8		
SDG: 240-635-1	LAB_ID	240-635-14			240-635-7			240-635-9			240-635-8		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.4			88.8			84.3			88.8		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.42	U		0.57	U		0.54	U		0.55	U	
1,1,1-TRICHLOROETHANE	0.38	U		0.51	U		0.49	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.23	U		0.31	U		0.3	U		0.3	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.88	U		1.2	U		1.1	U		1.2	U	
1,1-DICHLOROETHANE	0.24	U		0.33	U		0.32	U		0.32	U	
1,1-DICHLOROETHENE	0.35	U		0.48	U		0.46	U		0.47	U	
1,1-DICHLOROPROPENE	0.2	U		0.27	U		0.26	U		0.27	U	
1,2,3-TRICHLOROBENZENE	0.26	U		0.35	U		0.36	J	P	0.34	U	
1,2,3-TRICHLOROPROPANE	0.61	U		0.82	U		0.79	U		0.81	U	
1,2,3-TRIMETHYLBENZENE	0.12	U		0.16	U		0.78	J	P	0.15	U	
1,2,4-TRICHLOROBENZENE	0.18	U		4.2	J	P	11			0.24	U	
1,2,4-TRIMETHYLBENZENE	0.44	U		0.6	U		1.2	J	P	0.58	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.88	U		1.2	U		1.1	U		1.2	U	
1,2-DIBROMOETHANE	0.34	U		0.46	U		0.44	U		0.45	U	
1,2-DICHLOROBENZENE	0.24	U		0.35	J	P	0.32	U		0.32	U	
1,2-DICHLOROETHANE	0.23	U		0.31	U		0.3	U		0.3	U	
1,2-DICHLOROPROPANE	0.47	U		0.63	U		0.61	U		0.62	U	
1,3-DICHLOROBENZENE	0.24	U		6.6			10			0.31	U	
1,3-DICHLOROPROPANE	0.23	U		0.31	U		0.3	U		0.3	U	
1,4-DICHLOROBENZENE	0.45	U		0.6	U		0.61	J	P	0.59	U	
2,2-DICHLOROPROPANE	0.64	U		0.86	U		0.83	U		0.84	U	
2-BUTANONE	0.95	U		1.3	U		11	J	P	1.3	U	
2-CHLOROETHYL VINYL ETHER	0.95	U		1.3	U		1.2	U		1.3	U	
2-CHLOROTOLUENE	0.27	U		0.37	U		0.35	U		0.36	U	
2-HEXANONE	0.43	U		0.58	U		0.55	U		0.56	U	
4-CHLOROTOLUENE	0.28	U		0.38	U		0.36	U		0.37	U	
4-ISOPROPYLTOLUENE	0.14	U		0.19	U		0.18	U		0.19	U	
4-METHYL-2-PENTANONE	0.37	U		0.49	U		0.47	U		0.48	U	
ACETONE	4.3	U		22	B	A	52	B	A	5.6	U	
BENZENE	0.16	U		0.21	U		0.2	U		0.21	U	
BROMOBENZENE	0.22	U		0.3	U		0.29	U		0.3	U	
BROMOCHLOROMETHANE	0.48	U		0.65	U		0.62	U		0.64	U	
BROMODICHLOROMETHANE	0.19	U		0.26	U		0.25	U		0.25	U	
BROMOFORM	0.22	U		0.3	U		0.29	U		0.3	U	
BROMOMETHANE	0.37	U		0.49	U		0.47	U		0.48	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-120-0-2			GSP-SB-120-18-20			GSP-SB-120-6-8			GSP-SB-121-0-3		
SDG: 240-635-1	LAB_ID	240-635-19			240-635-21			240-635-20			240-635-16		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.9			81.0			91.8			86.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.6	UL	R	0.59	U		11	U		0.62	U	
1,1,1-TRICHLOROETHANE		0.55	UL	R	0.53	U		24	U		0.56	U	
1,1,2,2-TETRACHLOROETHANE		0.33	UL	R	0.32	U		10	U		0.34	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.3	UL	R	1.2	U		45	U		1.3	U	
1,1-DICHLOROETHANE		0.35	UL	R	0.34	U		20	U		0.36	U	
1,1-DICHLOROETHENE		0.51	UL	R	0.49	U		21	U		0.52	U	
1,1-DICHLOROPROPENE		0.29	UL	R	0.29	U		12	U		0.3	U	
1,2,3-TRICHLOROBENZENE		0.37	UL	R	0.36	U		12	U		0.38	U	
1,2,3-TRICHLOROPROPANE		0.88	UL	R	0.86	U		24	U		0.89	U	
1,2,3-TRIMETHYLBENZENE		0.17	UL	R	0.26	J	P	0.2	U		0.41	J	P
1,2,4-TRICHLOROBENZENE		0.26	UL	R	0.26	U		8.4	U		0.27	U	
1,2,4-TRIMETHYLBENZENE		0.63	UL	R	0.62	U		8.2	J	P	0.65	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.3	UL	R	1.2	U		58	U		1.3	U	
1,2-DIBROMOETHANE		0.49	UL	R	0.48	U		12	U		0.5	U	
1,2-DICHLOROBENZENE		0.35	UL	R	0.34	U		9.9	U		0.36	U	
1,2-DICHLOROETHANE		0.33	UL	R	0.32	U		12	U		0.34	U	
1,2-DICHLOROPROPANE		0.67	UL	R	0.66	U		9.5	U		0.69	U	
1,3-DICHLOROBENZENE		0.34	UL	R	0.33	U		5.5	U		0.35	U	
1,3-DICHLOROPROPANE		0.33	UL	R	0.32	U		25	U		0.34	U	
1,4-DICHLOROBENZENE		0.64	UL	R	0.63	U		9.2	U		0.66	U	
2,2-DICHLOROPROPANE		0.92	UL	R	0.89	U		27	U		0.93	U	
2-BUTANONE		1.4	UL	R	1.3	U		50	U		1.4	U	
2-CHLOROETHYL VINYL ETHER		1.4	UL	R	1.3	U		50	U		1.4	U	
2-CHLOROTOLUENE		0.39	UL	R	0.38	U		10	U		0.4	U	
2-HEXANONE		0.61	UL	R	0.6	U		23	U		0.63	U	
4-CHLOROTOLUENE		0.4	UL	R	0.39	U		11	U		0.41	U	
4-ISOPROPYLTOLUENE		0.2	UL	R	0.2	U		5.5	U		0.21	U	
4-METHYL-2-PENTANONE		0.53	UL	R	0.51	U		55	U		0.54	U	
ACETONE		6.1	UL	R	17	B	A	200	U		37	B	A
BENZENE		0.22	UL	R	0.22	U		14	U		0.23	U	
BROMOBENZENE		0.32	UL	R	0.31	U		15	U		0.33	U	
BROMOCHLOROMETHANE		0.69	UL	R	0.67	U		15	U		0.71	U	
BROMODICHLOROMETHANE		0.27	UL	R	0.27	U		11	U		0.28	U	
BROMOFORM		0.32	UL	R	0.31	U		22	U		0.33	U	
BROMOMETHANE		0.53	UL	R	0.51	U		33	U		0.54	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-121-18-20			GSP-SB-121-6-8			GSP-SB-122-0-2			GSP-SB-122-20-22		
SDG: 240-635-1	LAB_ID	240-635-18			240-635-17			240-635-22			240-635-24		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.9			86.7			93.2			77.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.36	U		6.5	UJ	R	0.59	U		0.67	U	
1,1,1-TRICHLOROETHANE		0.32	U		15	UJ	R	0.53	U		0.61	U	
1,1,2,2-TETRACHLOROETHANE		0.2	U		6.4	UJ	R	0.32	U		0.37	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.75	U		28	UJ	R	1.2	U		1.4	U	
1,1-DICHLOROETHANE		0.21	U		12	UJ	R	0.34	U		0.39	U	
1,1-DICHLOROETHENE		0.3	U		13	UJ	R	0.49	U		0.56	U	
1,1-DICHLOROPROPENE		0.17	U		7.2	UJ	R	0.28	U		0.32	U	
1,2,3-TRICHLOROBENZENE		0.22	U		7.2	UJ	R	0.36	U		0.41	U	
1,2,3-TRICHLOROPROPANE		0.52	U		15	UJ	R	0.85	U		0.97	U	
1,2,3-TRIMETHYLBENZENE		0.1	J	P	0.12	UJ	R	0.16	U		0.18	U	
1,2,4-TRICHLOROBENZENE		0.16	U		5.2	UJ	R	0.26	U		0.29	U	
1,2,4-TRIMETHYLBENZENE		0.37	U		9.4	J	PR	0.62	U		0.7	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.75	U		36	UJ	R	1.2	U		1.4	U	
1,2-DIBROMOETHANE		0.29	U		7.2	UJ	R	0.47	U		0.54	U	
1,2-DICHLOROBENZENE		0.21	U		6.2	UJ	R	0.34	U		0.39	U	
1,2-DICHLOROETHANE		0.2	U		7.2	UJ	R	0.32	U		0.37	U	
1,2-DICHLOROPROPANE		0.4	U		5.9	UJ	R	0.66	U		0.75	U	
1,3-DICHLOROBENZENE		0.2	U		3.4	UJ	R	0.33	U		0.38	U	
1,3-DICHLOROPROPANE		0.2	U		16	UJ	R	0.32	U		0.37	U	
1,4-DICHLOROBENZENE		0.38	U		5.7	UJ	R	0.63	U		0.71	U	
2,2-DICHLOROPROPANE		0.54	U		16	UJ	R	0.89	U		1	U	
2-BUTANONE		0.81	U		31	UJ	R	1.3	U		1.5	U	
2-CHLOROETHYL VINYL ETHER		0.81	U		31	UJ	R	1.3	U		1.5	U	
2-CHLOROTOLUENE		0.23	U		6.4	UJ	R	0.38	U		0.43	U	
2-HEXANONE		0.36	U		14	UJ	R	0.6	U		0.68	U	
4-CHLOROTOLUENE		0.24	U		7.1	UJ	R	0.39	U		0.44	U	
4-ISOPROPYLTOLUENE		1.3	J	P	3.4	UJ	R	0.2	U		0.23	U	
4-METHYL-2-PENTANONE		0.31	U		34	UJ	R	0.51	U		0.58	U	
ACETONE		14	B	A	220	J	PR	6	U		25	B	A
BENZENE		0.45	J	P	8.6	UJ	R	0.22	U		0.25	U	
BROMOBENZENE		0.19	U		9.3	UJ	R	0.31	U		0.36	U	
BROMOCHLOROMETHANE		0.41	U		9.3	UJ	R	0.67	U		0.77	U	
BROMODICHLOROMETHANE		0.16	U		7.1	UJ	R	0.27	U		0.3	U	
BROMOFORM		0.19	U		14	UJ	R	0.31	U		0.36	U	
BROMOMETHANE		0.31	U		21	UJ	R	0.51	U		0.58	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-122-6-8			GSP-SB-129-0-2			GSP-SB-129-20-22			GSP-SB-129-6-8		
SDG: 240-635-1	LAB_ID	240-635-23			240-635-25			240-635-27			240-635-26		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	88.4			87.1			83.0			84.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.56	U		0.68	U		0.59	U		0.59	U	
1,1,1-TRICHLOROETHANE		0.51	U		0.62	U		0.53	U		0.53	U	
1,1,2,2-TETRACHLOROETHANE		0.31	U		0.37	U		0.32	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.2	U		1.4	U		1.2	U		1.2	U	
1,1-DICHLOROETHANE		0.33	U		0.4	U		0.34	U		0.34	U	
1,1-DICHLOROETHENE		0.47	U		0.57	U		0.49	U		0.49	U	
1,1-DICHLOROPROPENE		0.27	U		0.33	U		0.29	U		0.28	U	
1,2,3-TRICHLOROBENZENE		0.34	U		0.42	U		0.36	U		0.36	U	
1,2,3-TRICHLOROPROPANE		0.81	U		0.99	U		0.86	U		0.85	U	
1,2,3-TRIMETHYLBENZENE		0.15	U		0.19	U		0.16	U		0.16	U	
1,2,4-TRICHLOROBENZENE		0.24	U		0.3	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.59	U		0.71	U		0.62	U		0.62	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.2	U		1.4	U		1.2	U		1.2	U	
1,2-DIBROMOETHANE		0.45	U		0.55	U		0.48	U		0.47	U	
1,2-DICHLOROBENZENE		0.33	U		0.4	U		0.34	U		0.34	U	
1,2-DICHLOROETHANE		0.31	U		0.37	U		0.32	U		0.32	U	
1,2-DICHLOROPROPANE		0.62	U		0.76	U		0.66	U		0.65	U	
1,3-DICHLOROBENZENE		0.32	U		0.38	U		0.33	U		0.33	U	
1,3-DICHLOROPROPANE		0.31	U		0.37	U		0.32	U		0.32	U	
1,4-DICHLOROBENZENE		0.6	U		0.73	U		0.63	U		0.63	U	
2,2-DICHLOROPROPANE		0.85	U		1	U		0.89	U		0.89	U	
2-BUTANONE		1.3	U		1.5	U		1.3	U		1.3	U	
2-CHLOROETHYL VINYL ETHER		1.3	U		1.5	U		1.3	U		1.3	U	
2-CHLOROTOLUENE		0.36	U		0.44	U		0.38	U		0.38	U	
2-HEXANONE		0.57	U		0.69	U		0.6	U		0.6	U	
4-CHLOROTOLUENE		0.37	U		0.45	U		0.39	U		0.39	U	
4-ISOPROPYLTOLUENE		0.19	U		0.23	U		0.2	U		0.2	U	
4-METHYL-2-PENTANONE		0.49	U		0.59	U		0.51	U		0.51	U	
ACETONE		63	B	A	6.9	U		7.2	B	A	6.5	B	A
BENZENE		0.21	U		0.25	U		0.22	U		0.22	U	
BROMOBENZENE		0.3	U		0.36	U		0.31	U		0.31	U	
BROMOCHLOROMETHANE		0.64	U		0.78	U		0.67	U		0.67	U	
BROMODICHLOROMETHANE		0.25	U		0.31	U		0.27	U		0.27	U	
BROMOFORM		0.3	U		0.36	U		0.31	U		0.31	U	
BROMOMETHANE		0.49	U		0.59	U		0.51	U		0.51	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-115-0-2			GSP-SB-115-10-12			GSP-SB-115-18-20			GSP-SB-117-0-2		
SDG: 240-635-1	LAB_ID	240-635-1			240-635-2			240-635-3			240-635-4		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	80.7			85.9			82.3			90.6		
	DUP_OF												

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE	0.46	U		0.37	U		1.1	J	P	0.45	U	
CARBON TETRACHLORIDE	0.38	U		0.31	U		0.42	U		0.38	U	
CHLOROBENZENE	0.34	U		0.28	U		0.37	U		0.34	U	
CHLORODIBROMOMETHANE	0.57	U		0.46	U		0.62	U		0.56	U	
CHLOROETHANE	0.89	UJ	C	0.73	UJ	C	0.97	UJ	C	0.88	UJ	C
CHLOROFORM	0.3	U		0.24	U		0.33	U		0.3	U	
CHLOROMETHANE	0.43	U		0.35	U		0.46	U		0.42	U	
CIS-1,2-DICHLOROETHENE	0.37	U		0.3	U		2	J	P	0.37	U	
CIS-1,3-DICHLOROPROPENE	0.35	U		0.29	U		0.38	U		0.35	U	
DIBROMOMETHANE	0.66	U		0.53	U		0.71	U		0.65	U	
DICHLORODIFLUOROMETHANE	0.52	U		0.42	U		0.56	U		0.51	U	
DIISOPROPYL ETHER	1.6	U		1.3	U		1.7	U		1.5	U	
ETHYL TERT-BUTYL ETHER	0.23	U		0.19	U		0.25	U		0.23	U	
ETHYLBENZENE	0.27	U		0.22	U		0.29	U		0.27	U	
HEXACHLOROBUTADIENE	1.2	U		1	U		1.3	U		1.2	U	
ISOPROPYLBENZENE	0.17	U		0.14	U		0.18	U		0.16	U	
M+P-XYLENES	1.2	U		1	U		1.3	U		1.2	U	
METHYL TERT-BUTYL ETHER	0.45	U		0.36	U		0.48	U		0.44	U	
METHYLENE CHLORIDE	2.4	B	A	2	B	A	2.5	B	A	2.1	B	A
NAPHTHALENE	0.2	U		0.16	U		0.21	U		0.2	U	
N-BUTYLBENZENE	0.24	U		0.19	U		0.26	U		0.24	U	
N-PROPYLBENZENE	0.42	U		0.34	U		0.45	U		0.41	U	
O-XYLENE	0.36	U		0.3	U		0.39	U		0.36	U	
SEC-BUTYLBENZENE	0.19	U		0.15	U		0.2	U		0.18	U	
STYRENE	0.16	U		0.13	U		0.17	U		0.15	U	
TERT-AMYL METHYL ETHER	0.38	U		0.31	U		0.42	U		0.38	U	
TERT-BUTYLBENZENE	0.3	U		0.24	U		0.33	U		0.3	U	
TERTIARY-BUTYL ALCOHOL	7.9	UR	C	6.4	UR	C	8.5	UR	C	7.8	UR	C
TETRACHLOROETHENE	0.54	U		0.44	U		0.58	U		0.53	U	
TOLUENE	0.28	U		0.23	U		0.3	U		0.28	U	
TOTAL XYLENES	0.7	U		0.57	U		0.75	U		0.69	U	
TRANS-1,2-DICHLOROETHENE	0.43	U		0.35	U		0.46	U		0.42	U	
TRANS-1,3-DICHLOROPROPENE	0.56	U		0.46	U		0.61	U		0.55	U	
TRICHLOROETHENE	0.44	U		0.35	U		32			0.43	U	
TRICHLOROFLUOROMETHANE	0.35	U		0.29	U		0.38	U		0.35	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-117-20-22			GSP-SB-117-6-8			GSP-SB-118-0-2			GSP-SB-118-20-22		
SDG: 240-635-1	LAB_ID	240-635-6			240-635-5			240-635-13			240-635-15		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.8			87.5			87.1			80.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.36	U		0.56	J	P	0.34	U		0.31	U	
CARBON TETRACHLORIDE		0.3	U		0.31	U		0.29	U		0.26	U	
CHLOROBENZENE		0.27	U		0.28	U		0.26	U		0.24	U	
CHLORODIBROMOMETHANE		0.45	U		0.46	U		0.43	U		0.39	U	
CHLOROETHANE		0.7	UJ	C	0.72	UJ	C	0.67	UJ	C	0.61	U	
CHLOROFORM		0.24	U		0.24	U		0.23	U		0.21	U	
CHLOROMETHANE		0.33	U		0.34	U		0.32	U		0.29	U	
CIS-1,2-DICHLOROETHENE		0.29	U		0.3	U		0.28	U		4.2		
CIS-1,3-DICHLOROPROPENE		0.28	U		0.28	U		0.27	U		0.24	U	
DIBROMOMETHANE		0.51	U		0.53	U		0.49	U		0.45	U	
DICHLORODIFLUOROMETHANE		0.41	U		0.42	U		0.39	U		0.36	U	
DIISOPROPYL ETHER		1.2	U		1.3	U		1.2	U		1.1	U	
ETHYL TERT-BUTYL ETHER		0.18	U		0.18	U		0.17	U		0.16	U	
ETHYLBENZENE		0.21	U		0.22	U		0.2	U		0.19	U	
HEXACHLOROBUTADIENE		0.98	U		1	U		0.94	U		0.86	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.13	U		0.11	U	
M+P-XYLENES		0.98	U		1	U		0.94	U		0.86	U	
METHYL TERT-BUTYL ETHER		0.35	U		0.36	U		0.34	U		0.31	U	
METHYLENE CHLORIDE		2.2	B	A	1.8	B	A	2.2	B	A	2.2	B	A
NAPHTHALENE		0.15	U		0.16	U		0.15	U		0.14	U	
N-BUTYLBENZENE		0.19	U		0.19	U		0.18	U		0.16	U	
N-PROPYLBENZENE		0.33	U		0.33	U		0.31	U		0.29	U	
O-XYLENE		0.29	U		0.29	U		0.27	U		0.25	U	
SEC-BUTYLBENZENE		0.15	U		0.15	U		0.14	U		0.13	U	
STYRENE		0.12	U		0.13	U		0.12	U		0.11	U	
TERT-AMYL METHYL ETHER		0.3	U		0.31	U		0.29	U		0.26	U	
TERT-BUTYLBENZENE		0.24	U		0.24	U		0.23	U		0.21	U	
TERTIARY-BUTYL ALCOHOL		6.2	UR	C	6.4	UR	C	6	UR	C	5.4	UR	C
TETRACHLOROETHENE		0.42	U		0.44	U		0.41	U		0.37	U	
TOLUENE		0.22	U		0.23	U		0.21	U		0.19	U	
TOTAL XYLENES		0.55	U		0.56	U		0.52	U		0.48	U	
TRANS-1,2-DICHLOROETHENE		0.33	U		0.34	U		0.32	U		0.29	U	
TRANS-1,3-DICHLOROPROPENE		0.44	U		0.45	U		0.42	U		0.39	U	
TRICHLOROETHENE		1.4	J	P	0.35	U		0.33	U		2.5	J	P
TRICHLOROFLUOROMETHANE		0.28	U		0.28	U		0.27	U		0.24	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-118-6-8			GSP-SB-119-0-2			GSP-SB-119-20-22			GSP-SB-119-6-8		
SDG: 240-635-1	LAB_ID	240-635-14			240-635-7			240-635-9			240-635-8		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.4			88.8			84.3			88.8		
	DUP_OF												

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE	0.3	U		0.4	U		1.8	J	P	0.39	U	
CARBON TETRACHLORIDE	0.25	U		0.34	U		0.32	U		0.33	U	
CHLOROBENZENE	0.22	U		0.36	J	P	0.29	U		0.3	U	
CHLORODIBROMOMETHANE	0.37	U		0.5	U		0.48	U		0.49	U	
CHLOROETHANE	0.58	U		0.79	UJ	C	0.75	UJ	C	0.77	UJ	C
CHLOROFORM	0.2	U		0.27	U		0.25	U		0.26	U	
CHLOROMETHANE	0.28	U		0.38	U		0.36	U		0.37	U	
CIS-1,2-DICHLOROETHENE	0.24	U		0.33	U		0.49	J	P	2.2	J	P
CIS-1,3-DICHLOROPROPENE	0.23	U		0.31	U		0.3	U		0.3	U	
DIBROMOMETHANE	0.43	U		0.58	U		0.55	U		0.56	U	
DICHLORODIFLUOROMETHANE	0.34	U		0.46	U		0.44	U		0.45	U	
DIISOPROPYL ETHER	1	U		1.4	U		1.3	U		1.3	U	
ETHYL TERT-BUTYL ETHER	0.15	U		0.2	U		0.19	U		0.2	U	
ETHYLBENZENE	0.18	U		0.24	U		0.24	J	P	0.23	U	
HEXACHLOROBUTADIENE	0.81	U		1.1	U		1.1	U		1.1	U	
ISOPROPYLBENZENE	0.11	U		0.15	U		0.14	U		0.14	U	
M+P-XYLENES	0.81	U		1.1	U		1.1	U		1.1	U	
METHYL TERT-BUTYL ETHER	0.29	U		0.39	U		0.38	U		0.38	U	
METHYLENE CHLORIDE	1.7	B	A	2.2	B	A	2.7	B	A	2.1	B	A
NAPHTHALENE	0.13	U		0.17	U		11			0.17	U	
N-BUTYLBENZENE	0.16	U		0.21	U		0.2	U		0.21	U	
N-PROPYLBENZENE	0.27	U		0.37	U		0.35	U		0.36	U	
O-XYLENE	0.24	U		0.32	U		0.42	J	P	0.31	U	
SEC-BUTYLBENZENE	0.12	U		0.16	U		0.16	U		0.16	U	
STYRENE	0.1	U		0.14	U		0.13	U		0.13	U	
TERT-AMYL METHYL ETHER	0.25	U		0.34	U		0.32	U		0.33	U	
TERT-BUTYLBENZENE	0.2	U		0.27	U		0.25	U		0.26	U	
TERTIARY-BUTYL ALCOHOL	5.1	UR	C	7	UR	C	6.7	UR	C	6.8	UR	C
TETRACHLOROETHENE	0.35	U		0.48	U		0.46	U		0.47	U	
TOLUENE	0.18	U		0.25	U		0.57	J	P	0.24	U	
TOTAL XYLENES	0.45	U		0.61	U		0.59	U		0.6	U	
TRANS-1,2-DICHLOROETHENE	0.28	U		0.38	U		0.36	U		0.37	U	
TRANS-1,3-DICHLOROPROPENE	0.37	U		0.49	U		0.47	U		0.48	U	
TRICHLOROETHENE	0.28	U		0.38	U		0.89	J	P	3.8	J	P
TRICHLOROFLUOROMETHANE	0.23	U		0.31	U		0.3	U		0.3	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-120-0-2			GSP-SB-120-18-20			GSP-SB-120-6-8			GSP-SB-121-0-3		
SDG: 240-635-1	LAB_ID	240-635-19			240-635-21			240-635-20			240-635-16		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.9			81.0			91.8			86.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.43	UL	R	0.42	U		14	U		1.9	J	CP
CARBON TETRACHLORIDE		0.36	UL	R	0.35	U		7.4	U		0.37	U	
CHLOROBENZENE		0.32	UL	R	0.31	U		7.4	U		0.33	U	
CHLORODIBROMOMETHANE		0.54	UL	R	0.52	U		14	U		0.55	U	
CHLOROETHANE		0.84	UJ	CR	0.82	U		70	U		0.85	U	
CHLOROFORM		0.28	UL	R	0.28	U		10	U		0.29	U	
CHLOROMETHANE		0.4	UL	R	0.39	U		16	U		0.41	U	
CIS-1,2-DICHLOROETHENE		0.35	UL	R	0.34	U		8	U		0.36	U	
CIS-1,3-DICHLOROPROPENE		0.33	UL	R	0.32	U		9.1	U		0.34	U	
DIBROMOMETHANE		0.61	UL	R	0.6	U		16	U		0.63	U	
DICHLORODIFLUOROMETHANE		0.49	UL	R	0.48	U		18	U		0.5	U	
DIISOPROPYL ETHER		1.5	UL	R	1.4	U		58	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.21	UL	R	0.21	U		0.25	U		0.22	U	
ETHYLBENZENE		0.25	UL	R	0.4	J	P	6.2	U		0.31	J	P
HEXACHLOROBUTADIENE		1.2	UL	R	1.1	U		16	U		1.2	U	
ISOPROPYLBENZENE		0.16	UL	R	0.15	U		7.5	U		0.16	U	
M+P-XYLENES		1.2	UL	R	1.1	U		15	J	P	1.2	U	
METHYL TERT-BUTYL ETHER		0.42	UL	R	0.41	U		8.2	U		0.43	U	
METHYLENE CHLORIDE		3.3	B	A	2.9	B	A	400	B	A	3.4	B	A
NAPHTHALENE		0.76	J	PR	38			1200			32		
N-BUTYLBENZENE		0.22	UL	R	0.22	U		9.2	U		0.23	U	
N-PROPYLBENZENE		0.39	UL	R	0.38	U		16	U		0.4	U	
O-XYLENE		0.34	UL	R	0.65	J	P	9.8	U		0.5	J	P
SEC-BUTYLBENZENE		0.18	UL	R	0.17	U		5.4	U		0.18	U	
STYRENE		0.15	UL	R	0.17	J	P	6.5	U		0.15	U	
TERT-AMYL METHYL ETHER		0.36	UL	R	0.35	U		0.43	U		0.37	U	
TERT-BUTYLBENZENE		0.28	UL	R	0.28	U		7.5	U		0.29	U	
TERTIARY-BUTYL ALCOHOL		7.4	UR	C	7.2	UR	C	280	UR	C	7.6	UR	C
TETRACHLOROETHENE		0.51	UL	R	0.49	U		14	U		0.52	U	
TOLUENE		0.26	UL	R	0.5	J	P	20	U		0.29	J	P
TOTAL XYLENES		0.65	UL	R	0.65	J	P	15	J	P	0.67	U	
TRANS-1,2-DICHLOROETHENE		0.4	UL	R	0.39	U		11	U		0.41	U	
TRANS-1,3-DICHLOROPROPENE		0.53	UL	R	0.51	U		23	U		0.54	U	
TRICHLOROETHENE		0.41	UL	R	0.4	U		11	U		0.42	U	
TRICHLOROFLUOROMETHANE		0.33	UL	R	0.32	U		18	U		0.34	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-121-18-20			GSP-SB-121-6-8			GSP-SB-122-0-2			GSP-SB-122-20-22		
SDG: 240-635-1	LAB_ID	240-635-18			240-635-17			240-635-22			240-635-24		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.9			86.7			93.2			77.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.25	U		8.6	UJ	R	0.42	U		0.55	J	CP
CARBON TETRACHLORIDE		0.21	U		4.6	UJ	R	0.35	U		0.4	U	
CHLOROBENZENE		0.19	U		4.6	UJ	R	0.31	U		0.36	U	
CHLORODIBROMOMETHANE		0.32	U		8.6	UJ	R	0.52	U		0.6	U	
CHLOROETHANE		0.49	UJ	C	44	UJ	CR	0.82	U		0.93	U	
CHLOROFORM		0.17	U		6.3	UJ	R	0.28	U		0.31	U	
CHLOROMETHANE		0.24	U		10	UJ	R	0.39	U		0.44	U	
CIS-1,2-DICHLOROETHENE		0.21	U		4.9	UJ	R	0.34	U		0.39	U	
CIS-1,3-DICHLOROPROPENE		0.2	U		5.7	UJ	R	0.32	U		0.37	U	
DIBROMOMETHANE		0.36	U		10	UJ	R	0.6	U		0.68	U	
DICHLORODIFLUOROMETHANE		0.29	U		11	UJ	R	0.47	U		0.54	U	
DIISOPROPYL ETHER		0.86	U		36	UJ	R	1.4	U		1.6	U	
ETHYL TERT-BUTYL ETHER		0.13	U		0.16	UJ	R	0.21	U		0.24	U	
ETHYLBENZENE		0.53	J	P	4.4	J	PR	0.25	U		0.28	U	
HEXACHLOROBUTADIENE		0.69	U		10	UJ	R	1.1	U		1.3	U	
ISOPROPYLBENZENE		0.092	U		4.7	UJ	R	0.15	U		0.17	U	
M+P-XYLENES		0.69	U		14	J	PR	1.1	U		1.3	U	
METHYL TERT-BUTYL ETHER		0.25	U		5.1	UJ	R	0.41	U		0.47	U	
METHYLENE CHLORIDE		1.5	B	A	420	B	A	3.2	B	A	3.8	B	A
NAPHTHALENE		31			1700	J	R	0.53	B	A	2.5	B	A
N-BUTYLBENZENE		0.13	U		5.7	UJ	R	0.22	U		0.25	U	
N-PROPYLBENZENE		0.23	U		10	UJ	R	0.38	U		0.43	U	
O-XYLENE		0.36	J	P	6.4	J	PR	0.33	U		0.38	U	
SEC-BUTYLBENZENE		0.1	U		3.4	UJ	R	0.17	U		0.19	U	
STYRENE		0.086	U		4	UJ	R	0.14	U		0.16	U	
TERT-AMYL METHYL ETHER		0.21	U		0.26	UJ	R	0.35	U		0.4	U	
TERT-BUTYLBENZENE		0.17	U		4.7	UJ	R	0.28	U		0.31	U	
TERTIARY-BUTYL ALCOHOL		4.4	UR	C	170	UR	C	7.2	UR	C	8.2	UR	C
TETRACHLOROETHENE		0.3	U		8.6	UJ	R	0.49	U		0.56	U	
TOLUENE		1	J	P	12	UJ	R	0.26	U		0.29	U	
TOTAL XYLENES		0.39	U		20	J	PR	0.64	U		0.73	U	
TRANS-1,2-DICHLOROETHENE		0.24	U		6.6	UJ	R	0.39	U		0.44	U	
TRANS-1,3-DICHLOROPROPENE		0.31	U		14	UJ	R	0.51	U		0.58	U	
TRICHLOROETHENE		0.24	U		6.9	UJ	R	0.4	U		0.45	U	
TRICHLOROFLUOROMETHANE		0.2	U		11	UJ	R	0.32	U		0.37	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-122-6-8			GSP-SB-129-0-2			GSP-SB-129-20-22			GSP-SB-129-6-8		
SDG: 240-635-1	LAB_ID	240-635-23			240-635-25			240-635-27			240-635-26		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	88.4			87.1			83.0			84.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.4	U		0.48	U		0.42	U		0.42	U	
CARBON TETRACHLORIDE		0.33	U		0.41	U		0.35	U		0.35	U	
CHLOROBENZENE		0.3	U		0.36	U		0.31	U		0.31	U	
CHLORODIBROMOMETHANE		0.5	U		0.6	U		0.52	U		0.52	U	
CHLOROETHANE		0.78	U		0.95	U		0.82	U		0.82	U	
CHLOROFORM		0.26	U		0.32	U		0.28	U		0.27	U	
CHLOROMETHANE		0.37	U		0.45	U		0.39	U		0.39	U	
CIS-1,2-DICHLOROETHENE		0.33	U		0.4	U		0.34	U		0.34	U	
CIS-1,3-DICHLOROPROPENE		0.31	U		0.37	U		0.32	U		0.32	U	
DIBROMOMETHANE		0.57	U		0.69	U		0.6	U		0.6	U	
DICHLORODIFLUOROMETHANE		0.45	U		0.55	U		0.48	U		0.47	U	
DIISOPROPYL ETHER		1.4	U		1.6	U		1.4	U		1.4	U	
ETHYL TERT-BUTYL ETHER		0.2	U		0.24	U		0.21	U		0.21	U	
ETHYLBENZENE		0.24	U		0.29	U		0.25	U		0.25	U	
HEXACHLOROBUTADIENE		1.1	U		1.3	U		1.1	U		1.1	U	
ISOPROPYLBENZENE		0.14	U		0.18	U		0.15	U		0.15	U	
M+P-XYLENES		1.1	U		1.3	U		1.1	U		1.1	U	
METHYL TERT-BUTYL ETHER		0.39	U		0.47	U		0.41	U		0.41	U	
METHYLENE CHLORIDE		3.8	B	A	4.4	B	A	3.1	B	A	3.2	B	A
NAPHTHALENE		0.17	U		0.21	U		0.18	U		0.18	U	
N-BUTYLBENZENE		0.21	U		0.25	U		0.22	U		0.22	U	
N-PROPYLBENZENE		0.36	U		0.44	U		0.38	U		0.38	U	
O-XYLENE		0.32	U		0.38	U		0.33	U		0.33	U	
SEC-BUTYLBENZENE		0.16	U		0.2	U		0.17	U		0.17	U	
STYRENE		0.14	U		0.16	U		0.14	U		0.14	U	
TERT-AMYL METHYL ETHER		0.33	U		0.41	U		0.35	U		0.35	U	
TERT-BUTYLBENZENE		0.26	U		0.32	U		0.28	U		0.27	U	
TERTIARY-BUTYL ALCOHOL		6.9	UR	C	8.4	UR	C	7.2	UR	C	7.2	UR	C
TETRACHLOROETHENE		0.47	U		0.57	U		0.49	U		0.49	U	
TOLUENE		0.24	U		0.3	U		0.26	U		0.26	U	
TOTAL XYLENES		0.61	U		0.74	U		0.64	U		0.63	U	
TRANS-1,2-DICHLOROETHENE		0.37	U		0.45	U		0.39	U		0.39	U	
TRANS-1,3-DICHLOROPROPENE		0.49	U		0.59	U		0.51	U		0.51	U	
TRICHLOROETHENE		0.38	U		0.46	U		0.4	U		0.4	U	
TRICHLOROFLUOROMETHANE		0.31	U		0.37	U		0.32	U		0.32	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-115-0-2			GSP-SB-115-10-12			GSP-SB-115-18-20			GSP-SB-117-0-2		
SDG: 240-635-1	LAB_ID	240-635-1			240-635-2			240-635-3			240-635-4		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	80.7			85.9			82.3			90.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.26	UR	C	0.21	UR	C	0.28	UR	C	0.26	UR	C
VINYL CHLORIDE		0.41	U		0.33	U		0.45	J	P	0.4	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-117-20-22			GSP-SB-117-6-8			GSP-SB-118-0-2			GSP-SB-118-20-22		
SDG: 240-635-1	LAB_ID	240-635-6			240-635-5			240-635-13			240-635-15		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.8			87.5			87.1			80.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.2	UR	C	0.21	UR	C	0.2	UR	C	0.18	UR	C
VINYL CHLORIDE		0.55	J	P	0.33	U		0.31	U		1.5	J	P

PROJ_NO: 03279	NSAMPLE	GSP-SB-118-6-8			GSP-SB-119-0-2			GSP-SB-119-20-22			GSP-SB-119-6-8		
SDG: 240-635-1	LAB_ID	240-635-14			240-635-7			240-635-9			240-635-8		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.4			88.8			84.3			88.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.17	UR	C	0.23	UR	C	0.22	UR	C	0.22	UR	C
VINYL CHLORIDE		0.26	U		0.36	U		0.34	U		0.35	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-120-0-2			GSP-SB-120-18-20			GSP-SB-120-6-8			GSP-SB-121-0-3		
SDG: 240-635-1	LAB_ID	240-635-19			240-635-21			240-635-20			240-635-16		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.9			81.0			91.8			86.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.24	UR	C	0.24	UR	C	27	UR	C	0.25	UR	C
VINYL CHLORIDE		0.38	UL	R	0.37	U		21	U		0.39	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-121-18-20			GSP-SB-121-6-8			GSP-SB-122-0-2			GSP-SB-122-20-22		
SDG: 240-635-1	LAB_ID	240-635-18			240-635-17			240-635-22			240-635-24		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.9			86.7			93.2			77.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.14	UR	C	16	UR	C	0.24	UR	C	0.27	UR	C
VINYL CHLORIDE		0.22	U		13	UJ	R	0.37	U		0.42	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-122-6-8			GSP-SB-129-0-2			GSP-SB-129-20-22			GSP-SB-129-6-8		
SDG: 240-635-1	LAB_ID	240-635-23			240-635-25			240-635-27			240-635-26		
FRACTION: OV	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	88.4			87.1			83.0			84.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.23	UR	C	0.27	UR	C	0.24	UR	C	0.24	UR	C
VINYL CHLORIDE		0.35	U		0.43	U		0.37	U		0.37	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-115-0-2			GSP-SB-115-10-12			GSP-SB-115-18-20			GSP-SB-117-0-2		
SDG: 240-635-1	LAB_ID	240-635-1			240-635-2			240-635-3			240-635-4		
FRACTION: OS	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	80.7			85.9			82.3			90.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		67	U		31	U		33	U		74	U	
1,4-DIOXANE		55	U		25	U		27	U		61	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		24	U		11	U		12	U		26	U	
2,4,5-TRICHLOROPHENOL		62	U		29	U		31	U		69	U	
2,4,6-TRICHLOROPHENOL		200	U		93	U		98	U		220	U	
2,4-DICHLOROPHENOL		50	U		23	U		24	U		55	U	
2,4-DIMETHYLPHENOL		50	U		23	U		24	U		55	U	
2,4-DINITROPHENOL		200	UR	D	93	U		98	U		220	U	
2,4-DINITROTOLUENE		67	U		31	U		33	U		74	U	
2,6-DINITROTOLUENE		52	U		24	U		26	U		58	U	
2-CHLORONAPHTHALENE		8.2	U		3.8	U		4	U		9.1	U	
2-CHLOROPHENOL		67	U		31	U		33	U		74	U	
2-METHYLNAPHTHALENE		400			82			4	U		26		
2-METHYLPHENOL		200	U		93	U		98	U		220	U	
2-NITROANILINE		23	U		11	U		11	U		25	U	
2-NITROPHENOL		67	U		31	U		33	U		74	U	
3&4-METHYLPHENOL		50	U		23	U		24	U		55	U	
3,3'-DICHLOROBENZIDINE		45	UR	D	21	UL	E	22	UL	E	50	UL	E
3-NITROANILINE		40	U		19	U		20	U		44	U	
4,6-DINITRO-2-METHYLPHENOL		200	UR	D	93	U		98	U		220	U	
4-BROMOPHENYL PHENYL ETHER		32	U		15	U		16	U		36	U	
4-CHLORO-3-METHYLPHENOL		52	UR	D	24	U		26	U		58	U	
4-CHLOROANILINE		42	U		20	U		21	U		47	U	
4-CHLOROPHENYL PHENYL ETHER		32	U		15	U		16	U		36	U	
4-NITROANILINE		65	U		30	U		32	U		72	U	
4-NITROPHENOL		200	UR	D	93	U		98	U		220	U	
ACENAPHTHENE		230			48			4	U		100		
ACENAPHTHYLENE		73			14			4	U		22		
ACETOPHENONE		23	U		11	U		11	U		25	U	
ANTHRACENE		570	K	D	89			4	U		260		
ATRAZINE		23	U		11	U		11	U		25	U	
BENZALDEHYDE		30	U		14	U		15	U		33	U	
BENZO(A)ANTHRACENE		740	K	D	230			4	U		1200		
BENZO(A)PYRENE		680			180			4	U		1000		
BENZO(B)FLUORANTHENE		710			210			4	U		1300		

PROJ_NO: 03279	NSAMPLE	GSP-SB-117-20-22			GSP-SB-117-6-8			GSP-SB-118-0-2			GSP-SB-118-20-22		
SDG: 240-635-1	LAB_ID	240-635-6			240-635-5			240-635-10			240-635-12		
FRACTION: OS	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.8			87.5			87.1			80.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		33	U		31	U		62	U		33	U	
1,4-DIOXANE		27	U		25	U		51	U		27	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		12	U		11	U		22	U		12	U	
2,4,5-TRICHLOROPHENOL		31	U		29	U		58	U		31	U	
2,4,6-TRICHLOROPHENOL		98	U		91	U		180	U		99	U	
2,4-DICHLOROPHENOL		24	U		23	U		46	U		25	U	
2,4-DIMETHYLPHENOL		24	U		23	U		46	U		25	U	
2,4-DINITROPHENOL		98	U		91	U		180	U		99	U	
2,4-DINITROTOLUENE		33	U		31	U		62	U		33	U	
2,6-DINITROTOLUENE		26	U		24	U		48	U		26	U	
2-CHLORONAPHTHALENE		4	U		3.8	U		7.6	U		4.1	U	
2-CHLOROPHENOL		33	U		31	U		62	U		33	U	
2-METHYLNAPHTHALENE		4	U		3.8	U		56			4.1	U	
2-METHYLPHENOL		98	U		91	U		180	U		99	U	
2-NITROANILINE		11	U		10	U		21	U		11	U	
2-NITROPHENOL		33	U		31	U		62	U		33	U	
3&4-METHYLPHENOL		24	U		23	U		46	U		25	U	
3,3'-DICHLOROBENZIDINE		22	UL	E	21	UL	E	42	UL	E	22	UL	E
3-NITROANILINE		20	U		18	U		37	U		20	U	
4,6-DINITRO-2-METHYLPHENOL		98	U		91	U		180	U		99	U	
4-BROMOPHENYL PHENYL ETHER		16	U		15	U		30	U		16	U	
4-CHLORO-3-METHYLPHENOL		26	U		24	U		48	U		26	U	
4-CHLOROANILINE		21	U		19	U		39	U		21	U	
4-CHLOROPHENYL PHENYL ETHER		16	U		15	U		30	U		16	U	
4-NITROANILINE		32	U		30	U		60	U		32	U	
4-NITROPHENOL		98	U		91	U		180	U		99	U	
ACENAPHTHENE		4	U		3.8	U		37			14		
ACENAPHTHYLENE		4	U		3.8	U		69			4.1	U	
ACETOPHENONE		11	U		11	U		21	U		11	U	
ANTHRACENE		4	U		3.8	U		220			20		
ATRAZINE		11	U		10	U		21	U		11	U	
BENZALDEHYDE		15	U		14	U		28	U		15	U	
BENZO(A)ANTHRACENE		4	U		3.8	U		760			23		
BENZO(A)PYRENE		4	U		3.8	U		750			21		
BENZO(B)FLUORANTHENE		4	U		3.8	U		730			24		

PROJ_NO: 03279	NSAMPLE	GSP-SB-118-6-8			GSP-SB-119-0-2			GSP-SB-119-20-22			GSP-SB-119-6-8		
SDG: 240-635-1	LAB_ID	240-635-11			240-635-7			240-635-9			240-635-8		
FRACTION: OS	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.4			88.8			84.3			88.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		32	U		30	UR	H	64	U		31	UL	R
1,4-DIOXANE		26	U		25	UR	H	52	U		25	UL	R
2,2'-OXYBIS(1-CHLOROPROPANE)		11	U		11	UR	H	22	U		11	UL	R
2,4,5-TRICHLOROPHENOL		29	U		28	UR	H	59	U		28	UL	R
2,4,6-TRICHLOROPHENOL		94	U		90	UR	H	190	U		91	UL	R
2,4-DICHLOROPHENOL		24	U		22	UR	H	47	U		23	UL	R
2,4-DIMETHYLPHENOL		24	U		22	UR	H	47	U		23	UL	R
2,4-DINITROPHENOL		94	U		90	UR	H	190	U		91	UR	D
2,4-DINITROTOLUENE		32	U		30	UR	H	64	U		31	UL	R
2,6-DINITROTOLUENE		25	U		24	UR	H	50	U		24	UL	R
2-CHLORONAPHTHALENE		3.9	U		3.7	UR	H	7.8	U		3.7	UL	R
2-CHLOROPHENOL		32	U		30	UR	H	64	U		31	UL	R
2-METHYLNAPHTHALENE		3.9	U		28	L	H	59			3.7	UL	R
2-METHYLPHENOL		94	U		90	UR	H	190	U		91	UL	R
2-NITROANILINE		11	U		10	UR	H	22	U		10	UL	R
2-NITROPHENOL		32	U		30	UR	H	64	U		31	UL	R
3&4-METHYLPHENOL		24	U		22	UR	H	47	U		23	UL	R
3,3'-DICHLOROBENZIDINE		21	UL	E	20	UR	H	43	UL	E	20	UL	R
3-NITROANILINE		19	U		18	UR	H	38	U		18	UL	R
4,6-DINITRO-2-METHYLPHENOL		94	U		90	UR	H	190	U		91	UL	R
4-BROMOPHENYL PHENYL ETHER		15	U		15	UR	H	31	U		15	UL	R
4-CHLORO-3-METHYLPHENOL		25	U		24	UR	H	50	U		24	UL	R
4-CHLOROANILINE		20	U		19	UR	H	40	U		19	UL	R
4-CHLOROPHENYL PHENYL ETHER		15	U		15	UR	H	31	U		15	UL	R
4-NITROANILINE		31	U		29	UR	H	61	U		29	UL	R
4-NITROPHENOL		94	U		90	UR	H	190	U		91	UL	R
ACENAPHTHENE		3.9	U		20	L	H	150			3.7	UL	R
ACENAPHTHYLENE		3.9	U		38	L	H	17			3.7	UL	R
ACETOPHENONE		11	U		10	UR	H	22	U		10	UL	R
ANTHRACENE		3.9	U		100	L	H	260			11	L	R
ATRAZINE		11	U		10	UR	H	22	U		10	UL	R
BENZALDEHYDE		14	U		13	UR	H	28	U		14	UL	R
BENZO(A)ANTHRACENE		8.8			590	L	H	740			29	L	R
BENZO(A)PYRENE		3.9	U		540	L	H	570			31	L	R
BENZO(B)FLUORANTHENE		9			720	L	H	610			32	L	R

PROJ_NO: 03279	NSAMPLE	GSP-SB-120-0-2			GSP-SB-120-18-20			GSP-SB-120-6-8			GSP-SB-121-0-3		
SDG: 240-635-1	LAB_ID	240-635-19			240-635-21			240-635-20			240-635-16		
FRACTION: OS	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.9			81.0			91.8			86.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		78	U		660	U		74	U		63	U	
1,4-DIOXANE		64	U		540	U		60	U		51	UJ	N
2,2'-OXYBIS(1-CHLOROPROPANE)		27	U		230	U		26	U		22	UJ	N
2,4,5-TRICHLOROPHENOL		72	U		610	UR	R	68	U		58	U	
2,4,6-TRICHLOROPHENOL		230	U		2000	UR	R	220	U		190	U	
2,4-DICHLOROPHENOL		58	U		490	UR	R	55	U		46	UJ	N
2,4-DIMETHYLPHENOL		58	U		490	UR	R	55	U		46	UJ	N
2,4-DINITROPHENOL		230	U		2000	UR	R	220	U		190	U	
2,4-DINITROTOLUENE		78	U		660	U		74	U		63	U	
2,6-DINITROTOLUENE		61	U		520	U		58	U		49	U	
2-CHLORONAPHTHALENE		9.5	U		81	U		9	U		7.6	U	
2-CHLOROPHENOL		78	U		660	UR	R	74	U		63	UJ	N
2-METHYLNAPHTHALENE		36			460			150			88	J	N
2-METHYLPHENOL		230	U		2000	UR	R	220	U		190	UJ	N
2-NITROANILINE		26	U		220	U		25	U		21	U	
2-NITROPHENOL		78	U		660	UR	R	74	U		63	UJ	N
3&4-METHYLPHENOL		58	U		490	UR	R	55	U		46	UJ	N
3,3'-DICHLOROBENZIDINE		52	UL	E	440	UL	E	49	UL	E	42	UL	E
3-NITROANILINE		46	U		390	U		44	U		37	U	
4,6-DINITRO-2-METHYLPHENOL		230	U		2000	UR	R	220	U		190	U	
4-BROMOPHENYL PHENYL ETHER		38	U		320	U		36	U		30	U	
4-CHLORO-3-METHYLPHENOL		61	U		520	UR	R	58	U		49	UJ	N
4-CHLOROANILINE		49	U		420	U		47	U		39	UJ	N
4-CHLOROPHENYL PHENYL ETHER		38	U		320	U		36	U		30	U	
4-NITROANILINE		75	U		640	U		71	U		60	U	
4-NITROPHENOL		230	U		2000	UR	R	220	U		190	U	
ACENAPHTHENE		80			2000			500			240		
ACENAPHTHYLENE		48			430			9	U		59		
ACETOPHENONE		27	U		230	U		25	U		21	UJ	N
ANTHRACENE		320			7400			580			500		
ATRAZINE		26	U		220	U		25	U		21	U	
BENZALDEHYDE		35	U		300	U		33	U		28	UJ	N
BENZO(A)ANTHRACENE		1600			11000			960			1200		
BENZO(A)PYRENE		1300			8700			880			1200		
BENZO(B)FLUORANTHENE		1600			9200			1000			1400		

PROJ_NO: 03279	NSAMPLE	GSP-SB-121-18-20			GSP-SB-121-6-8			GSP-SB-122-0-2			GSP-SB-122-20-22		
SDG: 240-635-1	LAB_ID	240-635-18			240-635-17			240-635-22			240-635-24		
FRACTION: OS	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.9			86.7			93.2			77.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		33	U		310	U		29	U		35	U	
1,4-DIOXANE		27	U		250	U		24	U		28	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		12	U		110	U		10	U		12	U	
2,4,5-TRICHLOROPHENOL		30	U		290	UR	R	27	U		32	U	
2,4,6-TRICHLOROPHENOL		97	U		920	UR	R	86	U		100	U	
2,4-DICHLOROPHENOL		24	U		230	UR	R	22	U		26	U	
2,4-DIMETHYLPHENOL		24	U		230	UR	R	22	U		26	U	
2,4-DINITROPHENOL		97	U		920	UR	R	86	U		100	U	
2,4-DINITROTOLUENE		33	U		310	U		29	U		35	U	
2,6-DINITROTOLUENE		26	U		240	U		23	U		27	U	
2-CHLORONAPHTHALENE		4	U		38	U		3.6	U		4.3	U	
2-CHLOROPHENOL		33	U		310	UR	R	29	U		35	U	
2-METHYLNAPHTHALENE		4	U		480			24			4.3	U	
2-METHYLPHENOL		97	U		920	UR	R	86	U		100	U	
2-NITROANILINE		11	U		110	U		9.8	U		12	U	
2-NITROPHENOL		33	U		310	UR	R	29	U		35	U	
3&4-METHYLPHENOL		24	U		230	UR	R	22	U		26	U	
3,3'-DICHLOROBENZIDINE		22	UL	E	210	UL	E	19	UL	E	23	U	
3-NITROANILINE		19	U		180	U		17	U		21	U	
4,6-DINITRO-2-METHYLPHENOL		97	U		920	UR	R	86	U		100	U	
4-BROMOPHENYL PHENYL ETHER		16	U		150	U		14	U		17	U	
4-CHLORO-3-METHYLPHENOL		26	U		240	UR	R	23	U		27	U	
4-CHLOROANILINE		21	U		200	U		18	U		22	U	
4-CHLOROPHENYL PHENYL ETHER		16	U		150	U		14	U		17	U	
4-NITROANILINE		32	U		300	U		28	U		34	U	
4-NITROPHENOL		97	U		920	UR	R	86	U		100	U	
ACENAPHTHENE		4	U		1600			25			4.3	U	
ACENAPHTHYLENE		4	U		38	U		44			4.3	U	
ACETOPHENONE		11	U		110	U		9.9	U		12	U	
ANTHRACENE		4	U		2500			110			4.3	U	
ATRAZINE		11	U		110	U		9.8	U		12	U	
BENZALDEHYDE		15	U		140	U		13	U		15	U	
BENZO(A)ANTHRACENE		19			4400			390			4.3	U	
BENZO(A)PYRENE		15			3700			440			4.3	U	
BENZO(B)FLUORANTHENE		19			4000			460			4.3	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-122-6-8			GSP-SB-129-0-2			GSP-SB-129-20-22			GSP-SB-129-6-8		
SDG: 240-635-1	LAB_ID	240-635-23			240-635-25			240-635-27			240-635-26		
FRACTION: OS	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	88.4			87.1			83.0			84.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		76	U		31	U		32	U		32	U	
1,4-DIOXANE		62	U		25	U		26	U		26	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		27	U		11	U		11	U		11	U	
2,4,5-TRICHLOROPHENOL		70	U		29	U		30	U		30	U	
2,4,6-TRICHLOROPHENOL		230	U		92	U		96	U		95	U	
2,4-DICHLOROPHENOL		56	U		23	U		24	U		24	U	
2,4-DIMETHYLPHENOL		56	U		23	U		24	U		24	U	
2,4-DINITROPHENOL		230	U		92	U		96	U		95	U	
2,4-DINITROTOLUENE		76	U		31	U		32	U		32	U	
2,6-DINITROTOLUENE		59	U		24	U		25	U		25	U	
2-CHLORONAPHTHALENE		9.3	U		3.8	U		4	U		3.9	U	
2-CHLOROPHENOL		76	U		31	U		32	U		32	U	
2-METHYLNAPHTHALENE		9.3	U		3.8	U		4	U		3.9	U	
2-METHYLPHENOL		230	U		92	U		96	U		95	U	
2-NITROANILINE		26	U		10	U		11	U		11	U	
2-NITROPHENOL		76	U		31	U		32	U		32	U	
3&4-METHYLPHENOL		56	U		23	U		24	U		24	U	
3,3'-DICHLOROBENZIDINE		51	U		21	U		22	U		21	U	
3-NITROANILINE		45	U		18	U		19	U		19	U	
4,6-DINITRO-2-METHYLPHENOL		230	U		92	U		96	U		95	U	
4-BROMOPHENYL PHENYL ETHER		37	U		15	U		16	U		15	U	
4-CHLORO-3-METHYLPHENOL		59	U		24	U		25	U		25	U	
4-CHLOROANILINE		48	U		19	U		20	U		20	U	
4-CHLOROPHENYL PHENYL ETHER		37	U		15	U		16	U		15	U	
4-NITROANILINE		73	U		30	U		31	U		31	U	
4-NITROPHENOL		230	U		92	U		96	U		95	U	
ACENAPHTHENE		9.3	U		3.8	U		4	U		3.9	U	
ACENAPHTHYLENE		9.3	U		3.8	U		4	U		3.9	U	
ACETOPHENONE		26	U		11	U		11	U		11	U	
ANTHRACENE		9.3	U		10			4	U		3.9	U	
ATRAZINE		26	U		10	U		11	U		11	U	
BENZALDEHYDE		34	U		14	U		14	U		14	U	
BENZO(A)ANTHRACENE		9.3	U		50			21			8		
BENZO(A)PYRENE		9.3	U		44			10			5.9	J	P
BENZO(B)FLUORANTHENE		9.3	U		60			16			8.3		

PROJ_NO: 03279	NSAMPLE	GSP-SB-115-0-2			GSP-SB-115-10-12			GSP-SB-115-18-20			GSP-SB-117-0-2		
SDG: 240-635-1	LAB_ID	240-635-1			240-635-2			240-635-3			240-635-4		
FRACTION: OS	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	80.7			85.9			82.3			90.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		360			86			4	U		690		
BENZO(K)FLUORANTHENE		300			89			4	U		670		
BIS(2-CHLOROETHOXY)METHANE		55	U		25	U		27	U		61	U	
BIS(2-CHLOROETHYL)ETHER		5	U		2.3	U		2.4	U		5.5	U	
BIS(2-ETHYLHEXYL)PHTHALATE		59	B	A	22	U		25	B	A	52	U	
BUTYL BENZYL PHTHALATE		25	U		12	U		12	U		28	U	
CAPROLACTAM		92	UL	E	43	UL	E	45	UL	E	100	UL	E
CARBAZOLE		67	U		31	U		33	U		120	J	P
CHRYSENE		790	K	D	210			1.3	U		1200		
DIBENZO(A,H)ANTHRACENE		140			36			4	U		180		
DIBENZOFURAN		73	J	P	3.8	U		4	U		44	J	P
DIETHYL PHTHALATE		40	U		19	U		20	U		44	U	
DIMETHYL PHTHALATE		42	U		20	U		21	U		47	U	
DI-N-BUTYL PHTHALATE		37	U		17	U		18	J	P	41	U	
DI-N-OCTYL PHTHALATE		67	U		31	U		33	U		74	U	
FLUORANTHENE		1300	K	D	400			4	U		2200		
FLUORENE		500	K	D	88			4	U		85		
HEXACHLOROBENZENE		5.2	U		2.4	U		2.6	U		5.8	U	
HEXACHLOROBUTADIENE		67	U		31	U		33	U		74	U	
HEXACHLOROCYCLOPENTADIENE		67	UR	D	31	U		33	U		74	U	
HEXACHLOROETHANE		22	U		10	U		11	U		25	U	
INDENO(1,2,3-CD)PYRENE		310			72			4	U		590		
ISOPHORONE		32	U		15	U		16	U		36	U	
NAPHTHALENE		450			88			4	U		30		
NITROBENZENE		5.5	U		2.5	U		2.7	U		6.1	U	
N-NITROSODIMETHYLAMINE		40	U		19	U		20	U		44	U	
N-NITROSO-DI-N-PROPYLAMINE		67	U		31	U		33	U		74	U	
N-NITROSODIPHENYLAMINE		52	U		24	U		26	U		58	U	
PENTACHLOROPHENOL		200	UR	D	93	U		98	U		220	U	
PHENANTHRENE		2100	K	D	340			4	U		890		
PHENOL		67	U		31	U		33	U		74	U	
PYRENE		1700	K	D	590			4	U		2100		

PROJ_NO: 03279	NSAMPLE	GSP-SB-117-20-22			GSP-SB-117-6-8			GSP-SB-118-0-2			GSP-SB-118-20-22		
SDG: 240-635-1	LAB_ID	240-635-6			240-635-5			240-635-10			240-635-12		
FRACTION: OS	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.8			87.5			87.1			80.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		4	U		3.8	U		450			14		
BENZO(K)FLUORANTHENE		4	U		3.8	U		390			13		
BIS(2-CHLOROETHOXY)METHANE		27	U		25	U		51	U		27	U	
BIS(2-CHLOROETHYL)ETHER		2.4	U		2.3	U		4.6	U		2.5	U	
BIS(2-ETHYLHEXYL)PHTHALATE		23	U		28	B	A	44	U		110	B	A
BUTYL BENZYL PHTHALATE		12	U		11	U		23	U		12	U	
CAPROLACTAM		45	UL	E	42	UL	E	85	UL	E	46	UL	E
CARBAZOLE		33	U		31	U		62	U		33	U	
CHRYSENE		1.3	U		1.3	U		760			23		
DIBENZO(A,H)ANTHRACENE		4	U		3.8	U		140			4.1	U	
DIBENZOFURAN		4	U		3.8	U		7.6	U		4.1	U	
DIETHYL PHTHALATE		20	U		18	U		37	U		20	U	
DIMETHYL PHTHALATE		21	U		19	U		39	U		21	U	
DI-N-BUTYL PHTHALATE		18	U		17	U		35	U		23	J	P
DI-N-OCTYL PHTHALATE		33	U		31	U		62	U		33	U	
FLUORANTHENE		4	U		8.8			1200			64		
FLUORENE		4	U		3.8	U		80			13		
HEXACHLOROBENZENE		2.6	U		2.4	U		4.8	U		2.6	U	
HEXACHLOROBUTADIENE		33	U		31	U		62	U		33	U	
HEXACHLOROCYCLOPENTADIENE		33	U		31	U		62	U		33	U	
HEXACHLOROETHANE		11	U		10	U		21	U		11	U	
INDENO(1,2,3-CD)PYRENE		4	U		3.8	U		380			12		
ISOPHORONE		16	U		15	U		30	U		16	U	
NAPHTHALENE		4	U		3.8	U		69			4.1	U	
NITROBENZENE		2.7	U		2.5	U		5.1	U		2.7	U	
N-NITROSODIMETHYLAMINE		20	U		18	U		37	U		20	U	
N-NITROSO-DI-N-PROPYLAMINE		33	U		31	U		62	U		33	U	
N-NITROSODIPHENYLAMINE		26	U		24	U		48	U		26	U	
PENTACHLOROPHENOL		98	U		91	U		180	U		99	U	
PHENANTHRENE		4	U		3.8	U		640			75		
PHENOL		33	U		31	U		62	U		33	U	
PYRENE		4	U		3.8	U		1400			48		

PROJ_NO: 03279	NSAMPLE	GSP-SB-118-6-8			GSP-SB-119-0-2			GSP-SB-119-20-22			GSP-SB-119-6-8		
SDG: 240-635-1	LAB_ID	240-635-11			240-635-7			240-635-9			240-635-8		
FRACTION: OS	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	84.4			88.8			84.3			88.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		3.9	U		380	L	H	310			19	L	R
BENZO(K)FLUORANTHENE		3.9	U		240	L	H	490			18	L	R
BIS(2-CHLOROETHOXY)METHANE		26	U		25	UR	H	52	U		25	UL	R
BIS(2-CHLOROETHYL)ETHER		2.4	U		2.2	UR	H	4.7	U		2.3	UL	R
BIS(2-ETHYLHEXYL)PHTHALATE		22	U		21	UR	H	45	U		22	UL	R
BUTYL BENZYL PHTHALATE		12	U		11	UR	H	24	U		11	UL	R
CAPROLACTAM		44	UL	E	41	UR	H	88	UL	E	42	UL	D
CARBAZOLE		32	U		30	UR	H	130			31	UL	R
CHRYSENE		8.1			610	L	H	600			39	L	R
DIBENZO(A,H)ANTHRACENE		3.9	U		130	L	H	74			3.7	UL	R
DIBENZOFURAN		3.9	U		9	L	H	74	J	P	3.7	UL	R
DIETHYL PHTHALATE		19	U		18	UR	H	38	U		18	UL	R
DIMETHYL PHTHALATE		20	U		19	UR	H	40	U		19	UL	R
DI-N-BUTYL PHTHALATE		18	U		23	B	A	35	U		17	UL	R
DI-N-OCTYL PHTHALATE		32	U		30	UR	H	64	U		31	UL	R
FLUORANTHENE		20			1100	L	H	1400			61	L	R
FLUORENE		3.9	U		28	L	H	150			7.6	L	R
HEXACHLOROBENZENE		2.5	U		2.4	UR	H	5	U		2.4	UL	R
HEXACHLOROBUTADIENE		32	U		30	UR	H	64	U		31	UL	R
HEXACHLOROCYCLOPENTADIENE		32	U		30	UR	H	64	U		31	UR	D
HEXACHLOROETHANE		11	U		10	UR	H	21	U		10	UL	R
INDENO(1,2,3-CD)PYRENE		3.9	U		320	L	H	300			17	L	R
ISOPHORONE		15	U		15	UR	H	31	U		15	UL	R
NAPHTHALENE		3.9	U		34	L	H	54			3.7	UL	R
NITROBENZENE		2.6	U		2.5	UR	H	5.2	U		2.5	UL	R
N-NITROSODIMETHYLAMINE		19	U		18	UR	H	38	U		18	UL	R
N-NITROSO-DI-N-PROPYLAMINE		32	U		30	UR	H	64	U		31	UL	R
N-NITROSODIPHENYLAMINE		25	U		24	UR	H	50	U		24	UL	R
PENTACHLOROPHENOL		94	U		90	UR	H	190	U		91	UL	R
PHENANTHRENE		17			340	L	H	990			39	L	R
PHENOL		32	U		30	UR	H	64	U		31	UL	R
PYRENE		15			990	L	H	1200			53	L	R

PROJ_NO: 03279	NSAMPLE	GSP-SB-120-0-2			GSP-SB-120-18-20			GSP-SB-120-6-8			GSP-SB-121-0-3		
SDG: 240-635-1	LAB_ID	240-635-19			240-635-21			240-635-20			240-635-16		
FRACTION: OS	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.9			81.0			91.8			86.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		760			4500			540			710		
BENZO(K)FLUORANTHENE		860			6400			520			660		
BIS(2-CHLOROETHOXY)METHANE		64	U		540	U		60	U		51	UJ	N
BIS(2-CHLOROETHYL)ETHER		5.8	U		49	U		5.5	U		4.6	UJ	N
BIS(2-ETHYLHEXYL)PHTHALATE		55	U		470	U		52	U		74	B	A
BUTYL BENZYL PHTHALATE		29	U		250	U		27	U		23	U	
CAPROLACTAM		110	UL	E	910	UL	E	100	UL	E	86	UJ	EN
CARBAZOLE		130	J	P	920	J	P	450			190		
CHRYSENE		1500			11000			1000			1100		
DIBENZO(A,H)ANTHRACENE		230			1500			160			240		
DIBENZOFURAN		31	J	P	1800			300			120		
DIETHYL PHTHALATE		46	U		390	U		44	U		37	U	
DIMETHYL PHTHALATE		49	U		420	U		47	U		39	U	
DI-N-BUTYL PHTHALATE		43	U		370	U		41	U		35	U	
DI-N-OCTYL PHTHALATE		78	U		660	U		74	U		63	U	
FLUORANTHENE		2800			28000			2600			2400		
FLUORENE		90			3900			460			210		
HEXACHLOROBENZENE		6.1	U		52	U		5.8	U		4.9	U	
HEXACHLOROBUTADIENE		78	U		660	U		74	U		63	UJ	N
HEXACHLOROCYCLOPENTADIENE		78	U		660	U		74	U		63	U	
HEXACHLOROETHANE		26	U		220	U		25	U		21	UJ	N
INDENO(1,2,3-CD)PYRENE		730			4300			460			650		
ISOPHORONE		38	U		320	U		36	U		30	UJ	N
NAPHTHALENE		41			730			260			120	J	N
NITROBENZENE		6.4	U		54	U		6	U		5.1	UJ	N
N-NITROSODIMETHYLAMINE		46	U		390	U		44	U		37	UJ	N
N-NITROSO-DI-N-PROPYLAMINE		78	U		660	U		74	U		63	UJ	N
N-NITROSODIPHENYLAMINE		61	U		520	U		58	U		49	U	
PENTACHLOROPHENOL		230	U		2000	UR	R	220	U		190	U	
PHENANTHRENE		1100			26000			2400			1500		
PHENOL		78	U		660	UR	R	130	J	P	63	UJ	N
PYRENE		2800			20000			2000			2200		

PROJ_NO: 03279	NSAMPLE	GSP-SB-121-18-20			GSP-SB-121-6-8			GSP-SB-122-0-2			GSP-SB-122-20-22		
SDG: 240-635-1	LAB_ID	240-635-18			240-635-17			240-635-22			240-635-24		
FRACTION: OS	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	81.9			86.7			93.2			77.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		11			2100			300			4.3	U	
BENZO(K)FLUORANTHENE		8.6			2000			230			4.3	U	
BIS(2-CHLOROETHOXY)METHANE		27	U		250	U		24	U		28	U	
BIS(2-CHLOROETHYL)ETHER		2.4	U		23	U		2.2	U		2.6	U	
BIS(2-ETHYLHEXYL)PHTHALATE		27	B	A	220	U		22	B	A	46	J	P
BUTYL BENZYL PHTHALATE		12	U		120	U		11	U		13	U	
CAPROLACTAM		45	UL	E	430	UL	E	40	UL	E	48	U	
CARBAZOLE		33	U		1600			29	U		35	U	
CHRYSENE		18			4200			380			1.4	U	
DIBENZO(A,H)ANTHRACENE		4	U		860			130			4.3	U	
DIBENZOFURAN		4	U		1000			3.6	U		4.3	U	
DIETHYL PHTHALATE		19	U		180	U		17	U		21	U	
DIMETHYL PHTHALATE		21	U		200	U		18	U		22	U	
DI-N-BUTYL PHTHALATE		18	U		170	U		17	J	P	20	J	P
DI-N-OCTYL PHTHALATE		33	U		310	U		29	U		35	U	
FLUORANTHENE		43			10000			600			7.2	J	P
FLUORENE		4	U		1600			29			4.3	U	
HEXACHLOROBENZENE		2.6	U		24	U		2.3	U		2.7	U	
HEXACHLOROBUTADIENE		33	U		310	U		29	U		35	U	
HEXACHLOROCYCLOPENTADIENE		33	U		310	U		29	U		35	U	
HEXACHLOROETHANE		11	U		100	U		9.7	U		12	U	
INDENO(1,2,3-CD)PYRENE		9.7			1900			250			4.3	U	
ISOPHORONE		16	U		150	U		14	U		17	U	
NAPHTHALENE		4	U		690			36			4.3	U	
NITROBENZENE		2.7	U		25	U		2.4	U		2.8	U	
N-NITROSODIMETHYLAMINE		19	U		180	U		17	U		21	U	
N-NITROSO-DI-N-PROPYLAMINE		33	U		310	U		29	U		35	U	
N-NITROSODIPHENYLAMINE		26	U		240	U		23	U		27	U	
PENTACHLOROPHENOL		97	U		920	UR	R	86	U		100	U	
PHENANTHRENE		32			9500			240			4.3	U	
PHENOL		33	U		310	UR	R	29	U		35	U	
PYRENE		33			7700			650			6.4	J	P

PROJ_NO: 03279	NSAMPLE	GSP-SB-122-6-8	GSP-SB-129-0-2	GSP-SB-129-20-22	GSP-SB-129-6-8
SDG: 240-635-1	LAB_ID	240-635-23	240-635-25	240-635-27	240-635-26
FRACTION: OS	SAMP_DATE	5/31/2011	5/31/2011	5/31/2011	5/31/2011
MEDIA: SOIL	QC_TYPE	NM	NM	NM	NM
	UNITS	UG/KG	UG/KG	UG/KG	UG/KG
	PCT_SOLIDS	88.4	87.1	83.0	84.4
	DUP_OF				

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE	9.3	U		26			4.4	J	P	3.9	U	
BENZO(K)FLUORANTHENE	9.3	U		26			5.6	J	P	3.9	U	
BIS(2-CHLOROETHOXY)METHANE	62	U		25	U		26	U		26	U	
BIS(2-CHLOROETHYL)ETHER	5.6	U		2.3	U		2.4	U		2.4	U	
BIS(2-ETHYLHEXYL)PHTHALATE	100	J	P	25	J	P	25	J	P	43	J	P
BUTYL BENZYL PHTHALATE	28	U		11	U		12	U		12	U	
CAPROLACTAM	100	U		42	U		44	U		44	U	
CARBAZOLE	76	U		31	U		32	U		32	U	
CHRYSENE	3.1	U		55			17			7.8	J	P
DIBENZO(A,H)ANTHRACENE	9.3	U		6.3	J	P	4	U		3.9	U	
DIBENZOFURAN	9.3	U		3.8	U		4	U		3.9	U	
DIETHYL PHTHALATE	45	U		18	U		19	U		19	U	
DIMETHYL PHTHALATE	48	U		19	U		20	U		20	U	
DI-N-BUTYL PHTHALATE	42	U		17	U		27	J	P	18	U	
DI-N-OCTYL PHTHALATE	76	U		31	U		32	U		32	U	
FLUORANTHENE	9.3	U		110			49			15		
FLUORENE	9.3	U		3.8	U		4	U		3.9	U	
HEXACHLOROBENZENE	5.9	U		2.4	U		2.5	U		2.5	U	
HEXACHLOROBUTADIENE	76	U		31	U		32	U		32	U	
HEXACHLOROCYCLOPENTADIENE	76	U		31	U		32	U		32	U	
HEXACHLOROETHANE	25	U		10	U		11	U		11	U	
INDENO(1,2,3-CD)PYRENE	9.3	U		22			4.1	J	P	3.9	U	
ISOPHORONE	37	U		15	U		16	U		15	U	
NAPHTHALENE	9.3	U		3.8	U		4	U		3.9	U	
NITROBENZENE	6.2	U		2.5	U		2.6	U		2.6	U	
N-NITROSODIMETHYLAMINE	45	U		18	U		19	U		19	U	
N-NITROSO-DI-N-PROPYLAMINE	76	U		31	U		32	U		32	U	
N-NITROSODIPHENYLAMINE	59	U		24	U		25	U		25	U	
PENTACHLOROPHENOL	230	U		92	U		96	U		95	U	
PHENANTHRENE	9.3	U		38			20			7.6	J	P
PHENOL	76	U		31	U		32	U		32	U	
PYRENE	9.3	U		97			39			15		

PROJ_NO: 03279	NSAMPLE	GSP-SB-115-0-2			GSP-SB-115-10-12			GSP-SB-117-0-2			GSP-SB-117-6-8		
SDG: 240-635-1	LAB_ID	240-635-1			240-635-2			240-635-4			240-635-5		
FRACTION: PCB	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	80.7			85.9			90.6			87.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		26	U		24	U		23	U		24	U	
AROCLOR-1221		20	U		19	U		18	U		18	U	
AROCLOR-1232		17	U		16	U		15	U		16	U	
AROCLOR-1242		16	U		15	U		14	U		15	U	
AROCLOR-1248		21	U		20	U		19	U		19	U	
AROCLOR-1254		21	U		20	U		19	U		19	U	
AROCLOR-1260		21	U		20	U		19	U		19	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-118-0-2			GSP-SB-118-6-8			GSP-SB-119-0-2			GSP-SB-119-6-8		
SDG: 240-635-1	LAB_ID	240-635-10			240-635-11			240-635-7			240-635-8		
FRACTION: PCB	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.1			84.4			88.8			88.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		240	U		25	U		24	U		240	U	
AROCLOR-1221		180	U		19	U		18	U		180	U	
AROCLOR-1232		160	U		17	U		16	U		160	U	
AROCLOR-1242		150	U		15	U		15	U		150	U	
AROCLOR-1248		190	U		20	U		19	U		190	U	
AROCLOR-1254		190	U		20	U		19	U		190	U	
AROCLOR-1260		1200			20	U		92			2700		

PROJ_NO: 03279	NSAMPLE	GSP-SB-120-0-2			GSP-SB-120-6-8			GSP-SB-121-0-3			GSP-SB-121-6-8		
SDG: 240-635-1	LAB_ID	240-635-19			240-635-20			240-635-16			240-635-17		
FRACTION: PCB	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.9			91.8			86.5			86.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		240	U		23	U		240	U		24	U	
AROCLOR-1221		180	U		17	U		180	U		18	U	
AROCLOR-1232		160	U		15	U		160	U		16	U	
AROCLOR-1242		150	U		21	J	P	150	U		130		
AROCLOR-1248		200	U		18	U		200	U		19	U	
AROCLOR-1254		200	U		18	U		200	U		19	U	
AROCLOR-1260		1700			37			2400			47		

PROJ_NO: 03279	NSAMPLE	GSP-SB-122-0-2			GSP-SB-122-6-8			GSP-SB-129-0-2			GSP-SB-129-6-8		
SDG: 240-635-1	LAB_ID	240-635-22			240-635-23			240-635-25			240-635-26		
FRACTION: PCB	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	93.2			88.4			87.1			84.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		450	U		24	U		24	U		25	U	
AROCLOR-1221		340	U		18	U		18	U		19	U	
AROCLOR-1232		300	U		16	U		16	U		17	U	
AROCLOR-1242		280	U		15	U		15	U		15	U	
AROCLOR-1248		360	U		19	U		20	U		20	U	
AROCLOR-1254		360	U		19	U		20	U		20	U	
AROCLOR-1260		3400			19	J	P	220			20	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-115-0-2						GSP-SB-115-10-12					
SDG: 240-635-1	LAB_ID	240-635-1						240-635-2					
FRACTION: PET	SAMP_DATE	5/31/2011						5/31/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	80.7			80.7			85.9			85.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		700	L	R				16	J	P			
GASOLINE RANGE ORGANICS					57	J	P				29	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-115-18-20						GSP-SB-117-0-2					
SDG: 240-635-1	LAB_ID	240-635-3						240-635-4					
FRACTION: PET	SAMP_DATE	5/31/2011						5/31/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	82.3			82.3			90.6			90.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		19	J	P				210					
GASOLINE RANGE ORGANICS					30	U					28	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-117-20-22						GSP-SB-117-6-8					
SDG: 240-635-1	LAB_ID	240-635-6						240-635-5					
FRACTION: PET	SAMP_DATE	5/31/2011						5/31/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	81.8			81.8			87.5			87.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		11	J	P				23					
GASOLINE RANGE ORGANICS					31	U					29	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-118-0-2						GSP-SB-118-20-22					
SDG: 240-635-1	LAB_ID	240-635-10						240-635-12					
FRACTION: PET	SAMP_DATE	5/31/2011						5/31/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	87.1			87.1			80.5			80.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		110						11	U				
GASOLINE RANGE ORGANICS					29	U					31	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-118-6-8						GSP-SB-119-0-2					
SDG: 240-635-1	LAB_ID	240-635-11						240-635-7					
FRACTION: PET	SAMP_DATE	5/31/2011						5/31/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	84.4			84.4			88.8			88.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		12	J	P				61					
GASOLINE RANGE ORGANICS					30	U					28	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-119-20-22			GSP-SB-119-20-22RA			GSP-SB-119-6-8					
SDG: 240-635-1	LAB_ID	240-635-9			240-635-9			240-635-8					
FRACTION: PET	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011					
MEDIA: SOIL	QC_TYPE	NM			NM			NM					
	UNITS	UG/KG			MG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	84.3			84.3			88.8			88.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS					320	J	H	40					
GASOLINE RANGE ORGANICS		30	U								28	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-120-0-2						GSP-SB-120-18-20					
SDG: 240-635-1	LAB_ID	240-635-19						240-635-21					
FRACTION: PET	SAMP_DATE	5/31/2011						5/31/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	86.9			86.9			81.0			81.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		280						97					
GASOLINE RANGE ORGANICS					29	U					44	J	P

PROJ_NO: 03279	NSAMPLE	GSP-SB-120-6-8						GSP-SB-121-0-3					
SDG: 240-635-1	LAB_ID	240-635-20						240-635-16					
FRACTION: PET	SAMP_DATE	5/31/2011						5/31/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	91.8			91.8			86.5			86.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		46						280					
GASOLINE RANGE ORGANICS					57						29	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-121-18-20						GSP-SB-121-6-8					
SDG: 240-635-1	LAB_ID	240-635-18						240-635-17					
FRACTION: PET	SAMP_DATE	5/31/2011						5/31/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	81.9			81.9			86.7			86.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		14	J	P				340					
GASOLINE RANGE ORGANICS					31	U					130		

PROJ_NO: 03279	NSAMPLE	GSP-SB-122-0-2						GSP-SB-122-20-22					
SDG: 240-635-1	LAB_ID	240-635-22						240-635-24					
FRACTION: PET	SAMP_DATE	5/31/2011						5/31/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	93.2			93.2			77.4			77.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		150						16	J B				
GASOLINE RANGE ORGANICS					27	U					32	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-122-6-8						GSP-SB-129-0-2					
SDG: 240-635-1	LAB_ID	240-635-23						240-635-25					
FRACTION: PET	SAMP_DATE	5/31/2011						5/31/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	88.4			88.4			87.1			87.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		14	J	P				22	B				
GASOLINE RANGE ORGANICS					28	U					29	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-129-20-22						GSP-SB-129-6-8					
SDG: 240-635-1	LAB_ID	240-635-27						240-635-26					
FRACTION: PET	SAMP_DATE	5/31/2011						5/31/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	83.0			83.0			84.4			84.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		15	J B					15	J B				
GASOLINE RANGE ORGANICS					30	U					30	U	

Appendix B

Results as Reported by the Laboratory

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 Lab Sample ID: 240-635-1

Matrix: Solid Lab File ID: 148886.D

Analysis Method: 8260B Date Collected: 05/31/2011 15:05

Sample wt/vol: 5.958(g) Date Analyzed: 06/11/2011 14:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 19.3 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.2	U	5.2	0.64
71-55-6	1,1,1-Trichloroethane	5.2	U	5.2	0.58
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	5.2	0.35
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	5.2	U	5.2	1.4
75-34-3	1,1-Dichloroethane	5.2	U	5.2	0.37
75-35-4	1,1-Dichloroethene	5.2	U	5.2	0.54
563-58-6	1,1-Dichloropropene	5.2	U	5.2	0.31
87-61-6	1,2,3-Trichlorobenzene	5.2	U	5.2	0.40
96-18-4	1,2,3-Trichloropropane	5.2	U	5.2	0.94
526-73-8	1,2,3-Trimethylbenzene	5.2	U	5.2	0.18
120-82-1	1,2,4-Trichlorobenzene	5.2	U	5.2	0.28
95-63-6	1,2,4-Trimethylbenzene	5.2	U	5.2	0.68
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	1.4
95-50-1	1,2-Dichlorobenzene	5.2	U	5.2	0.37
107-06-2	1,2-Dichloroethane	5.2	U	5.2	0.35
78-87-5	1,2-Dichloropropane	5.2	U	5.2	0.72
541-73-1	1,3-Dichlorobenzene	5.2	U	5.2	0.36
142-28-9	1,3-Dichloropropane	5.2	U	5.2	0.35
106-46-7	1,4-Dichlorobenzene	5.2	U	5.2	0.69
594-20-7	2,2-Dichloropropane	5.2	U	5.2	0.98
78-93-3	2-Butanone	21	U	21	1.5
110-75-8	2-Chloroethyl vinyl ether	52	U	52	1.5
95-49-8	2-Chlorotoluene	5.2	U	5.2	0.42
591-78-6	2-Hexanone	21	U	21	0.66
106-43-4	4-Chlorotoluene	5.2	U	5.2	0.43
99-87-6	p-Isopropyltoluene	5.2	U	5.2	0.22
108-10-1	4-Methyl-2-pentanone	21	U	21	0.56
67-64-1	Acetone	21	U	21	6.6
71-43-2	Benzene	5.2	U	5.2	0.24
108-86-1	Bromobenzene	5.2	U	5.2	0.34
75-25-2	Bromoform	5.2	U	5.2	0.34
74-83-9	Bromomethane	5.2	U	5.2	0.56
75-15-0	Carbon disulfide	5.2	U	5.2	0.46
56-23-5	Carbon tetrachloride	5.2	U	5.2	0.38
108-90-7	Chlorobenzene	5.2	U	5.2	0.34

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 | Lab Sample ID: 240-635-1

Matrix: Solid | Lab File ID: 148886.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:05

Sample wt/vol: 5.958(g) | Date Analyzed: 06/11/2011 14:08

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 19.3 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.2	U	5.2	0.57
75-00-3	Chloroethane	5.2	U *	5.2	0.89
67-66-3	Chloroform	5.2	U	5.2	0.30
74-87-3	Chloromethane	5.2	U	5.2	0.43
156-59-2	cis-1,2-Dichloroethene	5.2	U	5.2	0.37
10061-01-5	cis-1,3-Dichloropropene	5.2	U	5.2	0.35
74-95-3	Dibromomethane	5.2	U	5.2	0.66
74-97-5	Bromochloromethane	5.2	U	5.2	0.74
75-71-8	Dichlorodifluoromethane	5.2	U	5.2	0.52
75-27-4	Bromodichloromethane	5.2	U	5.2	0.29
75-65-0	tert-Butyl alcohol	210	U	210	7.9
100-41-4	Ethylbenzene	5.2	U	5.2	0.27
87-68-3	Hexachlorobutadiene	5.2	U	5.2	1.2
108-20-3	Diisopropyl ether	10	U	10	1.6
98-82-8	Isopropylbenzene	5.2	U	5.2	0.17
1634-04-4	Methyl tert-butyl ether	21	U	21	0.45
75-09-2	Methylene Chloride	2.4	J B	5.2	0.70
179601-23-1	m-Xylene & p-Xylene	10	U	10	1.2
91-20-3	Naphthalene	5.2	U	5.2	0.20
104-51-8	n-Butylbenzene	5.2	U	5.2	0.24
103-65-1	n-Propylbenzene	5.2	U	5.2	0.42
95-47-6	o-Xylene	5.2	U	5.2	0.36
135-98-8	sec-Butylbenzene	5.2	U	5.2	0.19
100-42-5	Styrene	5.2	U	5.2	0.16
994-05-8	Tert-amyl-methyl ether (TAME)	5.2	U	5.2	0.38
637-92-3	Ethyl-t-butyl ether (ETBE)	5.2	U	5.2	0.23
127-18-4	Tetrachloroethene	5.2	U	5.2	0.54
108-88-3	Toluene	5.2	U	5.2	0.28
156-60-5	trans-1,2-Dichloroethene	5.2	U	5.2	0.43
10061-02-6	trans-1,3-Dichloropropene	5.2	U	5.2	0.56
79-01-6	Trichloroethene	5.2	U	5.2	0.44
75-69-4	Trichlorofluoromethane	5.2	U	5.2	0.35
108-05-4	Vinyl acetate	10	U	10	0.26
75-01-4	Vinyl chloride	5.2	U	5.2	0.41
1330-20-7	Xylenes, Total	10	U	10	0.70

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 Lab Sample ID: 240-635-1

Matrix: Solid Lab File ID: 148886.D

Analysis Method: 8260B Date Collected: 05/31/2011 15:05

Sample wt/vol: 5.958(g) Date Analyzed: 06/11/2011 14:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 19.3 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.2	U	5.2	0.30
106-93-4	1,2-Dibromoethane	5.2	U	5.2	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		67-125
1868-53-7	Dibromofluoromethane (Surr)	88		37-132
460-00-4	4-Bromofluorobenzene (Surr)	95		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 Lab Sample ID: 240-635-1

Matrix: Solid Lab File ID: 148886.D

Analysis Method: 8260B Date Collected: 05/31/2011 15:05

Sample wt/vol: 5.958(g) Date Analyzed: 06/11/2011 14:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 19.3 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-10-12 | Lab Sample ID: 240-635-2

Matrix: Solid | Lab File ID: 148887.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:10

Sample wt/vol: 6.895(g) | Date Analyzed: 06/11/2011 14:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 14.1 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.2	U	4.2	0.52
71-55-6	1,1,1-Trichloroethane	4.2	U	4.2	0.47
79-34-5	1,1,2,2-Tetrachloroethane	4.2	U	4.2	0.29
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.2	U	4.2	1.1
75-34-3	1,1-Dichloroethane	4.2	U	4.2	0.30
75-35-4	1,1-Dichloroethene	4.2	U	4.2	0.44
563-58-6	1,1-Dichloropropene	4.2	U	4.2	0.25
87-61-6	1,2,3-Trichlorobenzene	4.2	U	4.2	0.32
96-18-4	1,2,3-Trichloropropane	4.2	U	4.2	0.76
526-73-8	1,2,3-Trimethylbenzene	4.2	U	4.2	0.14
120-82-1	1,2,4-Trichlorobenzene	4.2	U	4.2	0.23
95-63-6	1,2,4-Trimethylbenzene	4.2	U	4.2	0.55
96-12-8	1,2-Dibromo-3-Chloropropane	8.4	U	8.4	1.1
95-50-1	1,2-Dichlorobenzene	4.2	U	4.2	0.30
107-06-2	1,2-Dichloroethane	4.2	U	4.2	0.29
78-87-5	1,2-Dichloropropane	4.2	U	4.2	0.58
541-73-1	1,3-Dichlorobenzene	4.2	U	4.2	0.30
142-28-9	1,3-Dichloropropane	4.2	U	4.2	0.29
106-46-7	1,4-Dichlorobenzene	4.2	U	4.2	0.56
594-20-7	2,2-Dichloropropane	4.2	U	4.2	0.79
78-93-3	2-Butanone	17	U	17	1.2
110-75-8	2-Chloroethyl vinyl ether	42	U	42	1.2
95-49-8	2-Chlorotoluene	4.2	U	4.2	0.34
591-78-6	2-Hexanone	17	U	17	0.53
106-43-4	4-Chlorotoluene	4.2	U	4.2	0.35
99-87-6	p-Isopropyltoluene	4.2	U	4.2	0.18
108-10-1	4-Methyl-2-pentanone	17	U	17	0.46
67-64-1	Acetone	17	U	17	5.3
71-43-2	Benzene	4.2	U	4.2	0.19
108-86-1	Bromobenzene	4.2	U	4.2	0.28
75-25-2	Bromoform	4.2	U	4.2	0.28
74-83-9	Bromomethane	4.2	U	4.2	0.46
75-15-0	Carbon disulfide	4.2	U	4.2	0.37
56-23-5	Carbon tetrachloride	4.2	U	4.2	0.31
108-90-7	Chlorobenzene	4.2	U	4.2	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-10-12 | Lab Sample ID: 240-635-2

Matrix: Solid | Lab File ID: 148887.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:10

Sample wt/vol: 6.895(g) | Date Analyzed: 06/11/2011 14:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 14.1 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.2	U	4.2	0.46
75-00-3	Chloroethane	4.2	U *	4.2	0.73
67-66-3	Chloroform	4.2	U	4.2	0.24
74-87-3	Chloromethane	4.2	U	4.2	0.35
156-59-2	cis-1,2-Dichloroethene	4.2	U	4.2	0.30
10061-01-5	cis-1,3-Dichloropropene	4.2	U	4.2	0.29
74-95-3	Dibromomethane	4.2	U	4.2	0.53
74-97-5	Bromochloromethane	4.2	U	4.2	0.60
75-71-8	Dichlorodifluoromethane	4.2	U	4.2	0.42
75-27-4	Bromodichloromethane	4.2	U	4.2	0.24
75-65-0	tert-Butyl alcohol	170	U	170	6.4
100-41-4	Ethylbenzene	4.2	U	4.2	0.22
87-68-3	Hexachlorobutadiene	4.2	U	4.2	1.0
108-20-3	Diisopropyl ether	8.4	U	8.4	1.3
98-82-8	Isopropylbenzene	4.2	U	4.2	0.14
1634-04-4	Methyl tert-butyl ether	17	U	17	0.36
75-09-2	Methylene Chloride	2.0	J B	4.2	0.57
179601-23-1	m-Xylene & p-Xylene	8.4	U	8.4	1.0
91-20-3	Naphthalene	4.2	U	4.2	0.16
104-51-8	n-Butylbenzene	4.2	U	4.2	0.19
103-65-1	n-Propylbenzene	4.2	U	4.2	0.34
95-47-6	o-Xylene	4.2	U	4.2	0.30
135-98-8	sec-Butylbenzene	4.2	U	4.2	0.15
100-42-5	Styrene	4.2	U	4.2	0.13
994-05-8	Tert-amyl-methyl ether (TAME)	4.2	U	4.2	0.31
637-92-3	Ethyl-t-butyl ether (ETBE)	4.2	U	4.2	0.19
127-18-4	Tetrachloroethene	4.2	U	4.2	0.44
108-88-3	Toluene	4.2	U	4.2	0.23
156-60-5	trans-1,2-Dichloroethene	4.2	U	4.2	0.35
10061-02-6	trans-1,3-Dichloropropene	4.2	U	4.2	0.46
79-01-6	Trichloroethene	4.2	U	4.2	0.35
75-69-4	Trichlorofluoromethane	4.2	U	4.2	0.29
108-05-4	Vinyl acetate	8.4	U	8.4	0.21
75-01-4	Vinyl chloride	4.2	U	4.2	0.33
1330-20-7	Xylenes, Total	8.4	U	8.4	0.57

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-10-12 Lab Sample ID: 240-635-2

Matrix: Solid Lab File ID: 148887.D

Analysis Method: 8260B Date Collected: 05/31/2011 15:10

Sample wt/vol: 6.895(g) Date Analyzed: 06/11/2011 14:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 14.1 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.2	U	4.2	0.24
106-93-4	1,2-Dibromoethane	4.2	U	4.2	0.42

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		67-125
1868-53-7	Dibromofluoromethane (Surr)	85		37-132
460-00-4	4-Bromofluorobenzene (Surr)	97		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-10-12 | Lab Sample ID: 240-635-2

Matrix: Solid | Lab File ID: 148887.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:10

Sample wt/vol: 6.895(g) | Date Analyzed: 06/11/2011 14:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 14.1 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-18-20 | Lab Sample ID: 240-635-3

Matrix: Solid | Lab File ID: 148888.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:15

Sample wt/vol: 5.403(g) | Date Analyzed: 06/11/2011 14:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.7 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.6	U	5.6	0.70
71-55-6	1,1,1-Trichloroethane	5.6	U	5.6	0.63
79-34-5	1,1,2,2-Tetrachloroethane	5.6	U	5.6	0.38
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	5.6	U	5.6	1.5
75-34-3	1,1-Dichloroethane	5.6	U	5.6	0.40
75-35-4	1,1-Dichloroethene	5.6	U	5.6	0.58
563-58-6	1,1-Dichloropropene	5.6	U	5.6	0.34
87-61-6	1,2,3-Trichlorobenzene	5.6	U	5.6	0.43
96-18-4	1,2,3-Trichloropropane	5.6	U	5.6	1.0
526-73-8	1,2,3-Trimethylbenzene	5.6	U	5.6	0.19
120-82-1	1,2,4-Trichlorobenzene	5.6	U	5.6	0.30
95-63-6	1,2,4-Trimethylbenzene	5.6	U	5.6	0.73
96-12-8	1,2-Dibromo-3-Chloropropane	11	U	11	1.5
95-50-1	1,2-Dichlorobenzene	5.6	U	5.6	0.40
107-06-2	1,2-Dichloroethane	5.6	U	5.6	0.38
78-87-5	1,2-Dichloropropane	5.6	U	5.6	0.78
541-73-1	1,3-Dichlorobenzene	5.6	U	5.6	0.39
142-28-9	1,3-Dichloropropane	5.6	U	5.6	0.38
106-46-7	1,4-Dichlorobenzene	5.6	U	5.6	0.74
594-20-7	2,2-Dichloropropane	5.6	U	5.6	1.1
78-93-3	2-Butanone	22	U	22	1.6
110-75-8	2-Chloroethyl vinyl ether	56	U	56	1.6
95-49-8	2-Chlorotoluene	5.6	U	5.6	0.45
591-78-6	2-Hexanone	22	U	22	0.71
106-43-4	4-Chlorotoluene	5.6	U	5.6	0.46
99-87-6	p-Isopropyltoluene	5.6	U	5.6	0.24
108-10-1	4-Methyl-2-pentanone	22	U	22	0.61
67-64-1	Acetone	13	J B	22	7.1
71-43-2	Benzene	5.6	U	5.6	0.26
108-86-1	Bromobenzene	5.6	U	5.6	0.37
75-25-2	Bromoform	5.6	U	5.6	0.37
74-83-9	Bromomethane	5.6	U	5.6	0.61
75-15-0	Carbon disulfide	1.1	J	5.6	0.49
56-23-5	Carbon tetrachloride	5.6	U	5.6	0.42
108-90-7	Chlorobenzene	5.6	U	5.6	0.37

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-18-20 | Lab Sample ID: 240-635-3

Matrix: Solid | Lab File ID: 148888.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:15

Sample wt/vol: 5.403(g) | Date Analyzed: 06/11/2011 14:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.7 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.6	U	5.6	0.62
75-00-3	Chloroethane	5.6	U *	5.6	0.97
67-66-3	Chloroform	5.6	U	5.6	0.33
74-87-3	Chloromethane	5.6	U	5.6	0.46
156-59-2	cis-1,2-Dichloroethene	2.0	J	5.6	0.40
10061-01-5	cis-1,3-Dichloropropene	5.6	U	5.6	0.38
74-95-3	Dibromomethane	5.6	U	5.6	0.71
74-97-5	Bromochloromethane	5.6	U	5.6	0.80
75-71-8	Dichlorodifluoromethane	5.6	U	5.6	0.56
75-27-4	Bromodichloromethane	5.6	U	5.6	0.31
75-65-0	tert-Butyl alcohol	220	U	220	8.5
100-41-4	Ethylbenzene	5.6	U	5.6	0.29
87-68-3	Hexachlorobutadiene	5.6	U	5.6	1.3
108-20-3	Diisopropyl ether	11	U	11	1.7
98-82-8	Isopropylbenzene	5.6	U	5.6	0.18
1634-04-4	Methyl tert-butyl ether	22	U	22	0.48
75-09-2	Methylene Chloride	2.5	J B	5.6	0.75
179601-23-1	m-Xylene & p-Xylene	11	U	11	1.3
91-20-3	Naphthalene	5.6	U	5.6	0.21
104-51-8	n-Butylbenzene	5.6	U	5.6	0.26
103-65-1	n-Propylbenzene	5.6	U	5.6	0.45
95-47-6	o-Xylene	5.6	U	5.6	0.39
135-98-8	sec-Butylbenzene	5.6	U	5.6	0.20
100-42-5	Styrene	5.6	U	5.6	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.6	U	5.6	0.42
637-92-3	Ethyl-t-butyl ether (ETBE)	5.6	U	5.6	0.25
127-18-4	Tetrachloroethene	5.6	U	5.6	0.58
108-88-3	Toluene	5.6	U	5.6	0.30
156-60-5	trans-1,2-Dichloroethene	5.6	U	5.6	0.46
10061-02-6	trans-1,3-Dichloropropene	5.6	U	5.6	0.61
79-01-6	Trichloroethene	32		5.6	0.47
75-69-4	Trichlorofluoromethane	5.6	U	5.6	0.38
108-05-4	Vinyl acetate	11	U	11	0.28
75-01-4	Vinyl chloride	0.45	J	5.6	0.44
1330-20-7	Xylenes, Total	11	U	11	0.75

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-18-20 Lab Sample ID: 240-635-3

Matrix: Solid Lab File ID: 148888.D

Analysis Method: 8260B Date Collected: 05/31/2011 15:15

Sample wt/vol: 5.403(g) Date Analyzed: 06/11/2011 14:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.7 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.6	U	5.6	0.33
106-93-4	1,2-Dibromoethane	5.6	U	5.6	0.56

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	112		67-125
1868-53-7	Dibromofluoromethane (Surr)	87		37-132
460-00-4	4-Bromofluorobenzene (Surr)	114		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-18-20 Lab Sample ID: 240-635-3

Matrix: Solid Lab File ID: 148888.D

Analysis Method: 8260B Date Collected: 05/31/2011 15:15

Sample wt/vol: 5.403(g) Date Analyzed: 06/11/2011 14:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.7 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-0-2 Lab Sample ID: 240-635-4

Matrix: Solid Lab File ID: 148889.D

Analysis Method: 8260B Date Collected: 05/31/2011 13:15

Sample wt/vol: 5.37(g) Date Analyzed: 06/11/2011 15:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.4 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.1	U	5.1	0.64
71-55-6	1,1,1-Trichloroethane	5.1	U	5.1	0.58
79-34-5	1,1,2,2-Tetrachloroethane	5.1	U	5.1	0.35
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	5.1	U	5.1	1.3
75-34-3	1,1-Dichloroethane	5.1	U	5.1	0.37
75-35-4	1,1-Dichloroethene	5.1	U	5.1	0.53
563-58-6	1,1-Dichloropropene	5.1	U	5.1	0.31
87-61-6	1,2,3-Trichlorobenzene	5.1	U	5.1	0.39
96-18-4	1,2,3-Trichloropropane	5.1	U	5.1	0.92
526-73-8	1,2,3-Trimethylbenzene	5.1	U	5.1	0.17
120-82-1	1,2,4-Trichlorobenzene	5.1	U	5.1	0.28
95-63-6	1,2,4-Trimethylbenzene	5.1	U	5.1	0.67
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	1.3
95-50-1	1,2-Dichlorobenzene	5.1	U	5.1	0.37
107-06-2	1,2-Dichloroethane	5.1	U	5.1	0.35
78-87-5	1,2-Dichloropropane	5.1	U	5.1	0.71
541-73-1	1,3-Dichlorobenzene	5.1	U	5.1	0.36
142-28-9	1,3-Dichloropropane	5.1	U	5.1	0.35
106-46-7	1,4-Dichlorobenzene	5.1	U	5.1	0.68
594-20-7	2,2-Dichloropropane	5.1	U	5.1	0.97
78-93-3	2-Butanone	21	U	21	1.4
110-75-8	2-Chloroethyl vinyl ether	51	U	51	1.4
95-49-8	2-Chlorotoluene	5.1	U	5.1	0.41
591-78-6	2-Hexanone	21	U	21	0.65
106-43-4	4-Chlorotoluene	5.1	U	5.1	0.42
99-87-6	p-Isopropyltoluene	5.1	U	5.1	0.22
108-10-1	4-Methyl-2-pentanone	21	U	21	0.55
67-64-1	Acetone	21	U	21	6.5
71-43-2	Benzene	5.1	U	5.1	0.24
108-86-1	Bromobenzene	5.1	U	5.1	0.34
75-25-2	Bromoform	5.1	U	5.1	0.34
74-83-9	Bromomethane	5.1	U	5.1	0.55
75-15-0	Carbon disulfide	5.1	U	5.1	0.45
56-23-5	Carbon tetrachloride	5.1	U	5.1	0.38
108-90-7	Chlorobenzene	5.1	U	5.1	0.34

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-0-2 | Lab Sample ID: 240-635-4

Matrix: Solid | Lab File ID: 148889.D

Analysis Method: 8260B | Date Collected: 05/31/2011 13:15

Sample wt/vol: 5.37(g) | Date Analyzed: 06/11/2011 15:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.4 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.1	U	5.1	0.56
75-00-3	Chloroethane	5.1	U *	5.1	0.88
67-66-3	Chloroform	5.1	U	5.1	0.30
74-87-3	Chloromethane	5.1	U	5.1	0.42
156-59-2	cis-1,2-Dichloroethene	5.1	U	5.1	0.37
10061-01-5	cis-1,3-Dichloropropene	5.1	U	5.1	0.35
74-95-3	Dibromomethane	5.1	U	5.1	0.65
74-97-5	Bromochloromethane	5.1	U	5.1	0.73
75-71-8	Dichlorodifluoromethane	5.1	U	5.1	0.51
75-27-4	Bromodichloromethane	5.1	U	5.1	0.29
75-65-0	tert-Butyl alcohol	210	U	210	7.8
100-41-4	Ethylbenzene	5.1	U	5.1	0.27
87-68-3	Hexachlorobutadiene	5.1	U	5.1	1.2
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	5.1	U	5.1	0.16
1634-04-4	Methyl tert-butyl ether	21	U	21	0.44
75-09-2	Methylene Chloride	2.1	J B	5.1	0.69
179601-23-1	m-Xylene & p-Xylene	10	U	10	1.2
91-20-3	Naphthalene	5.1	U	5.1	0.20
104-51-8	n-Butylbenzene	5.1	U	5.1	0.24
103-65-1	n-Propylbenzene	5.1	U	5.1	0.41
95-47-6	o-Xylene	5.1	U	5.1	0.36
135-98-8	sec-Butylbenzene	5.1	U	5.1	0.18
100-42-5	Styrene	5.1	U	5.1	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	5.1	U	5.1	0.38
637-92-3	Ethyl-t-butyl ether (ETBE)	5.1	U	5.1	0.23
127-18-4	Tetrachloroethene	5.1	U	5.1	0.53
108-88-3	Toluene	5.1	U	5.1	0.28
156-60-5	trans-1,2-Dichloroethene	5.1	U	5.1	0.42
10061-02-6	trans-1,3-Dichloropropene	5.1	U	5.1	0.55
79-01-6	Trichloroethene	5.1	U	5.1	0.43
75-69-4	Trichlorofluoromethane	5.1	U	5.1	0.35
108-05-4	Vinyl acetate	10	U	10	0.26
75-01-4	Vinyl chloride	5.1	U	5.1	0.40
1330-20-7	Xylenes, Total	10	U	10	0.69

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-0-2 Lab Sample ID: 240-635-4

Matrix: Solid Lab File ID: 148889.D

Analysis Method: 8260B Date Collected: 05/31/2011 13:15

Sample wt/vol: 5.37(g) Date Analyzed: 06/11/2011 15:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.4 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.1	U	5.1	0.30
106-93-4	1,2-Dibromoethane	5.1	U	5.1	0.51

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	109		67-125
1868-53-7	Dibromofluoromethane (Surr)	84		37-132
460-00-4	4-Bromofluorobenzene (Surr)	108		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-0-2 | Lab Sample ID: 240-635-4

Matrix: Solid | Lab File ID: 148889.D

Analysis Method: 8260B | Date Collected: 05/31/2011 13:15

Sample wt/vol: 5.37(g) | Date Analyzed: 06/11/2011 15:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.4 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

Number TICs Found: 1 | TIC Result Total: 2.8

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.79	2.8	J

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-20-22 | Lab Sample ID: 240-635-6

Matrix: Solid | Lab File ID: 148891.D

Analysis Method: 8260B | Date Collected: 05/31/2011 13:45

Sample wt/vol: 7.491(g) | Date Analyzed: 06/11/2011 15:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.2 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.1	U	4.1	0.51
71-55-6	1,1,1-Trichloroethane	4.1	U	4.1	0.46
79-34-5	1,1,2,2-Tetrachloroethane	4.1	U	4.1	0.28
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.1	U	4.1	1.1
75-34-3	1,1-Dichloroethane	4.1	U	4.1	0.29
75-35-4	1,1-Dichloroethene	4.1	U	4.1	0.42
563-58-6	1,1-Dichloropropene	4.1	U	4.1	0.24
87-61-6	1,2,3-Trichlorobenzene	4.1	U	4.1	0.31
96-18-4	1,2,3-Trichloropropane	4.1	U	4.1	0.73
526-73-8	1,2,3-Trimethylbenzene	4.1	U	4.1	0.14
120-82-1	1,2,4-Trichlorobenzene	4.1	U	4.1	0.22
95-63-6	1,2,4-Trimethylbenzene	4.1	U	4.1	0.53
96-12-8	1,2-Dibromo-3-Chloropropane	8.2	U	8.2	1.1
95-50-1	1,2-Dichlorobenzene	4.1	U	4.1	0.29
107-06-2	1,2-Dichloroethane	4.1	U	4.1	0.28
78-87-5	1,2-Dichloropropane	4.1	U	4.1	0.56
541-73-1	1,3-Dichlorobenzene	4.1	U	4.1	0.29
142-28-9	1,3-Dichloropropane	4.1	U	4.1	0.28
106-46-7	1,4-Dichlorobenzene	4.1	U	4.1	0.54
594-20-7	2,2-Dichloropropane	4.1	U	4.1	0.77
78-93-3	2-Butanone	16	U	16	1.1
110-75-8	2-Chloroethyl vinyl ether	41	U	41	1.1
95-49-8	2-Chlorotoluene	4.1	U	4.1	0.33
591-78-6	2-Hexanone	16	U	16	0.51
106-43-4	4-Chlorotoluene	4.1	U	4.1	0.33
99-87-6	p-Isopropyltoluene	4.1	U	4.1	0.17
108-10-1	4-Methyl-2-pentanone	16	U	16	0.44
67-64-1	Acetone	16	U	16	5.1
71-43-2	Benzene	4.1	U	4.1	0.19
108-86-1	Bromobenzene	4.1	U	4.1	0.27
75-25-2	Bromoform	4.1	U	4.1	0.27
74-83-9	Bromomethane	4.1	U	4.1	0.44
75-15-0	Carbon disulfide	4.1	U	4.1	0.36
56-23-5	Carbon tetrachloride	4.1	U	4.1	0.30
108-90-7	Chlorobenzene	4.1	U	4.1	0.27

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-20-22 Lab Sample ID: 240-635-6

Matrix: Solid Lab File ID: 148891.D

Analysis Method: 8260B Date Collected: 05/31/2011 13:45

Sample wt/vol: 7.491(g) Date Analyzed: 06/11/2011 15:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.2 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.1	U	4.1	0.45
75-00-3	Chloroethane	4.1	U *	4.1	0.70
67-66-3	Chloroform	4.1	U	4.1	0.24
74-87-3	Chloromethane	4.1	U	4.1	0.33
156-59-2	cis-1,2-Dichloroethene	4.1	U	4.1	0.29
10061-01-5	cis-1,3-Dichloropropene	4.1	U	4.1	0.28
74-95-3	Dibromomethane	4.1	U	4.1	0.51
74-97-5	Bromochloromethane	4.1	U	4.1	0.58
75-71-8	Dichlorodifluoromethane	4.1	U	4.1	0.41
75-27-4	Bromodichloromethane	4.1	U	4.1	0.23
75-65-0	tert-Butyl alcohol	160	U	160	6.2
100-41-4	Ethylbenzene	4.1	U	4.1	0.21
87-68-3	Hexachlorobutadiene	4.1	U	4.1	0.98
108-20-3	Diisopropyl ether	8.2	U	8.2	1.2
98-82-8	Isopropylbenzene	4.1	U	4.1	0.13
1634-04-4	Methyl tert-butyl ether	16	U	16	0.35
75-09-2	Methylene Chloride	2.2	J B	4.1	0.55
179601-23-1	m-Xylene & p-Xylene	8.2	U	8.2	0.98
91-20-3	Naphthalene	4.1	U	4.1	0.15
104-51-8	n-Butylbenzene	4.1	U	4.1	0.19
103-65-1	n-Propylbenzene	4.1	U	4.1	0.33
95-47-6	o-Xylene	4.1	U	4.1	0.29
135-98-8	sec-Butylbenzene	4.1	U	4.1	0.15
100-42-5	Styrene	4.1	U	4.1	0.12
994-05-8	Tert-amyl-methyl ether (TAME)	4.1	U	4.1	0.30
637-92-3	Ethyl-t-butyl ether (ETBE)	4.1	U	4.1	0.18
127-18-4	Tetrachloroethene	4.1	U	4.1	0.42
108-88-3	Toluene	4.1	U	4.1	0.22
156-60-5	trans-1,2-Dichloroethene	4.1	U	4.1	0.33
10061-02-6	trans-1,3-Dichloropropene	4.1	U	4.1	0.44
79-01-6	Trichloroethene	1.4	J	4.1	0.34
75-69-4	Trichlorofluoromethane	4.1	U	4.1	0.28
108-05-4	Vinyl acetate	8.2	U	8.2	0.20
75-01-4	Vinyl chloride	0.55	J	4.1	0.32
1330-20-7	Xylenes, Total	8.2	U	8.2	0.55

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-20-22 Lab Sample ID: 240-635-6

Matrix: Solid Lab File ID: 148891.D

Analysis Method: 8260B Date Collected: 05/31/2011 13:45

Sample wt/vol: 7.491(g) Date Analyzed: 06/11/2011 15:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.2 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.1	U	4.1	0.24
106-93-4	1,2-Dibromoethane	4.1	U	4.1	0.41

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		67-125
1868-53-7	Dibromofluoromethane (Surr)	85		37-132
460-00-4	4-Bromofluorobenzene (Surr)	96		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-20-22 | Lab Sample ID: 240-635-6

Matrix: Solid | Lab File ID: 148891.D

Analysis Method: 8260B | Date Collected: 05/31/2011 13:45

Sample wt/vol: 7.491(g) | Date Analyzed: 06/11/2011 15:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.2 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-6-8 Lab Sample ID: 240-635-5

Matrix: Solid Lab File ID: 148890.D

Analysis Method: 8260B Date Collected: 05/31/2011 13:30

Sample wt/vol: 6.826(g) Date Analyzed: 06/11/2011 15:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.5 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.2	U	4.2	0.52
71-55-6	1,1,1-Trichloroethane	4.2	U	4.2	0.47
79-34-5	1,1,2,2-Tetrachloroethane	4.2	U	4.2	0.28
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.2	U	4.2	1.1
75-34-3	1,1-Dichloroethane	4.2	U	4.2	0.30
75-35-4	1,1-Dichloroethene	4.2	U	4.2	0.44
563-58-6	1,1-Dichloropropene	4.2	U	4.2	0.25
87-61-6	1,2,3-Trichlorobenzene	4.2	U	4.2	0.32
96-18-4	1,2,3-Trichloropropane	4.2	U	4.2	0.75
526-73-8	1,2,3-Trimethylbenzene	4.2	U	4.2	0.14
120-82-1	1,2,4-Trichlorobenzene	4.2	U	4.2	0.23
95-63-6	1,2,4-Trimethylbenzene	4.2	U	4.2	0.54
96-12-8	1,2-Dibromo-3-Chloropropane	8.4	U	8.4	1.1
95-50-1	1,2-Dichlorobenzene	4.2	U	4.2	0.30
107-06-2	1,2-Dichloroethane	4.2	U	4.2	0.28
78-87-5	1,2-Dichloropropane	4.2	U	4.2	0.58
541-73-1	1,3-Dichlorobenzene	4.2	U	4.2	0.29
142-28-9	1,3-Dichloropropane	4.2	U	4.2	0.28
106-46-7	1,4-Dichlorobenzene	4.2	U	4.2	0.55
594-20-7	2,2-Dichloropropane	4.2	U	4.2	0.79
78-93-3	2-Butanone	17	U	17	1.2
110-75-8	2-Chloroethyl vinyl ether	42	U	42	1.2
95-49-8	2-Chlorotoluene	4.2	U	4.2	0.33
591-78-6	2-Hexanone	17	U	17	0.53
106-43-4	4-Chlorotoluene	4.2	U	4.2	0.34
99-87-6	p-Isopropyltoluene	4.2	U	4.2	0.18
108-10-1	4-Methyl-2-pentanone	17	U	17	0.45
67-64-1	Acetone	17	U	17	5.3
71-43-2	Benzene	4.2	U	4.2	0.19
108-86-1	Bromobenzene	4.2	U	4.2	0.28
75-25-2	Bromoform	4.2	U	4.2	0.28
74-83-9	Bromomethane	4.2	U	4.2	0.45
75-15-0	Carbon disulfide	0.56	J	4.2	0.37
56-23-5	Carbon tetrachloride	4.2	U	4.2	0.31
108-90-7	Chlorobenzene	4.2	U	4.2	0.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-6-8 Lab Sample ID: 240-635-5

Matrix: Solid Lab File ID: 148890.D

Analysis Method: 8260B Date Collected: 05/31/2011 13:30

Sample wt/vol: 6.826(g) Date Analyzed: 06/11/2011 15:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.5 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.2	U	4.2	0.46
75-00-3	Chloroethane	4.2	U *	4.2	0.72
67-66-3	Chloroform	4.2	U	4.2	0.24
74-87-3	Chloromethane	4.2	U	4.2	0.34
156-59-2	cis-1,2-Dichloroethene	4.2	U	4.2	0.30
10061-01-5	cis-1,3-Dichloropropene	4.2	U	4.2	0.28
74-95-3	Dibromomethane	4.2	U	4.2	0.53
74-97-5	Bromochloromethane	4.2	U	4.2	0.59
75-71-8	Dichlorodifluoromethane	4.2	U	4.2	0.42
75-27-4	Bromodichloromethane	4.2	U	4.2	0.23
75-65-0	tert-Butyl alcohol	170	U	170	6.4
100-41-4	Ethylbenzene	4.2	U	4.2	0.22
87-68-3	Hexachlorobutadiene	4.2	U	4.2	1.0
108-20-3	Diisopropyl ether	8.4	U	8.4	1.3
98-82-8	Isopropylbenzene	4.2	U	4.2	0.13
1634-04-4	Methyl tert-butyl ether	17	U	17	0.36
75-09-2	Methylene Chloride	1.8	J B	4.2	0.56
179601-23-1	m-Xylene & p-Xylene	8.4	U	8.4	1.0
91-20-3	Naphthalene	4.2	U	4.2	0.16
104-51-8	n-Butylbenzene	4.2	U	4.2	0.19
103-65-1	n-Propylbenzene	4.2	U	4.2	0.33
95-47-6	o-Xylene	4.2	U	4.2	0.29
135-98-8	sec-Butylbenzene	4.2	U	4.2	0.15
100-42-5	Styrene	4.2	U	4.2	0.13
994-05-8	Tert-amyl-methyl ether (TAME)	4.2	U	4.2	0.31
637-92-3	Ethyl-t-butyl ether (ETBE)	4.2	U	4.2	0.18
127-18-4	Tetrachloroethene	4.2	U	4.2	0.44
108-88-3	Toluene	4.2	U	4.2	0.23
156-60-5	trans-1,2-Dichloroethene	4.2	U	4.2	0.34
10061-02-6	trans-1,3-Dichloropropene	4.2	U	4.2	0.45
79-01-6	Trichloroethene	4.2	U	4.2	0.35
75-69-4	Trichlorofluoromethane	4.2	U	4.2	0.28
108-05-4	Vinyl acetate	8.4	U	8.4	0.21
75-01-4	Vinyl chloride	4.2	U	4.2	0.33
1330-20-7	Xylenes, Total	8.4	U	8.4	0.56

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-6-8 | Lab Sample ID: 240-635-5

Matrix: Solid | Lab File ID: 148890.D

Analysis Method: 8260B | Date Collected: 05/31/2011 13:30

Sample wt/vol: 6.826(g) | Date Analyzed: 06/11/2011 15:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.5 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.2	U	4.2	0.24
106-93-4	1,2-Dibromoethane	4.2	U	4.2	0.42

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		67-125
1868-53-7	Dibromofluoromethane (Surr)	86		37-132
460-00-4	4-Bromofluorobenzene (Surr)	95		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-6-8 | Lab Sample ID: 240-635-5

Matrix: Solid | Lab File ID: 148890.D

Analysis Method: 8260B | Date Collected: 05/31/2011 13:30

Sample wt/vol: 6.826(g) | Date Analyzed: 06/11/2011 15:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.5 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-0-2 | Lab Sample ID: 240-635-13

Matrix: Solid | Lab File ID: 148895.D

Analysis Method: 8260B | Date Collected: 05/31/2011 14:15

Sample wt/vol: 6.384(g) | Date Analyzed: 06/11/2011 17:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.9	U	3.9	0.49
71-55-6	1,1,1-Trichloroethane	3.9	U	3.9	0.44
79-34-5	1,1,2,2-Tetrachloroethane	3.9	U	3.9	0.27
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	3.9	U	3.9	1.0
75-34-3	1,1-Dichloroethane	3.9	U	3.9	0.28
75-35-4	1,1-Dichloroethene	3.9	U	3.9	0.41
563-58-6	1,1-Dichloropropene	3.9	U	3.9	0.23
87-61-6	1,2,3-Trichlorobenzene	3.9	U	3.9	0.30
96-18-4	1,2,3-Trichloropropane	3.9	U	3.9	0.70
526-73-8	1,2,3-Trimethylbenzene	3.9	U	3.9	0.13
120-82-1	1,2,4-Trichlorobenzene	3.9	U	3.9	0.21
95-63-6	1,2,4-Trimethylbenzene	3.9	U	3.9	0.51
96-12-8	1,2-Dibromo-3-Chloropropane	7.8	U	7.8	1.0
95-50-1	1,2-Dichlorobenzene	3.9	U	3.9	0.28
107-06-2	1,2-Dichloroethane	3.9	U	3.9	0.27
78-87-5	1,2-Dichloropropane	3.9	U	3.9	0.54
541-73-1	1,3-Dichlorobenzene	3.9	U	3.9	0.27
142-28-9	1,3-Dichloropropane	3.9	U	3.9	0.27
106-46-7	1,4-Dichlorobenzene	3.9	U	3.9	0.52
594-20-7	2,2-Dichloropropane	3.9	U	3.9	0.74
78-93-3	2-Butanone	16	U	16	1.1
110-75-8	2-Chloroethyl vinyl ether	39	U	39	1.1
95-49-8	2-Chlorotoluene	3.9	U	3.9	0.31
591-78-6	2-Hexanone	16	U	16	0.49
106-43-4	4-Chlorotoluene	3.9	U	3.9	0.32
99-87-6	p-Isopropyltoluene	3.9	U	3.9	0.16
108-10-1	4-Methyl-2-pentanone	16	U	16	0.42
67-64-1	Acetone	16	U	16	4.9
71-43-2	Benzene	3.9	U	3.9	0.18
108-86-1	Bromobenzene	3.9	U	3.9	0.26
75-25-2	Bromoform	3.9	U	3.9	0.26
74-83-9	Bromomethane	3.9	U	3.9	0.42
75-15-0	Carbon disulfide	3.9	U	3.9	0.34
56-23-5	Carbon tetrachloride	3.9	U	3.9	0.29
108-90-7	Chlorobenzene	3.9	U	3.9	0.26

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-0-2 | Lab Sample ID: 240-635-13

Matrix: Solid | Lab File ID: 148895.D

Analysis Method: 8260B | Date Collected: 05/31/2011 14:15

Sample wt/vol: 6.384(g) | Date Analyzed: 06/11/2011 17:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	3.9	U	3.9	0.43
75-00-3	Chloroethane	3.9	U *	3.9	0.67
67-66-3	Chloroform	3.9	U	3.9	0.23
74-87-3	Chloromethane	3.9	U	3.9	0.32
156-59-2	cis-1,2-Dichloroethene	3.9	U	3.9	0.28
10061-01-5	cis-1,3-Dichloropropene	3.9	U	3.9	0.27
74-95-3	Dibromomethane	3.9	U	3.9	0.49
74-97-5	Bromochloromethane	3.9	U	3.9	0.56
75-71-8	Dichlorodifluoromethane	3.9	U	3.9	0.39
75-27-4	Bromodichloromethane	3.9	U	3.9	0.22
75-65-0	tert-Butyl alcohol	160	U	160	6.0
100-41-4	Ethylbenzene	3.9	U	3.9	0.20
87-68-3	Hexachlorobutadiene	3.9	U	3.9	0.94
108-20-3	Diisopropyl ether	7.8	U	7.8	1.2
98-82-8	Isopropylbenzene	3.9	U	3.9	0.13
1634-04-4	Methyl tert-butyl ether	16	U	16	0.34
75-09-2	Methylene Chloride	2.2	J B	3.9	0.52
179601-23-1	m-Xylene & p-Xylene	7.8	U	7.8	0.94
91-20-3	Naphthalene	3.9	U	3.9	0.15
104-51-8	n-Butylbenzene	3.9	U	3.9	0.18
103-65-1	n-Propylbenzene	3.9	U	3.9	0.31
95-47-6	o-Xylene	3.9	U	3.9	0.27
135-98-8	sec-Butylbenzene	3.9	U	3.9	0.14
100-42-5	Styrene	3.9	U	3.9	0.12
994-05-8	Tert-amyl-methyl ether (TAME)	3.9	U	3.9	0.29
637-92-3	Ethyl-t-butyl ether (ETBE)	3.9	U	3.9	0.17
127-18-4	Tetrachloroethene	3.9	U	3.9	0.41
108-88-3	Toluene	3.9	U	3.9	0.21
156-60-5	trans-1,2-Dichloroethene	3.9	U	3.9	0.32
10061-02-6	trans-1,3-Dichloropropene	3.9	U	3.9	0.42
79-01-6	Trichloroethene	3.9	U	3.9	0.33
75-69-4	Trichlorofluoromethane	3.9	U	3.9	0.27
108-05-4	Vinyl acetate	7.8	U	7.8	0.20
75-01-4	Vinyl chloride	3.9	U	3.9	0.31
1330-20-7	Xylenes, Total	7.8	U	7.8	0.52

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-0-2 Lab Sample ID: 240-635-13

Matrix: Solid Lab File ID: 148895.D

Analysis Method: 8260B Date Collected: 05/31/2011 14:15

Sample wt/vol: 6.384(g) Date Analyzed: 06/11/2011 17:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	3.9	U	3.9	0.23
106-93-4	1,2-Dibromoethane	3.9	U	3.9	0.39

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		67-125
1868-53-7	Dibromofluoromethane (Surr)	84		37-132
460-00-4	4-Bromofluorobenzene (Surr)	97		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-0-2 Lab Sample ID: 240-635-13

Matrix: Solid Lab File ID: 148895.D

Analysis Method: 8260B Date Collected: 05/31/2011 14:15

Sample wt/vol: 6.384(g) Date Analyzed: 06/11/2011 17:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

Number TICs Found: 1 TIC Result Total: 1.9

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.78	1.9	J

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-20-22 Lab Sample ID: 240-635-15

Matrix: Solid Lab File ID: 148921.D

Analysis Method: 8260B Date Collected: 05/31/2011 14:45

Sample wt/vol: 7.009(g) Date Analyzed: 06/12/2011 11:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.6	U	3.6	0.44
71-55-6	1,1,1-Trichloroethane	3.6	U	3.6	0.40
79-34-5	1,1,2,2-Tetrachloroethane	3.6	U	3.6	0.24
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	3.6	U	3.6	0.93
75-34-3	1,1-Dichloroethane	3.6	U	3.6	0.26
75-35-4	1,1-Dichloroethene	3.6	U	3.6	0.37
563-58-6	1,1-Dichloropropene	3.6	U	3.6	0.21
87-61-6	1,2,3-Trichlorobenzene	3.6	U	3.6	0.27
96-18-4	1,2,3-Trichloropropane	3.6	U	3.6	0.64
526-73-8	1,2,3-Trimethylbenzene	3.6	U	3.6	0.12
120-82-1	1,2,4-Trichlorobenzene	3.6	U	3.6	0.19
95-63-6	1,2,4-Trimethylbenzene	3.6	U	3.6	0.46
96-12-8	1,2-Dibromo-3-Chloropropane	7.1	U	7.1	0.93
95-50-1	1,2-Dichlorobenzene	3.6	U	3.6	0.26
107-06-2	1,2-Dichloroethane	3.6	U	3.6	0.24
78-87-5	1,2-Dichloropropane	3.6	U	3.6	0.49
541-73-1	1,3-Dichlorobenzene	3.6	U	3.6	0.25
142-28-9	1,3-Dichloropropane	3.6	U	3.6	0.24
106-46-7	1,4-Dichlorobenzene	3.6	U	3.6	0.47
594-20-7	2,2-Dichloropropane	3.6	U	3.6	0.67
78-93-3	2-Butanone	14	U	14	1.0
110-75-8	2-Chloroethyl vinyl ether	36	U	36	1.0
95-49-8	2-Chlorotoluene	3.6	U	3.6	0.29
591-78-6	2-Hexanone	14	U	14	0.45
106-43-4	4-Chlorotoluene	3.6	U	3.6	0.29
99-87-6	p-Isopropyltoluene	3.6	U	3.6	0.15
108-10-1	4-Methyl-2-pentanone	14	U	14	0.39
67-64-1	Acetone	10	J B	14	4.5
71-43-2	Benzene	0.50	J	3.6	0.16
108-86-1	Bromobenzene	3.6	U	3.6	0.24
75-25-2	Bromoform	3.6	U	3.6	0.24
74-83-9	Bromomethane	3.6	U	3.6	0.39
75-15-0	Carbon disulfide	3.6	U	3.6	0.31
56-23-5	Carbon tetrachloride	3.6	U	3.6	0.26
108-90-7	Chlorobenzene	3.6	U	3.6	0.24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-20-22 | Lab Sample ID: 240-635-15

Matrix: Solid | Lab File ID: 148921.D

Analysis Method: 8260B | Date Collected: 05/31/2011 14:45

Sample wt/vol: 7.009(g) | Date Analyzed: 06/12/2011 11:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	3.6	U	3.6	0.39
75-00-3	Chloroethane	3.6	U *	3.6	0.61
67-66-3	Chloroform	3.6	U	3.6	0.21
74-87-3	Chloromethane	3.6	U	3.6	0.29
156-59-2	cis-1,2-Dichloroethene	4.2		3.6	0.26
10061-01-5	cis-1,3-Dichloropropene	3.6	U	3.6	0.24
74-95-3	Dibromomethane	3.6	U	3.6	0.45
74-97-5	Bromochloromethane	3.6	U	3.6	0.51
75-71-8	Dichlorodifluoromethane	3.6	U	3.6	0.36
75-27-4	Bromodichloromethane	3.6	U	3.6	0.20
75-65-0	tert-Butyl alcohol	140	U	140	5.4
100-41-4	Ethylbenzene	3.6	U	3.6	0.19
87-68-3	Hexachlorobutadiene	3.6	U	3.6	0.86
108-20-3	Diisopropyl ether	7.1	U	7.1	1.1
98-82-8	Isopropylbenzene	3.6	U	3.6	0.11
1634-04-4	Methyl tert-butyl ether	14	U	14	0.31
75-09-2	Methylene Chloride	2.2	J B	3.6	0.48
179601-23-1	m-Xylene & p-Xylene	7.1	U	7.1	0.86
91-20-3	Naphthalene	3.6	U	3.6	0.14
104-51-8	n-Butylbenzene	3.6	U	3.6	0.16
103-65-1	n-Propylbenzene	3.6	U	3.6	0.29
95-47-6	o-Xylene	3.6	U	3.6	0.25
135-98-8	sec-Butylbenzene	3.6	U	3.6	0.13
100-42-5	Styrene	3.6	U	3.6	0.11
994-05-8	Tert-amyl-methyl ether (TAME)	3.6	U	3.6	0.26
637-92-3	Ethyl-t-butyl ether (ETBE)	3.6	U	3.6	0.16
127-18-4	Tetrachloroethene	3.6	U	3.6	0.37
108-88-3	Toluene	3.6	U	3.6	0.19
156-60-5	trans-1,2-Dichloroethene	3.6	U	3.6	0.29
10061-02-6	trans-1,3-Dichloropropene	3.6	U	3.6	0.39
79-01-6	Trichloroethene	2.5	J	3.6	0.30
75-69-4	Trichlorofluoromethane	3.6	U	3.6	0.24
108-05-4	Vinyl acetate	7.1	U	7.1	0.18
75-01-4	Vinyl chloride	1.5	J	3.6	0.28
1330-20-7	Xylenes, Total	7.1	U	7.1	0.48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-20-22 Lab Sample ID: 240-635-15

Matrix: Solid Lab File ID: 148921.D

Analysis Method: 8260B Date Collected: 05/31/2011 14:45

Sample wt/vol: 7.009(g) Date Analyzed: 06/12/2011 11:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	3.6	U	3.6	0.21
106-93-4	1,2-Dibromoethane	3.6	U	3.6	0.36

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	111		67-125
1868-53-7	Dibromofluoromethane (Surr)	83		37-132
460-00-4	4-Bromofluorobenzene (Surr)	104		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton	Job No.: 240-635-1
SDG No.:	
Client Sample ID: G-SP-SB-118-20-22	Lab Sample ID: 240-635-15
Matrix: Solid	Lab File ID: 148921.D
Analysis Method: 8260B	Date Collected: 05/31/2011 14:45
Sample wt/vol: 7.009(g)	Date Analyzed: 06/12/2011 11:53
Soil Aliquot Vol:	Dilution Factor: 1
Soil Extract Vol.:	GC Column: DB-624 ID: 0.18(mm)
% Moisture:	Level: (low/med) Low
Analysis Batch No.: 4446	Units: ug/Kg
Number TICs Found: 0	TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-6-8 Lab Sample ID: 240-635-14

Matrix: Solid Lab File ID: 148920.D

Analysis Method: 8260B Date Collected: 05/31/2011 14:30

Sample wt/vol: 7.38(g) Date Analyzed: 06/12/2011 11:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	3.4	U	3.4	0.42
71-55-6	1,1,1-Trichloroethane	3.4	U	3.4	0.38
79-34-5	1,1,2,2-Tetrachloroethane	3.4	U	3.4	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	3.4	U	3.4	0.88
75-34-3	1,1-Dichloroethane	3.4	U	3.4	0.24
75-35-4	1,1-Dichloroethene	3.4	U	3.4	0.35
563-58-6	1,1-Dichloropropene	3.4	U	3.4	0.20
87-61-6	1,2,3-Trichlorobenzene	3.4	U	3.4	0.26
96-18-4	1,2,3-Trichloropropane	3.4	U	3.4	0.61
526-73-8	1,2,3-Trimethylbenzene	3.4	U	3.4	0.12
120-82-1	1,2,4-Trichlorobenzene	3.4	U	3.4	0.18
95-63-6	1,2,4-Trimethylbenzene	3.4	U	3.4	0.44
96-12-8	1,2-Dibromo-3-Chloropropane	6.8	U	6.8	0.88
95-50-1	1,2-Dichlorobenzene	3.4	U	3.4	0.24
107-06-2	1,2-Dichloroethane	3.4	U	3.4	0.23
78-87-5	1,2-Dichloropropane	3.4	U	3.4	0.47
541-73-1	1,3-Dichlorobenzene	3.4	U	3.4	0.24
142-28-9	1,3-Dichloropropane	3.4	U	3.4	0.23
106-46-7	1,4-Dichlorobenzene	3.4	U	3.4	0.45
594-20-7	2,2-Dichloropropane	3.4	U	3.4	0.64
78-93-3	2-Butanone	14	U	14	0.95
110-75-8	2-Chloroethyl vinyl ether	34	U	34	0.95
95-49-8	2-Chlorotoluene	3.4	U	3.4	0.27
591-78-6	2-Hexanone	14	U	14	0.43
106-43-4	4-Chlorotoluene	3.4	U	3.4	0.28
99-87-6	p-Isopropyltoluene	3.4	U	3.4	0.14
108-10-1	4-Methyl-2-pentanone	14	U	14	0.37
67-64-1	Acetone	14	U	14	4.3
71-43-2	Benzene	3.4	U	3.4	0.16
108-86-1	Bromobenzene	3.4	U	3.4	0.22
75-25-2	Bromoform	3.4	U	3.4	0.22
74-83-9	Bromomethane	3.4	U	3.4	0.37
75-15-0	Carbon disulfide	3.4	U	3.4	0.30
56-23-5	Carbon tetrachloride	3.4	U	3.4	0.25
108-90-7	Chlorobenzene	3.4	U	3.4	0.22

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-6-8 | Lab Sample ID: 240-635-14

Matrix: Solid | Lab File ID: 148920.D

Analysis Method: 8260B | Date Collected: 05/31/2011 14:30

Sample wt/vol: 7.38(g) | Date Analyzed: 06/12/2011 11:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	3.4	U	3.4	0.37
75-00-3	Chloroethane	3.4	U *	3.4	0.58
67-66-3	Chloroform	3.4	U	3.4	0.20
74-87-3	Chloromethane	3.4	U	3.4	0.28
156-59-2	cis-1,2-Dichloroethene	3.4	U	3.4	0.24
10061-01-5	cis-1,3-Dichloropropene	3.4	U	3.4	0.23
74-95-3	Dibromomethane	3.4	U	3.4	0.43
74-97-5	Bromochloromethane	3.4	U	3.4	0.48
75-71-8	Dichlorodifluoromethane	3.4	U	3.4	0.34
75-27-4	Bromodichloromethane	3.4	U	3.4	0.19
75-65-0	tert-Butyl alcohol	140	U	140	5.1
100-41-4	Ethylbenzene	3.4	U	3.4	0.18
87-68-3	Hexachlorobutadiene	3.4	U	3.4	0.81
108-20-3	Diisopropyl ether	6.8	U	6.8	1.0
98-82-8	Isopropylbenzene	3.4	U	3.4	0.11
1634-04-4	Methyl tert-butyl ether	14	U	14	0.29
75-09-2	Methylene Chloride	1.7	J B	3.4	0.45
179601-23-1	m-Xylene & p-Xylene	6.8	U	6.8	0.81
91-20-3	Naphthalene	3.4	U	3.4	0.13
104-51-8	n-Butylbenzene	3.4	U	3.4	0.16
103-65-1	n-Propylbenzene	3.4	U	3.4	0.27
95-47-6	o-Xylene	3.4	U	3.4	0.24
135-98-8	sec-Butylbenzene	3.4	U	3.4	0.12
100-42-5	Styrene	3.4	U	3.4	0.10
994-05-8	Tert-amyl-methyl ether (TAME)	3.4	U	3.4	0.25
637-92-3	Ethyl-t-butyl ether (ETBE)	3.4	U	3.4	0.15
127-18-4	Tetrachloroethene	3.4	U	3.4	0.35
108-88-3	Toluene	3.4	U	3.4	0.18
156-60-5	trans-1,2-Dichloroethene	3.4	U	3.4	0.28
10061-02-6	trans-1,3-Dichloropropene	3.4	U	3.4	0.37
79-01-6	Trichloroethene	3.4	U	3.4	0.28
75-69-4	Trichlorofluoromethane	3.4	U	3.4	0.23
108-05-4	Vinyl acetate	6.8	U	6.8	0.17
75-01-4	Vinyl chloride	3.4	U	3.4	0.26
1330-20-7	Xylenes, Total	6.8	U	6.8	0.45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-6-8 Lab Sample ID: 240-635-14

Matrix: Solid Lab File ID: 148920.D

Analysis Method: 8260B Date Collected: 05/31/2011 14:30

Sample wt/vol: 7.38(g) Date Analyzed: 06/12/2011 11:32

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	3.4	U	3.4	0.20
106-93-4	1,2-Dibromoethane	3.4	U	3.4	0.34

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		67-125
1868-53-7	Dibromofluoromethane (Surr)	82		37-132
460-00-4	4-Bromofluorobenzene (Surr)	94		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton	Job No.: 240-635-1
SDG No.:	
Client Sample ID: G-SP-SB-118-6-8	Lab Sample ID: 240-635-14
Matrix: Solid	Lab File ID: 148920.D
Analysis Method: 8260B	Date Collected: 05/31/2011 14:30
Sample wt/vol: 7.38(g)	Date Analyzed: 06/12/2011 11:32
Soil Aliquot Vol:	Dilution Factor: 1
Soil Extract Vol.:	GC Column: DB-624 ID: 0.18(mm)
% Moisture:	Level: (low/med) Low
Analysis Batch No.: 4446	Units: ug/Kg
Number TICs Found: 0	TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 | Lab Sample ID: 240-635-7

Matrix: Solid | Lab File ID: 148892.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:10

Sample wt/vol: 6.147(g) | Date Analyzed: 06/11/2011 16:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.2 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.6	U	4.6	0.57
71-55-6	1,1,1-Trichloroethane	4.6	U	4.6	0.51
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U	4.6	0.31
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.6	U	4.6	1.2
75-34-3	1,1-Dichloroethane	4.6	U	4.6	0.33
75-35-4	1,1-Dichloroethene	4.6	U	4.6	0.48
563-58-6	1,1-Dichloropropene	4.6	U	4.6	0.27
87-61-6	1,2,3-Trichlorobenzene	4.6	U	4.6	0.35
96-18-4	1,2,3-Trichloropropane	4.6	U	4.6	0.82
526-73-8	1,2,3-Trimethylbenzene	4.6	U	4.6	0.16
120-82-1	1,2,4-Trichlorobenzene	4.2	J	4.6	0.25
95-63-6	1,2,4-Trimethylbenzene	4.6	U	4.6	0.60
96-12-8	1,2-Dibromo-3-Chloropropane	9.2	U	9.2	1.2
95-50-1	1,2-Dichlorobenzene	0.35	J	4.6	0.33
107-06-2	1,2-Dichloroethane	4.6	U	4.6	0.31
78-87-5	1,2-Dichloropropane	4.6	U	4.6	0.63
541-73-1	1,3-Dichlorobenzene	6.6		4.6	0.32
142-28-9	1,3-Dichloropropane	4.6	U	4.6	0.31
106-46-7	1,4-Dichlorobenzene	4.6	U	4.6	0.60
594-20-7	2,2-Dichloropropane	4.6	U	4.6	0.86
78-93-3	2-Butanone	18	U	18	1.3
110-75-8	2-Chloroethyl vinyl ether	46	U	46	1.3
95-49-8	2-Chlorotoluene	4.6	U	4.6	0.37
591-78-6	2-Hexanone	18	U	18	0.58
106-43-4	4-Chlorotoluene	4.6	U	4.6	0.38
99-87-6	p-Isopropyltoluene	4.6	U	4.6	0.19
108-10-1	4-Methyl-2-pentanone	18	U	18	0.49
67-64-1	Acetone	22	B	18	5.8
71-43-2	Benzene	4.6	U	4.6	0.21
108-86-1	Bromobenzene	4.6	U	4.6	0.30
75-25-2	Bromoform	4.6	U	4.6	0.30
74-83-9	Bromomethane	4.6	U	4.6	0.49
75-15-0	Carbon disulfide	4.6	U	4.6	0.40
56-23-5	Carbon tetrachloride	4.6	U	4.6	0.34
108-90-7	Chlorobenzene	0.36	J	4.6	0.30

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 Lab Sample ID: 240-635-7

Matrix: Solid Lab File ID: 148892.D

Analysis Method: 8260B Date Collected: 05/31/2011 16:10

Sample wt/vol: 6.147(g) Date Analyzed: 06/11/2011 16:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.2 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.6	U	4.6	0.50
75-00-3	Chloroethane	4.6	U *	4.6	0.79
67-66-3	Chloroform	4.6	U	4.6	0.27
74-87-3	Chloromethane	4.6	U	4.6	0.38
156-59-2	cis-1,2-Dichloroethene	4.6	U	4.6	0.33
10061-01-5	cis-1,3-Dichloropropene	4.6	U	4.6	0.31
74-95-3	Dibromomethane	4.6	U	4.6	0.58
74-97-5	Bromochloromethane	4.6	U	4.6	0.65
75-71-8	Dichlorodifluoromethane	4.6	U	4.6	0.46
75-27-4	Bromodichloromethane	4.6	U	4.6	0.26
75-65-0	tert-Butyl alcohol	180	U	180	7.0
100-41-4	Ethylbenzene	4.6	U	4.6	0.24
87-68-3	Hexachlorobutadiene	4.6	U	4.6	1.1
108-20-3	Diisopropyl ether	9.2	U	9.2	1.4
98-82-8	Isopropylbenzene	4.6	U	4.6	0.15
1634-04-4	Methyl tert-butyl ether	18	U	18	0.39
75-09-2	Methylene Chloride	2.2	J B	4.6	0.61
179601-23-1	m-Xylene & p-Xylene	9.2	U	9.2	1.1
91-20-3	Naphthalene	4.6	U	4.6	0.17
104-51-8	n-Butylbenzene	4.6	U	4.6	0.21
103-65-1	n-Propylbenzene	4.6	U	4.6	0.37
95-47-6	o-Xylene	4.6	U	4.6	0.32
135-98-8	sec-Butylbenzene	4.6	U	4.6	0.16
100-42-5	Styrene	4.6	U	4.6	0.14
994-05-8	Tert-amyl-methyl ether (TAME)	4.6	U	4.6	0.34
637-92-3	Ethyl-t-butyl ether (ETBE)	4.6	U	4.6	0.20
127-18-4	Tetrachloroethene	4.6	U	4.6	0.48
108-88-3	Toluene	4.6	U	4.6	0.25
156-60-5	trans-1,2-Dichloroethene	4.6	U	4.6	0.38
10061-02-6	trans-1,3-Dichloropropene	4.6	U	4.6	0.49
79-01-6	Trichloroethene	4.6	U	4.6	0.38
75-69-4	Trichlorofluoromethane	4.6	U	4.6	0.31
108-05-4	Vinyl acetate	9.2	U	9.2	0.23
75-01-4	Vinyl chloride	4.6	U	4.6	0.36
1330-20-7	Xylenes, Total	9.2	U	9.2	0.61

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 | Lab Sample ID: 240-635-7

Matrix: Solid | Lab File ID: 148892.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:10

Sample wt/vol: 6.147(g) | Date Analyzed: 06/11/2011 16:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.2 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.6	U	4.6	0.27
106-93-4	1,2-Dibromoethane	4.6	U	4.6	0.46

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		67-125
1868-53-7	Dibromofluoromethane (Surr)	84		37-132
460-00-4	4-Bromofluorobenzene (Surr)	99		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 | Lab Sample ID: 240-635-7

Matrix: Solid | Lab File ID: 148892.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:10

Sample wt/vol: 6.147(g) | Date Analyzed: 06/11/2011 16:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.2 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-20-22 | Lab Sample ID: 240-635-9

Matrix: Solid | Lab File ID: 148894.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:30

Sample wt/vol: 6.755(g) | Date Analyzed: 06/11/2011 17:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.7 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.4	U	4.4	0.54
71-55-6	1,1,1-Trichloroethane	4.4	U	4.4	0.49
79-34-5	1,1,2,2-Tetrachloroethane	4.4	U	4.4	0.30
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.4	U	4.4	1.1
75-34-3	1,1-Dichloroethane	4.4	U	4.4	0.32
75-35-4	1,1-Dichloroethene	4.4	U	4.4	0.46
563-58-6	1,1-Dichloropropene	4.4	U	4.4	0.26
87-61-6	1,2,3-Trichlorobenzene	0.36	J	4.4	0.33
96-18-4	1,2,3-Trichloropropane	4.4	U	4.4	0.79
526-73-8	1,2,3-Trimethylbenzene	0.78	J	4.4	0.15
120-82-1	1,2,4-Trichlorobenzene	11		4.4	0.24
95-63-6	1,2,4-Trimethylbenzene	1.2	J	4.4	0.57
96-12-8	1,2-Dibromo-3-Chloropropane	8.8	U	8.8	1.1
95-50-1	1,2-Dichlorobenzene	4.4	U	4.4	0.32
107-06-2	1,2-Dichloroethane	4.4	U	4.4	0.30
78-87-5	1,2-Dichloropropane	4.4	U	4.4	0.61
541-73-1	1,3-Dichlorobenzene	10		4.4	0.31
142-28-9	1,3-Dichloropropane	4.4	U	4.4	0.30
106-46-7	1,4-Dichlorobenzene	0.61	J	4.4	0.58
594-20-7	2,2-Dichloropropane	4.4	U	4.4	0.83
78-93-3	2-Butanone	11	J	18	1.2
110-75-8	2-Chloroethyl vinyl ether	44	U	44	1.2
95-49-8	2-Chlorotoluene	4.4	U	4.4	0.35
591-78-6	2-Hexanone	18	U	18	0.55
106-43-4	4-Chlorotoluene	4.4	U	4.4	0.36
99-87-6	p-Isopropyltoluene	4.4	U	4.4	0.18
108-10-1	4-Methyl-2-pentanone	18	U	18	0.47
67-64-1	Acetone	52	B	18	5.5
71-43-2	Benzene	4.4	U	4.4	0.20
108-86-1	Bromobenzene	4.4	U	4.4	0.29
75-25-2	Bromoform	4.4	U	4.4	0.29
74-83-9	Bromomethane	4.4	U	4.4	0.47
75-15-0	Carbon disulfide	1.8	J	4.4	0.39
56-23-5	Carbon tetrachloride	4.4	U	4.4	0.32
108-90-7	Chlorobenzene	4.4	U	4.4	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-20-22 Lab Sample ID: 240-635-9

Matrix: Solid Lab File ID: 148894.D

Analysis Method: 8260B Date Collected: 05/31/2011 16:30

Sample wt/vol: 6.755(g) Date Analyzed: 06/11/2011 17:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.7 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.4	U	4.4	0.48
75-00-3	Chloroethane	4.4	U *	4.4	0.75
67-66-3	Chloroform	4.4	U	4.4	0.25
74-87-3	Chloromethane	4.4	U	4.4	0.36
156-59-2	cis-1,2-Dichloroethene	0.49	J	4.4	0.32
10061-01-5	cis-1,3-Dichloropropene	4.4	U	4.4	0.30
74-95-3	Dibromomethane	4.4	U	4.4	0.55
74-97-5	Bromochloromethane	4.4	U	4.4	0.62
75-71-8	Dichlorodifluoromethane	4.4	U	4.4	0.44
75-27-4	Bromodichloromethane	4.4	U	4.4	0.25
75-65-0	tert-Butyl alcohol	180	U	180	6.7
100-41-4	Ethylbenzene	0.24	J	4.4	0.23
87-68-3	Hexachlorobutadiene	4.4	U	4.4	1.1
108-20-3	Diisopropyl ether	8.8	U	8.8	1.3
98-82-8	Isopropylbenzene	4.4	U	4.4	0.14
1634-04-4	Methyl tert-butyl ether	18	U	18	0.38
75-09-2	Methylene Chloride	2.7	J B	4.4	0.59
179601-23-1	m-Xylene & p-Xylene	8.8	U	8.8	1.1
91-20-3	Naphthalene	11		4.4	0.17
104-51-8	n-Butylbenzene	4.4	U	4.4	0.20
103-65-1	n-Propylbenzene	4.4	U	4.4	0.35
95-47-6	o-Xylene	0.42	J	4.4	0.31
135-98-8	sec-Butylbenzene	4.4	U	4.4	0.16
100-42-5	Styrene	4.4	U	4.4	0.13
994-05-8	Tert-amyl-methyl ether (TAME)	4.4	U	4.4	0.32
637-92-3	Ethyl-t-butyl ether (ETBE)	4.4	U	4.4	0.19
127-18-4	Tetrachloroethene	4.4	U	4.4	0.46
108-88-3	Toluene	0.57	J	4.4	0.24
156-60-5	trans-1,2-Dichloroethene	4.4	U	4.4	0.36
10061-02-6	trans-1,3-Dichloropropene	4.4	U	4.4	0.47
79-01-6	Trichloroethene	0.89	J	4.4	0.37
75-69-4	Trichlorofluoromethane	4.4	U	4.4	0.30
108-05-4	Vinyl acetate	8.8	U	8.8	0.22
75-01-4	Vinyl chloride	4.4	U	4.4	0.34
1330-20-7	Xylenes, Total	8.8	U	8.8	0.59

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-20-22 Lab Sample ID: 240-635-9

Matrix: Solid Lab File ID: 148894.D

Analysis Method: 8260B Date Collected: 05/31/2011 16:30

Sample wt/vol: 6.755(g) Date Analyzed: 06/11/2011 17:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.7 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.4	U	4.4	0.25
106-93-4	1,2-Dibromoethane	4.4	U	4.4	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	112		67-125
1868-53-7	Dibromofluoromethane (Surr)	83		37-132
460-00-4	4-Bromofluorobenzene (Surr)	113		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-20-22 | Lab Sample ID: 240-635-9

Matrix: Solid | Lab File ID: 148894.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:30

Sample wt/vol: 6.755(g) | Date Analyzed: 06/11/2011 17:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.7 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

Number TICs Found: 2 | TIC Result Total: 3.48

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
108-67-8	1,3,5-Trimethylbenzene	10.96	0.48	J
91-57-6	2-Methylnaphthalene	14.30	3.0	J

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 | Lab Sample ID: 240-635-8

Matrix: Solid | Lab File ID: 148893.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:20

Sample wt/vol: 6.289(g) | Date Analyzed: 06/11/2011 16:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.2 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.5	U	4.5	0.55
71-55-6	1,1,1-Trichloroethane	4.5	U	4.5	0.50
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	4.5	0.30
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.5	U	4.5	1.2
75-34-3	1,1-Dichloroethane	4.5	U	4.5	0.32
75-35-4	1,1-Dichloroethene	4.5	U	4.5	0.47
563-58-6	1,1-Dichloropropene	4.5	U	4.5	0.27
87-61-6	1,2,3-Trichlorobenzene	4.5	U	4.5	0.34
96-18-4	1,2,3-Trichloropropane	4.5	U	4.5	0.81
526-73-8	1,2,3-Trimethylbenzene	4.5	U	4.5	0.15
120-82-1	1,2,4-Trichlorobenzene	4.5	U	4.5	0.24
95-63-6	1,2,4-Trimethylbenzene	4.5	U	4.5	0.58
96-12-8	1,2-Dibromo-3-Chloropropane	8.9	U	8.9	1.2
95-50-1	1,2-Dichlorobenzene	4.5	U	4.5	0.32
107-06-2	1,2-Dichloroethane	4.5	U	4.5	0.30
78-87-5	1,2-Dichloropropane	4.5	U	4.5	0.62
541-73-1	1,3-Dichlorobenzene	4.5	U	4.5	0.31
142-28-9	1,3-Dichloropropane	4.5	U	4.5	0.30
106-46-7	1,4-Dichlorobenzene	4.5	U	4.5	0.59
594-20-7	2,2-Dichloropropane	4.5	U	4.5	0.84
78-93-3	2-Butanone	18	U	18	1.3
110-75-8	2-Chloroethyl vinyl ether	45	U	45	1.3
95-49-8	2-Chlorotoluene	4.5	U	4.5	0.36
591-78-6	2-Hexanone	18	U	18	0.56
106-43-4	4-Chlorotoluene	4.5	U	4.5	0.37
99-87-6	p-Isopropyltoluene	4.5	U	4.5	0.19
108-10-1	4-Methyl-2-pentanone	18	U	18	0.48
67-64-1	Acetone	18	U	18	5.6
71-43-2	Benzene	4.5	U	4.5	0.21
108-86-1	Bromobenzene	4.5	U	4.5	0.30
75-25-2	Bromoform	4.5	U	4.5	0.30
74-83-9	Bromomethane	4.5	U	4.5	0.48
75-15-0	Carbon disulfide	4.5	U	4.5	0.39
56-23-5	Carbon tetrachloride	4.5	U	4.5	0.33
108-90-7	Chlorobenzene	4.5	U	4.5	0.30

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 | Lab Sample ID: 240-635-8

Matrix: Solid | Lab File ID: 148893.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:20

Sample wt/vol: 6.289(g) | Date Analyzed: 06/11/2011 16:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.2 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.5	U	4.5	0.49
75-00-3	Chloroethane	4.5	U *	4.5	0.77
67-66-3	Chloroform	4.5	U	4.5	0.26
74-87-3	Chloromethane	4.5	U	4.5	0.37
156-59-2	cis-1,2-Dichloroethene	2.2	J	4.5	0.32
10061-01-5	cis-1,3-Dichloropropene	4.5	U	4.5	0.30
74-95-3	Dibromomethane	4.5	U	4.5	0.56
74-97-5	Bromochloromethane	4.5	U	4.5	0.64
75-71-8	Dichlorodifluoromethane	4.5	U	4.5	0.45
75-27-4	Bromodichloromethane	4.5	U	4.5	0.25
75-65-0	tert-Butyl alcohol	180	U	180	6.8
100-41-4	Ethylbenzene	4.5	U	4.5	0.23
87-68-3	Hexachlorobutadiene	4.5	U	4.5	1.1
108-20-3	Diisopropyl ether	8.9	U	8.9	1.3
98-82-8	Isopropylbenzene	4.5	U	4.5	0.14
1634-04-4	Methyl tert-butyl ether	18	U	18	0.38
75-09-2	Methylene Chloride	2.1	J B	4.5	0.60
179601-23-1	m-Xylene & p-Xylene	8.9	U	8.9	1.1
91-20-3	Naphthalene	4.5	U	4.5	0.17
104-51-8	n-Butylbenzene	4.5	U	4.5	0.21
103-65-1	n-Propylbenzene	4.5	U	4.5	0.36
95-47-6	o-Xylene	4.5	U	4.5	0.31
135-98-8	sec-Butylbenzene	4.5	U	4.5	0.16
100-42-5	Styrene	4.5	U	4.5	0.13
994-05-8	Tert-amyl-methyl ether (TAME)	4.5	U	4.5	0.33
637-92-3	Ethyl-t-butyl ether (ETBE)	4.5	U	4.5	0.20
127-18-4	Tetrachloroethene	4.5	U	4.5	0.47
108-88-3	Toluene	4.5	U	4.5	0.24
156-60-5	trans-1,2-Dichloroethene	4.5	U	4.5	0.37
10061-02-6	trans-1,3-Dichloropropene	4.5	U	4.5	0.48
79-01-6	Trichloroethene	3.8	J	4.5	0.38
75-69-4	Trichlorofluoromethane	4.5	U	4.5	0.30
108-05-4	Vinyl acetate	8.9	U	8.9	0.22
75-01-4	Vinyl chloride	4.5	U	4.5	0.35
1330-20-7	Xylenes, Total	8.9	U	8.9	0.60

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 Lab Sample ID: 240-635-8

Matrix: Solid Lab File ID: 148893.D

Analysis Method: 8260B Date Collected: 05/31/2011 16:20

Sample wt/vol: 6.289(g) Date Analyzed: 06/11/2011 16:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.2 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.5	U	4.5	0.26
106-93-4	1,2-Dibromoethane	4.5	U	4.5	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	107		67-125
1868-53-7	Dibromofluoromethane (Surr)	86		37-132
460-00-4	4-Bromofluorobenzene (Surr)	96		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton	Job No.: 240-635-1
SDG No.:	
Client Sample ID: G-SP-SB-119-6-8	Lab Sample ID: 240-635-8
Matrix: Solid	Lab File ID: 148893.D
Analysis Method: 8260B	Date Collected: 05/31/2011 16:20
Sample wt/vol: 6.289(g)	Date Analyzed: 06/11/2011 16:39
Soil Aliquot Vol:	Dilution Factor: 1
Soil Extract Vol.:	GC Column: DB-624 ID: 0.18(mm)
% Moisture: 11.2	Level: (low/med) Low
Analysis Batch No.: 4426	Units: ug/Kg
Number TICs Found: 0	TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-0-2 Lab Sample ID: 240-635-19

Matrix: Solid Lab File ID: 148900.D

Analysis Method: 8260B Date Collected: 05/31/2011 14:05

Sample wt/vol: 5.905(g) Date Analyzed: 06/11/2011 19:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.1 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.9	U	4.9	0.60
71-55-6	1,1,1-Trichloroethane	4.9	U	4.9	0.55
79-34-5	1,1,2,2-Tetrachloroethane	4.9	U	4.9	0.33
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.9	U	4.9	1.3
75-34-3	1,1-Dichloroethane	4.9	U	4.9	0.35
75-35-4	1,1-Dichloroethene	4.9	U	4.9	0.51
563-58-6	1,1-Dichloropropene	4.9	U	4.9	0.29
87-61-6	1,2,3-Trichlorobenzene	4.9	U	4.9	0.37
96-18-4	1,2,3-Trichloropropane	4.9	U	4.9	0.88
526-73-8	1,2,3-Trimethylbenzene	4.9	U	4.9	0.17
120-82-1	1,2,4-Trichlorobenzene	4.9	U	4.9	0.26
95-63-6	1,2,4-Trimethylbenzene	4.9	U	4.9	0.63
96-12-8	1,2-Dibromo-3-Chloropropane	9.7	U	9.7	1.3
95-50-1	1,2-Dichlorobenzene	4.9	U	4.9	0.35
107-06-2	1,2-Dichloroethane	4.9	U	4.9	0.33
78-87-5	1,2-Dichloropropane	4.9	U	4.9	0.67
541-73-1	1,3-Dichlorobenzene	4.9	U	4.9	0.34
142-28-9	1,3-Dichloropropane	4.9	U	4.9	0.33
106-46-7	1,4-Dichlorobenzene	4.9	U	4.9	0.64
594-20-7	2,2-Dichloropropane	4.9	U	4.9	0.92
78-93-3	2-Butanone	19	U	19	1.4
110-75-8	2-Chloroethyl vinyl ether	49	U	49	1.4
95-49-8	2-Chlorotoluene	4.9	U	4.9	0.39
591-78-6	2-Hexanone	19	U	19	0.61
106-43-4	4-Chlorotoluene	4.9	U	4.9	0.40
99-87-6	p-Isopropyltoluene	4.9	U	4.9	0.20
108-10-1	4-Methyl-2-pentanone	19	U	19	0.53
67-64-1	Acetone	19	U	19	6.1
71-43-2	Benzene	4.9	U	4.9	0.22
108-86-1	Bromobenzene	4.9	U	4.9	0.32
75-25-2	Bromoform	4.9	U	4.9	0.32
74-83-9	Bromomethane	4.9	U	4.9	0.53
75-15-0	Carbon disulfide	4.9	U	4.9	0.43
56-23-5	Carbon tetrachloride	4.9	U	4.9	0.36
108-90-7	Chlorobenzene	4.9	U	4.9	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-0-2 Lab Sample ID: 240-635-19

Matrix: Solid Lab File ID: 148900.D

Analysis Method: 8260B Date Collected: 05/31/2011 14:05

Sample wt/vol: 5.905(g) Date Analyzed: 06/11/2011 19:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.1 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.9	U	4.9	0.54
75-00-3	Chloroethane	4.9	U *	4.9	0.84
67-66-3	Chloroform	4.9	U	4.9	0.28
74-87-3	Chloromethane	4.9	U	4.9	0.40
156-59-2	cis-1,2-Dichloroethene	4.9	U	4.9	0.35
10061-01-5	cis-1,3-Dichloropropene	4.9	U	4.9	0.33
74-95-3	Dibromomethane	4.9	U	4.9	0.61
74-97-5	Bromochloromethane	4.9	U	4.9	0.69
75-71-8	Dichlorodifluoromethane	4.9	U	4.9	0.49
75-27-4	Bromodichloromethane	4.9	U	4.9	0.27
75-65-0	tert-Butyl alcohol	190	U	190	7.4
100-41-4	Ethylbenzene	4.9	U	4.9	0.25
87-68-3	Hexachlorobutadiene	4.9	U	4.9	1.2
108-20-3	Diisopropyl ether	9.7	U	9.7	1.5
98-82-8	Isopropylbenzene	4.9	U	4.9	0.16
1634-04-4	Methyl tert-butyl ether	19	U	19	0.42
75-09-2	Methylene Chloride	3.3	J B	4.9	0.65
179601-23-1	m-Xylene & p-Xylene	9.7	U	9.7	1.2
91-20-3	Naphthalene	0.76	J	4.9	0.19
104-51-8	n-Butylbenzene	4.9	U	4.9	0.22
103-65-1	n-Propylbenzene	4.9	U	4.9	0.39
95-47-6	o-Xylene	4.9	U	4.9	0.34
135-98-8	sec-Butylbenzene	4.9	U	4.9	0.18
100-42-5	Styrene	4.9	U	4.9	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	4.9	U	4.9	0.36
637-92-3	Ethyl-t-butyl ether (ETBE)	4.9	U	4.9	0.21
127-18-4	Tetrachloroethene	4.9	U	4.9	0.51
108-88-3	Toluene	4.9	U	4.9	0.26
156-60-5	trans-1,2-Dichloroethene	4.9	U	4.9	0.40
10061-02-6	trans-1,3-Dichloropropene	4.9	U	4.9	0.53
79-01-6	Trichloroethene	4.9	U	4.9	0.41
75-69-4	Trichlorofluoromethane	4.9	U	4.9	0.33
108-05-4	Vinyl acetate	9.7	U	9.7	0.24
75-01-4	Vinyl chloride	4.9	U	4.9	0.38
1330-20-7	Xylenes, Total	9.7	U	9.7	0.65

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-0-2 | Lab Sample ID: 240-635-19

Matrix: Solid | Lab File ID: 148900.D

Analysis Method: 8260B | Date Collected: 05/31/2011 14:05

Sample wt/vol: 5.905(g) | Date Analyzed: 06/11/2011 19:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.1 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.9	U	4.9	0.28
106-93-4	1,2-Dibromoethane	4.9	U	4.9	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	127	X	67-125
1868-53-7	Dibromofluoromethane (Surr)	102		37-132
460-00-4	4-Bromofluorobenzene (Surr)	118		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	128	X	58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-0-2 | Lab Sample ID: 240-635-19

Matrix: Solid | Lab File ID: 148900.D

Analysis Method: 8260B | Date Collected: 05/31/2011 14:05

Sample wt/vol: 5.905(g) | Date Analyzed: 06/11/2011 19:09

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.1 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

Number TICs Found: 1 | TIC Result Total: 5.1

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.78	5.1	J

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-18-20 | Lab Sample ID: 240-635-21

Matrix: Solid | Lab File ID: 148924.D

Analysis Method: 8260B | Date Collected: 05/31/2011 14:10

Sample wt/vol: 6.497(g) | Date Analyzed: 06/12/2011 12:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 19.0 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.8	U	4.8	0.59
71-55-6	1,1,1-Trichloroethane	4.8	U	4.8	0.53
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U	4.8	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.8	U	4.8	1.2
75-34-3	1,1-Dichloroethane	4.8	U	4.8	0.34
75-35-4	1,1-Dichloroethene	4.8	U	4.8	0.49
563-58-6	1,1-Dichloropropene	4.8	U	4.8	0.29
87-61-6	1,2,3-Trichlorobenzene	4.8	U	4.8	0.36
96-18-4	1,2,3-Trichloropropane	4.8	U	4.8	0.86
526-73-8	1,2,3-Trimethylbenzene	0.26	J	4.8	0.16
120-82-1	1,2,4-Trichlorobenzene	4.8	U	4.8	0.26
95-63-6	1,2,4-Trimethylbenzene	4.8	U	4.8	0.62
96-12-8	1,2-Dibromo-3-Chloropropane	9.5	U	9.5	1.2
95-50-1	1,2-Dichlorobenzene	4.8	U	4.8	0.34
107-06-2	1,2-Dichloroethane	4.8	U	4.8	0.32
78-87-5	1,2-Dichloropropane	4.8	U	4.8	0.66
541-73-1	1,3-Dichlorobenzene	4.8	U	4.8	0.33
142-28-9	1,3-Dichloropropane	4.8	U	4.8	0.32
106-46-7	1,4-Dichlorobenzene	4.8	U	4.8	0.63
594-20-7	2,2-Dichloropropane	4.8	U	4.8	0.89
78-93-3	2-Butanone	19	U	19	1.3
110-75-8	2-Chloroethyl vinyl ether	48	U	48	1.3
95-49-8	2-Chlorotoluene	4.8	U	4.8	0.38
591-78-6	2-Hexanone	19	U	19	0.60
106-43-4	4-Chlorotoluene	4.8	U	4.8	0.39
99-87-6	p-Isopropyltoluene	4.8	U	4.8	0.20
108-10-1	4-Methyl-2-pentanone	19	U	19	0.51
67-64-1	Acetone	17	J B	19	6.0
71-43-2	Benzene	4.8	U	4.8	0.22
108-86-1	Bromobenzene	4.8	U	4.8	0.31
75-25-2	Bromoform	4.8	U	4.8	0.31
74-83-9	Bromomethane	4.8	U	4.8	0.51
75-15-0	Carbon disulfide	4.8	U	4.8	0.42
56-23-5	Carbon tetrachloride	4.8	U	4.8	0.35
108-90-7	Chlorobenzene	4.8	U	4.8	0.31

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-18-20 Lab Sample ID: 240-635-21

Matrix: Solid Lab File ID: 148924.D

Analysis Method: 8260B Date Collected: 05/31/2011 14:10

Sample wt/vol: 6.497(g) Date Analyzed: 06/12/2011 12:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 19.0 Level: (low/med) Low

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.8	U	4.8	0.52
75-00-3	Chloroethane	4.8	U *	4.8	0.82
67-66-3	Chloroform	4.8	U	4.8	0.28
74-87-3	Chloromethane	4.8	U	4.8	0.39
156-59-2	cis-1,2-Dichloroethene	4.8	U	4.8	0.34
10061-01-5	cis-1,3-Dichloropropene	4.8	U	4.8	0.32
74-95-3	Dibromomethane	4.8	U	4.8	0.60
74-97-5	Bromochloromethane	4.8	U	4.8	0.67
75-71-8	Dichlorodifluoromethane	4.8	U	4.8	0.48
75-27-4	Bromodichloromethane	4.8	U	4.8	0.27
75-65-0	tert-Butyl alcohol	190	U	190	7.2
100-41-4	Ethylbenzene	0.40	J	4.8	0.25
87-68-3	Hexachlorobutadiene	4.8	U	4.8	1.1
108-20-3	Diisopropyl ether	9.5	U	9.5	1.4
98-82-8	Isopropylbenzene	4.8	U	4.8	0.15
1634-04-4	Methyl tert-butyl ether	19	U	19	0.41
75-09-2	Methylene Chloride	2.9	J B	4.8	0.64
179601-23-1	m-Xylene & p-Xylene	9.5	U	9.5	1.1
91-20-3	Naphthalene	38	B	4.8	0.18
104-51-8	n-Butylbenzene	4.8	U	4.8	0.22
103-65-1	n-Propylbenzene	4.8	U	4.8	0.38
95-47-6	o-Xylene	0.65	J	4.8	0.33
135-98-8	sec-Butylbenzene	4.8	U	4.8	0.17
100-42-5	Styrene	0.17	J	4.8	0.14
994-05-8	Tert-amyl-methyl ether (TAME)	4.8	U	4.8	0.35
637-92-3	Ethyl-t-butyl ether (ETBE)	4.8	U	4.8	0.21
127-18-4	Tetrachloroethene	4.8	U	4.8	0.49
108-88-3	Toluene	0.50	J	4.8	0.26
156-60-5	trans-1,2-Dichloroethene	4.8	U	4.8	0.39
10061-02-6	trans-1,3-Dichloropropene	4.8	U	4.8	0.51
79-01-6	Trichloroethene	4.8	U	4.8	0.40
75-69-4	Trichlorofluoromethane	4.8	U	4.8	0.32
108-05-4	Vinyl acetate	9.5	U	9.5	0.24
75-01-4	Vinyl chloride	4.8	U	4.8	0.37
1330-20-7	Xylenes, Total	0.65	J	9.5	0.64

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-18-20 Lab Sample ID: 240-635-21

Matrix: Solid Lab File ID: 148924.D

Analysis Method: 8260B Date Collected: 05/31/2011 14:10

Sample wt/vol: 6.497(g) Date Analyzed: 06/12/2011 12:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 19.0 Level: (low/med) Low

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.8	U	4.8	0.28
106-93-4	1,2-Dibromoethane	4.8	U	4.8	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		67-125
1868-53-7	Dibromofluoromethane (Surr)	83		37-132
460-00-4	4-Bromofluorobenzene (Surr)	97		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-18-20 | Lab Sample ID: 240-635-21

Matrix: Solid | Lab File ID: 148924.D

Analysis Method: 8260B | Date Collected: 05/31/2011 14:10

Sample wt/vol: 6.497(g) | Date Analyzed: 06/12/2011 12:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 19.0 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

Number TICs Found: 2 | TIC Result Total: 5.44

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
108-67-8	1,3,5-Trimethylbenzene	10.96	0.24	J
91-57-6	2-Methylnaphthalene	14.32	5.2	J

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-6-8 | Lab Sample ID: 240-635-20

Matrix: Solid | Lab File ID: 148918.D

Analysis Method: 8260B | Date Collected: 05/31/2011 14:08

Sample wt/vol: 4.72(g) | Date Analyzed: 06/12/2011 10:49

Soil Aliquot Vol: 100 (uL) | Dilution Factor: 1

Soil Extract Vol.: 5(mL) | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 8.2 | Level: (low/med) Medium

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	290	U	290	11
71-55-6	1,1,1-Trichloroethane	290	U	290	24
79-34-5	1,1,2,2-Tetrachloroethane	290	U	290	10
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	290	U	290	45
75-34-3	1,1-Dichloroethane	290	U	290	20
75-35-4	1,1-Dichloroethene	290	U	290	21
563-58-6	1,1-Dichloropropene	290	U	290	12
87-61-6	1,2,3-Trichlorobenzene	290	U	290	12
96-18-4	1,2,3-Trichloropropane	290	U	290	24
526-73-8	1,2,3-Trimethylbenzene	290	U	290	0.20
120-82-1	1,2,4-Trichlorobenzene	290	U	290	8.4
95-63-6	1,2,4-Trimethylbenzene	8.2	J	290	5.8
96-12-8	1,2-Dibromo-3-Chloropropane	580	U	580	58
95-50-1	1,2-Dichlorobenzene	290	U	290	9.9
107-06-2	1,2-Dichloroethane	290	U	290	12
78-87-5	1,2-Dichloropropane	290	U	290	9.5
541-73-1	1,3-Dichlorobenzene	290	U	290	5.5
142-28-9	1,3-Dichloropropane	290	U	290	25
106-46-7	1,4-Dichlorobenzene	290	U	290	9.2
594-20-7	2,2-Dichloropropane	290	U	290	27
78-93-3	2-Butanone	1200	U	1200	50
110-75-8	2-Chloroethyl vinyl ether	1200	U	1200	50
95-49-8	2-Chlorotoluene	290	U	290	10
591-78-6	2-Hexanone	1200	U	1200	23
106-43-4	4-Chlorotoluene	290	U	290	11
99-87-6	p-Isopropyltoluene	290	U	290	5.5
108-10-1	4-Methyl-2-pentanone	1200	U	1200	55
67-64-1	Acetone	1200	U	1200	200
71-43-2	Benzene	290	U	290	14
108-86-1	Bromobenzene	290	U	290	15
75-25-2	Bromoform	290	U	290	22
74-83-9	Bromomethane	290	U	290	33
75-15-0	Carbon disulfide	290	U	290	14
56-23-5	Carbon tetrachloride	290	U	290	7.4
108-90-7	Chlorobenzene	290	U	290	7.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-6-8 Lab Sample ID: 240-635-20

Matrix: Solid Lab File ID: 148918.D

Analysis Method: 8260B Date Collected: 05/31/2011 14:08

Sample wt/vol: 4.72(g) Date Analyzed: 06/12/2011 10:49

Soil Aliquot Vol: 100 (uL) Dilution Factor: 1

Soil Extract Vol.: 5(mL) GC Column: DB-624 ID: 0.18(mm)

% Moisture: 8.2 Level: (low/med) Medium

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	290	U	290	14
75-00-3	Chloroethane	290	U	290	70
67-66-3	Chloroform	290	U	290	10
74-87-3	Chloromethane	290	U	290	16
156-59-2	cis-1,2-Dichloroethene	290	U	290	8.0
10061-01-5	cis-1,3-Dichloropropene	290	U	290	9.1
74-95-3	Dibromomethane	290	U	290	16
74-97-5	Bromochloromethane	290	U	290	15
75-71-8	Dichlorodifluoromethane	290	U	290	18
75-27-4	Bromodichloromethane	290	U	290	11
75-65-0	tert-Butyl alcohol	12000	U	12000	280
100-41-4	Ethylbenzene	290	U	290	6.2
87-68-3	Hexachlorobutadiene	290	U	290	16
108-20-3	Diisopropyl ether	580	U	580	58
98-82-8	Isopropylbenzene	290	U	290	7.5
1634-04-4	Methyl tert-butyl ether	1200	U	1200	8.2
75-09-2	Methylene Chloride	400	* B	290	89
179601-23-1	m-Xylene & p-Xylene	15	J	580	7.2
91-20-3	Naphthalene	1200	B	290	7.7
104-51-8	n-Butylbenzene	290	U	290	9.2
103-65-1	n-Propylbenzene	290	U	290	16
95-47-6	o-Xylene	290	U	290	9.8
135-98-8	sec-Butylbenzene	290	U	290	5.4
100-42-5	Styrene	290	U	290	6.5
994-05-8	Tert-amyl-methyl ether (TAME)	290	U	290	0.43
637-92-3	Ethyl-t-butyl ether (ETBE)	290	U	290	0.25
127-18-4	Tetrachloroethene	290	U	290	14
108-88-3	Toluene	290	U	290	20
156-60-5	trans-1,2-Dichloroethene	290	U	290	11
10061-02-6	trans-1,3-Dichloropropene	290	U	290	23
79-01-6	Trichloroethene	290	U	290	11
75-69-4	Trichlorofluoromethane	290	U	290	18
108-05-4	Vinyl acetate	580	U	580	27
75-01-4	Vinyl chloride	290	U	290	21
1330-20-7	Xylenes, Total	15	J	580	9.3

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-6-8 Lab Sample ID: 240-635-20

Matrix: Solid Lab File ID: 148918.D

Analysis Method: 8260B Date Collected: 05/31/2011 14:08

Sample wt/vol: 4.72(g) Date Analyzed: 06/12/2011 10:49

Soil Aliquot Vol: 100 (uL) Dilution Factor: 1

Soil Extract Vol.: 5(mL) GC Column: DB-624 ID: 0.18(mm)

% Moisture: 8.2 Level: (low/med) Medium

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	290	U	290	7.5
106-93-4	1,2-Dibromoethane	290	U	290	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	83		33-134
1868-53-7	Dibromofluoromethane (Surr)	61		30-122
460-00-4	4-Bromofluorobenzene (Surr)	81		26-141
17060-07-0	1,2-Dichloroethane-d4 (Surr)	85		39-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-6-8 | Lab Sample ID: 240-635-20

Matrix: Solid | Lab File ID: 148918.D

Analysis Method: 8260B | Date Collected: 05/31/2011 14:08

Sample wt/vol: 4.72(g) | Date Analyzed: 06/12/2011 10:49

Soil Aliquot Vol: 100 (uL) | Dilution Factor: 1

Soil Extract Vol.: 5(mL) | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 8.2 | Level: (low/med) Medium

Analysis Batch No.: 4446 | Units: ug/Kg

Number TICs Found: 2 | TIC Result Total: 680

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.78	290	J
91-57-6	2-Methylnaphthalene	14.32	390	J

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-0-3 Lab Sample ID: 240-635-16

Matrix: Solid Lab File ID: 148922.D

Analysis Method: 8260B Date Collected: 05/31/2011 11:32

Sample wt/vol: 5.812(g) Date Analyzed: 06/12/2011 12:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.5 Level: (low/med) Low

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	0.62
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	0.56
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.34
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	5.0	U	5.0	1.3
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.36
75-35-4	1,1-Dichloroethene	5.0	U	5.0	0.52
563-58-6	1,1-Dichloropropene	5.0	U	5.0	0.30
87-61-6	1,2,3-Trichlorobenzene	5.0	U	5.0	0.38
96-18-4	1,2,3-Trichloropropane	5.0	U	5.0	0.89
526-73-8	1,2,3-Trimethylbenzene	0.41	J	5.0	0.17
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	0.27
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.65
96-12-8	1,2-Dibromo-3-Chloropropane	9.9	U	9.9	1.3
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	0.36
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.34
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.69
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	0.35
142-28-9	1,3-Dichloropropane	5.0	U	5.0	0.34
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	0.66
594-20-7	2,2-Dichloropropane	5.0	U	5.0	0.93
78-93-3	2-Butanone	20	U	20	1.4
110-75-8	2-Chloroethyl vinyl ether	50	U	50	1.4
95-49-8	2-Chlorotoluene	5.0	U	5.0	0.40
591-78-6	2-Hexanone	20	U	20	0.63
106-43-4	4-Chlorotoluene	5.0	U	5.0	0.41
99-87-6	p-Isopropyltoluene	5.0	U	5.0	0.21
108-10-1	4-Methyl-2-pentanone	20	U	20	0.54
67-64-1	Acetone	37	B	20	6.3
71-43-2	Benzene	5.0	U	5.0	0.23
108-86-1	Bromobenzene	5.0	U	5.0	0.33
75-25-2	Bromoform	5.0	U	5.0	0.33
74-83-9	Bromomethane	5.0	U	5.0	0.54
75-15-0	Carbon disulfide	1.9	J	5.0	0.44
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.37
108-90-7	Chlorobenzene	5.0	U	5.0	0.33

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-0-3 | Lab Sample ID: 240-635-16

Matrix: Solid | Lab File ID: 148922.D

Analysis Method: 8260B | Date Collected: 05/31/2011 11:32

Sample wt/vol: 5.812(g) | Date Analyzed: 06/12/2011 12:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.5 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.0	U	5.0	0.55
75-00-3	Chloroethane	5.0	U *	5.0	0.85
67-66-3	Chloroform	5.0	U	5.0	0.29
74-87-3	Chloromethane	5.0	U	5.0	0.41
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.36
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.34
74-95-3	Dibromomethane	5.0	U	5.0	0.63
74-97-5	Bromochloromethane	5.0	U	5.0	0.71
75-71-8	Dichlorodifluoromethane	5.0	U	5.0	0.50
75-27-4	Bromodichloromethane	5.0	U	5.0	0.28
75-65-0	tert-Butyl alcohol	200	U	200	7.6
100-41-4	Ethylbenzene	0.31	J	5.0	0.26
87-68-3	Hexachlorobutadiene	5.0	U	5.0	1.2
108-20-3	Diisopropyl ether	9.9	U	9.9	1.5
98-82-8	Isopropylbenzene	5.0	U	5.0	0.16
1634-04-4	Methyl tert-butyl ether	20	U	20	0.43
75-09-2	Methylene Chloride	3.4	J B	5.0	0.67
179601-23-1	m-Xylene & p-Xylene	9.9	U	9.9	1.2
91-20-3	Naphthalene	32	B	5.0	0.19
104-51-8	n-Butylbenzene	5.0	U	5.0	0.23
103-65-1	n-Propylbenzene	5.0	U	5.0	0.40
95-47-6	o-Xylene	0.50	J	5.0	0.35
135-98-8	sec-Butylbenzene	5.0	U	5.0	0.18
100-42-5	Styrene	5.0	U	5.0	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.37
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.22
127-18-4	Tetrachloroethene	5.0	U	5.0	0.52
108-88-3	Toluene	0.29	J	5.0	0.27
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.41
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.54
79-01-6	Trichloroethene	5.0	U	5.0	0.42
75-69-4	Trichlorofluoromethane	5.0	U	5.0	0.34
108-05-4	Vinyl acetate	9.9	U	9.9	0.25
75-01-4	Vinyl chloride	5.0	U	5.0	0.39
1330-20-7	Xylenes, Total	9.9	U	9.9	0.67

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-0-3 Lab Sample ID: 240-635-16

Matrix: Solid Lab File ID: 148922.D

Analysis Method: 8260B Date Collected: 05/31/2011 11:32

Sample wt/vol: 5.812(g) Date Analyzed: 06/12/2011 12:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.5 Level: (low/med) Low

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.0	U	5.0	0.29
106-93-4	1,2-Dibromoethane	5.0	U	5.0	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	110		67-125
1868-53-7	Dibromofluoromethane (Surr)	80		37-132
460-00-4	4-Bromofluorobenzene (Surr)	106		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-0-3 | Lab Sample ID: 240-635-16

Matrix: Solid | Lab File ID: 148922.D

Analysis Method: 8260B | Date Collected: 05/31/2011 11:32

Sample wt/vol: 5.812(g) | Date Analyzed: 06/12/2011 12:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.5 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

Number TICs Found: 6 | TIC Result Total: 39.64

CAS NO.	COMPOUND NAME	RT	RESULT	Q
79-20-9	Methyl acetate	3.79	12	
287-92-3	Cyclopentane	3.99	11	T J N
108-87-2	Methylcyclohexane	7.43	0.53	J
108-67-8	1,3,5-Trimethylbenzene	10.96	0.31	J
91-57-6	2-Methylnaphthalene	14.32	8.9	J
90-12-0	Naphthalene, 1-methyl-	14.47	6.9	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-18-20 Lab Sample ID: 240-635-18

Matrix: Solid Lab File ID: 148899.D

Analysis Method: 8260B Date Collected: 05/31/2011 11:46

Sample wt/vol: 10.614(g) Date Analyzed: 06/11/2011 18:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.1 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	2.9	U	2.9	0.36
71-55-6	1,1,1-Trichloroethane	2.9	U	2.9	0.32
79-34-5	1,1,2,2-Tetrachloroethane	2.9	U	2.9	0.20
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	2.9	U	2.9	0.75
75-34-3	1,1-Dichloroethane	2.9	U	2.9	0.21
75-35-4	1,1-Dichloroethene	2.9	U	2.9	0.30
563-58-6	1,1-Dichloropropene	2.9	U	2.9	0.17
87-61-6	1,2,3-Trichlorobenzene	2.9	U	2.9	0.22
96-18-4	1,2,3-Trichloropropane	2.9	U	2.9	0.52
526-73-8	1,2,3-Trimethylbenzene	0.10	J	2.9	0.098
120-82-1	1,2,4-Trichlorobenzene	2.9	U	2.9	0.16
95-63-6	1,2,4-Trimethylbenzene	2.9	U	2.9	0.37
96-12-8	1,2-Dibromo-3-Chloropropane	5.8	U	5.8	0.75
95-50-1	1,2-Dichlorobenzene	2.9	U	2.9	0.21
107-06-2	1,2-Dichloroethane	2.9	U	2.9	0.20
78-87-5	1,2-Dichloropropane	2.9	U	2.9	0.40
541-73-1	1,3-Dichlorobenzene	2.9	U	2.9	0.20
142-28-9	1,3-Dichloropropane	2.9	U	2.9	0.20
106-46-7	1,4-Dichlorobenzene	2.9	U	2.9	0.38
594-20-7	2,2-Dichloropropane	2.9	U	2.9	0.54
78-93-3	2-Butanone	12	U	12	0.81
110-75-8	2-Chloroethyl vinyl ether	29	U	29	0.81
95-49-8	2-Chlorotoluene	2.9	U	2.9	0.23
591-78-6	2-Hexanone	12	U	12	0.36
106-43-4	4-Chlorotoluene	2.9	U	2.9	0.24
99-87-6	p-Isopropyltoluene	1.3	J	2.9	0.12
108-10-1	4-Methyl-2-pentanone	12	U	12	0.31
67-64-1	Acetone	14	B	12	3.6
71-43-2	Benzene	0.45	J	2.9	0.13
108-86-1	Bromobenzene	2.9	U	2.9	0.19
75-25-2	Bromoform	2.9	U	2.9	0.19
74-83-9	Bromomethane	2.9	U	2.9	0.31
75-15-0	Carbon disulfide	2.9	U	2.9	0.25
56-23-5	Carbon tetrachloride	2.9	U	2.9	0.21
108-90-7	Chlorobenzene	2.9	U	2.9	0.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-18-20 Lab Sample ID: 240-635-18

Matrix: Solid Lab File ID: 148899.D

Analysis Method: 8260B Date Collected: 05/31/2011 11:46

Sample wt/vol: 10.614(g) Date Analyzed: 06/11/2011 18:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.1 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	2.9	U	2.9	0.32
75-00-3	Chloroethane	2.9	U *	2.9	0.49
67-66-3	Chloroform	2.9	U	2.9	0.17
74-87-3	Chloromethane	2.9	U	2.9	0.24
156-59-2	cis-1,2-Dichloroethene	2.9	U	2.9	0.21
10061-01-5	cis-1,3-Dichloropropene	2.9	U	2.9	0.20
74-95-3	Dibromomethane	2.9	U	2.9	0.36
74-97-5	Bromochloromethane	2.9	U	2.9	0.41
75-71-8	Dichlorodifluoromethane	2.9	U	2.9	0.29
75-27-4	Bromodichloromethane	2.9	U	2.9	0.16
75-65-0	tert-Butyl alcohol	120	U	120	4.4
100-41-4	Ethylbenzene	0.53	J	2.9	0.15
87-68-3	Hexachlorobutadiene	2.9	U	2.9	0.69
108-20-3	Diisopropyl ether	5.8	U	5.8	0.86
98-82-8	Isopropylbenzene	2.9	U	2.9	0.092
1634-04-4	Methyl tert-butyl ether	12	U	12	0.25
75-09-2	Methylene Chloride	1.5	J B	2.9	0.39
179601-23-1	m-Xylene & p-Xylene	5.8	U	5.8	0.69
91-20-3	Naphthalene	31		2.9	0.11
104-51-8	n-Butylbenzene	2.9	U	2.9	0.13
103-65-1	n-Propylbenzene	2.9	U	2.9	0.23
95-47-6	o-Xylene	0.36	J	2.9	0.20
135-98-8	sec-Butylbenzene	2.9	U	2.9	0.10
100-42-5	Styrene	2.9	U	2.9	0.086
994-05-8	Tert-amyl-methyl ether (TAME)	2.9	U	2.9	0.21
637-92-3	Ethyl-t-butyl ether (ETBE)	2.9	U	2.9	0.13
127-18-4	Tetrachloroethene	2.9	U	2.9	0.30
108-88-3	Toluene	1.0	J	2.9	0.16
156-60-5	trans-1,2-Dichloroethene	2.9	U	2.9	0.24
10061-02-6	trans-1,3-Dichloropropene	2.9	U	2.9	0.31
79-01-6	Trichloroethene	2.9	U	2.9	0.24
75-69-4	Trichlorofluoromethane	2.9	U	2.9	0.20
108-05-4	Vinyl acetate	5.8	U	5.8	0.14
75-01-4	Vinyl chloride	2.9	U	2.9	0.22
1330-20-7	Xylenes, Total	5.8	U	5.8	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-18-20 Lab Sample ID: 240-635-18

Matrix: Solid Lab File ID: 148899.D

Analysis Method: 8260B Date Collected: 05/31/2011 11:46

Sample wt/vol: 10.614(g) Date Analyzed: 06/11/2011 18:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.1 Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	2.9	U	2.9	0.17
106-93-4	1,2-Dibromoethane	2.9	U	2.9	0.29

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	105		67-125
1868-53-7	Dibromofluoromethane (Surr)	91		37-132
460-00-4	4-Bromofluorobenzene (Surr)	93		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-18-20 | Lab Sample ID: 240-635-18

Matrix: Solid | Lab File ID: 148899.D

Analysis Method: 8260B | Date Collected: 05/31/2011 11:46

Sample wt/vol: 10.614(g) | Date Analyzed: 06/11/2011 18:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.1 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

Number TICs Found: 2 | TIC Result Total: 0.4

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
110-82-7	Cyclohexane	6.27	0.20	J
108-87-2	Methylcyclohexane	7.43	0.20	J

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-6-8 | Lab Sample ID: 240-635-17

Matrix: Solid | Lab File ID: 148908.D

Analysis Method: 8260B | Date Collected: 05/31/2011 11:38

Sample wt/vol: 8.062(g) | Date Analyzed: 06/11/2011 22:00

Soil Aliquot Vol: 100 (uL) | Dilution Factor: 1

Soil Extract Vol.: 5(mL) | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.3 | Level: (low/med) Medium

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	180	U	180	6.5
71-55-6	1,1,1-Trichloroethane	180	U	180	15
79-34-5	1,1,2,2-Tetrachloroethane	180	U	180	6.4
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	180	U	180	28
75-34-3	1,1-Dichloroethane	180	U	180	12
75-35-4	1,1-Dichloroethene	180	U	180	13
563-58-6	1,1-Dichloropropene	180	U	180	7.2
87-61-6	1,2,3-Trichlorobenzene	180	U	180	7.2
96-18-4	1,2,3-Trichloropropane	180	U	180	15
526-73-8	1,2,3-Trimethylbenzene	180	U	180	0.12
120-82-1	1,2,4-Trichlorobenzene	180	U	180	5.2
95-63-6	1,2,4-Trimethylbenzene	9.4	J	180	3.6
96-12-8	1,2-Dibromo-3-Chloropropane	360	U	360	36
95-50-1	1,2-Dichlorobenzene	180	U	180	6.2
107-06-2	1,2-Dichloroethane	180	U	180	7.2
78-87-5	1,2-Dichloropropane	180	U	180	5.9
541-73-1	1,3-Dichlorobenzene	180	U	180	3.4
142-28-9	1,3-Dichloropropane	180	U	180	16
106-46-7	1,4-Dichlorobenzene	180	U	180	5.7
594-20-7	2,2-Dichloropropane	180	U	180	16
78-93-3	2-Butanone	720	U	720	31
110-75-8	2-Chloroethyl vinyl ether	720	U	720	31
95-49-8	2-Chlorotoluene	180	U	180	6.4
591-78-6	2-Hexanone	720	U	720	14
106-43-4	4-Chlorotoluene	180	U	180	7.1
99-87-6	p-Isopropyltoluene	180	U	180	3.4
108-10-1	4-Methyl-2-pentanone	720	U	720	34
67-64-1	Acetone	220	J	720	120
71-43-2	Benzene	180	U	180	8.6
108-86-1	Bromobenzene	180	U	180	9.3
75-25-2	Bromoform	180	U	180	14
74-83-9	Bromomethane	180	U	180	21
75-15-0	Carbon disulfide	180	U	180	8.6
56-23-5	Carbon tetrachloride	180	U	180	4.6
108-90-7	Chlorobenzene	180	U	180	4.6

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-6-8 Lab Sample ID: 240-635-17

Matrix: Solid Lab File ID: 148908.D

Analysis Method: 8260B Date Collected: 05/31/2011 11:38

Sample wt/vol: 8.062(g) Date Analyzed: 06/11/2011 22:00

Soil Aliquot Vol: 100 (uL) Dilution Factor: 1

Soil Extract Vol.: 5(mL) GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.3 Level: (low/med) Medium

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	180	U	180	8.6
75-00-3	Chloroethane	180	U	180	44
67-66-3	Chloroform	180	U	180	6.3
74-87-3	Chloromethane	180	U	180	10
156-59-2	cis-1,2-Dichloroethene	180	U	180	4.9
10061-01-5	cis-1,3-Dichloropropene	180	U	180	5.7
74-95-3	Dibromomethane	180	U	180	10
74-97-5	Bromochloromethane	180	U	180	9.3
75-71-8	Dichlorodifluoromethane	180	U	180	11
75-27-4	Bromodichloromethane	180	U	180	7.1
75-65-0	tert-Butyl alcohol	7200	U	7200	170
100-41-4	Ethylbenzene	4.4	J	180	3.9
87-68-3	Hexachlorobutadiene	180	U	180	10
108-20-3	Diisopropyl ether	360	U	360	36
98-82-8	Isopropylbenzene	180	U	180	4.7
1634-04-4	Methyl tert-butyl ether	720	U	720	5.1
75-09-2	Methylene Chloride	420	B *	180	55
179601-23-1	m-Xylene & p-Xylene	14	J	360	4.4
91-20-3	Naphthalene	1700	B	180	4.8
104-51-8	n-Butylbenzene	180	U	180	5.7
103-65-1	n-Propylbenzene	180	U	180	10
95-47-6	o-Xylene	6.4	J	180	6.1
135-98-8	sec-Butylbenzene	180	U	180	3.4
100-42-5	Styrene	180	U	180	4.0
994-05-8	Tert-amyl-methyl ether (TAME)	180	U	180	0.26
637-92-3	Ethyl-t-butyl ether (ETBE)	180	U	180	0.16
127-18-4	Tetrachloroethene	180	U	180	8.6
108-88-3	Toluene	180	U	180	12
156-60-5	trans-1,2-Dichloroethene	180	U	180	6.6
10061-02-6	trans-1,3-Dichloropropene	180	U	180	14
79-01-6	Trichloroethene	180	U	180	6.9
75-69-4	Trichlorofluoromethane	180	U	180	11
108-05-4	Vinyl acetate	360	U	360	16
75-01-4	Vinyl chloride	180	U	180	13
1330-20-7	Xylenes, Total	20	J	360	5.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-6-8 Lab Sample ID: 240-635-17

Matrix: Solid Lab File ID: 148908.D

Analysis Method: 8260B Date Collected: 05/31/2011 11:38

Sample wt/vol: 8.062(g) Date Analyzed: 06/11/2011 22:00

Soil Aliquot Vol: 100 (uL) Dilution Factor: 1

Soil Extract Vol.: 5(mL) GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.3 Level: (low/med) Medium

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	180	U	180	4.7
106-93-4	1,2-Dibromoethane	180	U	180	7.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	71		33-134
1868-53-7	Dibromofluoromethane (Surr)	23	X	30-122
460-00-4	4-Bromofluorobenzene (Surr)	64		26-141
17060-07-0	1,2-Dichloroethane-d4 (Surr)	76		39-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-6-8 | Lab Sample ID: 240-635-17

Matrix: Solid | Lab File ID: 148908.D

Analysis Method: 8260B | Date Collected: 05/31/2011 11:38

Sample wt/vol: 8.062(g) | Date Analyzed: 06/11/2011 22:00

Soil Aliquot Vol: 100 (uL) | Dilution Factor: 1

Soil Extract Vol.: 5(mL) | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 13.3 | Level: (low/med) Medium

Analysis Batch No.: 4426 | Units: ug/Kg

Number TICs Found: 3 | TIC Result Total: 1158

CAS NO.	COMPOUND NAME	RT	RESULT	Q
79-20-9	Methyl acetate	3.78	28	J
91-57-6	2-Methylnaphthalene	14.32	770	J
90-12-0	Naphthalene, 1-methyl-	14.47	360	T J N

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-0-2 | Lab Sample ID: 240-635-22

Matrix: Solid | Lab File ID: 148925.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:23

Sample wt/vol: 5.651(g) | Date Analyzed: 06/12/2011 13:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 6.8 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.7	U	4.7	0.59
71-55-6	1,1,1-Trichloroethane	4.7	U	4.7	0.53
79-34-5	1,1,2,2-Tetrachloroethane	4.7	U	4.7	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.7	U	4.7	1.2
75-34-3	1,1-Dichloroethane	4.7	U	4.7	0.34
75-35-4	1,1-Dichloroethene	4.7	U	4.7	0.49
563-58-6	1,1-Dichloropropene	4.7	U	4.7	0.28
87-61-6	1,2,3-Trichlorobenzene	4.7	U	4.7	0.36
96-18-4	1,2,3-Trichloropropane	4.7	U	4.7	0.85
526-73-8	1,2,3-Trimethylbenzene	4.7	U	4.7	0.16
120-82-1	1,2,4-Trichlorobenzene	4.7	U	4.7	0.26
95-63-6	1,2,4-Trimethylbenzene	4.7	U	4.7	0.62
96-12-8	1,2-Dibromo-3-Chloropropane	9.5	U	9.5	1.2
95-50-1	1,2-Dichlorobenzene	4.7	U	4.7	0.34
107-06-2	1,2-Dichloroethane	4.7	U	4.7	0.32
78-87-5	1,2-Dichloropropane	4.7	U	4.7	0.66
541-73-1	1,3-Dichlorobenzene	4.7	U	4.7	0.33
142-28-9	1,3-Dichloropropane	4.7	U	4.7	0.32
106-46-7	1,4-Dichlorobenzene	4.7	U	4.7	0.63
594-20-7	2,2-Dichloropropane	4.7	U	4.7	0.89
78-93-3	2-Butanone	19	U	19	1.3
110-75-8	2-Chloroethyl vinyl ether	47	U	47	1.3
95-49-8	2-Chlorotoluene	4.7	U	4.7	0.38
591-78-6	2-Hexanone	19	U	19	0.60
106-43-4	4-Chlorotoluene	4.7	U	4.7	0.39
99-87-6	p-Isopropyltoluene	4.7	U	4.7	0.20
108-10-1	4-Methyl-2-pentanone	19	U	19	0.51
67-64-1	Acetone	19	U	19	6.0
71-43-2	Benzene	4.7	U	4.7	0.22
108-86-1	Bromobenzene	4.7	U	4.7	0.31
75-25-2	Bromoform	4.7	U	4.7	0.31
74-83-9	Bromomethane	4.7	U	4.7	0.51
75-15-0	Carbon disulfide	4.7	U	4.7	0.42
56-23-5	Carbon tetrachloride	4.7	U	4.7	0.35
108-90-7	Chlorobenzene	4.7	U	4.7	0.31

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-0-2 | Lab Sample ID: 240-635-22

Matrix: Solid | Lab File ID: 148925.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:23

Sample wt/vol: 5.651(g) | Date Analyzed: 06/12/2011 13:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 6.8 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.7	U	4.7	0.52
75-00-3	Chloroethane	4.7	U *	4.7	0.82
67-66-3	Chloroform	4.7	U	4.7	0.28
74-87-3	Chloromethane	4.7	U	4.7	0.39
156-59-2	cis-1,2-Dichloroethene	4.7	U	4.7	0.34
10061-01-5	cis-1,3-Dichloropropene	4.7	U	4.7	0.32
74-95-3	Dibromomethane	4.7	U	4.7	0.60
74-97-5	Bromochloromethane	4.7	U	4.7	0.67
75-71-8	Dichlorodifluoromethane	4.7	U	4.7	0.47
75-27-4	Bromodichloromethane	4.7	U	4.7	0.27
75-65-0	tert-Butyl alcohol	190	U	190	7.2
100-41-4	Ethylbenzene	4.7	U	4.7	0.25
87-68-3	Hexachlorobutadiene	4.7	U	4.7	1.1
108-20-3	Diisopropyl ether	9.5	U	9.5	1.4
98-82-8	Isopropylbenzene	4.7	U	4.7	0.15
1634-04-4	Methyl tert-butyl ether	19	U	19	0.41
75-09-2	Methylene Chloride	3.2	J B	4.7	0.64
179601-23-1	m-Xylene & p-Xylene	9.5	U	9.5	1.1
91-20-3	Naphthalene	0.53	J B	4.7	0.18
104-51-8	n-Butylbenzene	4.7	U	4.7	0.22
103-65-1	n-Propylbenzene	4.7	U	4.7	0.38
95-47-6	o-Xylene	4.7	U	4.7	0.33
135-98-8	sec-Butylbenzene	4.7	U	4.7	0.17
100-42-5	Styrene	4.7	U	4.7	0.14
994-05-8	Tert-amyl-methyl ether (TAME)	4.7	U	4.7	0.35
637-92-3	Ethyl-t-butyl ether (ETBE)	4.7	U	4.7	0.21
127-18-4	Tetrachloroethene	4.7	U	4.7	0.49
108-88-3	Toluene	4.7	U	4.7	0.26
156-60-5	trans-1,2-Dichloroethene	4.7	U	4.7	0.39
10061-02-6	trans-1,3-Dichloropropene	4.7	U	4.7	0.51
79-01-6	Trichloroethene	4.7	U	4.7	0.40
75-69-4	Trichlorofluoromethane	4.7	U	4.7	0.32
108-05-4	Vinyl acetate	9.5	U	9.5	0.24
75-01-4	Vinyl chloride	4.7	U	4.7	0.37
1330-20-7	Xylenes, Total	9.5	U	9.5	0.64

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-0-2 | Lab Sample ID: 240-635-22

Matrix: Solid | Lab File ID: 148925.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:23

Sample wt/vol: 5.651(g) | Date Analyzed: 06/12/2011 13:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 6.8 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.7	U	4.7	0.28
106-93-4	1,2-Dibromoethane	4.7	U	4.7	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	109		67-125
1868-53-7	Dibromofluoromethane (Surr)	83		37-132
460-00-4	4-Bromofluorobenzene (Surr)	103		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-0-2 | Lab Sample ID: 240-635-22

Matrix: Solid | Lab File ID: 148925.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:23

Sample wt/vol: 5.651(g) | Date Analyzed: 06/12/2011 13:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 6.8 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

Number TICs Found: 1 | TIC Result Total: 3.8

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.79	3.8	J

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-20-22 | Lab Sample ID: 240-635-24

Matrix: Solid | Lab File ID: 148927.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:30

Sample wt/vol: 5.971(g) | Date Analyzed: 06/12/2011 14:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 22.6 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.4	U	5.4	0.67
71-55-6	1,1,1-Trichloroethane	5.4	U	5.4	0.61
79-34-5	1,1,2,2-Tetrachloroethane	5.4	U	5.4	0.37
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	5.4	U	5.4	1.4
75-34-3	1,1-Dichloroethane	5.4	U	5.4	0.39
75-35-4	1,1-Dichloroethene	5.4	U	5.4	0.56
563-58-6	1,1-Dichloropropene	5.4	U	5.4	0.32
87-61-6	1,2,3-Trichlorobenzene	5.4	U	5.4	0.41
96-18-4	1,2,3-Trichloropropane	5.4	U	5.4	0.97
526-73-8	1,2,3-Trimethylbenzene	5.4	U	5.4	0.18
120-82-1	1,2,4-Trichlorobenzene	5.4	U	5.4	0.29
95-63-6	1,2,4-Trimethylbenzene	5.4	U	5.4	0.70
96-12-8	1,2-Dibromo-3-Chloropropane	11	U	11	1.4
95-50-1	1,2-Dichlorobenzene	5.4	U	5.4	0.39
107-06-2	1,2-Dichloroethane	5.4	U	5.4	0.37
78-87-5	1,2-Dichloropropane	5.4	U	5.4	0.75
541-73-1	1,3-Dichlorobenzene	5.4	U	5.4	0.38
142-28-9	1,3-Dichloropropane	5.4	U	5.4	0.37
106-46-7	1,4-Dichlorobenzene	5.4	U	5.4	0.71
594-20-7	2,2-Dichloropropane	5.4	U	5.4	1.0
78-93-3	2-Butanone	22	U	22	1.5
110-75-8	2-Chloroethyl vinyl ether	54	U	54	1.5
95-49-8	2-Chlorotoluene	5.4	U	5.4	0.43
591-78-6	2-Hexanone	22	U	22	0.68
106-43-4	4-Chlorotoluene	5.4	U	5.4	0.44
99-87-6	p-Isopropyltoluene	5.4	U	5.4	0.23
108-10-1	4-Methyl-2-pentanone	22	U	22	0.58
67-64-1	Acetone	25	B	22	6.8
71-43-2	Benzene	5.4	U	5.4	0.25
108-86-1	Bromobenzene	5.4	U	5.4	0.36
75-25-2	Bromoform	5.4	U	5.4	0.36
74-83-9	Bromomethane	5.4	U	5.4	0.58
75-15-0	Carbon disulfide	0.55	J	5.4	0.48
56-23-5	Carbon tetrachloride	5.4	U	5.4	0.40
108-90-7	Chlorobenzene	5.4	U	5.4	0.36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-20-22 Lab Sample ID: 240-635-24

Matrix: Solid Lab File ID: 148927.D

Analysis Method: 8260B Date Collected: 05/31/2011 15:30

Sample wt/vol: 5.971(g) Date Analyzed: 06/12/2011 14:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 22.6 Level: (low/med) Low

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.4	U	5.4	0.60
75-00-3	Chloroethane	5.4	U *	5.4	0.93
67-66-3	Chloroform	5.4	U	5.4	0.31
74-87-3	Chloromethane	5.4	U	5.4	0.44
156-59-2	cis-1,2-Dichloroethene	5.4	U	5.4	0.39
10061-01-5	cis-1,3-Dichloropropene	5.4	U	5.4	0.37
74-95-3	Dibromomethane	5.4	U	5.4	0.68
74-97-5	Bromochloromethane	5.4	U	5.4	0.77
75-71-8	Dichlorodifluoromethane	5.4	U	5.4	0.54
75-27-4	Bromodichloromethane	5.4	U	5.4	0.30
75-65-0	tert-Butyl alcohol	220	U	220	8.2
100-41-4	Ethylbenzene	5.4	U	5.4	0.28
87-68-3	Hexachlorobutadiene	5.4	U	5.4	1.3
108-20-3	Diisopropyl ether	11	U	11	1.6
98-82-8	Isopropylbenzene	5.4	U	5.4	0.17
1634-04-4	Methyl tert-butyl ether	22	U	22	0.47
75-09-2	Methylene Chloride	3.8	J B	5.4	0.73
179601-23-1	m-Xylene & p-Xylene	11	U	11	1.3
91-20-3	Naphthalene	2.5	J B	5.4	0.21
104-51-8	n-Butylbenzene	5.4	U	5.4	0.25
103-65-1	n-Propylbenzene	5.4	U	5.4	0.43
95-47-6	o-Xylene	5.4	U	5.4	0.38
135-98-8	sec-Butylbenzene	5.4	U	5.4	0.19
100-42-5	Styrene	5.4	U	5.4	0.16
994-05-8	Tert-amyl-methyl ether (TAME)	5.4	U	5.4	0.40
637-92-3	Ethyl-t-butyl ether (ETBE)	5.4	U	5.4	0.24
127-18-4	Tetrachloroethene	5.4	U	5.4	0.56
108-88-3	Toluene	5.4	U	5.4	0.29
156-60-5	trans-1,2-Dichloroethene	5.4	U	5.4	0.44
10061-02-6	trans-1,3-Dichloropropene	5.4	U	5.4	0.58
79-01-6	Trichloroethene	5.4	U	5.4	0.45
75-69-4	Trichlorofluoromethane	5.4	U	5.4	0.37
108-05-4	Vinyl acetate	11	U	11	0.27
75-01-4	Vinyl chloride	5.4	U	5.4	0.42
1330-20-7	Xylenes, Total	11	U	11	0.73

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-20-22 | Lab Sample ID: 240-635-24

Matrix: Solid | Lab File ID: 148927.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:30

Sample wt/vol: 5.971(g) | Date Analyzed: 06/12/2011 14:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 22.6 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.4	U	5.4	0.31
106-93-4	1,2-Dibromoethane	5.4	U	5.4	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	109		67-125
1868-53-7	Dibromofluoromethane (Surr)	84		37-132
460-00-4	4-Bromofluorobenzene (Surr)	95		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-20-22 | Lab Sample ID: 240-635-24

Matrix: Solid | Lab File ID: 148927.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:30

Sample wt/vol: 5.971(g) | Date Analyzed: 06/12/2011 14:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 22.6 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-6-8 Lab Sample ID: 240-635-23

Matrix: Solid Lab File ID: 148926.D

Analysis Method: 8260B Date Collected: 05/31/2011 15:26

Sample wt/vol: 6.257(g) Date Analyzed: 06/12/2011 13:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.6 Level: (low/med) Low

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.5	U	4.5	0.56
71-55-6	1,1,1-Trichloroethane	4.5	U	4.5	0.51
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	4.5	0.31
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.5	U	4.5	1.2
75-34-3	1,1-Dichloroethane	4.5	U	4.5	0.33
75-35-4	1,1-Dichloroethene	4.5	U	4.5	0.47
563-58-6	1,1-Dichloropropene	4.5	U	4.5	0.27
87-61-6	1,2,3-Trichlorobenzene	4.5	U	4.5	0.34
96-18-4	1,2,3-Trichloropropane	4.5	U	4.5	0.81
526-73-8	1,2,3-Trimethylbenzene	4.5	U	4.5	0.15
120-82-1	1,2,4-Trichlorobenzene	4.5	U	4.5	0.24
95-63-6	1,2,4-Trimethylbenzene	4.5	U	4.5	0.59
96-12-8	1,2-Dibromo-3-Chloropropane	9.0	U	9.0	1.2
95-50-1	1,2-Dichlorobenzene	4.5	U	4.5	0.33
107-06-2	1,2-Dichloroethane	4.5	U	4.5	0.31
78-87-5	1,2-Dichloropropane	4.5	U	4.5	0.62
541-73-1	1,3-Dichlorobenzene	4.5	U	4.5	0.32
142-28-9	1,3-Dichloropropane	4.5	U	4.5	0.31
106-46-7	1,4-Dichlorobenzene	4.5	U	4.5	0.60
594-20-7	2,2-Dichloropropane	4.5	U	4.5	0.85
78-93-3	2-Butanone	18	U	18	1.3
110-75-8	2-Chloroethyl vinyl ether	45	U	45	1.3
95-49-8	2-Chlorotoluene	4.5	U	4.5	0.36
591-78-6	2-Hexanone	18	U	18	0.57
106-43-4	4-Chlorotoluene	4.5	U	4.5	0.37
99-87-6	p-Isopropyltoluene	4.5	U	4.5	0.19
108-10-1	4-Methyl-2-pentanone	18	U	18	0.49
67-64-1	Acetone	63	B	18	5.7
71-43-2	Benzene	4.5	U	4.5	0.21
108-86-1	Bromobenzene	4.5	U	4.5	0.30
75-25-2	Bromoform	4.5	U	4.5	0.30
74-83-9	Bromomethane	4.5	U	4.5	0.49
75-15-0	Carbon disulfide	4.5	U	4.5	0.40
56-23-5	Carbon tetrachloride	4.5	U	4.5	0.33
108-90-7	Chlorobenzene	4.5	U	4.5	0.30

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-6-8 | Lab Sample ID: 240-635-23

Matrix: Solid | Lab File ID: 148926.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:26

Sample wt/vol: 6.257(g) | Date Analyzed: 06/12/2011 13:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.6 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.5	U	4.5	0.50
75-00-3	Chloroethane	4.5	U *	4.5	0.78
67-66-3	Chloroform	4.5	U	4.5	0.26
74-87-3	Chloromethane	4.5	U	4.5	0.37
156-59-2	cis-1,2-Dichloroethene	4.5	U	4.5	0.33
10061-01-5	cis-1,3-Dichloropropene	4.5	U	4.5	0.31
74-95-3	Dibromomethane	4.5	U	4.5	0.57
74-97-5	Bromochloromethane	4.5	U	4.5	0.64
75-71-8	Dichlorodifluoromethane	4.5	U	4.5	0.45
75-27-4	Bromodichloromethane	4.5	U	4.5	0.25
75-65-0	tert-Butyl alcohol	180	U	180	6.9
100-41-4	Ethylbenzene	4.5	U	4.5	0.24
87-68-3	Hexachlorobutadiene	4.5	U	4.5	1.1
108-20-3	Diisopropyl ether	9.0	U	9.0	1.4
98-82-8	Isopropylbenzene	4.5	U	4.5	0.14
1634-04-4	Methyl tert-butyl ether	18	U	18	0.39
75-09-2	Methylene Chloride	3.8	J B	4.5	0.61
179601-23-1	m-Xylene & p-Xylene	9.0	U	9.0	1.1
91-20-3	Naphthalene	4.5	U	4.5	0.17
104-51-8	n-Butylbenzene	4.5	U	4.5	0.21
103-65-1	n-Propylbenzene	4.5	U	4.5	0.36
95-47-6	o-Xylene	4.5	U	4.5	0.32
135-98-8	sec-Butylbenzene	4.5	U	4.5	0.16
100-42-5	Styrene	4.5	U	4.5	0.14
994-05-8	Tert-amyl-methyl ether (TAME)	4.5	U	4.5	0.33
637-92-3	Ethyl-t-butyl ether (ETBE)	4.5	U	4.5	0.20
127-18-4	Tetrachloroethene	4.5	U	4.5	0.47
108-88-3	Toluene	4.5	U	4.5	0.24
156-60-5	trans-1,2-Dichloroethene	4.5	U	4.5	0.37
10061-02-6	trans-1,3-Dichloropropene	4.5	U	4.5	0.49
79-01-6	Trichloroethene	4.5	U	4.5	0.38
75-69-4	Trichlorofluoromethane	4.5	U	4.5	0.31
108-05-4	Vinyl acetate	9.0	U	9.0	0.23
75-01-4	Vinyl chloride	4.5	U	4.5	0.35
1330-20-7	Xylenes, Total	9.0	U	9.0	0.61

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-6-8 Lab Sample ID: 240-635-23

Matrix: Solid Lab File ID: 148926.D

Analysis Method: 8260B Date Collected: 05/31/2011 15:26

Sample wt/vol: 6.257(g) Date Analyzed: 06/12/2011 13:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 11.6 Level: (low/med) Low

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.5	U	4.5	0.26
106-93-4	1,2-Dibromoethane	4.5	U	4.5	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		67-125
1868-53-7	Dibromofluoromethane (Surr)	83		37-132
460-00-4	4-Bromofluorobenzene (Surr)	94		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton	Job No.: 240-635-1
SDG No.:	
Client Sample ID: G-SP-SB-122-6-8	Lab Sample ID: 240-635-23
Matrix: Solid	Lab File ID: 148926.D
Analysis Method: 8260B	Date Collected: 05/31/2011 15:26
Sample wt/vol: 6.257(g)	Date Analyzed: 06/12/2011 13:41
Soil Aliquot Vol:	Dilution Factor: 1
Soil Extract Vol.:	GC Column: DB-624 ID: 0.18(mm)
% Moisture: 11.6	Level: (low/med) Low
Analysis Batch No.: 4446	Units: ug/Kg
Number TICs Found: 0	TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-0-2 | Lab Sample ID: 240-635-25

Matrix: Solid | Lab File ID: 148928.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:24

Sample wt/vol: 5.226(g) | Date Analyzed: 06/12/2011 14:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.9 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.5	U	5.5	0.68
71-55-6	1,1,1-Trichloroethane	5.5	U	5.5	0.62
79-34-5	1,1,2,2-Tetrachloroethane	5.5	U	5.5	0.37
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	5.5	U	5.5	1.4
75-34-3	1,1-Dichloroethane	5.5	U	5.5	0.40
75-35-4	1,1-Dichloroethene	5.5	U	5.5	0.57
563-58-6	1,1-Dichloropropene	5.5	U	5.5	0.33
87-61-6	1,2,3-Trichlorobenzene	5.5	U	5.5	0.42
96-18-4	1,2,3-Trichloropropane	5.5	U	5.5	0.99
526-73-8	1,2,3-Trimethylbenzene	5.5	U	5.5	0.19
120-82-1	1,2,4-Trichlorobenzene	5.5	U	5.5	0.30
95-63-6	1,2,4-Trimethylbenzene	5.5	U	5.5	0.71
96-12-8	1,2-Dibromo-3-Chloropropane	11	U	11	1.4
95-50-1	1,2-Dichlorobenzene	5.5	U	5.5	0.40
107-06-2	1,2-Dichloroethane	5.5	U	5.5	0.37
78-87-5	1,2-Dichloropropane	5.5	U	5.5	0.76
541-73-1	1,3-Dichlorobenzene	5.5	U	5.5	0.38
142-28-9	1,3-Dichloropropane	5.5	U	5.5	0.37
106-46-7	1,4-Dichlorobenzene	5.5	U	5.5	0.73
594-20-7	2,2-Dichloropropane	5.5	U	5.5	1.0
78-93-3	2-Butanone	22	U	22	1.5
110-75-8	2-Chloroethyl vinyl ether	55	U	55	1.5
95-49-8	2-Chlorotoluene	5.5	U	5.5	0.44
591-78-6	2-Hexanone	22	U	22	0.69
106-43-4	4-Chlorotoluene	5.5	U	5.5	0.45
99-87-6	p-Isopropyltoluene	5.5	U	5.5	0.23
108-10-1	4-Methyl-2-pentanone	22	U	22	0.59
67-64-1	Acetone	22	U	22	6.9
71-43-2	Benzene	5.5	U	5.5	0.25
108-86-1	Bromobenzene	5.5	U	5.5	0.36
75-25-2	Bromoform	5.5	U	5.5	0.36
74-83-9	Bromomethane	5.5	U	5.5	0.59
75-15-0	Carbon disulfide	5.5	U	5.5	0.48
56-23-5	Carbon tetrachloride	5.5	U	5.5	0.41
108-90-7	Chlorobenzene	5.5	U	5.5	0.36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-0-2 | Lab Sample ID: 240-635-25

Matrix: Solid | Lab File ID: 148928.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:24

Sample wt/vol: 5.226(g) | Date Analyzed: 06/12/2011 14:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.9 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.5	U	5.5	0.60
75-00-3	Chloroethane	5.5	U *	5.5	0.95
67-66-3	Chloroform	5.5	U	5.5	0.32
74-87-3	Chloromethane	5.5	U	5.5	0.45
156-59-2	cis-1,2-Dichloroethene	5.5	U	5.5	0.40
10061-01-5	cis-1,3-Dichloropropene	5.5	U	5.5	0.37
74-95-3	Dibromomethane	5.5	U	5.5	0.69
74-97-5	Bromochloromethane	5.5	U	5.5	0.78
75-71-8	Dichlorodifluoromethane	5.5	U	5.5	0.55
75-27-4	Bromodichloromethane	5.5	U	5.5	0.31
75-65-0	tert-Butyl alcohol	220	U	220	8.4
100-41-4	Ethylbenzene	5.5	U	5.5	0.29
87-68-3	Hexachlorobutadiene	5.5	U	5.5	1.3
108-20-3	Diisopropyl ether	11	U	11	1.6
98-82-8	Isopropylbenzene	5.5	U	5.5	0.18
1634-04-4	Methyl tert-butyl ether	22	U	22	0.47
75-09-2	Methylene Chloride	4.4	J B	5.5	0.74
179601-23-1	m-Xylene & p-Xylene	11	U	11	1.3
91-20-3	Naphthalene	5.5	U	5.5	0.21
104-51-8	n-Butylbenzene	5.5	U	5.5	0.25
103-65-1	n-Propylbenzene	5.5	U	5.5	0.44
95-47-6	o-Xylene	5.5	U	5.5	0.38
135-98-8	sec-Butylbenzene	5.5	U	5.5	0.20
100-42-5	Styrene	5.5	U	5.5	0.16
994-05-8	Tert-amyl-methyl ether (TAME)	5.5	U	5.5	0.41
637-92-3	Ethyl-t-butyl ether (ETBE)	5.5	U	5.5	0.24
127-18-4	Tetrachloroethene	5.5	U	5.5	0.57
108-88-3	Toluene	5.5	U	5.5	0.30
156-60-5	trans-1,2-Dichloroethene	5.5	U	5.5	0.45
10061-02-6	trans-1,3-Dichloropropene	5.5	U	5.5	0.59
79-01-6	Trichloroethene	5.5	U	5.5	0.46
75-69-4	Trichlorofluoromethane	5.5	U	5.5	0.37
108-05-4	Vinyl acetate	11	U	11	0.27
75-01-4	Vinyl chloride	5.5	U	5.5	0.43
1330-20-7	Xylenes, Total	11	U	11	0.74

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-0-2 | Lab Sample ID: 240-635-25

Matrix: Solid | Lab File ID: 148928.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:24

Sample wt/vol: 5.226(g) | Date Analyzed: 06/12/2011 14:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.9 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.5	U	5.5	0.32
106-93-4	1,2-Dibromoethane	5.5	U	5.5	0.55

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	110		67-125
1868-53-7	Dibromofluoromethane (Surr)	83		37-132
460-00-4	4-Bromofluorobenzene (Surr)	107		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-0-2 | Lab Sample ID: 240-635-25

Matrix: Solid | Lab File ID: 148928.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:24

Sample wt/vol: 5.226(g) | Date Analyzed: 06/12/2011 14:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.9 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

Number TICs Found: 1 | TIC Result Total: 17

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.79	17	

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-20-22 | Lab Sample ID: 240-635-27

Matrix: Solid | Lab File ID: 148930.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:35

Sample wt/vol: 6.339(g) | Date Analyzed: 06/12/2011 15:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.0 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.8	U	4.8	0.59
71-55-6	1,1,1-Trichloroethane	4.8	U	4.8	0.53
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U	4.8	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.8	U	4.8	1.2
75-34-3	1,1-Dichloroethane	4.8	U	4.8	0.34
75-35-4	1,1-Dichloroethene	4.8	U	4.8	0.49
563-58-6	1,1-Dichloropropene	4.8	U	4.8	0.29
87-61-6	1,2,3-Trichlorobenzene	4.8	U	4.8	0.36
96-18-4	1,2,3-Trichloropropane	4.8	U	4.8	0.86
526-73-8	1,2,3-Trimethylbenzene	4.8	U	4.8	0.16
120-82-1	1,2,4-Trichlorobenzene	4.8	U	4.8	0.26
95-63-6	1,2,4-Trimethylbenzene	4.8	U	4.8	0.62
96-12-8	1,2-Dibromo-3-Chloropropane	9.5	U	9.5	1.2
95-50-1	1,2-Dichlorobenzene	4.8	U	4.8	0.34
107-06-2	1,2-Dichloroethane	4.8	U	4.8	0.32
78-87-5	1,2-Dichloropropane	4.8	U	4.8	0.66
541-73-1	1,3-Dichlorobenzene	4.8	U	4.8	0.33
142-28-9	1,3-Dichloropropane	4.8	U	4.8	0.32
106-46-7	1,4-Dichlorobenzene	4.8	U	4.8	0.63
594-20-7	2,2-Dichloropropane	4.8	U	4.8	0.89
78-93-3	2-Butanone	19	U	19	1.3
110-75-8	2-Chloroethyl vinyl ether	48	U	48	1.3
95-49-8	2-Chlorotoluene	4.8	U	4.8	0.38
591-78-6	2-Hexanone	19	U	19	0.60
106-43-4	4-Chlorotoluene	4.8	U	4.8	0.39
99-87-6	p-Isopropyltoluene	4.8	U	4.8	0.20
108-10-1	4-Methyl-2-pentanone	19	U	19	0.51
67-64-1	Acetone	7.2	J B	19	6.0
71-43-2	Benzene	4.8	U	4.8	0.22
108-86-1	Bromobenzene	4.8	U	4.8	0.31
75-25-2	Bromoform	4.8	U	4.8	0.31
74-83-9	Bromomethane	4.8	U	4.8	0.51
75-15-0	Carbon disulfide	4.8	U	4.8	0.42
56-23-5	Carbon tetrachloride	4.8	U	4.8	0.35
108-90-7	Chlorobenzene	4.8	U	4.8	0.31

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-20-22 | Lab Sample ID: 240-635-27

Matrix: Solid | Lab File ID: 148930.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:35

Sample wt/vol: 6.339(g) | Date Analyzed: 06/12/2011 15:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.0 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.8	U	4.8	0.52
75-00-3	Chloroethane	4.8	U *	4.8	0.82
67-66-3	Chloroform	4.8	U	4.8	0.28
74-87-3	Chloromethane	4.8	U	4.8	0.39
156-59-2	cis-1,2-Dichloroethene	4.8	U	4.8	0.34
10061-01-5	cis-1,3-Dichloropropene	4.8	U	4.8	0.32
74-95-3	Dibromomethane	4.8	U	4.8	0.60
74-97-5	Bromochloromethane	4.8	U	4.8	0.67
75-71-8	Dichlorodifluoromethane	4.8	U	4.8	0.48
75-27-4	Bromodichloromethane	4.8	U	4.8	0.27
75-65-0	tert-Butyl alcohol	190	U	190	7.2
100-41-4	Ethylbenzene	4.8	U	4.8	0.25
87-68-3	Hexachlorobutadiene	4.8	U	4.8	1.1
108-20-3	Diisopropyl ether	9.5	U	9.5	1.4
98-82-8	Isopropylbenzene	4.8	U	4.8	0.15
1634-04-4	Methyl tert-butyl ether	19	U	19	0.41
75-09-2	Methylene Chloride	3.1	J B	4.8	0.64
179601-23-1	m-Xylene & p-Xylene	9.5	U	9.5	1.1
91-20-3	Naphthalene	4.8	U	4.8	0.18
104-51-8	n-Butylbenzene	4.8	U	4.8	0.22
103-65-1	n-Propylbenzene	4.8	U	4.8	0.38
95-47-6	o-Xylene	4.8	U	4.8	0.33
135-98-8	sec-Butylbenzene	4.8	U	4.8	0.17
100-42-5	Styrene	4.8	U	4.8	0.14
994-05-8	Tert-amyl-methyl ether (TAME)	4.8	U	4.8	0.35
637-92-3	Ethyl-t-butyl ether (ETBE)	4.8	U	4.8	0.21
127-18-4	Tetrachloroethene	4.8	U	4.8	0.49
108-88-3	Toluene	4.8	U	4.8	0.26
156-60-5	trans-1,2-Dichloroethene	4.8	U	4.8	0.39
10061-02-6	trans-1,3-Dichloropropene	4.8	U	4.8	0.51
79-01-6	Trichloroethene	4.8	U	4.8	0.40
75-69-4	Trichlorofluoromethane	4.8	U	4.8	0.32
108-05-4	Vinyl acetate	9.5	U	9.5	0.24
75-01-4	Vinyl chloride	4.8	U	4.8	0.37
1330-20-7	Xylenes, Total	9.5	U	9.5	0.64

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-20-22 | Lab Sample ID: 240-635-27

Matrix: Solid | Lab File ID: 148930.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:35

Sample wt/vol: 6.339(g) | Date Analyzed: 06/12/2011 15:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.0 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.8	U	4.8	0.28
106-93-4	1,2-Dibromoethane	4.8	U	4.8	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		67-125
1868-53-7	Dibromofluoromethane (Surr)	85		37-132
460-00-4	4-Bromofluorobenzene (Surr)	96		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-20-22 | Lab Sample ID: 240-635-27

Matrix: Solid | Lab File ID: 148930.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:35

Sample wt/vol: 6.339(g) | Date Analyzed: 06/12/2011 15:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.0 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-6-8 | Lab Sample ID: 240-635-26

Matrix: Solid | Lab File ID: 148929.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:30

Sample wt/vol: 6.249(g) | Date Analyzed: 06/12/2011 14:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.6 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.7	U	4.7	0.59
71-55-6	1,1,1-Trichloroethane	4.7	U	4.7	0.53
79-34-5	1,1,2,2-Tetrachloroethane	4.7	U	4.7	0.32
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.7	U	4.7	1.2
75-34-3	1,1-Dichloroethane	4.7	U	4.7	0.34
75-35-4	1,1-Dichloroethene	4.7	U	4.7	0.49
563-58-6	1,1-Dichloropropene	4.7	U	4.7	0.28
87-61-6	1,2,3-Trichlorobenzene	4.7	U	4.7	0.36
96-18-4	1,2,3-Trichloropropane	4.7	U	4.7	0.85
526-73-8	1,2,3-Trimethylbenzene	4.7	U	4.7	0.16
120-82-1	1,2,4-Trichlorobenzene	4.7	U	4.7	0.26
95-63-6	1,2,4-Trimethylbenzene	4.7	U	4.7	0.62
96-12-8	1,2-Dibromo-3-Chloropropane	9.5	U	9.5	1.2
95-50-1	1,2-Dichlorobenzene	4.7	U	4.7	0.34
107-06-2	1,2-Dichloroethane	4.7	U	4.7	0.32
78-87-5	1,2-Dichloropropane	4.7	U	4.7	0.65
541-73-1	1,3-Dichlorobenzene	4.7	U	4.7	0.33
142-28-9	1,3-Dichloropropane	4.7	U	4.7	0.32
106-46-7	1,4-Dichlorobenzene	4.7	U	4.7	0.63
594-20-7	2,2-Dichloropropane	4.7	U	4.7	0.89
78-93-3	2-Butanone	19	U	19	1.3
110-75-8	2-Chloroethyl vinyl ether	47	U	47	1.3
95-49-8	2-Chlorotoluene	4.7	U	4.7	0.38
591-78-6	2-Hexanone	19	U	19	0.60
106-43-4	4-Chlorotoluene	4.7	U	4.7	0.39
99-87-6	p-Isopropyltoluene	4.7	U	4.7	0.20
108-10-1	4-Methyl-2-pentanone	19	U	19	0.51
67-64-1	Acetone	6.5	J B	19	6.0
71-43-2	Benzene	4.7	U	4.7	0.22
108-86-1	Bromobenzene	4.7	U	4.7	0.31
75-25-2	Bromoform	4.7	U	4.7	0.31
74-83-9	Bromomethane	4.7	U	4.7	0.51
75-15-0	Carbon disulfide	4.7	U	4.7	0.42
56-23-5	Carbon tetrachloride	4.7	U	4.7	0.35
108-90-7	Chlorobenzene	4.7	U	4.7	0.31

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-6-8 Lab Sample ID: 240-635-26

Matrix: Solid Lab File ID: 148929.D

Analysis Method: 8260B Date Collected: 05/31/2011 16:30

Sample wt/vol: 6.249(g) Date Analyzed: 06/12/2011 14:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.6 Level: (low/med) Low

Analysis Batch No.: 4446 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.7	U	4.7	0.52
75-00-3	Chloroethane	4.7	U *	4.7	0.82
67-66-3	Chloroform	4.7	U	4.7	0.27
74-87-3	Chloromethane	4.7	U	4.7	0.39
156-59-2	cis-1,2-Dichloroethene	4.7	U	4.7	0.34
10061-01-5	cis-1,3-Dichloropropene	4.7	U	4.7	0.32
74-95-3	Dibromomethane	4.7	U	4.7	0.60
74-97-5	Bromochloromethane	4.7	U	4.7	0.67
75-71-8	Dichlorodifluoromethane	4.7	U	4.7	0.47
75-27-4	Bromodichloromethane	4.7	U	4.7	0.27
75-65-0	tert-Butyl alcohol	190	U	190	7.2
100-41-4	Ethylbenzene	4.7	U	4.7	0.25
87-68-3	Hexachlorobutadiene	4.7	U	4.7	1.1
108-20-3	Diisopropyl ether	9.5	U	9.5	1.4
98-82-8	Isopropylbenzene	4.7	U	4.7	0.15
1634-04-4	Methyl tert-butyl ether	19	U	19	0.41
75-09-2	Methylene Chloride	3.2	J B	4.7	0.63
179601-23-1	m-Xylene & p-Xylene	9.5	U	9.5	1.1
91-20-3	Naphthalene	4.7	U	4.7	0.18
104-51-8	n-Butylbenzene	4.7	U	4.7	0.22
103-65-1	n-Propylbenzene	4.7	U	4.7	0.38
95-47-6	o-Xylene	4.7	U	4.7	0.33
135-98-8	sec-Butylbenzene	4.7	U	4.7	0.17
100-42-5	Styrene	4.7	U	4.7	0.14
994-05-8	Tert-amyl-methyl ether (TAME)	4.7	U	4.7	0.35
637-92-3	Ethyl-t-butyl ether (ETBE)	4.7	U	4.7	0.21
127-18-4	Tetrachloroethene	4.7	U	4.7	0.49
108-88-3	Toluene	4.7	U	4.7	0.26
156-60-5	trans-1,2-Dichloroethene	4.7	U	4.7	0.39
10061-02-6	trans-1,3-Dichloropropene	4.7	U	4.7	0.51
79-01-6	Trichloroethene	4.7	U	4.7	0.40
75-69-4	Trichlorofluoromethane	4.7	U	4.7	0.32
108-05-4	Vinyl acetate	9.5	U	9.5	0.24
75-01-4	Vinyl chloride	4.7	U	4.7	0.37
1330-20-7	Xylenes, Total	9.5	U	9.5	0.63

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-6-8 | Lab Sample ID: 240-635-26

Matrix: Solid | Lab File ID: 148929.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:30

Sample wt/vol: 6.249(g) | Date Analyzed: 06/12/2011 14:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.6 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.7	U	4.7	0.27
106-93-4	1,2-Dibromoethane	4.7	U	4.7	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	107		67-125
1868-53-7	Dibromofluoromethane (Surr)	84		37-132
460-00-4	4-Bromofluorobenzene (Surr)	95		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-6-8 | Lab Sample ID: 240-635-26

Matrix: Solid | Lab File ID: 148929.D

Analysis Method: 8260B | Date Collected: 05/31/2011 16:30

Sample wt/vol: 6.249(g) | Date Analyzed: 06/12/2011 14:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.6 | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 | Lab Sample ID: 240-635-1

Matrix: Solid | Lab File ID: 635F1A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:05

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.92(g) | Date Analyzed: 06/29/2011 00:02

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	120	U	120	67
123-91-1	1,4-Dioxane	250	U	250	55
88-06-2	2,4,6-Trichlorophenol	370	U	370	200
95-95-4	2,4,5-Trichlorophenol	370	U	370	62
120-83-2	2,4-Dichlorophenol	370	U	370	50
105-67-9	2,4-Dimethylphenol	370	U	370	50
51-28-5	2,4-Dinitrophenol	820	U	820	200
121-14-2	2,4-Dinitrotoluene	500	U	500	67
91-58-7	2-Chloronaphthalene	120	U	120	8.2
95-57-8	2-Chlorophenol	120	U	120	67
91-57-6	2-Methylnaphthalene	400		17	8.2
95-48-7	2-Methylphenol	500	U	500	200
88-74-4	2-Nitroaniline	500	U	500	23
88-75-5	2-Nitrophenol	120	U	120	67
15831-10-4	3 & 4 Methylphenol	990	U	990	50
91-94-1	3,3'-Dichlorobenzidine	250	U *	250	45
99-09-2	3-Nitroaniline	500	U	500	40
534-52-1	4,6-Dinitro-2-methylphenol	370	U	370	200
101-55-3	4-Bromophenyl phenyl ether	120	U	120	32
59-50-7	4-Chloro-3-methylphenol	370	U	370	52
106-47-8	4-Chloroaniline	370	U	370	42
7005-72-3	4-Chlorophenyl phenyl ether	120	U	120	32
100-01-6	4-Nitroaniline	500	U	500	65
83-32-9	Acenaphthene	230		17	8.2
208-96-8	Acenaphthylene	73		17	8.2
98-86-2	Acetophenone	250	U	250	23
120-12-7	Anthracene	570		17	8.2
1912-24-9	Atrazine	500	U	500	23
100-52-7	Benzaldehyde	250	U	250	30
56-55-3	Benzo[a]anthracene	740		17	8.2
50-32-8	Benzo[a]pyrene	680		17	8.2
205-99-2	Benzo[b]fluoranthene	710		17	8.2
191-24-2	Benzo[g,h,i]perylene	360		17	8.2
207-08-9	Benzo[k]fluoranthene	300		17	8.2

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 | Lab Sample ID: 240-635-1

Matrix: Solid | Lab File ID: 635F1A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:05

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.92(g) | Date Analyzed: 06/29/2011 00:02

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	250	U	250	55
111-44-4	Bis(2-chloroethyl)ether	250	U	250	5.0
117-81-7	Bis(2-ethylhexyl) phthalate	59	J B	120	47
85-68-7	Butyl benzyl phthalate	120	U	120	25
105-60-2	Caprolactam	820	U *	820	92
86-74-8	Carbazole	120	U	120	67
218-01-9	Chrysene	790		17	2.7
84-74-2	Di-n-butyl phthalate	120	U	120	37
117-84-0	Di-n-octyl phthalate	120	U	120	67
53-70-3	Dibenzo(a,h)anthracene	140		17	8.2
132-64-9	Dibenzofuran	73	J	120	8.2
84-66-2	Diethyl phthalate	120	U	120	40
131-11-3	Dimethyl phthalate	120	U	120	42
206-44-0	Fluoranthene	1300		17	8.2
86-73-7	Fluorene	500		17	8.2
118-74-1	Hexachlorobenzene	17	U	17	5.2
87-68-3	Hexachlorobutadiene	120	U	120	67
77-47-4	Hexachlorocyclopentadiene	820	U	820	67
67-72-1	Hexachloroethane	120	U	120	22
193-39-5	Indeno[1,2,3-cd]pyrene	310		17	8.2
78-59-1	Isophorone	120	U	120	32
621-64-7	N-Nitrosodi-n-propylamine	120	U	120	67
62-75-9	N-Nitrosodimethylamine	250	U	250	40
86-30-6	N-Nitrosodiphenylamine	120	U	120	52
91-20-3	Naphthalene	450		17	8.2
98-95-3	Nitrobenzene	250	U	250	5.5
87-86-5	Pentachlorophenol	370	U	370	200
85-01-8	Phenanthrene	2100		17	8.2
108-95-2	Phenol	120	U	120	67
129-00-0	Pyrene	1700		17	8.2
108-60-1	2,2'-oxybis[1-chloropropane]	250	U	250	24
606-20-2	2,6-Dinitrotoluene	500	U	500	52
100-02-7	4-Nitrophenol	820	U	820	200

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 | Lab Sample ID: 240-635-1

Matrix: Solid | Lab File ID: 635F1A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:05

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.92(g) | Date Analyzed: 06/29/2011 00:02

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		41-119
4165-62-2	Phenol-d5 (Surr)	60		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	51		24-112
367-12-4	2-Fluorophenol (Surr)	59		26-110
321-60-8	2-Fluorobiphenyl (Surr)	63		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	56		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-10-12 | Lab Sample ID: 240-635-2

Matrix: Solid | Lab File ID: 635G2A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:10

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.20(g) | Date Analyzed: 06/29/2011 01:01

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	58	U	58	31
123-91-1	1,4-Dioxane	120	U	120	25
88-06-2	2,4,6-Trichlorophenol	170	U	170	93
95-95-4	2,4,5-Trichlorophenol	170	U	170	29
120-83-2	2,4-Dichlorophenol	170	U	170	23
105-67-9	2,4-Dimethylphenol	170	U	170	23
51-28-5	2,4-Dinitrophenol	380	U	380	93
121-14-2	2,4-Dinitrotoluene	230	U	230	31
91-58-7	2-Chloronaphthalene	58	U	58	3.8
95-57-8	2-Chlorophenol	58	U	58	31
91-57-6	2-Methylnaphthalene	82		7.7	3.8
95-48-7	2-Methylphenol	230	U	230	93
88-74-4	2-Nitroaniline	230	U	230	11
88-75-5	2-Nitrophenol	58	U	58	31
15831-10-4	3 & 4 Methylphenol	460	U	460	23
91-94-1	3,3'-Dichlorobenzidine	120	U *	120	21
99-09-2	3-Nitroaniline	230	U	230	19
534-52-1	4,6-Dinitro-2-methylphenol	170	U	170	93
101-55-3	4-Bromophenyl phenyl ether	58	U	58	15
59-50-7	4-Chloro-3-methylphenol	170	U	170	24
106-47-8	4-Chloroaniline	170	U	170	20
7005-72-3	4-Chlorophenyl phenyl ether	58	U	58	15
100-01-6	4-Nitroaniline	230	U	230	30
83-32-9	Acenaphthene	48		7.7	3.8
208-96-8	Acenaphthylene	14		7.7	3.8
98-86-2	Acetophenone	120	U	120	11
120-12-7	Anthracene	89		7.7	3.8
1912-24-9	Atrazine	230	U	230	11
100-52-7	Benzaldehyde	120	U	120	14
56-55-3	Benzo[a]anthracene	230		7.7	3.8
50-32-8	Benzo[a]pyrene	180		7.7	3.8
205-99-2	Benzo[b]fluoranthene	210		7.7	3.8
191-24-2	Benzo[g,h,i]perylene	86		7.7	3.8
207-08-9	Benzo[k]fluoranthene	89		7.7	3.8

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-10-12 | Lab Sample ID: 240-635-2

Matrix: Solid | Lab File ID: 635G2A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:10

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.20(g) | Date Analyzed: 06/29/2011 01:01

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	25
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.3
117-81-7	Bis(2-ethylhexyl) phthalate	58	U	58	22
85-68-7	Butyl benzyl phthalate	58	U	58	12
105-60-2	Caprolactam	380	U *	380	43
86-74-8	Carbazole	58	U	58	31
218-01-9	Chrysene	210		7.7	1.3
84-74-2	Di-n-butyl phthalate	58	U	58	17
117-84-0	Di-n-octyl phthalate	58	U	58	31
53-70-3	Dibenzo(a,h)anthracene	36		7.7	3.8
132-64-9	Dibenzofuran	58	U	58	3.8
84-66-2	Diethyl phthalate	58	U	58	19
131-11-3	Dimethyl phthalate	58	U	58	20
206-44-0	Fluoranthene	400		7.7	3.8
86-73-7	Fluorene	88		7.7	3.8
118-74-1	Hexachlorobenzene	7.7	U	7.7	2.4
87-68-3	Hexachlorobutadiene	58	U	58	31
77-47-4	Hexachlorocyclopentadiene	380	U	380	31
67-72-1	Hexachloroethane	58	U	58	10
193-39-5	Indeno[1,2,3-cd]pyrene	72		7.7	3.8
78-59-1	Isophorone	58	U	58	15
621-64-7	N-Nitrosodi-n-propylamine	58	U	58	31
62-75-9	N-Nitrosodimethylamine	120	U	120	19
86-30-6	N-Nitrosodiphenylamine	58	U	58	24
91-20-3	Naphthalene	88		7.7	3.8
98-95-3	Nitrobenzene	120	U	120	2.5
87-86-5	Pentachlorophenol	170	U	170	93
85-01-8	Phenanthrene	340		7.7	3.8
108-95-2	Phenol	58	U	58	31
129-00-0	Pyrene	590		7.7	3.8
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	11
606-20-2	2,6-Dinitrotoluene	230	U	230	24
100-02-7	4-Nitrophenol	380	U	380	93

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-10-12 | Lab Sample ID: 240-635-2

Matrix: Solid | Lab File ID: 635G2A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:10

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.20(g) | Date Analyzed: 06/29/2011 01:01

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	85		41-119
4165-62-2	Phenol-d5 (Surr)	63		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	49		24-112
367-12-4	2-Fluorophenol (Surr)	61		26-110
321-60-8	2-Fluorobiphenyl (Surr)	61		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	67		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-18-20 | Lab Sample ID: 240-635-3

Matrix: Solid | Lab File ID: 635F3A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:15

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.80(g) | Date Analyzed: 06/28/2011 19:11

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	61	U	61	33
123-91-1	1,4-Dioxane	120	U	120	27
88-06-2	2,4,6-Trichlorophenol	180	U	180	98
95-95-4	2,4,5-Trichlorophenol	180	U	180	31
120-83-2	2,4-Dichlorophenol	180	U	180	24
105-67-9	2,4-Dimethylphenol	180	U	180	24
51-28-5	2,4-Dinitrophenol	400	U	400	98
121-14-2	2,4-Dinitrotoluene	240	U	240	33
91-58-7	2-Chloronaphthalene	61	U	61	4.0
95-57-8	2-Chlorophenol	61	U	61	33
91-57-6	2-Methylnaphthalene	8.2	U	8.2	4.0
95-48-7	2-Methylphenol	240	U	240	98
88-74-4	2-Nitroaniline	240	U	240	11
88-75-5	2-Nitrophenol	61	U	61	33
15831-10-4	3 & 4 Methylphenol	490	U	490	24
91-94-1	3,3'-Dichlorobenzidine	120	U *	120	22
99-09-2	3-Nitroaniline	240	U	240	20
534-52-1	4,6-Dinitro-2-methylphenol	180	U	180	98
101-55-3	4-Bromophenyl phenyl ether	61	U	61	16
59-50-7	4-Chloro-3-methylphenol	180	U	180	26
106-47-8	4-Chloroaniline	180	U	180	21
7005-72-3	4-Chlorophenyl phenyl ether	61	U	61	16
100-01-6	4-Nitroaniline	240	U	240	32
83-32-9	Acenaphthene	8.2	U	8.2	4.0
208-96-8	Acenaphthylene	8.2	U	8.2	4.0
98-86-2	Acetophenone	120	U	120	11
120-12-7	Anthracene	8.2	U	8.2	4.0
1912-24-9	Atrazine	240	U	240	11
100-52-7	Benzaldehyde	120	U	120	15
56-55-3	Benzo[a]anthracene	8.2	U	8.2	4.0
50-32-8	Benzo[a]pyrene	8.2	U	8.2	4.0
205-99-2	Benzo[b]fluoranthene	8.2	U	8.2	4.0
191-24-2	Benzo[g,h,i]perylene	8.2	U	8.2	4.0
207-08-9	Benzo[k]fluoranthene	8.2	U	8.2	4.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-18-20 | Lab Sample ID: 240-635-3

Matrix: Solid | Lab File ID: 635F3A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:15

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.80(g) | Date Analyzed: 06/28/2011 19:11

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	27
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.4
117-81-7	Bis(2-ethylhexyl) phthalate	25	J B	61	23
85-68-7	Butyl benzyl phthalate	61	U	61	12
105-60-2	Caprolactam	400	U *	400	45
86-74-8	Carbazole	61	U	61	33
218-01-9	Chrysene	8.2	U	8.2	1.3
84-74-2	Di-n-butyl phthalate	18	J	61	18
117-84-0	Di-n-octyl phthalate	61	U	61	33
53-70-3	Dibenzo(a,h)anthracene	8.2	U	8.2	4.0
132-64-9	Dibenzofuran	61	U	61	4.0
84-66-2	Diethyl phthalate	61	U	61	20
131-11-3	Dimethyl phthalate	61	U	61	21
206-44-0	Fluoranthene	8.2	U	8.2	4.0
86-73-7	Fluorene	8.2	U	8.2	4.0
118-74-1	Hexachlorobenzene	8.2	U	8.2	2.6
87-68-3	Hexachlorobutadiene	61	U	61	33
77-47-4	Hexachlorocyclopentadiene	400	U	400	33
67-72-1	Hexachloroethane	61	U	61	11
193-39-5	Indeno[1,2,3-cd]pyrene	8.2	U	8.2	4.0
78-59-1	Isophorone	61	U	61	16
621-64-7	N-Nitrosodi-n-propylamine	61	U	61	33
62-75-9	N-Nitrosodimethylamine	120	U	120	20
86-30-6	N-Nitrosodiphenylamine	61	U	61	26
91-20-3	Naphthalene	8.2	U	8.2	4.0
98-95-3	Nitrobenzene	120	U	120	2.7
87-86-5	Pentachlorophenol	180	U	180	98
85-01-8	Phenanthrene	8.2	U	8.2	4.0
108-95-2	Phenol	61	U	61	33
129-00-0	Pyrene	8.2	U	8.2	4.0
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	12
606-20-2	2,6-Dinitrotoluene	240	U	240	26
100-02-7	4-Nitrophenol	400	U	400	98

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-18-20 | Lab Sample ID: 240-635-3

Matrix: Solid | Lab File ID: 635F3A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:15

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.80(g) | Date Analyzed: 06/28/2011 19:11

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	79		41-119
4165-62-2	Phenol-d5 (Surr)	64		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	57		24-112
367-12-4	2-Fluorophenol (Surr)	67		26-110
321-60-8	2-Fluorobiphenyl (Surr)	60		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	74		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-0-2 | Lab Sample ID: 240-635-4

Matrix: Solid | Lab File ID: 635G4A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 13:15

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.99(g) | Date Analyzed: 06/28/2011 22:25

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	140	U	140	74
123-91-1	1,4-Dioxane	280	U	280	61
88-06-2	2,4,6-Trichlorophenol	410	U	410	220
95-95-4	2,4,5-Trichlorophenol	410	U	410	69
120-83-2	2,4-Dichlorophenol	410	U	410	55
105-67-9	2,4-Dimethylphenol	410	U	410	55
51-28-5	2,4-Dinitrophenol	910	U	910	220
121-14-2	2,4-Dinitrotoluene	550	U	550	74
91-58-7	2-Chloronaphthalene	140	U	140	9.1
95-57-8	2-Chlorophenol	140	U	140	74
91-57-6	2-Methylnaphthalene	26		18	9.1
95-48-7	2-Methylphenol	550	U	550	220
88-74-4	2-Nitroaniline	550	U	550	25
88-75-5	2-Nitrophenol	140	U	140	74
15831-10-4	3 & 4 Methylphenol	1100	U	1100	55
91-94-1	3,3'-Dichlorobenzidine	280	U *	280	50
99-09-2	3-Nitroaniline	550	U	550	44
534-52-1	4,6-Dinitro-2-methylphenol	410	U	410	220
101-55-3	4-Bromophenyl phenyl ether	140	U	140	36
59-50-7	4-Chloro-3-methylphenol	410	U	410	58
106-47-8	4-Chloroaniline	410	U	410	47
7005-72-3	4-Chlorophenyl phenyl ether	140	U	140	36
100-01-6	4-Nitroaniline	550	U	550	72
83-32-9	Acenaphthene	100		18	9.1
208-96-8	Acenaphthylene	22		18	9.1
98-86-2	Acetophenone	280	U	280	25
120-12-7	Anthracene	260		18	9.1
1912-24-9	Atrazine	550	U	550	25
100-52-7	Benzaldehyde	280	U	280	33
56-55-3	Benzo[a]anthracene	1200		18	9.1
50-32-8	Benzo[a]pyrene	1000		18	9.1
205-99-2	Benzo[b]fluoranthene	1300		18	9.1
191-24-2	Benzo[g,h,i]perylene	690		18	9.1
207-08-9	Benzo[k]fluoranthene	670		18	9.1

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-0-2 | Lab Sample ID: 240-635-4

Matrix: Solid | Lab File ID: 635G4A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 13:15

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.99(g) | Date Analyzed: 06/28/2011 22:25

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	280	U	280	61
111-44-4	Bis(2-chloroethyl)ether	280	U	280	5.5
117-81-7	Bis(2-ethylhexyl) phthalate	140	U	140	52
85-68-7	Butyl benzyl phthalate	140	U	140	28
105-60-2	Caprolactam	910	U *	910	100
86-74-8	Carbazole	120	J	140	74
218-01-9	Chrysene	1200		18	3.0
84-74-2	Di-n-butyl phthalate	140	U	140	41
117-84-0	Di-n-octyl phthalate	140	U	140	74
53-70-3	Dibenzo(a,h)anthracene	180		18	9.1
132-64-9	Dibenzofuran	44	J	140	9.1
84-66-2	Diethyl phthalate	140	U	140	44
131-11-3	Dimethyl phthalate	140	U	140	47
206-44-0	Fluoranthene	2200		18	9.1
86-73-7	Fluorene	85		18	9.1
118-74-1	Hexachlorobenzene	18	U	18	5.8
87-68-3	Hexachlorobutadiene	140	U	140	74
77-47-4	Hexachlorocyclopentadiene	910	U	910	74
67-72-1	Hexachloroethane	140	U	140	25
193-39-5	Indeno[1,2,3-cd]pyrene	590		18	9.1
78-59-1	Isophorone	140	U	140	36
621-64-7	N-Nitrosodi-n-propylamine	140	U	140	74
62-75-9	N-Nitrosodimethylamine	280	U	280	44
86-30-6	N-Nitrosodiphenylamine	140	U	140	58
91-20-3	Naphthalene	30		18	9.1
98-95-3	Nitrobenzene	280	U	280	6.1
87-86-5	Pentachlorophenol	410	U	410	220
85-01-8	Phenanthrene	890		18	9.1
108-95-2	Phenol	140	U	140	74
129-00-0	Pyrene	2100		18	9.1
108-60-1	2,2'-oxybis[1-chloropropane]	280	U	280	26
606-20-2	2,6-Dinitrotoluene	550	U	550	58
100-02-7	4-Nitrophenol	910	U	910	220

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton	Job No.: 240-635-1
SDG No.:	
Client Sample ID: G-SP-SB-117-0-2	Lab Sample ID: 240-635-4
Matrix: Solid	Lab File ID: 635G4A.D
Analysis Method: 8270D	Date Collected: 05/31/2011 13:15
Extract. Method: 3540C	Date Extracted: 06/06/2011 09:52
Sample wt/vol: 29.99(g)	Date Analyzed: 06/28/2011 22:25
Con. Extract Vol.: 2.00(mL)	Dilution Factor: 2.5
Injection Volume: 1(uL)	Level: (low/med) Low
% Moisture: 9.4	GPC Cleanup:(Y/N) N
Analysis Batch No.: 6612	Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		41-119
4165-62-2	Phenol-d5 (Surr)	66		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	49		24-112
367-12-4	2-Fluorophenol (Surr)	62		26-110
321-60-8	2-Fluorobiphenyl (Surr)	61		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	54		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-20-22 | Lab Sample ID: 240-635-6

Matrix: Solid | Lab File ID: 635F6A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 13:45

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.94(g) | Date Analyzed: 06/28/2011 19:50

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	61	U	61	33
123-91-1	1,4-Dioxane	120	U	120	27
88-06-2	2,4,6-Trichlorophenol	180	U	180	98
95-95-4	2,4,5-Trichlorophenol	180	U	180	31
120-83-2	2,4-Dichlorophenol	180	U	180	24
105-67-9	2,4-Dimethylphenol	180	U	180	24
51-28-5	2,4-Dinitrophenol	400	U	400	98
121-14-2	2,4-Dinitrotoluene	240	U	240	33
91-58-7	2-Chloronaphthalene	61	U	61	4.0
95-57-8	2-Chlorophenol	61	U	61	33
91-57-6	2-Methylnaphthalene	8.2	U	8.2	4.0
95-48-7	2-Methylphenol	240	U	240	98
88-74-4	2-Nitroaniline	240	U	240	11
88-75-5	2-Nitrophenol	61	U	61	33
15831-10-4	3 & 4 Methylphenol	490	U	490	24
91-94-1	3,3'-Dichlorobenzidine	120	U *	120	22
99-09-2	3-Nitroaniline	240	U	240	20
534-52-1	4,6-Dinitro-2-methylphenol	180	U	180	98
101-55-3	4-Bromophenyl phenyl ether	61	U	61	16
59-50-7	4-Chloro-3-methylphenol	180	U	180	26
106-47-8	4-Chloroaniline	180	U	180	21
7005-72-3	4-Chlorophenyl phenyl ether	61	U	61	16
100-01-6	4-Nitroaniline	240	U	240	32
83-32-9	Acenaphthene	8.2	U	8.2	4.0
208-96-8	Acenaphthylene	8.2	U	8.2	4.0
98-86-2	Acetophenone	120	U	120	11
120-12-7	Anthracene	8.2	U	8.2	4.0
1912-24-9	Atrazine	240	U	240	11
100-52-7	Benzaldehyde	120	U	120	15
56-55-3	Benzo[a]anthracene	8.2	U	8.2	4.0
50-32-8	Benzo[a]pyrene	8.2	U	8.2	4.0
205-99-2	Benzo[b]fluoranthene	8.2	U	8.2	4.0
191-24-2	Benzo[g,h,i]perylene	8.2	U	8.2	4.0
207-08-9	Benzo[k]fluoranthene	8.2	U	8.2	4.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-20-22 | Lab Sample ID: 240-635-6

Matrix: Solid | Lab File ID: 635F6A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 13:45

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.94(g) | Date Analyzed: 06/28/2011 19:50

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	27
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.4
117-81-7	Bis(2-ethylhexyl) phthalate	61	U	61	23
85-68-7	Butyl benzyl phthalate	61	U	61	12
105-60-2	Caprolactam	400	U *	400	45
86-74-8	Carbazole	61	U	61	33
218-01-9	Chrysene	8.2	U	8.2	1.3
84-74-2	Di-n-butyl phthalate	61	U	61	18
117-84-0	Di-n-octyl phthalate	61	U	61	33
53-70-3	Dibenzo(a,h)anthracene	8.2	U	8.2	4.0
132-64-9	Dibenzofuran	61	U	61	4.0
84-66-2	Diethyl phthalate	61	U	61	20
131-11-3	Dimethyl phthalate	61	U	61	21
206-44-0	Fluoranthene	8.2	U	8.2	4.0
86-73-7	Fluorene	8.2	U	8.2	4.0
118-74-1	Hexachlorobenzene	8.2	U	8.2	2.6
87-68-3	Hexachlorobutadiene	61	U	61	33
77-47-4	Hexachlorocyclopentadiene	400	U	400	33
67-72-1	Hexachloroethane	61	U	61	11
193-39-5	Indeno[1,2,3-cd]pyrene	8.2	U	8.2	4.0
78-59-1	Isophorone	61	U	61	16
621-64-7	N-Nitrosodi-n-propylamine	61	U	61	33
62-75-9	N-Nitrosodimethylamine	120	U	120	20
86-30-6	N-Nitrosodiphenylamine	61	U	61	26
91-20-3	Naphthalene	8.2	U	8.2	4.0
98-95-3	Nitrobenzene	120	U	120	2.7
87-86-5	Pentachlorophenol	180	U	180	98
85-01-8	Phenanthrene	8.2	U	8.2	4.0
108-95-2	Phenol	61	U	61	33
129-00-0	Pyrene	8.2	U	8.2	4.0
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	12
606-20-2	2,6-Dinitrotoluene	240	U	240	26
100-02-7	4-Nitrophenol	400	U	400	98

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-20-22 | Lab Sample ID: 240-635-6

Matrix: Solid | Lab File ID: 635F6A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 13:45

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.94(g) | Date Analyzed: 06/28/2011 19:50

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	79		41-119
4165-62-2	Phenol-d5 (Surr)	62		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	62		24-112
367-12-4	2-Fluorophenol (Surr)	64		26-110
321-60-8	2-Fluorobiphenyl (Surr)	65		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	32		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-6-8 | Lab Sample ID: 240-635-5

Matrix: Solid | Lab File ID: 635F5A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 13:30

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.02(g) | Date Analyzed: 06/28/2011 19:30

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	57	U	57	31
123-91-1	1,4-Dioxane	110	U	110	25
88-06-2	2,4,6-Trichlorophenol	170	U	170	91
95-95-4	2,4,5-Trichlorophenol	170	U	170	29
120-83-2	2,4-Dichlorophenol	170	U	170	23
105-67-9	2,4-Dimethylphenol	170	U	170	23
51-28-5	2,4-Dinitrophenol	380	U	380	91
121-14-2	2,4-Dinitrotoluene	230	U	230	31
91-58-7	2-Chloronaphthalene	57	U	57	3.8
95-57-8	2-Chlorophenol	57	U	57	31
91-57-6	2-Methylnaphthalene	7.6	U	7.6	3.8
95-48-7	2-Methylphenol	230	U	230	91
88-74-4	2-Nitroaniline	230	U	230	10
88-75-5	2-Nitrophenol	57	U	57	31
15831-10-4	3 & 4 Methylphenol	460	U	460	23
91-94-1	3,3'-Dichlorobenzidine	110	U *	110	21
99-09-2	3-Nitroaniline	230	U	230	18
534-52-1	4,6-Dinitro-2-methylphenol	170	U	170	91
101-55-3	4-Bromophenyl phenyl ether	57	U	57	15
59-50-7	4-Chloro-3-methylphenol	170	U	170	24
106-47-8	4-Chloroaniline	170	U	170	19
7005-72-3	4-Chlorophenyl phenyl ether	57	U	57	15
100-01-6	4-Nitroaniline	230	U	230	30
83-32-9	Acenaphthene	7.6	U	7.6	3.8
208-96-8	Acenaphthylene	7.6	U	7.6	3.8
98-86-2	Acetophenone	110	U	110	11
120-12-7	Anthracene	7.6	U	7.6	3.8
1912-24-9	Atrazine	230	U	230	10
100-52-7	Benzaldehyde	110	U	110	14
56-55-3	Benzo[a]anthracene	7.6	U	7.6	3.8
50-32-8	Benzo[a]pyrene	7.6	U	7.6	3.8
205-99-2	Benzo[b]fluoranthene	7.6	U	7.6	3.8
191-24-2	Benzo[g,h,i]perylene	7.6	U	7.6	3.8
207-08-9	Benzo[k]fluoranthene	7.6	U	7.6	3.8

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-6-8 | Lab Sample ID: 240-635-5

Matrix: Solid | Lab File ID: 635F5A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 13:30

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.02(g) | Date Analyzed: 06/28/2011 19:30

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U	110	25
111-44-4	Bis(2-chloroethyl)ether	110	U	110	2.3
117-81-7	Bis(2-ethylhexyl) phthalate	28	J B	57	22
85-68-7	Butyl benzyl phthalate	57	U	57	11
105-60-2	Caprolactam	380	U *	380	42
86-74-8	Carbazole	57	U	57	31
218-01-9	Chrysene	7.6	U	7.6	1.3
84-74-2	Di-n-butyl phthalate	57	U	57	17
117-84-0	Di-n-octyl phthalate	57	U	57	31
53-70-3	Dibenzo(a,h)anthracene	7.6	U	7.6	3.8
132-64-9	Dibenzofuran	57	U	57	3.8
84-66-2	Diethyl phthalate	57	U	57	18
131-11-3	Dimethyl phthalate	57	U	57	19
206-44-0	Fluoranthene	8.8		7.6	3.8
86-73-7	Fluorene	7.6	U	7.6	3.8
118-74-1	Hexachlorobenzene	7.6	U	7.6	2.4
87-68-3	Hexachlorobutadiene	57	U	57	31
77-47-4	Hexachlorocyclopentadiene	380	U	380	31
67-72-1	Hexachloroethane	57	U	57	10
193-39-5	Indeno[1,2,3-cd]pyrene	7.6	U	7.6	3.8
78-59-1	Isophorone	57	U	57	15
621-64-7	N-Nitrosodi-n-propylamine	57	U	57	31
62-75-9	N-Nitrosodimethylamine	110	U	110	18
86-30-6	N-Nitrosodiphenylamine	57	U	57	24
91-20-3	Naphthalene	7.6	U	7.6	3.8
98-95-3	Nitrobenzene	110	U	110	2.5
87-86-5	Pentachlorophenol	170	U	170	91
85-01-8	Phenanthrene	7.6	U	7.6	3.8
108-95-2	Phenol	57	U	57	31
129-00-0	Pyrene	7.6	U	7.6	3.8
108-60-1	2,2'-oxybis[1-chloropropane]	110	U	110	11
606-20-2	2,6-Dinitrotoluene	230	U	230	24
100-02-7	4-Nitrophenol	380	U	380	91

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton	Job No.: 240-635-1
SDG No.:	
Client Sample ID: G-SP-SB-117-6-8	Lab Sample ID: 240-635-5
Matrix: Solid	Lab File ID: 635F5A.D
Analysis Method: 8270D	Date Collected: 05/31/2011 13:30
Extract. Method: 3540C	Date Extracted: 06/06/2011 09:52
Sample wt/vol: 30.02(g)	Date Analyzed: 06/28/2011 19:30
Con. Extract Vol.: 2.00(mL)	Dilution Factor: 1
Injection Volume: 1(uL)	Level: (low/med) Low
% Moisture: 12.5	GPC Cleanup:(Y/N) N
Analysis Batch No.: 6612	Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		41-119
4165-62-2	Phenol-d5 (Surr)	63		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	61		24-112
367-12-4	2-Fluorophenol (Surr)	69		26-110
321-60-8	2-Fluorobiphenyl (Surr)	64		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	55		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-0-2 | Lab Sample ID: 240-635-10

Matrix: Solid | Lab File ID: 635C10A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:30

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.87(g) | Date Analyzed: 06/28/2011 23:24

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	120	U	120	62
123-91-1	1,4-Dioxane	230	U	230	51
88-06-2	2,4,6-Trichlorophenol	350	U	350	180
95-95-4	2,4,5-Trichlorophenol	350	U	350	58
120-83-2	2,4-Dichlorophenol	350	U	350	46
105-67-9	2,4-Dimethylphenol	350	U	350	46
51-28-5	2,4-Dinitrophenol	760	U	760	180
121-14-2	2,4-Dinitrotoluene	460	U	460	62
91-58-7	2-Chloronaphthalene	120	U	120	7.6
95-57-8	2-Chlorophenol	120	U	120	62
91-57-6	2-Methylnaphthalene	56		15	7.6
95-48-7	2-Methylphenol	460	U	460	180
88-74-4	2-Nitroaniline	460	U	460	21
88-75-5	2-Nitrophenol	120	U	120	62
15831-10-4	3 & 4 Methylphenol	920	U	920	46
91-94-1	3,3'-Dichlorobenzidine	230	U *	230	42
99-09-2	3-Nitroaniline	460	U	460	37
534-52-1	4,6-Dinitro-2-methylphenol	350	U	350	180
101-55-3	4-Bromophenyl phenyl ether	120	U	120	30
59-50-7	4-Chloro-3-methylphenol	350	U	350	48
106-47-8	4-Chloroaniline	350	U	350	39
7005-72-3	4-Chlorophenyl phenyl ether	120	U	120	30
100-01-6	4-Nitroaniline	460	U	460	60
83-32-9	Acenaphthene	37		15	7.6
208-96-8	Acenaphthylene	69		15	7.6
98-86-2	Acetophenone	230	U	230	21
120-12-7	Anthracene	220		15	7.6
1912-24-9	Atrazine	460	U	460	21
100-52-7	Benzaldehyde	230	U	230	28
56-55-3	Benzo[a]anthracene	760		15	7.6
50-32-8	Benzo[a]pyrene	750		15	7.6
205-99-2	Benzo[b]fluoranthene	730		15	7.6
191-24-2	Benzo[g,h,i]perylene	450		15	7.6
207-08-9	Benzo[k]fluoranthene	390		15	7.6

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-0-2 | Lab Sample ID: 240-635-10

Matrix: Solid | Lab File ID: 635C10A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:30

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.87(g) | Date Analyzed: 06/28/2011 23:24

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	230	U	230	51
111-44-4	Bis(2-chloroethyl)ether	230	U	230	4.6
117-81-7	Bis(2-ethylhexyl) phthalate	120	U	120	44
85-68-7	Butyl benzyl phthalate	120	U	120	23
105-60-2	Caprolactam	760	U *	760	85
86-74-8	Carbazole	120	U	120	62
218-01-9	Chrysene	760		15	2.5
84-74-2	Di-n-butyl phthalate	120	U	120	35
117-84-0	Di-n-octyl phthalate	120	U	120	62
53-70-3	Dibenzo(a,h)anthracene	140		15	7.6
132-64-9	Dibenzofuran	120	U	120	7.6
84-66-2	Diethyl phthalate	120	U	120	37
131-11-3	Dimethyl phthalate	120	U	120	39
206-44-0	Fluoranthene	1200		15	7.6
86-73-7	Fluorene	80		15	7.6
118-74-1	Hexachlorobenzene	15	U	15	4.8
87-68-3	Hexachlorobutadiene	120	U	120	62
77-47-4	Hexachlorocyclopentadiene	760	U	760	62
67-72-1	Hexachloroethane	120	U	120	21
193-39-5	Indeno[1,2,3-cd]pyrene	380		15	7.6
78-59-1	Isophorone	120	U	120	30
621-64-7	N-Nitrosodi-n-propylamine	120	U	120	62
62-75-9	N-Nitrosodimethylamine	230	U	230	37
86-30-6	N-Nitrosodiphenylamine	120	U	120	48
91-20-3	Naphthalene	69		15	7.6
98-95-3	Nitrobenzene	230	U	230	5.1
87-86-5	Pentachlorophenol	350	U	350	180
85-01-8	Phenanthrene	640		15	7.6
108-95-2	Phenol	120	U	120	62
129-00-0	Pyrene	1400		15	7.6
108-60-1	2,2'-oxybis[1-chloropropane]	230	U	230	22
606-20-2	2,6-Dinitrotoluene	460	U	460	48
100-02-7	4-Nitrophenol	760	U	760	180

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-0-2 | Lab Sample ID: 240-635-10

Matrix: Solid | Lab File ID: 635C10A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:30

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.87(g) | Date Analyzed: 06/28/2011 23:24

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	79		41-119
4165-62-2	Phenol-d5 (Surr)	59		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	50		24-112
367-12-4	2-Fluorophenol (Surr)	64		26-110
321-60-8	2-Fluorobiphenyl (Surr)	60		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	46		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-20-22 | Lab Sample ID: 240-635-12

Matrix: Solid | Lab File ID: 635C12A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 12:00

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.05(g) | Date Analyzed: 06/28/2011 20:48

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	62	U	62	33
123-91-1	1,4-Dioxane	120	U	120	27
88-06-2	2,4,6-Trichlorophenol	190	U	190	99
95-95-4	2,4,5-Trichlorophenol	190	U	190	31
120-83-2	2,4-Dichlorophenol	190	U	190	25
105-67-9	2,4-Dimethylphenol	190	U	190	25
51-28-5	2,4-Dinitrophenol	410	U	410	99
121-14-2	2,4-Dinitrotoluene	250	U	250	33
91-58-7	2-Chloronaphthalene	62	U	62	4.1
95-57-8	2-Chlorophenol	62	U	62	33
91-57-6	2-Methylnaphthalene	8.3	U	8.3	4.1
95-48-7	2-Methylphenol	250	U	250	99
88-74-4	2-Nitroaniline	250	U	250	11
88-75-5	2-Nitrophenol	62	U	62	33
15831-10-4	3 & 4 Methylphenol	500	U	500	25
91-94-1	3,3'-Dichlorobenzidine	120	U *	120	22
99-09-2	3-Nitroaniline	250	U	250	20
534-52-1	4,6-Dinitro-2-methylphenol	190	U	190	99
101-55-3	4-Bromophenyl phenyl ether	62	U	62	16
59-50-7	4-Chloro-3-methylphenol	190	U	190	26
106-47-8	4-Chloroaniline	190	U	190	21
7005-72-3	4-Chlorophenyl phenyl ether	62	U	62	16
100-01-6	4-Nitroaniline	250	U	250	32
83-32-9	Acenaphthene	14		8.3	4.1
208-96-8	Acenaphthylene	8.3	U	8.3	4.1
98-86-2	Acetophenone	120	U	120	11
120-12-7	Anthracene	20		8.3	4.1
1912-24-9	Atrazine	250	U	250	11
100-52-7	Benzaldehyde	120	U	120	15
56-55-3	Benzo[a]anthracene	23		8.3	4.1
50-32-8	Benzo[a]pyrene	21		8.3	4.1
205-99-2	Benzo[b]fluoranthene	24		8.3	4.1
191-24-2	Benzo[g,h,i]perylene	14		8.3	4.1
207-08-9	Benzo[k]fluoranthene	13		8.3	4.1

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-20-22 | Lab Sample ID: 240-635-12

Matrix: Solid | Lab File ID: 635C12A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 12:00

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.05(g) | Date Analyzed: 06/28/2011 20:48

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	27
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.5
117-81-7	Bis(2-ethylhexyl) phthalate	110	B	62	24
85-68-7	Butyl benzyl phthalate	62	U	62	12
105-60-2	Caprolactam	410	U *	410	46
86-74-8	Carbazole	62	U	62	33
218-01-9	Chrysene	23		8.3	1.4
84-74-2	Di-n-butyl phthalate	23	J	62	19
117-84-0	Di-n-octyl phthalate	62	U	62	33
53-70-3	Dibenzo(a,h)anthracene	8.3	U	8.3	4.1
132-64-9	Dibenzofuran	62	U	62	4.1
84-66-2	Diethyl phthalate	62	U	62	20
131-11-3	Dimethyl phthalate	62	U	62	21
206-44-0	Fluoranthene	64		8.3	4.1
86-73-7	Fluorene	13		8.3	4.1
118-74-1	Hexachlorobenzene	8.3	U	8.3	2.6
87-68-3	Hexachlorobutadiene	62	U	62	33
77-47-4	Hexachlorocyclopentadiene	410	U	410	33
67-72-1	Hexachloroethane	62	U	62	11
193-39-5	Indeno[1,2,3-cd]pyrene	12		8.3	4.1
78-59-1	Isophorone	62	U	62	16
621-64-7	N-Nitrosodi-n-propylamine	62	U	62	33
62-75-9	N-Nitrosodimethylamine	120	U	120	20
86-30-6	N-Nitrosodiphenylamine	62	U	62	26
91-20-3	Naphthalene	8.3	U	8.3	4.1
98-95-3	Nitrobenzene	120	U	120	2.7
87-86-5	Pentachlorophenol	190	U	190	99
85-01-8	Phenanthrene	75		8.3	4.1
108-95-2	Phenol	62	U	62	33
129-00-0	Pyrene	48		8.3	4.1
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	12
606-20-2	2,6-Dinitrotoluene	250	U	250	26
100-02-7	4-Nitrophenol	410	U	410	99

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-20-22 | Lab Sample ID: 240-635-12

Matrix: Solid | Lab File ID: 635C12A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 12:00

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.05(g) | Date Analyzed: 06/28/2011 20:48

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	68		41-119
4165-62-2	Phenol-d5 (Surr)	56		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	53		24-112
367-12-4	2-Fluorophenol (Surr)	63		26-110
321-60-8	2-Fluorobiphenyl (Surr)	53		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	49		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-6-8 | Lab Sample ID: 240-635-11

Matrix: Solid | Lab File ID: 635D11A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:45

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.17(g) | Date Analyzed: 06/28/2011 20:09

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	59	U	59	32
123-91-1	1,4-Dioxane	120	U	120	26
88-06-2	2,4,6-Trichlorophenol	180	U	180	94
95-95-4	2,4,5-Trichlorophenol	180	U	180	29
120-83-2	2,4-Dichlorophenol	180	U	180	24
105-67-9	2,4-Dimethylphenol	180	U	180	24
51-28-5	2,4-Dinitrophenol	390	U	390	94
121-14-2	2,4-Dinitrotoluene	240	U	240	32
91-58-7	2-Chloronaphthalene	59	U	59	3.9
95-57-8	2-Chlorophenol	59	U	59	32
91-57-6	2-Methylnaphthalene	7.9	U	7.9	3.9
95-48-7	2-Methylphenol	240	U	240	94
88-74-4	2-Nitroaniline	240	U	240	11
88-75-5	2-Nitrophenol	59	U	59	32
15831-10-4	3 & 4 Methylphenol	470	U	470	24
91-94-1	3,3'-Dichlorobenzidine	120	U *	120	21
99-09-2	3-Nitroaniline	240	U	240	19
534-52-1	4,6-Dinitro-2-methylphenol	180	U	180	94
101-55-3	4-Bromophenyl phenyl ether	59	U	59	15
59-50-7	4-Chloro-3-methylphenol	180	U	180	25
106-47-8	4-Chloroaniline	180	U	180	20
7005-72-3	4-Chlorophenyl phenyl ether	59	U	59	15
100-01-6	4-Nitroaniline	240	U	240	31
83-32-9	Acenaphthene	7.9	U	7.9	3.9
208-96-8	Acenaphthylene	7.9	U	7.9	3.9
98-86-2	Acetophenone	120	U	120	11
120-12-7	Anthracene	7.9	U	7.9	3.9
1912-24-9	Atrazine	240	U	240	11
100-52-7	Benzaldehyde	120	U	120	14
56-55-3	Benzo[a]anthracene	8.8		7.9	3.9
50-32-8	Benzo[a]pyrene	7.9	U	7.9	3.9
205-99-2	Benzo[b]fluoranthene	9.0		7.9	3.9
191-24-2	Benzo[g,h,i]perylene	7.9	U	7.9	3.9
207-08-9	Benzo[k]fluoranthene	7.9	U	7.9	3.9

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-6-8 | Lab Sample ID: 240-635-11

Matrix: Solid | Lab File ID: 635D11A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:45

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.17(g) | Date Analyzed: 06/28/2011 20:09

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	26
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.4
117-81-7	Bis(2-ethylhexyl) phthalate	59	U	59	22
85-68-7	Butyl benzyl phthalate	59	U	59	12
105-60-2	Caprolactam	390	U *	390	44
86-74-8	Carbazole	59	U	59	32
218-01-9	Chrysene	8.1		7.9	1.3
84-74-2	Di-n-butyl phthalate	59	U	59	18
117-84-0	Di-n-octyl phthalate	59	U	59	32
53-70-3	Dibenzo(a,h)anthracene	7.9	U	7.9	3.9
132-64-9	Dibenzofuran	59	U	59	3.9
84-66-2	Diethyl phthalate	59	U	59	19
131-11-3	Dimethyl phthalate	59	U	59	20
206-44-0	Fluoranthene	20		7.9	3.9
86-73-7	Fluorene	7.9	U	7.9	3.9
118-74-1	Hexachlorobenzene	7.9	U	7.9	2.5
87-68-3	Hexachlorobutadiene	59	U	59	32
77-47-4	Hexachlorocyclopentadiene	390	U	390	32
67-72-1	Hexachloroethane	59	U	59	11
193-39-5	Indeno[1,2,3-cd]pyrene	7.9	U	7.9	3.9
78-59-1	Isophorone	59	U	59	15
621-64-7	N-Nitrosodi-n-propylamine	59	U	59	32
62-75-9	N-Nitrosodimethylamine	120	U	120	19
86-30-6	N-Nitrosodiphenylamine	59	U	59	25
91-20-3	Naphthalene	7.9	U	7.9	3.9
98-95-3	Nitrobenzene	120	U	120	2.6
87-86-5	Pentachlorophenol	180	U	180	94
85-01-8	Phenanthrene	17		7.9	3.9
108-95-2	Phenol	59	U	59	32
129-00-0	Pyrene	15		7.9	3.9
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	11
606-20-2	2,6-Dinitrotoluene	240	U	240	25
100-02-7	4-Nitrophenol	390	U	390	94

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-6-8 | Lab Sample ID: 240-635-11

Matrix: Solid | Lab File ID: 635D11A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:45

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.17(g) | Date Analyzed: 06/28/2011 20:09

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		41-119
4165-62-2	Phenol-d5 (Surr)	60		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		24-112
367-12-4	2-Fluorophenol (Surr)	69		26-110
321-60-8	2-Fluorobiphenyl (Surr)	63		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	65		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 | Lab Sample ID: 240-635-7

Matrix: Solid | Lab File ID: 635F7A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:10

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.94(g) | Date Analyzed: 06/28/2011 21:08

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	56	U	56	30
123-91-1	1,4-Dioxane	110	U	110	25
88-06-2	2,4,6-Trichlorophenol	170	U	170	90
95-95-4	2,4,5-Trichlorophenol	170	U	170	28
120-83-2	2,4-Dichlorophenol	170	U	170	23
105-67-9	2,4-Dimethylphenol	170	U	170	23
51-28-5	2,4-Dinitrophenol	370	U	370	90
121-14-2	2,4-Dinitrotoluene	230	U	230	30
91-58-7	2-Chloronaphthalene	56	U	56	3.7
95-57-8	2-Chlorophenol	56	U	56	30
91-57-6	2-Methylnaphthalene	7.5	U	7.5	3.7
95-48-7	2-Methylphenol	230	U	230	90
88-74-4	2-Nitroaniline	230	U	230	10
88-75-5	2-Nitrophenol	56	U	56	30
15831-10-4	3 & 4 Methylphenol	450	U	450	23
91-94-1	3,3'-Dichlorobenzidine	110	U *	110	20
99-09-2	3-Nitroaniline	230	U	230	18
534-52-1	4,6-Dinitro-2-methylphenol	170	U	170	90
101-55-3	4-Bromophenyl phenyl ether	56	U	56	15
59-50-7	4-Chloro-3-methylphenol	170	U	170	24
106-47-8	4-Chloroaniline	170	U	170	19
7005-72-3	4-Chlorophenyl phenyl ether	56	U	56	15
100-01-6	4-Nitroaniline	230	U	230	29
83-32-9	Acenaphthene	7.5	U	7.5	3.7
208-96-8	Acenaphthylene	7.5	U	7.5	3.7
98-86-2	Acetophenone	110	U	110	10
120-12-7	Anthracene	7.5	U	7.5	3.7
1912-24-9	Atrazine	230	U	230	10
100-52-7	Benzaldehyde	110	U	110	14
56-55-3	Benzo[a]anthracene	15		7.5	3.7
50-32-8	Benzo[a]pyrene	17		7.5	3.7
205-99-2	Benzo[b]fluoranthene	17		7.5	3.7
191-24-2	Benzo[g,h,i]perylene	14		7.5	3.7
207-08-9	Benzo[k]fluoranthene	12		7.5	3.7

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 Lab Sample ID: 240-635-7

Matrix: Solid Lab File ID: 635F7A.D

Analysis Method: 8270D Date Collected: 05/31/2011 16:10

Extract. Method: 3540C Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.94(g) Date Analyzed: 06/28/2011 21:08

Con. Extract Vol.: 2.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 11.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U	110	25
111-44-4	Bis(2-chloroethyl)ether	110	U	110	2.3
117-81-7	Bis(2-ethylhexyl) phthalate	56	U	56	21
85-68-7	Butyl benzyl phthalate	56	U	56	11
105-60-2	Caprolactam	370	U *	370	42
86-74-8	Carbazole	56	U	56	30
218-01-9	Chrysene	18		7.5	1.2
84-74-2	Di-n-butyl phthalate	56	U	56	17
117-84-0	Di-n-octyl phthalate	56	U	56	30
53-70-3	Dibenzo(a,h)anthracene	7.5	U	7.5	3.7
132-64-9	Dibenzofuran	56	U	56	3.7
84-66-2	Diethyl phthalate	56	U	56	18
131-11-3	Dimethyl phthalate	56	U	56	19
206-44-0	Fluoranthene	27		7.5	3.7
86-73-7	Fluorene	7.5	U	7.5	3.7
118-74-1	Hexachlorobenzene	7.5	U	7.5	2.4
87-68-3	Hexachlorobutadiene	56	U	56	30
77-47-4	Hexachlorocyclopentadiene	370	U	370	30
67-72-1	Hexachloroethane	56	U	56	10
193-39-5	Indeno[1,2,3-cd]pyrene	9.9		7.5	3.7
78-59-1	Isophorone	56	U	56	15
621-64-7	N-Nitrosodi-n-propylamine	56	U	56	30
62-75-9	N-Nitrosodimethylamine	110	U	110	18
86-30-6	N-Nitrosodiphenylamine	56	U	56	24
91-20-3	Naphthalene	7.5	U	7.5	3.7
98-95-3	Nitrobenzene	110	U	110	2.5
87-86-5	Pentachlorophenol	170	U	170	90
85-01-8	Phenanthrene	13		7.5	3.7
108-95-2	Phenol	56	U	56	30
129-00-0	Pyrene	32		7.5	3.7
108-60-1	2,2'-oxybis[1-chloropropane]	110	U	110	11
606-20-2	2,6-Dinitrotoluene	230	U	230	24
100-02-7	4-Nitrophenol	370	U	370	90

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 | Lab Sample ID: 240-635-7

Matrix: Solid | Lab File ID: 635F7A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:10

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.94(g) | Date Analyzed: 06/28/2011 21:08

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	9	X	41-119
4165-62-2	Phenol-d5 (Surr)	6	X	28-110
4165-60-0	Nitrobenzene-d5 (Surr)	6	X	24-112
367-12-4	2-Fluorophenol (Surr)	7	X	26-110
321-60-8	2-Fluorobiphenyl (Surr)	6	X	34-110
118-79-6	2,4,6-Tribromophenol (Surr)	4	X	10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 RE | Lab Sample ID: 240-635-7 RE

Matrix: Solid | Lab File ID: 0714029.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:10

Extract. Method: 3540C | Date Extracted: 07/02/2011 08:19

Sample wt/vol: 30.17(g) | Date Analyzed: 07/14/2011 16:20

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	56	U H	56	30
123-91-1	1,4-Dioxane	110	U H	110	25
88-06-2	2,4,6-Trichlorophenol	170	U H	170	90
95-95-4	2,4,5-Trichlorophenol	170	U H	170	28
120-83-2	2,4-Dichlorophenol	170	U H	170	22
105-67-9	2,4-Dimethylphenol	170	U H	170	22
51-28-5	2,4-Dinitrophenol	370	U H	370	90
121-14-2	2,4-Dinitrotoluene	220	U H	220	30
91-58-7	2-Chloronaphthalene	56	U H	56	3.7
95-57-8	2-Chlorophenol	56	U H	56	30
91-57-6	2-Methylnaphthalene	28	H	7.5	3.7
95-48-7	2-Methylphenol	220	U H	220	90
88-74-4	2-Nitroaniline	220	U H	220	10
88-75-5	2-Nitrophenol	56	U H	56	30
15831-10-4	3 & 4 Methylphenol	450	U H	450	22
91-94-1	3,3'-Dichlorobenzidine	110	U H	110	20
99-09-2	3-Nitroaniline	220	U H	220	18
534-52-1	4,6-Dinitro-2-methylphenol	170	U H	170	90
101-55-3	4-Bromophenyl phenyl ether	56	U H	56	15
59-50-7	4-Chloro-3-methylphenol	170	U H	170	24
106-47-8	4-Chloroaniline	170	U H	170	19
7005-72-3	4-Chlorophenyl phenyl ether	56	U H	56	15
100-01-6	4-Nitroaniline	220	U H	220	29
83-32-9	Acenaphthene	20	H	7.5	3.7
208-96-8	Acenaphthylene	38	H	7.5	3.7
98-86-2	Acetophenone	110	U H	110	10
120-12-7	Anthracene	100	H	7.5	3.7
1912-24-9	Atrazine	220	U H	220	10
100-52-7	Benzaldehyde	110	U H	110	13
56-55-3	Benzo[a]anthracene	590	H	7.5	3.7
50-32-8	Benzo[a]pyrene	540	H	7.5	3.7
205-99-2	Benzo[b]fluoranthene	720	H	7.5	3.7
191-24-2	Benzo[g,h,i]perylene	380	H	7.5	3.7
207-08-9	Benzo[k]fluoranthene	240	H	7.5	3.7

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 RE | Lab Sample ID: 240-635-7 RE

Matrix: Solid | Lab File ID: 0714029.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:10

Extract. Method: 3540C | Date Extracted: 07/02/2011 08:19

Sample wt/vol: 30.17(g) | Date Analyzed: 07/14/2011 16:20

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U H	110	25
111-44-4	Bis(2-chloroethyl)ether	110	U H	110	2.2
117-81-7	Bis(2-ethylhexyl) phthalate	32	J H	56	21
85-68-7	Butyl benzyl phthalate	56	U H	56	11
105-60-2	Caprolactam	370	U H	370	41
86-74-8	Carbazole	31	J H	56	30
218-01-9	Chrysene	610	H	7.5	1.2
84-74-2	Di-n-butyl phthalate	23	J H B	56	17
117-84-0	Di-n-octyl phthalate	56	U H	56	30
53-70-3	Dibenzo(a,h)anthracene	130	H	7.5	3.7
132-64-9	Dibenzofuran	9.0	J H	56	3.7
84-66-2	Diethyl phthalate	56	U H	56	18
131-11-3	Dimethyl phthalate	56	U H	56	19
206-44-0	Fluoranthene	1100	H	7.5	3.7
86-73-7	Fluorene	28	H	7.5	3.7
118-74-1	Hexachlorobenzene	7.5	U H	7.5	2.4
87-68-3	Hexachlorobutadiene	56	U H	56	30
77-47-4	Hexachlorocyclopentadiene	370	U H	370	30
67-72-1	Hexachloroethane	56	U H	56	10
193-39-5	Indeno[1,2,3-cd]pyrene	320	H	7.5	3.7
78-59-1	Isophorone	56	U H	56	15
621-64-7	N-Nitrosodi-n-propylamine	56	U H	56	30
62-75-9	N-Nitrosodimethylamine	110	U H	110	18
86-30-6	N-Nitrosodiphenylamine	56	U H	56	24
91-20-3	Naphthalene	34	H	7.5	3.7
98-95-3	Nitrobenzene	110	U H	110	2.5
87-86-5	Pentachlorophenol	170	U H	170	90
85-01-8	Phenanthrene	340	H	7.5	3.7
108-95-2	Phenol	56	U H	56	30
129-00-0	Pyrene	990	H	7.5	3.7
108-60-1	2,2'-oxybis[1-chloropropane]	110	U H	110	11
606-20-2	2,6-Dinitrotoluene	220	U H	220	24
100-02-7	4-Nitrophenol	370	U H	370	90

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton	Job No.: 240-635-1
SDG No.:	
Client Sample ID: G-SP-SB-119-0-2 RE	Lab Sample ID: 240-635-7 RE
Matrix: Solid	Lab File ID: 0714029.D
Analysis Method: 8270D	Date Collected: 05/31/2011 16:10
Extract. Method: 3540C	Date Extracted: 07/02/2011 08:19
Sample wt/vol: 30.17(g)	Date Analyzed: 07/14/2011 16:20
Con. Extract Vol.: 2(mL)	Dilution Factor: 1
Injection Volume: 1(uL)	Level: (low/med) Low
% Moisture: 11.2	GPC Cleanup:(Y/N) N
Analysis Batch No.: 8375	Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	56		41-119
4165-62-2	Phenol-d5 (Surr)	53		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	38		24-112
367-12-4	2-Fluorophenol (Surr)	50		26-110
321-60-8	2-Fluorobiphenyl (Surr)	47		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	46		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-20-22 | Lab Sample ID: 240-635-9

Matrix: Solid | Lab File ID: 635F9A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:30

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.08(g) | Date Analyzed: 06/28/2011 23:04

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	120	U	120	64
123-91-1	1,4-Dioxane	240	U	240	52
88-06-2	2,4,6-Trichlorophenol	350	U	350	190
95-95-4	2,4,5-Trichlorophenol	350	U	350	59
120-83-2	2,4-Dichlorophenol	350	U	350	47
105-67-9	2,4-Dimethylphenol	350	U	350	47
51-28-5	2,4-Dinitrophenol	780	U	780	190
121-14-2	2,4-Dinitrotoluene	470	U	470	64
91-58-7	2-Chloronaphthalene	120	U	120	7.8
95-57-8	2-Chlorophenol	120	U	120	64
91-57-6	2-Methylnaphthalene	59		16	7.8
95-48-7	2-Methylphenol	470	U	470	190
88-74-4	2-Nitroaniline	470	U	470	22
88-75-5	2-Nitrophenol	120	U	120	64
15831-10-4	3 & 4 Methylphenol	950	U	950	47
91-94-1	3,3'-Dichlorobenzidine	240	U *	240	43
99-09-2	3-Nitroaniline	470	U	470	38
534-52-1	4,6-Dinitro-2-methylphenol	350	U	350	190
101-55-3	4-Bromophenyl phenyl ether	120	U	120	31
59-50-7	4-Chloro-3-methylphenol	350	U	350	50
106-47-8	4-Chloroaniline	350	U	350	40
7005-72-3	4-Chlorophenyl phenyl ether	120	U	120	31
100-01-6	4-Nitroaniline	470	U	470	61
83-32-9	Acenaphthene	150		16	7.8
208-96-8	Acenaphthylene	17		16	7.8
98-86-2	Acetophenone	240	U	240	22
120-12-7	Anthracene	260		16	7.8
1912-24-9	Atrazine	470	U	470	22
100-52-7	Benzaldehyde	240	U	240	28
56-55-3	Benzo[a]anthracene	740		16	7.8
50-32-8	Benzo[a]pyrene	570		16	7.8
205-99-2	Benzo[b]fluoranthene	610		16	7.8
191-24-2	Benzo[g,h,i]perylene	310		16	7.8
207-08-9	Benzo[k]fluoranthene	490		16	7.8

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-20-22 | Lab Sample ID: 240-635-9

Matrix: Solid | Lab File ID: 635F9A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:30

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.08(g) | Date Analyzed: 06/28/2011 23:04

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	240	U	240	52
111-44-4	Bis(2-chloroethyl)ether	240	U	240	4.7
117-81-7	Bis(2-ethylhexyl) phthalate	120	U	120	45
85-68-7	Butyl benzyl phthalate	120	U	120	24
105-60-2	Caprolactam	780	U *	780	88
86-74-8	Carbazole	130		120	64
218-01-9	Chrysene	600		16	2.6
84-74-2	Di-n-butyl phthalate	120	U	120	35
117-84-0	Di-n-octyl phthalate	120	U	120	64
53-70-3	Dibenzo(a,h)anthracene	74		16	7.8
132-64-9	Dibenzofuran	74	J	120	7.8
84-66-2	Diethyl phthalate	120	U	120	38
131-11-3	Dimethyl phthalate	120	U	120	40
206-44-0	Fluoranthene	1400		16	7.8
86-73-7	Fluorene	150		16	7.8
118-74-1	Hexachlorobenzene	16	U	16	5.0
87-68-3	Hexachlorobutadiene	120	U	120	64
77-47-4	Hexachlorocyclopentadiene	780	U	780	64
67-72-1	Hexachloroethane	120	U	120	21
193-39-5	Indeno[1,2,3-cd]pyrene	300		16	7.8
78-59-1	Isophorone	120	U	120	31
621-64-7	N-Nitrosodi-n-propylamine	120	U	120	64
62-75-9	N-Nitrosodimethylamine	240	U	240	38
86-30-6	N-Nitrosodiphenylamine	120	U	120	50
91-20-3	Naphthalene	54		16	7.8
98-95-3	Nitrobenzene	240	U	240	5.2
87-86-5	Pentachlorophenol	350	U	350	190
85-01-8	Phenanthrene	990		16	7.8
108-95-2	Phenol	120	U	120	64
129-00-0	Pyrene	1200		16	7.8
108-60-1	2,2'-oxybis[1-chloropropane]	240	U	240	22
606-20-2	2,6-Dinitrotoluene	470	U	470	50
100-02-7	4-Nitrophenol	780	U	780	190

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-20-22 | Lab Sample ID: 240-635-9

Matrix: Solid | Lab File ID: 635F9A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:30

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.08(g) | Date Analyzed: 06/28/2011 23:04

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	76		41-119
4165-62-2	Phenol-d5 (Surr)	61		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	54		24-112
367-12-4	2-Fluorophenol (Surr)	66		26-110
321-60-8	2-Fluorobiphenyl (Surr)	60		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	49		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 | Lab Sample ID: 240-635-8

Matrix: Solid | Lab File ID: 635G8A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:20

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.81(g) | Date Analyzed: 07/04/2011 19:33

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	57	U	57	31
123-91-1	1,4-Dioxane	110	U	110	25
88-06-2	2,4,6-Trichlorophenol	170	U	170	91
95-95-4	2,4,5-Trichlorophenol	170	U	170	28
120-83-2	2,4-Dichlorophenol	170	U	170	23
105-67-9	2,4-Dimethylphenol	170	U	170	23
51-28-5	2,4-Dinitrophenol	370	U	370	91
121-14-2	2,4-Dinitrotoluene	230	U	230	31
91-58-7	2-Chloronaphthalene	57	U	57	3.7
95-57-8	2-Chlorophenol	57	U	57	31
91-57-6	2-Methylnaphthalene	7.6	U	7.6	3.7
95-48-7	2-Methylphenol	230	U	230	91
88-74-4	2-Nitroaniline	230	U	230	10
88-75-5	2-Nitrophenol	57	U	57	31
15831-10-4	3 & 4 Methylphenol	450	U	450	23
91-94-1	3,3'-Dichlorobenzidine	110	U	110	20
99-09-2	3-Nitroaniline	230	U	230	18
534-52-1	4,6-Dinitro-2-methylphenol	170	U	170	91
101-55-3	4-Bromophenyl phenyl ether	57	U	57	15
59-50-7	4-Chloro-3-methylphenol	170	U	170	24
106-47-8	4-Chloroaniline	170	U	170	19
7005-72-3	4-Chlorophenyl phenyl ether	57	U	57	15
100-01-6	4-Nitroaniline	230	U	230	29
83-32-9	Acenaphthene	7.6	U	7.6	3.7
208-96-8	Acenaphthylene	7.6	U	7.6	3.7
98-86-2	Acetophenone	110	U	110	10
120-12-7	Anthracene	11		7.6	3.7
1912-24-9	Atrazine	230	U	230	10
100-52-7	Benzaldehyde	110	U	110	14
56-55-3	Benzo[a]anthracene	29		7.6	3.7
50-32-8	Benzo[a]pyrene	31		7.6	3.7
205-99-2	Benzo[b]fluoranthene	32		7.6	3.7
191-24-2	Benzo[g,h,i]perylene	19		7.6	3.7
207-08-9	Benzo[k]fluoranthene	18		7.6	3.7

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 | Lab Sample ID: 240-635-8

Matrix: Solid | Lab File ID: 635G8A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:20

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.81(g) | Date Analyzed: 07/04/2011 19:33

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U	110	25
111-44-4	Bis(2-chloroethyl)ether	110	U	110	2.3
117-81-7	Bis(2-ethylhexyl) phthalate	57	U	57	22
85-68-7	Butyl benzyl phthalate	57	U	57	11
105-60-2	Caprolactam	370	U	370	42
86-74-8	Carbazole	57	U	57	31
218-01-9	Chrysene	39		7.6	1.2
84-74-2	Di-n-butyl phthalate	57	U	57	17
117-84-0	Di-n-octyl phthalate	57	U	57	31
53-70-3	Dibenzo(a,h)anthracene	7.6	U	7.6	3.7
132-64-9	Dibenzofuran	57	U	57	3.7
84-66-2	Diethyl phthalate	57	U	57	18
131-11-3	Dimethyl phthalate	57	U	57	19
206-44-0	Fluoranthene	61		7.6	3.7
86-73-7	Fluorene	7.6		7.6	3.7
118-74-1	Hexachlorobenzene	7.6	U	7.6	2.4
87-68-3	Hexachlorobutadiene	57	U	57	31
77-47-4	Hexachlorocyclopentadiene	370	U	370	31
67-72-1	Hexachloroethane	57	U	57	10
193-39-5	Indeno[1,2,3-cd]pyrene	17		7.6	3.7
78-59-1	Isophorone	57	U	57	15
621-64-7	N-Nitrosodi-n-propylamine	57	U	57	31
62-75-9	N-Nitrosodimethylamine	110	U	110	18
86-30-6	N-Nitrosodiphenylamine	57	U	57	24
91-20-3	Naphthalene	7.6	U	7.6	3.7
98-95-3	Nitrobenzene	110	U	110	2.5
87-86-5	Pentachlorophenol	170	U	170	91
85-01-8	Phenanthrene	39		7.6	3.7
108-95-2	Phenol	57	U	57	31
129-00-0	Pyrene	53		7.6	3.7
108-60-1	2,2'-oxybis[1-chloropropane]	110	U	110	11
606-20-2	2,6-Dinitrotoluene	230	U	230	24
100-02-7	4-Nitrophenol	370	U	370	91

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton	Job No.: 240-635-1
SDG No.:	
Client Sample ID: G-SP-SB-119-6-8	Lab Sample ID: 240-635-8
Matrix: Solid	Lab File ID: 635G8A.D
Analysis Method: 8270D	Date Collected: 05/31/2011 16:20
Extract. Method: 3540C	Date Extracted: 06/06/2011 09:52
Sample wt/vol: 29.81(g)	Date Analyzed: 07/04/2011 19:33
Con. Extract Vol.: 2.00(mL)	Dilution Factor: 1
Injection Volume: 1(uL)	Level: (low/med) Low
% Moisture: 11.2	GPC Cleanup:(Y/N) N
Analysis Batch No.: 7057	Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	14	X	41-119
4165-62-2	Phenol-d5 (Surr)	16	X	28-110
4165-60-0	Nitrobenzene-d5 (Surr)	11	X	24-112
367-12-4	2-Fluorophenol (Surr)	14	X	26-110
321-60-8	2-Fluorobiphenyl (Surr)	12	X	34-110
118-79-6	2,4,6-Tribromophenol (Surr)	6	X	10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 RE | Lab Sample ID: 240-635-8 RE

Matrix: Solid | Lab File ID: 635F8F.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:20

Extract. Method: 3540C | Date Extracted: 07/11/2011 08:29

Sample wt/vol: 30.08(g) | Date Analyzed: 07/16/2011 18:46

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8694 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	56	U H *	56	30
123-91-1	1,4-Dioxane	110	U H	110	25
88-06-2	2,4,6-Trichlorophenol	170	U H *	170	90
95-95-4	2,4,5-Trichlorophenol	170	U H	170	28
120-83-2	2,4-Dichlorophenol	170	U H	170	22
105-67-9	2,4-Dimethylphenol	170	U H	170	22
51-28-5	2,4-Dinitrophenol	370	U H *	370	90
121-14-2	2,4-Dinitrotoluene	220	U H	220	30
91-58-7	2-Chloronaphthalene	56	U H	56	3.7
95-57-8	2-Chlorophenol	56	U H	56	30
91-57-6	2-Methylnaphthalene	17	H	7.5	3.7
95-48-7	2-Methylphenol	220	U H	220	90
88-74-4	2-Nitroaniline	220	U H	220	10
88-75-5	2-Nitrophenol	56	U H	56	30
15831-10-4	3 & 4 Methylphenol	450	U H	450	22
91-94-1	3,3'-Dichlorobenzidine	110	U H	110	20
99-09-2	3-Nitroaniline	220	U H	220	18
534-52-1	4,6-Dinitro-2-methylphenol	170	U H *	170	90
101-55-3	4-Bromophenyl phenyl ether	56	U H	56	15
59-50-7	4-Chloro-3-methylphenol	170	U H	170	24
106-47-8	4-Chloroaniline	170	U H	170	19
7005-72-3	4-Chlorophenyl phenyl ether	56	U H	56	15
100-01-6	4-Nitroaniline	220	U H	220	29
83-32-9	Acenaphthene	50	H	7.5	3.7
208-96-8	Acenaphthylene	8.7	H	7.5	3.7
98-86-2	Acetophenone	110	U H	110	10
120-12-7	Anthracene	94	H	7.5	3.7
1912-24-9	Atrazine	220	U H	220	10
100-52-7	Benzaldehyde	110	U H	110	13
56-55-3	Benzo[a]anthracene	330	H *	7.5	3.7
50-32-8	Benzo[a]pyrene	240	H	7.5	3.7
205-99-2	Benzo[b]fluoranthene	350	H	7.5	3.7
191-24-2	Benzo[g,h,i]perylene	170	H	7.5	3.7
207-08-9	Benzo[k]fluoranthene	160	H	7.5	3.7

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 RE | Lab Sample ID: 240-635-8 RE

Matrix: Solid | Lab File ID: 635F8F.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:20

Extract. Method: 3540C | Date Extracted: 07/11/2011 08:29

Sample wt/vol: 30.08(g) | Date Analyzed: 07/16/2011 18:46

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8694 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U H	110	25
111-44-4	Bis(2-chloroethyl)ether	110	U H	110	2.2
117-81-7	Bis(2-ethylhexyl) phthalate	31	J H	56	21
85-68-7	Butyl benzyl phthalate	56	U H	56	11
105-60-2	Caprolactam	370	U H *	370	42
86-74-8	Carbazole	43	J H	56	30
218-01-9	Chrysene	280	H *	7.5	1.2
84-74-2	Di-n-butyl phthalate	56	U H	56	17
117-84-0	Di-n-octyl phthalate	56	U H	56	30
53-70-3	Dibenzo(a,h)anthracene	46	H	7.5	3.7
132-64-9	Dibenzofuran	23	J H	56	3.7
84-66-2	Diethyl phthalate	56	U H	56	18
131-11-3	Dimethyl phthalate	56	U H	56	19
206-44-0	Fluoranthene	600	H	7.5	3.7
86-73-7	Fluorene	49	H	7.5	3.7
118-74-1	Hexachlorobenzene	7.5	U H	7.5	2.4
87-68-3	Hexachlorobutadiene	56	U H *	56	30
77-47-4	Hexachlorocyclopentadiene	370	U H	370	30
67-72-1	Hexachloroethane	56	U H *	56	10
193-39-5	Indeno[1,2,3-cd]pyrene	150	H	7.5	3.7
78-59-1	Isophorone	56	U H	56	15
621-64-7	N-Nitrosodi-n-propylamine	56	U H	56	30
62-75-9	N-Nitrosodimethylamine	110	U H	110	18
86-30-6	N-Nitrosodiphenylamine	56	U H	56	24
91-20-3	Naphthalene	19	H	7.5	3.7
98-95-3	Nitrobenzene	110	U H	110	2.5
87-86-5	Pentachlorophenol	170	U H	170	90
85-01-8	Phenanthrene	340	H	7.5	3.7
108-95-2	Phenol	56	U H	56	30
129-00-0	Pyrene	530	H *	7.5	3.7
108-60-1	2,2'-oxybis[1-chloropropane]	110	U H	110	11
606-20-2	2,6-Dinitrotoluene	220	U H	220	24
100-02-7	4-Nitrophenol	370	U H *	370	90

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 RE | Lab Sample ID: 240-635-8 RE

Matrix: Solid | Lab File ID: 635F8F.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:20

Extract. Method: 3540C | Date Extracted: 07/11/2011 08:29

Sample wt/vol: 30.08(g) | Date Analyzed: 07/16/2011 18:46

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8694 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	61		41-119
4165-62-2	Phenol-d5 (Surr)	60		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	44		24-112
367-12-4	2-Fluorophenol (Surr)	58		26-110
321-60-8	2-Fluorobiphenyl (Surr)	50		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	43		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-0-2 | Lab Sample ID: 240-635-19

Matrix: Solid | Lab File ID: 635G19B.D

Analysis Method: 8270D | Date Collected: 05/31/2011 14:05

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.86(g) | Date Analyzed: 06/28/2011 22:45

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	140	U	140	78
123-91-1	1,4-Dioxane	290	U	290	64
88-06-2	2,4,6-Trichlorophenol	430	U	430	230
95-95-4	2,4,5-Trichlorophenol	430	U	430	72
120-83-2	2,4-Dichlorophenol	430	U	430	58
105-67-9	2,4-Dimethylphenol	430	U	430	58
51-28-5	2,4-Dinitrophenol	950	U	950	230
121-14-2	2,4-Dinitrotoluene	580	U	580	78
91-58-7	2-Chloronaphthalene	140	U	140	9.5
95-57-8	2-Chlorophenol	140	U	140	78
91-57-6	2-Methylnaphthalene	36		19	9.5
95-48-7	2-Methylphenol	580	U	580	230
88-74-4	2-Nitroaniline	580	U	580	26
88-75-5	2-Nitrophenol	140	U	140	78
15831-10-4	3 & 4 Methylphenol	1200	U	1200	58
91-94-1	3,3'-Dichlorobenzidine	290	U *	290	52
99-09-2	3-Nitroaniline	580	U	580	46
534-52-1	4,6-Dinitro-2-methylphenol	430	U	430	230
101-55-3	4-Bromophenyl phenyl ether	140	U	140	38
59-50-7	4-Chloro-3-methylphenol	430	U	430	61
106-47-8	4-Chloroaniline	430	U	430	49
7005-72-3	4-Chlorophenyl phenyl ether	140	U	140	38
100-01-6	4-Nitroaniline	580	U	580	75
83-32-9	Acenaphthene	80		19	9.5
208-96-8	Acenaphthylene	48		19	9.5
98-86-2	Acetophenone	290	U	290	27
120-12-7	Anthracene	320		19	9.5
1912-24-9	Atrazine	580	U	580	26
100-52-7	Benzaldehyde	290	U	290	35
56-55-3	Benzo[a]anthracene	1600		19	9.5
50-32-8	Benzo[a]pyrene	1300		19	9.5
205-99-2	Benzo[b]fluoranthene	1600		19	9.5
191-24-2	Benzo[g,h,i]perylene	760		19	9.5
207-08-9	Benzo[k]fluoranthene	860		19	9.5

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-0-2 | Lab Sample ID: 240-635-19

Matrix: Solid | Lab File ID: 635G19B.D

Analysis Method: 8270D | Date Collected: 05/31/2011 14:05

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.86(g) | Date Analyzed: 06/28/2011 22:45

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	290	U	290	64
111-44-4	Bis(2-chloroethyl)ether	290	U	290	5.8
117-81-7	Bis(2-ethylhexyl) phthalate	140	U	140	55
85-68-7	Butyl benzyl phthalate	140	U	140	29
105-60-2	Caprolactam	950	U *	950	110
86-74-8	Carbazole	130	J	140	78
218-01-9	Chrysene	1500		19	3.2
84-74-2	Di-n-butyl phthalate	140	U	140	43
117-84-0	Di-n-octyl phthalate	140	U	140	78
53-70-3	Dibenzo(a,h)anthracene	230		19	9.5
132-64-9	Dibenzofuran	31	J	140	9.5
84-66-2	Diethyl phthalate	140	U	140	46
131-11-3	Dimethyl phthalate	140	U	140	49
206-44-0	Fluoranthene	2800		19	9.5
86-73-7	Fluorene	90		19	9.5
118-74-1	Hexachlorobenzene	19	U	19	6.1
87-68-3	Hexachlorobutadiene	140	U	140	78
77-47-4	Hexachlorocyclopentadiene	950	U	950	78
67-72-1	Hexachloroethane	140	U	140	26
193-39-5	Indeno[1,2,3-cd]pyrene	730		19	9.5
78-59-1	Isophorone	140	U	140	38
621-64-7	N-Nitrosodi-n-propylamine	140	U	140	78
62-75-9	N-Nitrosodimethylamine	290	U	290	46
86-30-6	N-Nitrosodiphenylamine	140	U	140	61
91-20-3	Naphthalene	41		19	9.5
98-95-3	Nitrobenzene	290	U	290	6.4
87-86-5	Pentachlorophenol	430	U	430	230
85-01-8	Phenanthrene	1100		19	9.5
108-95-2	Phenol	140	U	140	78
129-00-0	Pyrene	2800		19	9.5
108-60-1	2,2'-oxybis[1-chloropropane]	290	U	290	27
606-20-2	2,6-Dinitrotoluene	580	U	580	61
100-02-7	4-Nitrophenol	950	U	950	230

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-0-2 Lab Sample ID: 240-635-19

Matrix: Solid Lab File ID: 635G19B.D

Analysis Method: 8270D Date Collected: 05/31/2011 14:05

Extract. Method: 3540C Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.86(g) Date Analyzed: 06/28/2011 22:45

Con. Extract Vol.: 2.00(mL) Dilution Factor: 2.5

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 13.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	90		41-119
4165-62-2	Phenol-d5 (Surr)	65		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	52		24-112
367-12-4	2-Fluorophenol (Surr)	69		26-110
321-60-8	2-Fluorobiphenyl (Surr)	67		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	59		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-18-20 | Lab Sample ID: 240-635-21

Matrix: Solid | Lab File ID: 635F21A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 14:10

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.13(g) | Date Analyzed: 06/28/2011 21:27

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	1200	U	1200	660
123-91-1	1,4-Dioxane	2500	U	2500	540
88-06-2	2,4,6-Trichlorophenol	3700	U	3700	2000
95-95-4	2,4,5-Trichlorophenol	3700	U	3700	610
120-83-2	2,4-Dichlorophenol	3700	U	3700	490
105-67-9	2,4-Dimethylphenol	3700	U	3700	490
51-28-5	2,4-Dinitrophenol	8100	U	8100	2000
121-14-2	2,4-Dinitrotoluene	4900	U	4900	660
91-58-7	2-Chloronaphthalene	1200	U	1200	81
95-57-8	2-Chlorophenol	1200	U	1200	660
91-57-6	2-Methylnaphthalene	460		160	81
95-48-7	2-Methylphenol	4900	U	4900	2000
88-74-4	2-Nitroaniline	4900	U	4900	220
88-75-5	2-Nitrophenol	1200	U	1200	660
15831-10-4	3 & 4 Methylphenol	9800	U	9800	490
91-94-1	3,3'-Dichlorobenzidine	2500	U *	2500	440
99-09-2	3-Nitroaniline	4900	U	4900	390
534-52-1	4,6-Dinitro-2-methylphenol	3700	U	3700	2000
101-55-3	4-Bromophenyl phenyl ether	1200	U	1200	320
59-50-7	4-Chloro-3-methylphenol	3700	U	3700	520
106-47-8	4-Chloroaniline	3700	U	3700	420
7005-72-3	4-Chlorophenyl phenyl ether	1200	U	1200	320
100-01-6	4-Nitroaniline	4900	U	4900	640
83-32-9	Acenaphthene	2000		160	81
208-96-8	Acenaphthylene	430		160	81
98-86-2	Acetophenone	2500	U	2500	230
120-12-7	Anthracene	7400		160	81
1912-24-9	Atrazine	4900	U	4900	220
100-52-7	Benzaldehyde	2500	U	2500	300
56-55-3	Benzo[a]anthracene	11000		160	81
50-32-8	Benzo[a]pyrene	8700		160	81
205-99-2	Benzo[b]fluoranthene	9200		160	81
191-24-2	Benzo[g,h,i]perylene	4500		160	81
207-08-9	Benzo[k]fluoranthene	6400		160	81

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-18-20 | Lab Sample ID: 240-635-21

Matrix: Solid | Lab File ID: 635F21A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 14:10

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.13(g) | Date Analyzed: 06/28/2011 21:27

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	2500	U	2500	540
111-44-4	Bis(2-chloroethyl)ether	2500	U	2500	49
117-81-7	Bis(2-ethylhexyl) phthalate	1200	U	1200	470
85-68-7	Butyl benzyl phthalate	1200	U	1200	250
105-60-2	Caprolactam	8100	U *	8100	910
86-74-8	Carbazole	920	J	1200	660
218-01-9	Chrysene	11000		160	27
84-74-2	Di-n-butyl phthalate	1200	U	1200	370
117-84-0	Di-n-octyl phthalate	1200	U	1200	660
53-70-3	Dibenzo(a,h)anthracene	1500		160	81
132-64-9	Dibenzofuran	1800		1200	81
84-66-2	Diethyl phthalate	1200	U	1200	390
131-11-3	Dimethyl phthalate	1200	U	1200	420
206-44-0	Fluoranthene	28000		160	81
86-73-7	Fluorene	3900		160	81
118-74-1	Hexachlorobenzene	160	U	160	52
87-68-3	Hexachlorobutadiene	1200	U	1200	660
77-47-4	Hexachlorocyclopentadiene	8100	U	8100	660
67-72-1	Hexachloroethane	1200	U	1200	220
193-39-5	Indeno[1,2,3-cd]pyrene	4300		160	81
78-59-1	Isophorone	1200	U	1200	320
621-64-7	N-Nitrosodi-n-propylamine	1200	U	1200	660
62-75-9	N-Nitrosodimethylamine	2500	U	2500	390
86-30-6	N-Nitrosodiphenylamine	1200	U	1200	520
91-20-3	Naphthalene	730		160	81
98-95-3	Nitrobenzene	2500	U	2500	54
87-86-5	Pentachlorophenol	3700	U	3700	2000
85-01-8	Phenanthrene	26000		160	81
108-95-2	Phenol	1200	U	1200	660
129-00-0	Pyrene	20000		160	81
108-60-1	2,2'-oxybis[1-chloropropane]	2500	U	2500	230
606-20-2	2,6-Dinitrotoluene	4900	U	4900	520
100-02-7	4-Nitrophenol	8100	U	8100	2000

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-18-20 | Lab Sample ID: 240-635-21

Matrix: Solid | Lab File ID: 635F21A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 14:10

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.13(g) | Date Analyzed: 06/28/2011 21:27

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	87		41-119
4165-62-2	Phenol-d5 (Surr)	34		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	46		24-112
367-12-4	2-Fluorophenol (Surr)	41		26-110
321-60-8	2-Fluorobiphenyl (Surr)	62		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	0	X	10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-6-8 | Lab Sample ID: 240-635-20

Matrix: Solid | Lab File ID: 635F20B.D

Analysis Method: 8270D | Date Collected: 05/31/2011 14:08

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.83(g) | Date Analyzed: 06/28/2011 22:06

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 8.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	140	U	140	74
123-91-1	1,4-Dioxane	270	U	270	60
88-06-2	2,4,6-Trichlorophenol	410	U	410	220
95-95-4	2,4,5-Trichlorophenol	410	U	410	68
120-83-2	2,4-Dichlorophenol	410	U	410	55
105-67-9	2,4-Dimethylphenol	410	U	410	55
51-28-5	2,4-Dinitrophenol	900	U	900	220
121-14-2	2,4-Dinitrotoluene	550	U	550	74
91-58-7	2-Chloronaphthalene	140	U	140	9.0
95-57-8	2-Chlorophenol	140	U	140	74
91-57-6	2-Methylnaphthalene	150		18	9.0
95-48-7	2-Methylphenol	550	U	550	220
88-74-4	2-Nitroaniline	550	U	550	25
88-75-5	2-Nitrophenol	140	U	140	74
15831-10-4	3 & 4 Methylphenol	1100	U	1100	55
91-94-1	3,3'-Dichlorobenzidine	270	U *	270	49
99-09-2	3-Nitroaniline	550	U	550	44
534-52-1	4,6-Dinitro-2-methylphenol	410	U	410	220
101-55-3	4-Bromophenyl phenyl ether	140	U	140	36
59-50-7	4-Chloro-3-methylphenol	410	U	410	58
106-47-8	4-Chloroaniline	410	U	410	47
7005-72-3	4-Chlorophenyl phenyl ether	140	U	140	36
100-01-6	4-Nitroaniline	550	U	550	71
83-32-9	Acenaphthene	500		18	9.0
208-96-8	Acenaphthylene	18	U	18	9.0
98-86-2	Acetophenone	270	U	270	25
120-12-7	Anthracene	580		18	9.0
1912-24-9	Atrazine	550	U	550	25
100-52-7	Benzaldehyde	270	U	270	33
56-55-3	Benzo[a]anthracene	960		18	9.0
50-32-8	Benzo[a]pyrene	880		18	9.0
205-99-2	Benzo[b]fluoranthene	1000		18	9.0
191-24-2	Benzo[g,h,i]perylene	540		18	9.0
207-08-9	Benzo[k]fluoranthene	520		18	9.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-6-8 | Lab Sample ID: 240-635-20

Matrix: Solid | Lab File ID: 635F20B.D

Analysis Method: 8270D | Date Collected: 05/31/2011 14:08

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.83(g) | Date Analyzed: 06/28/2011 22:06

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 8.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	270	U	270	60
111-44-4	Bis(2-chloroethyl)ether	270	U	270	5.5
117-81-7	Bis(2-ethylhexyl) phthalate	140	U	140	52
85-68-7	Butyl benzyl phthalate	140	U	140	27
105-60-2	Caprolactam	900	U *	900	100
86-74-8	Carbazole	450		140	74
218-01-9	Chrysene	1000		18	3.0
84-74-2	Di-n-butyl phthalate	140	U	140	41
117-84-0	Di-n-octyl phthalate	140	U	140	74
53-70-3	Dibenzo(a,h)anthracene	160		18	9.0
132-64-9	Dibenzofuran	300		140	9.0
84-66-2	Diethyl phthalate	140	U	140	44
131-11-3	Dimethyl phthalate	140	U	140	47
206-44-0	Fluoranthene	2600		18	9.0
86-73-7	Fluorene	460		18	9.0
118-74-1	Hexachlorobenzene	18	U	18	5.8
87-68-3	Hexachlorobutadiene	140	U	140	74
77-47-4	Hexachlorocyclopentadiene	900	U	900	74
67-72-1	Hexachloroethane	140	U	140	25
193-39-5	Indeno[1,2,3-cd]pyrene	460		18	9.0
78-59-1	Isophorone	140	U	140	36
621-64-7	N-Nitrosodi-n-propylamine	140	U	140	74
62-75-9	N-Nitrosodimethylamine	270	U	270	44
86-30-6	N-Nitrosodiphenylamine	140	U	140	58
91-20-3	Naphthalene	260		18	9.0
98-95-3	Nitrobenzene	270	U	270	6.0
87-86-5	Pentachlorophenol	410	U	410	220
85-01-8	Phenanthrene	2400		18	9.0
108-95-2	Phenol	130	J	140	74
129-00-0	Pyrene	2000		18	9.0
108-60-1	2,2'-oxybis[1-chloropropane]	270	U	270	26
606-20-2	2,6-Dinitrotoluene	550	U	550	58
100-02-7	4-Nitrophenol	900	U	900	220

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-6-8 | Lab Sample ID: 240-635-20

Matrix: Solid | Lab File ID: 635F20B.D

Analysis Method: 8270D | Date Collected: 05/31/2011 14:08

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.83(g) | Date Analyzed: 06/28/2011 22:06

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 8.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	82		41-119
4165-62-2	Phenol-d5 (Surr)	67		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	55		24-112
367-12-4	2-Fluorophenol (Surr)	66		26-110
321-60-8	2-Fluorobiphenyl (Surr)	60		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	47		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-0-3 | Lab Sample ID: 240-635-16

Matrix: Solid | Lab File ID: 635F16A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:32

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.94(g) | Date Analyzed: 06/28/2011 23:43

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	120	U	120	63
123-91-1	1,4-Dioxane	230	U	230	51
88-06-2	2,4,6-Trichlorophenol	350	U	350	190
95-95-4	2,4,5-Trichlorophenol	350	U	350	58
120-83-2	2,4-Dichlorophenol	350	U	350	46
105-67-9	2,4-Dimethylphenol	350	U	350	46
51-28-5	2,4-Dinitrophenol	760	U	760	190
121-14-2	2,4-Dinitrotoluene	460	U	460	63
91-58-7	2-Chloronaphthalene	120	U	120	7.6
95-57-8	2-Chlorophenol	120	U	120	63
91-57-6	2-Methylnaphthalene	88		15	7.6
95-48-7	2-Methylphenol	460	U	460	190
88-74-4	2-Nitroaniline	460	U	460	21
88-75-5	2-Nitrophenol	120	U	120	63
15831-10-4	3 & 4 Methylphenol	930	U	930	46
91-94-1	3,3'-Dichlorobenzidine	230	U *	230	42
99-09-2	3-Nitroaniline	460	U	460	37
534-52-1	4,6-Dinitro-2-methylphenol	350	U	350	190
101-55-3	4-Bromophenyl phenyl ether	120	U	120	30
59-50-7	4-Chloro-3-methylphenol	350	U	350	49
106-47-8	4-Chloroaniline	350	U	350	39
7005-72-3	4-Chlorophenyl phenyl ether	120	U	120	30
100-01-6	4-Nitroaniline	460	U	460	60
83-32-9	Acenaphthene	240		15	7.6
208-96-8	Acenaphthylene	59		15	7.6
98-86-2	Acetophenone	230	U	230	21
120-12-7	Anthracene	500		15	7.6
1912-24-9	Atrazine	460	U	460	21
100-52-7	Benzaldehyde	230	U	230	28
56-55-3	Benzo[a]anthracene	1200		15	7.6
50-32-8	Benzo[a]pyrene	1200		15	7.6
205-99-2	Benzo[b]fluoranthene	1400		15	7.6
191-24-2	Benzo[g,h,i]perylene	710		15	7.6
207-08-9	Benzo[k]fluoranthene	660		15	7.6

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-0-3 | Lab Sample ID: 240-635-16

Matrix: Solid | Lab File ID: 635F16A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:32

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.94(g) | Date Analyzed: 06/28/2011 23:43

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	230	U	230	51
111-44-4	Bis(2-chloroethyl)ether	230	U	230	4.6
117-81-7	Bis(2-ethylhexyl) phthalate	74	J B	120	44
85-68-7	Butyl benzyl phthalate	120	U	120	23
105-60-2	Caprolactam	760	U *	760	86
86-74-8	Carbazole	190		120	63
218-01-9	Chrysene	1100		15	2.5
84-74-2	Di-n-butyl phthalate	120	U	120	35
117-84-0	Di-n-octyl phthalate	120	U	120	63
53-70-3	Dibenzo(a,h)anthracene	240		15	7.6
132-64-9	Dibenzofuran	120		120	7.6
84-66-2	Diethyl phthalate	120	U	120	37
131-11-3	Dimethyl phthalate	120	U	120	39
206-44-0	Fluoranthene	2400		15	7.6
86-73-7	Fluorene	210		15	7.6
118-74-1	Hexachlorobenzene	15	U	15	4.9
87-68-3	Hexachlorobutadiene	120	U	120	63
77-47-4	Hexachlorocyclopentadiene	760	U	760	63
67-72-1	Hexachloroethane	120	U	120	21
193-39-5	Indeno[1,2,3-cd]pyrene	650		15	7.6
78-59-1	Isophorone	120	U	120	30
621-64-7	N-Nitrosodi-n-propylamine	120	U	120	63
62-75-9	N-Nitrosodimethylamine	230	U	230	37
86-30-6	N-Nitrosodiphenylamine	120	U	120	49
91-20-3	Naphthalene	120		15	7.6
98-95-3	Nitrobenzene	230	U	230	5.1
87-86-5	Pentachlorophenol	350	U	350	190
85-01-8	Phenanthrene	1500		15	7.6
108-95-2	Phenol	120	U	120	63
129-00-0	Pyrene	2200		15	7.6
108-60-1	2,2'-oxybis[1-chloropropane]	230	U	230	22
606-20-2	2,6-Dinitrotoluene	460	U	460	49
100-02-7	4-Nitrophenol	760	U	760	190

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-0-3 Lab Sample ID: 240-635-16

Matrix: Solid Lab File ID: 635F16A.D

Analysis Method: 8270D Date Collected: 05/31/2011 11:32

Extract. Method: 3540C Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.94(g) Date Analyzed: 06/28/2011 23:43

Con. Extract Vol.: 2.00(mL) Dilution Factor: 2

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 13.5 GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		41-119
4165-62-2	Phenol-d5 (Surr)	63		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	57		24-112
367-12-4	2-Fluorophenol (Surr)	67		26-110
321-60-8	2-Fluorobiphenyl (Surr)	69		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	55		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-18-20 | Lab Sample ID: 240-635-18

Matrix: Solid | Lab File ID: 635F18A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:46

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.07(g) | Date Analyzed: 06/28/2011 20:29

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	61	U	61	33
123-91-1	1,4-Dioxane	120	U	120	27
88-06-2	2,4,6-Trichlorophenol	180	U	180	97
95-95-4	2,4,5-Trichlorophenol	180	U	180	30
120-83-2	2,4-Dichlorophenol	180	U	180	24
105-67-9	2,4-Dimethylphenol	180	U	180	24
51-28-5	2,4-Dinitrophenol	400	U	400	97
121-14-2	2,4-Dinitrotoluene	240	U	240	33
91-58-7	2-Chloronaphthalene	61	U	61	4.0
95-57-8	2-Chlorophenol	61	U	61	33
91-57-6	2-Methylnaphthalene	8.1	U	8.1	4.0
95-48-7	2-Methylphenol	240	U	240	97
88-74-4	2-Nitroaniline	240	U	240	11
88-75-5	2-Nitrophenol	61	U	61	33
15831-10-4	3 & 4 Methylphenol	490	U	490	24
91-94-1	3,3'-Dichlorobenzidine	120	U *	120	22
99-09-2	3-Nitroaniline	240	U	240	19
534-52-1	4,6-Dinitro-2-methylphenol	180	U	180	97
101-55-3	4-Bromophenyl phenyl ether	61	U	61	16
59-50-7	4-Chloro-3-methylphenol	180	U	180	26
106-47-8	4-Chloroaniline	180	U	180	21
7005-72-3	4-Chlorophenyl phenyl ether	61	U	61	16
100-01-6	4-Nitroaniline	240	U	240	32
83-32-9	Acenaphthene	8.1	U	8.1	4.0
208-96-8	Acenaphthylene	8.1	U	8.1	4.0
98-86-2	Acetophenone	120	U	120	11
120-12-7	Anthracene	8.1	U	8.1	4.0
1912-24-9	Atrazine	240	U	240	11
100-52-7	Benzaldehyde	120	U	120	15
56-55-3	Benzo[a]anthracene	19		8.1	4.0
50-32-8	Benzo[a]pyrene	15		8.1	4.0
205-99-2	Benzo[b]fluoranthene	19		8.1	4.0
191-24-2	Benzo[g,h,i]perylene	11		8.1	4.0
207-08-9	Benzo[k]fluoranthene	8.6		8.1	4.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-18-20 | Lab Sample ID: 240-635-18

Matrix: Solid | Lab File ID: 635F18A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:46

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.07(g) | Date Analyzed: 06/28/2011 20:29

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	27
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.4
117-81-7	Bis(2-ethylhexyl) phthalate	27	J B	61	23
85-68-7	Butyl benzyl phthalate	61	U	61	12
105-60-2	Caprolactam	400	U *	400	45
86-74-8	Carbazole	61	U	61	33
218-01-9	Chrysene	18		8.1	1.3
84-74-2	Di-n-butyl phthalate	61	U	61	18
117-84-0	Di-n-octyl phthalate	61	U	61	33
53-70-3	Dibenzo(a,h)anthracene	8.1	U	8.1	4.0
132-64-9	Dibenzofuran	61	U	61	4.0
84-66-2	Diethyl phthalate	61	U	61	19
131-11-3	Dimethyl phthalate	61	U	61	21
206-44-0	Fluoranthene	43		8.1	4.0
86-73-7	Fluorene	8.1	U	8.1	4.0
118-74-1	Hexachlorobenzene	8.1	U	8.1	2.6
87-68-3	Hexachlorobutadiene	61	U	61	33
77-47-4	Hexachlorocyclopentadiene	400	U	400	33
67-72-1	Hexachloroethane	61	U	61	11
193-39-5	Indeno[1,2,3-cd]pyrene	9.7		8.1	4.0
78-59-1	Isophorone	61	U	61	16
621-64-7	N-Nitrosodi-n-propylamine	61	U	61	33
62-75-9	N-Nitrosodimethylamine	120	U	120	19
86-30-6	N-Nitrosodiphenylamine	61	U	61	26
91-20-3	Naphthalene	8.1	U	8.1	4.0
98-95-3	Nitrobenzene	120	U	120	2.7
87-86-5	Pentachlorophenol	180	U	180	97
85-01-8	Phenanthrene	32		8.1	4.0
108-95-2	Phenol	61	U	61	33
129-00-0	Pyrene	33		8.1	4.0
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	12
606-20-2	2,6-Dinitrotoluene	240	U	240	26
100-02-7	4-Nitrophenol	400	U	400	97

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-18-20 | Lab Sample ID: 240-635-18

Matrix: Solid | Lab File ID: 635F18A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:46

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.07(g) | Date Analyzed: 06/28/2011 20:29

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	80		41-119
4165-62-2	Phenol-d5 (Surr)	62		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	61		24-112
367-12-4	2-Fluorophenol (Surr)	69		26-110
321-60-8	2-Fluorobiphenyl (Surr)	64		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	45		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-6-8 | Lab Sample ID: 240-635-17

Matrix: Solid | Lab File ID: 635G17A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:38

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.96(g) | Date Analyzed: 07/04/2011 19:52

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	580	U	580	310
123-91-1	1,4-Dioxane	1200	U	1200	250
88-06-2	2,4,6-Trichlorophenol	1700	U	1700	920
95-95-4	2,4,5-Trichlorophenol	1700	U	1700	290
120-83-2	2,4-Dichlorophenol	1700	U	1700	230
105-67-9	2,4-Dimethylphenol	1700	U	1700	230
51-28-5	2,4-Dinitrophenol	3800	U	3800	920
121-14-2	2,4-Dinitrotoluene	2300	U	2300	310
91-58-7	2-Chloronaphthalene	580	U	580	38
95-57-8	2-Chlorophenol	580	U	580	310
91-57-6	2-Methylnaphthalene	480		77	38
95-48-7	2-Methylphenol	2300	U	2300	920
88-74-4	2-Nitroaniline	2300	U	2300	110
88-75-5	2-Nitrophenol	580	U	580	310
15831-10-4	3 & 4 Methylphenol	4600	U	4600	230
91-94-1	3,3'-Dichlorobenzidine	1200	U	1200	210
99-09-2	3-Nitroaniline	2300	U	2300	180
534-52-1	4,6-Dinitro-2-methylphenol	1700	U	1700	920
101-55-3	4-Bromophenyl phenyl ether	580	U	580	150
59-50-7	4-Chloro-3-methylphenol	1700	U	1700	240
106-47-8	4-Chloroaniline	1700	U	1700	200
7005-72-3	4-Chlorophenyl phenyl ether	580	U	580	150
100-01-6	4-Nitroaniline	2300	U	2300	300
83-32-9	Acenaphthene	1600		77	38
208-96-8	Acenaphthylene	77	U	77	38
98-86-2	Acetophenone	1200	U	1200	110
120-12-7	Anthracene	2500		77	38
1912-24-9	Atrazine	2300	U	2300	110
100-52-7	Benzaldehyde	1200	U	1200	140
56-55-3	Benzo[a]anthracene	4400		77	38
50-32-8	Benzo[a]pyrene	3700		77	38
205-99-2	Benzo[b]fluoranthene	4000		77	38
191-24-2	Benzo[g,h,i]perylene	2100		77	38
207-08-9	Benzo[k]fluoranthene	2000		77	38

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-6-8 | Lab Sample ID: 240-635-17

Matrix: Solid | Lab File ID: 635G17A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:38

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.96(g) | Date Analyzed: 07/04/2011 19:52

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	1200	U	1200	250
111-44-4	Bis(2-chloroethyl)ether	1200	U	1200	23
117-81-7	Bis(2-ethylhexyl) phthalate	580	U	580	220
85-68-7	Butyl benzyl phthalate	580	U	580	120
105-60-2	Caprolactam	3800	U	3800	430
86-74-8	Carbazole	1600		580	310
218-01-9	Chrysene	4200		77	13
84-74-2	Di-n-butyl phthalate	580	U	580	170
117-84-0	Di-n-octyl phthalate	580	U	580	310
53-70-3	Dibenzo(a,h)anthracene	860		77	38
132-64-9	Dibenzofuran	1000		580	38
84-66-2	Diethyl phthalate	580	U	580	180
131-11-3	Dimethyl phthalate	580	U	580	200
206-44-0	Fluoranthene	10000		77	38
86-73-7	Fluorene	1600		77	38
118-74-1	Hexachlorobenzene	77	U	77	24
87-68-3	Hexachlorobutadiene	580	U	580	310
77-47-4	Hexachlorocyclopentadiene	3800	U	3800	310
67-72-1	Hexachloroethane	580	U	580	100
193-39-5	Indeno[1,2,3-cd]pyrene	1900		77	38
78-59-1	Isophorone	580	U	580	150
621-64-7	N-Nitrosodi-n-propylamine	580	U	580	310
62-75-9	N-Nitrosodimethylamine	1200	U	1200	180
86-30-6	N-Nitrosodiphenylamine	580	U	580	240
91-20-3	Naphthalene	690		77	38
98-95-3	Nitrobenzene	1200	U	1200	25
87-86-5	Pentachlorophenol	1700	U	1700	920
85-01-8	Phenanthrene	9500		77	38
108-95-2	Phenol	580	U	580	310
129-00-0	Pyrene	7700		77	38
108-60-1	2,2'-oxybis[1-chloropropane]	1200	U	1200	110
606-20-2	2,6-Dinitrotoluene	2300	U	2300	240
100-02-7	4-Nitrophenol	3800	U	3800	920

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-6-8 | Lab Sample ID: 240-635-17

Matrix: Solid | Lab File ID: 635G17A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 11:38

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.96(g) | Date Analyzed: 07/04/2011 19:52

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	70		41-119
4165-62-2	Phenol-d5 (Surr)	72		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	46		24-112
367-12-4	2-Fluorophenol (Surr)	54		26-110
321-60-8	2-Fluorobiphenyl (Surr)	58		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	0	X	10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-0-2 | Lab Sample ID: 240-635-22

Matrix: Solid | Lab File ID: 635F22B.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:23

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.84(g) | Date Analyzed: 06/29/2011 01:39

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 6.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	54	U	54	29
123-91-1	1,4-Dioxane	110	U	110	24
88-06-2	2,4,6-Trichlorophenol	160	U	160	86
95-95-4	2,4,5-Trichlorophenol	160	U	160	27
120-83-2	2,4-Dichlorophenol	160	U	160	22
105-67-9	2,4-Dimethylphenol	160	U	160	22
51-28-5	2,4-Dinitrophenol	360	U	360	86
121-14-2	2,4-Dinitrotoluene	220	U	220	29
91-58-7	2-Chloronaphthalene	54	U	54	3.6
95-57-8	2-Chlorophenol	54	U	54	29
91-57-6	2-Methylnaphthalene	24		7.2	3.6
95-48-7	2-Methylphenol	220	U	220	86
88-74-4	2-Nitroaniline	220	U	220	9.8
88-75-5	2-Nitrophenol	54	U	54	29
15831-10-4	3 & 4 Methylphenol	430	U	430	22
91-94-1	3,3'-Dichlorobenzidine	110	U *	110	19
99-09-2	3-Nitroaniline	220	U	220	17
534-52-1	4,6-Dinitro-2-methylphenol	160	U	160	86
101-55-3	4-Bromophenyl phenyl ether	54	U	54	14
59-50-7	4-Chloro-3-methylphenol	160	U	160	23
106-47-8	4-Chloroaniline	160	U	160	18
7005-72-3	4-Chlorophenyl phenyl ether	54	U	54	14
100-01-6	4-Nitroaniline	220	U	220	28
83-32-9	Acenaphthene	25		7.2	3.6
208-96-8	Acenaphthylene	44		7.2	3.6
98-86-2	Acetophenone	110	U	110	9.9
120-12-7	Anthracene	110		7.2	3.6
1912-24-9	Atrazine	220	U	220	9.8
100-52-7	Benzaldehyde	110	U	110	13
56-55-3	Benzo[a]anthracene	390		7.2	3.6
50-32-8	Benzo[a]pyrene	440		7.2	3.6
205-99-2	Benzo[b]fluoranthene	460		7.2	3.6
191-24-2	Benzo[g,h,i]perylene	300		7.2	3.6
207-08-9	Benzo[k]fluoranthene	230		7.2	3.6

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-0-2 | Lab Sample ID: 240-635-22

Matrix: Solid | Lab File ID: 635F22B.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:23

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.84(g) | Date Analyzed: 06/29/2011 01:39

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 6.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U	110	24
111-44-4	Bis(2-chloroethyl)ether	110	U	110	2.2
117-81-7	Bis(2-ethylhexyl) phthalate	22	J B	54	20
85-68-7	Butyl benzyl phthalate	54	U	54	11
105-60-2	Caprolactam	360	U *	360	40
86-74-8	Carbazole	54	U	54	29
218-01-9	Chrysene	380		7.2	1.2
84-74-2	Di-n-butyl phthalate	17	J	54	16
117-84-0	Di-n-octyl phthalate	54	U	54	29
53-70-3	Dibenzo(a,h)anthracene	130		7.2	3.6
132-64-9	Dibenzofuran	54	U	54	3.6
84-66-2	Diethyl phthalate	54	U	54	17
131-11-3	Dimethyl phthalate	54	U	54	18
206-44-0	Fluoranthene	600		7.2	3.6
86-73-7	Fluorene	29		7.2	3.6
118-74-1	Hexachlorobenzene	7.2	U	7.2	2.3
87-68-3	Hexachlorobutadiene	54	U	54	29
77-47-4	Hexachlorocyclopentadiene	360	U	360	29
67-72-1	Hexachloroethane	54	U	54	9.7
193-39-5	Indeno[1,2,3-cd]pyrene	250		7.2	3.6
78-59-1	Isophorone	54	U	54	14
621-64-7	N-Nitrosodi-n-propylamine	54	U	54	29
62-75-9	N-Nitrosodimethylamine	110	U	110	17
86-30-6	N-Nitrosodiphenylamine	54	U	54	23
91-20-3	Naphthalene	36		7.2	3.6
98-95-3	Nitrobenzene	110	U	110	2.4
87-86-5	Pentachlorophenol	160	U	160	86
85-01-8	Phenanthrene	240		7.2	3.6
108-95-2	Phenol	54	U	54	29
129-00-0	Pyrene	650		7.2	3.6
108-60-1	2,2'-oxybis[1-chloropropane]	110	U	110	10
606-20-2	2,6-Dinitrotoluene	220	U	220	23
100-02-7	4-Nitrophenol	360	U	360	86

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-0-2 | Lab Sample ID: 240-635-22

Matrix: Solid | Lab File ID: 635F22B.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:23

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.84(g) | Date Analyzed: 06/29/2011 01:39

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 6.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	84		41-119
4165-62-2	Phenol-d5 (Surr)	65		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	52		24-112
367-12-4	2-Fluorophenol (Surr)	64		26-110
321-60-8	2-Fluorobiphenyl (Surr)	64		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-20-22 | Lab Sample ID: 240-635-24

Matrix: Solid | Lab File ID: 0621026.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:30

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.07(g) | Date Analyzed: 06/21/2011 19:05

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 22.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	64	U	64	35
123-91-1	1,4-Dioxane	130	U	130	28
88-06-2	2,4,6-Trichlorophenol	190	U	190	100
95-95-4	2,4,5-Trichlorophenol	190	U	190	32
120-83-2	2,4-Dichlorophenol	190	U	190	26
105-67-9	2,4-Dimethylphenol	190	U	190	26
51-28-5	2,4-Dinitrophenol	430	U	430	100
121-14-2	2,4-Dinitrotoluene	260	U	260	35
91-58-7	2-Chloronaphthalene	64	U	64	4.3
95-57-8	2-Chlorophenol	64	U	64	35
91-57-6	2-Methylnaphthalene	8.6	U	8.6	4.3
95-48-7	2-Methylphenol	260	U	260	100
88-74-4	2-Nitroaniline	260	U	260	12
88-75-5	2-Nitrophenol	64	U	64	35
15831-10-4	3 & 4 Methylphenol	520	U	520	26
91-94-1	3,3'-Dichlorobenzidine	130	U	130	23
99-09-2	3-Nitroaniline	260	U	260	21
534-52-1	4,6-Dinitro-2-methylphenol	190	U	190	100
101-55-3	4-Bromophenyl phenyl ether	64	U	64	17
59-50-7	4-Chloro-3-methylphenol	190	U	190	27
106-47-8	4-Chloroaniline	190	U	190	22
7005-72-3	4-Chlorophenyl phenyl ether	64	U	64	17
100-01-6	4-Nitroaniline	260	U	260	34
83-32-9	Acenaphthene	8.6	U	8.6	4.3
208-96-8	Acenaphthylene	8.6	U	8.6	4.3
98-86-2	Acetophenone	130	U	130	12
120-12-7	Anthracene	8.6	U	8.6	4.3
1912-24-9	Atrazine	260	U	260	12
100-52-7	Benzaldehyde	130	U	130	15
56-55-3	Benzo[a]anthracene	8.6	U	8.6	4.3
50-32-8	Benzo[a]pyrene	8.6	U	8.6	4.3
205-99-2	Benzo[b]fluoranthene	8.6	U	8.6	4.3
191-24-2	Benzo[g,h,i]perylene	8.6	U	8.6	4.3
207-08-9	Benzo[k]fluoranthene	8.6	U	8.6	4.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-20-22 | Lab Sample ID: 240-635-24

Matrix: Solid | Lab File ID: 0621026.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:30

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.07(g) | Date Analyzed: 06/21/2011 19:05

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 22.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	130	U	130	28
111-44-4	Bis(2-chloroethyl)ether	130	U	130	2.6
117-81-7	Bis(2-ethylhexyl) phthalate	46	J	64	24
85-68-7	Butyl benzyl phthalate	64	U	64	13
105-60-2	Caprolactam	430	U	430	48
86-74-8	Carbazole	64	U	64	35
218-01-9	Chrysene	8.6	U	8.6	1.4
84-74-2	Di-n-butyl phthalate	20	J	64	19
117-84-0	Di-n-octyl phthalate	64	U	64	35
53-70-3	Dibenzo(a,h)anthracene	8.6	U	8.6	4.3
132-64-9	Dibenzofuran	64	U	64	4.3
84-66-2	Diethyl phthalate	64	U	64	21
131-11-3	Dimethyl phthalate	64	U	64	22
206-44-0	Fluoranthene	7.2	J	8.6	4.3
86-73-7	Fluorene	8.6	U	8.6	4.3
118-74-1	Hexachlorobenzene	8.6	U	8.6	2.7
87-68-3	Hexachlorobutadiene	64	U	64	35
77-47-4	Hexachlorocyclopentadiene	430	U	430	35
67-72-1	Hexachloroethane	64	U	64	12
193-39-5	Indeno[1,2,3-cd]pyrene	8.6	U	8.6	4.3
78-59-1	Isophorone	64	U	64	17
621-64-7	N-Nitrosodi-n-propylamine	64	U	64	35
62-75-9	N-Nitrosodimethylamine	130	U	130	21
86-30-6	N-Nitrosodiphenylamine	64	U	64	27
91-20-3	Naphthalene	8.6	U	8.6	4.3
98-95-3	Nitrobenzene	130	U	130	2.8
87-86-5	Pentachlorophenol	190	U	190	100
85-01-8	Phenanthrene	8.6	U	8.6	4.3
108-95-2	Phenol	64	U	64	35
129-00-0	Pyrene	6.4	J	8.6	4.3
108-60-1	2,2'-oxybis[1-chloropropane]	130	U	130	12
606-20-2	2,6-Dinitrotoluene	260	U	260	27
100-02-7	4-Nitrophenol	430	U	430	100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-20-22 | Lab Sample ID: 240-635-24

Matrix: Solid | Lab File ID: 0621026.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:30

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.07(g) | Date Analyzed: 06/21/2011 19:05

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 22.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	63		41-119
4165-62-2	Phenol-d5 (Surr)	45		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	37		24-112
367-12-4	2-Fluorophenol (Surr)	50		26-110
321-60-8	2-Fluorobiphenyl (Surr)	38		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	40		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-6-8 | Lab Sample ID: 240-635-23

Matrix: Solid | Lab File ID: 0621025.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:26

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.10(g) | Date Analyzed: 06/21/2011 18:46

Con. Extract Vol.: 2(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	140	U	140	76
123-91-1	1,4-Dioxane	280	U	280	62
88-06-2	2,4,6-Trichlorophenol	420	U	420	230
95-95-4	2,4,5-Trichlorophenol	420	U	420	70
120-83-2	2,4-Dichlorophenol	420	U	420	56
105-67-9	2,4-Dimethylphenol	420	U	420	56
51-28-5	2,4-Dinitrophenol	930	U	930	230
121-14-2	2,4-Dinitrotoluene	560	U	560	76
91-58-7	2-Chloronaphthalene	140	U	140	9.3
95-57-8	2-Chlorophenol	140	U	140	76
91-57-6	2-Methylnaphthalene	19	U	19	9.3
95-48-7	2-Methylphenol	560	U	560	230
88-74-4	2-Nitroaniline	560	U	560	26
88-75-5	2-Nitrophenol	140	U	140	76
15831-10-4	3 & 4 Methylphenol	1100	U	1100	56
91-94-1	3,3'-Dichlorobenzidine	280	U	280	51
99-09-2	3-Nitroaniline	560	U	560	45
534-52-1	4,6-Dinitro-2-methylphenol	420	U	420	230
101-55-3	4-Bromophenyl phenyl ether	140	U	140	37
59-50-7	4-Chloro-3-methylphenol	420	U	420	59
106-47-8	4-Chloroaniline	420	U	420	48
7005-72-3	4-Chlorophenyl phenyl ether	140	U	140	37
100-01-6	4-Nitroaniline	560	U	560	73
83-32-9	Acenaphthene	19	U	19	9.3
208-96-8	Acenaphthylene	19	U	19	9.3
98-86-2	Acetophenone	280	U	280	26
120-12-7	Anthracene	19	U	19	9.3
1912-24-9	Atrazine	560	U	560	26
100-52-7	Benzaldehyde	280	U	280	34
56-55-3	Benzo[a]anthracene	19	U	19	9.3
50-32-8	Benzo[a]pyrene	19	U	19	9.3
205-99-2	Benzo[b]fluoranthene	19	U	19	9.3
191-24-2	Benzo[g,h,i]perylene	19	U	19	9.3
207-08-9	Benzo[k]fluoranthene	19	U	19	9.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-6-8 | Lab Sample ID: 240-635-23

Matrix: Solid | Lab File ID: 0621025.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:26

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.10(g) | Date Analyzed: 06/21/2011 18:46

Con. Extract Vol.: 2(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	280	U	280	62
111-44-4	Bis(2-chloroethyl)ether	280	U	280	5.6
117-81-7	Bis(2-ethylhexyl) phthalate	100	J	140	54
85-68-7	Butyl benzyl phthalate	140	U	140	28
105-60-2	Caprolactam	930	U	930	100
86-74-8	Carbazole	140	U	140	76
218-01-9	Chrysene	19	U	19	3.1
84-74-2	Di-n-butyl phthalate	140	U	140	42
117-84-0	Di-n-octyl phthalate	140	U	140	76
53-70-3	Dibenzo(a,h)anthracene	19	U	19	9.3
132-64-9	Dibenzofuran	140	U	140	9.3
84-66-2	Diethyl phthalate	140	U	140	45
131-11-3	Dimethyl phthalate	140	U	140	48
206-44-0	Fluoranthene	19	U	19	9.3
86-73-7	Fluorene	19	U	19	9.3
118-74-1	Hexachlorobenzene	19	U	19	5.9
87-68-3	Hexachlorobutadiene	140	U	140	76
77-47-4	Hexachlorocyclopentadiene	930	U	930	76
67-72-1	Hexachloroethane	140	U	140	25
193-39-5	Indeno[1,2,3-cd]pyrene	19	U	19	9.3
78-59-1	Isophorone	140	U	140	37
621-64-7	N-Nitrosodi-n-propylamine	140	U	140	76
62-75-9	N-Nitrosodimethylamine	280	U	280	45
86-30-6	N-Nitrosodiphenylamine	140	U	140	59
91-20-3	Naphthalene	19	U	19	9.3
98-95-3	Nitrobenzene	280	U	280	6.2
87-86-5	Pentachlorophenol	420	U	420	230
85-01-8	Phenanthrene	19	U	19	9.3
108-95-2	Phenol	140	U	140	76
129-00-0	Pyrene	19	U	19	9.3
108-60-1	2,2'-oxybis[1-chloropropane]	280	U	280	27
606-20-2	2,6-Dinitrotoluene	560	U	560	59
100-02-7	4-Nitrophenol	930	U	930	230

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-6-8 | Lab Sample ID: 240-635-23

Matrix: Solid | Lab File ID: 0621025.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:26

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.10(g) | Date Analyzed: 06/21/2011 18:46

Con. Extract Vol.: 2(mL) | Dilution Factor: 2.5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 11.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	81		41-119
4165-62-2	Phenol-d5 (Surr)	63		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	54		24-112
367-12-4	2-Fluorophenol (Surr)	69		26-110
321-60-8	2-Fluorobiphenyl (Surr)	57		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	67		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-0-2 | Lab Sample ID: 240-635-25

Matrix: Solid | Lab File ID: 0621029.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:24

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.13(g) | Date Analyzed: 06/21/2011 20:02

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	57	U	57	31
123-91-1	1,4-Dioxane	110	U	110	25
88-06-2	2,4,6-Trichlorophenol	170	U	170	92
95-95-4	2,4,5-Trichlorophenol	170	U	170	29
120-83-2	2,4-Dichlorophenol	170	U	170	23
105-67-9	2,4-Dimethylphenol	170	U	170	23
51-28-5	2,4-Dinitrophenol	380	U	380	92
121-14-2	2,4-Dinitrotoluene	230	U	230	31
91-58-7	2-Chloronaphthalene	57	U	57	3.8
95-57-8	2-Chlorophenol	57	U	57	31
91-57-6	2-Methylnaphthalene	7.6	U	7.6	3.8
95-48-7	2-Methylphenol	230	U	230	92
88-74-4	2-Nitroaniline	230	U	230	10
88-75-5	2-Nitrophenol	57	U	57	31
15831-10-4	3 & 4 Methylphenol	460	U	460	23
91-94-1	3,3'-Dichlorobenzidine	110	U	110	21
99-09-2	3-Nitroaniline	230	U	230	18
534-52-1	4,6-Dinitro-2-methylphenol	170	U	170	92
101-55-3	4-Bromophenyl phenyl ether	57	U	57	15
59-50-7	4-Chloro-3-methylphenol	170	U	170	24
106-47-8	4-Chloroaniline	170	U	170	19
7005-72-3	4-Chlorophenyl phenyl ether	57	U	57	15
100-01-6	4-Nitroaniline	230	U	230	30
83-32-9	Acenaphthene	7.6	U	7.6	3.8
208-96-8	Acenaphthylene	7.6	U	7.6	3.8
98-86-2	Acetophenone	110	U	110	11
120-12-7	Anthracene	10		7.6	3.8
1912-24-9	Atrazine	230	U	230	10
100-52-7	Benzaldehyde	110	U	110	14
56-55-3	Benzo[a]anthracene	50		7.6	3.8
50-32-8	Benzo[a]pyrene	44		7.6	3.8
205-99-2	Benzo[b]fluoranthene	60		7.6	3.8
191-24-2	Benzo[g,h,i]perylene	26		7.6	3.8
207-08-9	Benzo[k]fluoranthene	26		7.6	3.8

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-0-2 | Lab Sample ID: 240-635-25

Matrix: Solid | Lab File ID: 0621029.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:24

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.13(g) | Date Analyzed: 06/21/2011 20:02

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U	110	25
111-44-4	Bis(2-chloroethyl)ether	110	U	110	2.3
117-81-7	Bis(2-ethylhexyl) phthalate	25	J	57	22
85-68-7	Butyl benzyl phthalate	57	U	57	11
105-60-2	Caprolactam	380	U	380	42
86-74-8	Carbazole	57	U	57	31
218-01-9	Chrysene	55		7.6	1.3
84-74-2	Di-n-butyl phthalate	57	U	57	17
117-84-0	Di-n-octyl phthalate	57	U	57	31
53-70-3	Dibenzo(a,h)anthracene	6.3	J	7.6	3.8
132-64-9	Dibenzofuran	57	U	57	3.8
84-66-2	Diethyl phthalate	57	U	57	18
131-11-3	Dimethyl phthalate	57	U	57	19
206-44-0	Fluoranthene	110		7.6	3.8
86-73-7	Fluorene	7.6	U	7.6	3.8
118-74-1	Hexachlorobenzene	7.6	U	7.6	2.4
87-68-3	Hexachlorobutadiene	57	U	57	31
77-47-4	Hexachlorocyclopentadiene	380	U	380	31
67-72-1	Hexachloroethane	57	U	57	10
193-39-5	Indeno[1,2,3-cd]pyrene	22		7.6	3.8
78-59-1	Isophorone	57	U	57	15
621-64-7	N-Nitrosodi-n-propylamine	57	U	57	31
62-75-9	N-Nitrosodimethylamine	110	U	110	18
86-30-6	N-Nitrosodiphenylamine	57	U	57	24
91-20-3	Naphthalene	7.6	U	7.6	3.8
98-95-3	Nitrobenzene	110	U	110	2.5
87-86-5	Pentachlorophenol	170	U	170	92
85-01-8	Phenanthrene	38		7.6	3.8
108-95-2	Phenol	57	U	57	31
129-00-0	Pyrene	97		7.6	3.8
108-60-1	2,2'-oxybis[1-chloropropane]	110	U	110	11
606-20-2	2,6-Dinitrotoluene	230	U	230	24
100-02-7	4-Nitrophenol	380	U	380	92

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-0-2 | Lab Sample ID: 240-635-25

Matrix: Solid | Lab File ID: 0621029.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:24

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.13(g) | Date Analyzed: 06/21/2011 20:02

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	66		41-119
4165-62-2	Phenol-d5 (Surr)	51		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	45		24-112
367-12-4	2-Fluorophenol (Surr)	57		26-110
321-60-8	2-Fluorobiphenyl (Surr)	48		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-20-22 | Lab Sample ID: 240-635-27

Matrix: Solid | Lab File ID: 0621028.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:35

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.17(g) | Date Analyzed: 06/21/2011 19:43

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	60	U	60	32
123-91-1	1,4-Dioxane	120	U	120	26
88-06-2	2,4,6-Trichlorophenol	180	U	180	96
95-95-4	2,4,5-Trichlorophenol	180	U	180	30
120-83-2	2,4-Dichlorophenol	180	U	180	24
105-67-9	2,4-Dimethylphenol	180	U	180	24
51-28-5	2,4-Dinitrophenol	400	U	400	96
121-14-2	2,4-Dinitrotoluene	240	U	240	32
91-58-7	2-Chloronaphthalene	60	U	60	4.0
95-57-8	2-Chlorophenol	60	U	60	32
91-57-6	2-Methylnaphthalene	8.0	U	8.0	4.0
95-48-7	2-Methylphenol	240	U	240	96
88-74-4	2-Nitroaniline	240	U	240	11
88-75-5	2-Nitrophenol	60	U	60	32
15831-10-4	3 & 4 Methylphenol	480	U	480	24
91-94-1	3,3'-Dichlorobenzidine	120	U	120	22
99-09-2	3-Nitroaniline	240	U	240	19
534-52-1	4,6-Dinitro-2-methylphenol	180	U	180	96
101-55-3	4-Bromophenyl phenyl ether	60	U	60	16
59-50-7	4-Chloro-3-methylphenol	180	U	180	25
106-47-8	4-Chloroaniline	180	U	180	20
7005-72-3	4-Chlorophenyl phenyl ether	60	U	60	16
100-01-6	4-Nitroaniline	240	U	240	31
83-32-9	Acenaphthene	8.0	U	8.0	4.0
208-96-8	Acenaphthylene	8.0	U	8.0	4.0
98-86-2	Acetophenone	120	U	120	11
120-12-7	Anthracene	8.0	U	8.0	4.0
1912-24-9	Atrazine	240	U	240	11
100-52-7	Benzaldehyde	120	U	120	14
56-55-3	Benzo[a]anthracene	21		8.0	4.0
50-32-8	Benzo[a]pyrene	10		8.0	4.0
205-99-2	Benzo[b]fluoranthene	16		8.0	4.0
191-24-2	Benzo[g,h,i]perylene	4.4	J	8.0	4.0
207-08-9	Benzo[k]fluoranthene	5.6	J	8.0	4.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-20-22 Lab Sample ID: 240-635-27

Matrix: Solid Lab File ID: 0621028.D

Analysis Method: 8270D Date Collected: 05/31/2011 16:35

Extract. Method: 3540C Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.17(g) Date Analyzed: 06/21/2011 19:43

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 17.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	26
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.4
117-81-7	Bis(2-ethylhexyl) phthalate	25	J	60	23
85-68-7	Butyl benzyl phthalate	60	U	60	12
105-60-2	Caprolactam	400	U	400	44
86-74-8	Carbazole	60	U	60	32
218-01-9	Chrysene	17		8.0	1.3
84-74-2	Di-n-butyl phthalate	27	J	60	18
117-84-0	Di-n-octyl phthalate	60	U	60	32
53-70-3	Dibenzo(a,h)anthracene	8.0	U	8.0	4.0
132-64-9	Dibenzofuran	60	U	60	4.0
84-66-2	Diethyl phthalate	60	U	60	19
131-11-3	Dimethyl phthalate	60	U	60	20
206-44-0	Fluoranthene	49		8.0	4.0
86-73-7	Fluorene	8.0	U	8.0	4.0
118-74-1	Hexachlorobenzene	8.0	U	8.0	2.5
87-68-3	Hexachlorobutadiene	60	U	60	32
77-47-4	Hexachlorocyclopentadiene	400	U	400	32
67-72-1	Hexachloroethane	60	U	60	11
193-39-5	Indeno[1,2,3-cd]pyrene	4.1	J	8.0	4.0
78-59-1	Isophorone	60	U	60	16
621-64-7	N-Nitrosodi-n-propylamine	60	U	60	32
62-75-9	N-Nitrosodimethylamine	120	U	120	19
86-30-6	N-Nitrosodiphenylamine	60	U	60	25
91-20-3	Naphthalene	8.0	U	8.0	4.0
98-95-3	Nitrobenzene	120	U	120	2.6
87-86-5	Pentachlorophenol	180	U	180	96
85-01-8	Phenanthrene	20		8.0	4.0
108-95-2	Phenol	60	U	60	32
129-00-0	Pyrene	39		8.0	4.0
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	11
606-20-2	2,6-Dinitrotoluene	240	U	240	25
100-02-7	4-Nitrophenol	400	U	400	96

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-20-22 | Lab Sample ID: 240-635-27

Matrix: Solid | Lab File ID: 0621028.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:35

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.17(g) | Date Analyzed: 06/21/2011 19:43

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	65		41-119
4165-62-2	Phenol-d5 (Surr)	58		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	47		24-112
367-12-4	2-Fluorophenol (Surr)	64		26-110
321-60-8	2-Fluorobiphenyl (Surr)	51		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	43		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-6-8 | Lab Sample ID: 240-635-26

Matrix: Solid | Lab File ID: 0621027.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:30

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.05(g) | Date Analyzed: 06/21/2011 19:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	59	U	59	32
123-91-1	1,4-Dioxane	120	U	120	26
88-06-2	2,4,6-Trichlorophenol	180	U	180	95
95-95-4	2,4,5-Trichlorophenol	180	U	180	30
120-83-2	2,4-Dichlorophenol	180	U	180	24
105-67-9	2,4-Dimethylphenol	180	U	180	24
51-28-5	2,4-Dinitrophenol	390	U	390	95
121-14-2	2,4-Dinitrotoluene	240	U	240	32
91-58-7	2-Chloronaphthalene	59	U	59	3.9
95-57-8	2-Chlorophenol	59	U	59	32
91-57-6	2-Methylnaphthalene	7.9	U	7.9	3.9
95-48-7	2-Methylphenol	240	U	240	95
88-74-4	2-Nitroaniline	240	U	240	11
88-75-5	2-Nitrophenol	59	U	59	32
15831-10-4	3 & 4 Methylphenol	470	U	470	24
91-94-1	3,3'-Dichlorobenzidine	120	U	120	21
99-09-2	3-Nitroaniline	240	U	240	19
534-52-1	4,6-Dinitro-2-methylphenol	180	U	180	95
101-55-3	4-Bromophenyl phenyl ether	59	U	59	15
59-50-7	4-Chloro-3-methylphenol	180	U	180	25
106-47-8	4-Chloroaniline	180	U	180	20
7005-72-3	4-Chlorophenyl phenyl ether	59	U	59	15
100-01-6	4-Nitroaniline	240	U	240	31
83-32-9	Acenaphthene	7.9	U	7.9	3.9
208-96-8	Acenaphthylene	7.9	U	7.9	3.9
98-86-2	Acetophenone	120	U	120	11
120-12-7	Anthracene	7.9	U	7.9	3.9
1912-24-9	Atrazine	240	U	240	11
100-52-7	Benzaldehyde	120	U	120	14
56-55-3	Benzo[a]anthracene	8.0		7.9	3.9
50-32-8	Benzo[a]pyrene	5.9	J	7.9	3.9
205-99-2	Benzo[b]fluoranthene	8.3		7.9	3.9
191-24-2	Benzo[g,h,i]perylene	7.9	U	7.9	3.9
207-08-9	Benzo[k]fluoranthene	7.9	U	7.9	3.9

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-6-8 Lab Sample ID: 240-635-26

Matrix: Solid Lab File ID: 0621027.D

Analysis Method: 8270D Date Collected: 05/31/2011 16:30

Extract. Method: 3540C Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.05(g) Date Analyzed: 06/21/2011 19:24

Con. Extract Vol.: 2(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 15.6 GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	26
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.4
117-81-7	Bis(2-ethylhexyl) phthalate	43	J	59	22
85-68-7	Butyl benzyl phthalate	59	U	59	12
105-60-2	Caprolactam	390	U	390	44
86-74-8	Carbazole	59	U	59	32
218-01-9	Chrysene	7.8	J	7.9	1.3
84-74-2	Di-n-butyl phthalate	59	U	59	18
117-84-0	Di-n-octyl phthalate	59	U	59	32
53-70-3	Dibenzo(a,h)anthracene	7.9	U	7.9	3.9
132-64-9	Dibenzofuran	59	U	59	3.9
84-66-2	Diethyl phthalate	59	U	59	19
131-11-3	Dimethyl phthalate	59	U	59	20
206-44-0	Fluoranthene	15		7.9	3.9
86-73-7	Fluorene	7.9	U	7.9	3.9
118-74-1	Hexachlorobenzene	7.9	U	7.9	2.5
87-68-3	Hexachlorobutadiene	59	U	59	32
77-47-4	Hexachlorocyclopentadiene	390	U	390	32
67-72-1	Hexachloroethane	59	U	59	11
193-39-5	Indeno[1,2,3-cd]pyrene	7.9	U	7.9	3.9
78-59-1	Isophorone	59	U	59	15
621-64-7	N-Nitrosodi-n-propylamine	59	U	59	32
62-75-9	N-Nitrosodimethylamine	120	U	120	19
86-30-6	N-Nitrosodiphenylamine	59	U	59	25
91-20-3	Naphthalene	7.9	U	7.9	3.9
98-95-3	Nitrobenzene	120	U	120	2.6
87-86-5	Pentachlorophenol	180	U	180	95
85-01-8	Phenanthrene	7.6	J	7.9	3.9
108-95-2	Phenol	59	U	59	32
129-00-0	Pyrene	15		7.9	3.9
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	11
606-20-2	2,6-Dinitrotoluene	240	U	240	25
100-02-7	4-Nitrophenol	390	U	390	95

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-6-8 | Lab Sample ID: 240-635-26

Matrix: Solid | Lab File ID: 0621027.D

Analysis Method: 8270D | Date Collected: 05/31/2011 16:30

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30.05(g) | Date Analyzed: 06/21/2011 19:24

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	68		41-119
4165-62-2	Phenol-d5 (Surr)	53		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	47		24-112
367-12-4	2-Fluorophenol (Surr)	60		26-110
321-60-8	2-Fluorobiphenyl (Surr)	49		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-118

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 | Lab Sample ID: 240-635-1

Matrix: Solid | Lab File ID: P1361413.D

Analysis Method: 8082A | Date Collected: 05/31/2011 15:05

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.10(g) | Date Analyzed: 06/14/2011 15:05

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 19.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*41*	*U*	*41*	*26*
11104-28-2	*Aroclor-1221*	*41*	*U*	*41*	*20*
11141-16-5	*Aroclor-1232*	*41*	*U*	*41*	*17*
53469-21-9	*Aroclor-1242*	*41*	*U*	*41*	*16*
12672-29-6	*Aroclor-1248*	*41*	*U*	*41*	*21*
11097-69-1	*Aroclor-1254*	*41*	*U*	*41*	*21*
11096-82-5	*Aroclor-1260*	*41*	*U*	*41*	*21*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	67		29-151
2051-24-3	Decachlorobiphenyl	63		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 Lab Sample ID: 240-635-1

Matrix: Solid Lab File ID: P1361413.D

Analysis Method: 8082A Date Collected: 05/31/2011 15:05

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.10(g) Date Analyzed: 06/14/2011 15:05

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 19.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	41	U	41	26
11104-28-2	Aroclor-1221	41	U	41	20
11141-16-5	Aroclor-1232	41	U	41	17
53469-21-9	Aroclor-1242	41	U	41	16
12672-29-6	Aroclor-1248	41	U	41	21
11097-69-1	Aroclor-1254	41	U	41	21
11096-82-5	Aroclor-1260	41	U	41	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	74		29-151
2051-24-3	Decachlorobiphenyl	68		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-10-12 Lab Sample ID: 240-635-2

Matrix: Solid Lab File ID: P1361414.D

Analysis Method: 8082A Date Collected: 05/31/2011 15:10

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.02(g) Date Analyzed: 06/14/2011 15:20

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 14.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*38*	*U*	*38*	*24*
11104-28-2	*Aroclor-1221*	*38*	*U*	*38*	*19*
11141-16-5	*Aroclor-1232*	*38*	*U*	*38*	*16*
53469-21-9	*Aroclor-1242*	*38*	*U*	*38*	*15*
12672-29-6	*Aroclor-1248*	*38*	*U*	*38*	*20*
11097-69-1	*Aroclor-1254*	*38*	*U*	*38*	*20*
11096-82-5	*Aroclor-1260*	*38*	*U*	*38*	*20*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	57		29-151
2051-24-3	Decachlorobiphenyl	69		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-10-12 | Lab Sample ID: 240-635-2

Matrix: Solid | Lab File ID: P1361414.D

Analysis Method: 8082A | Date Collected: 05/31/2011 15:10

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.02(g) | Date Analyzed: 06/14/2011 15:20

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 14.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	38	U	38	24
11104-28-2	Aroclor-1221	38	U	38	19
11141-16-5	Aroclor-1232	38	U	38	16
53469-21-9	Aroclor-1242	38	U	38	15
12672-29-6	Aroclor-1248	38	U	38	20
11097-69-1	Aroclor-1254	38	U	38	20
11096-82-5	Aroclor-1260	38	U	38	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	68		29-151
2051-24-3	Decachlorobiphenyl	75		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-0-2 | Lab Sample ID: 240-635-4

Matrix: Solid | Lab File ID: P1361415.D

Analysis Method: 8082A | Date Collected: 05/31/2011 13:15

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.18(g) | Date Analyzed: 06/14/2011 15:35

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 9.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*36*	*U*	*36*	*23*
11104-28-2	*Aroclor-1221*	*36*	*U*	*36*	*18*
11141-16-5	*Aroclor-1232*	*36*	*U*	*36*	*15*
53469-21-9	*Aroclor-1242*	*36*	*U*	*36*	*14*
12672-29-6	*Aroclor-1248*	*36*	*U*	*36*	*19*
11097-69-1	*Aroclor-1254*	*36*	*U*	*36*	*19*
11096-82-5	*Aroclor-1260*	*36*	*U*	*36*	*19*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	66		29-151
2051-24-3	Decachlorobiphenyl	113		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-0-2 Lab Sample ID: 240-635-4

Matrix: Solid Lab File ID: P1361415.D

Analysis Method: 8082A Date Collected: 05/31/2011 13:15

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.18(g) Date Analyzed: 06/14/2011 15:35

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 9.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	36	U	36	23
11104-28-2	Aroclor-1221	36	U	36	18
11141-16-5	Aroclor-1232	36	U	36	15
53469-21-9	Aroclor-1242	36	U	36	14
12672-29-6	Aroclor-1248	36	U	36	19
11097-69-1	Aroclor-1254	36	U	36	19
11096-82-5	Aroclor-1260	36	U	36	19

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	54		29-151
2051-24-3	Decachlorobiphenyl	71		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-6-8 | Lab Sample ID: 240-635-5

Matrix: Solid | Lab File ID: P1361416.D

Analysis Method: 8082A | Date Collected: 05/31/2011 13:30

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.02(g) | Date Analyzed: 06/14/2011 15:50

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 12.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*38*	*U*	*38*	*24*
11104-28-2	*Aroclor-1221*	*38*	*U*	*38*	*18*
11141-16-5	*Aroclor-1232*	*38*	*U*	*38*	*16*
53469-21-9	*Aroclor-1242*	*38*	*U*	*38*	*15*
12672-29-6	*Aroclor-1248*	*38*	*U*	*38*	*19*
11097-69-1	*Aroclor-1254*	*38*	*U*	*38*	*19*
11096-82-5	*Aroclor-1260*	*38*	*U*	*38*	*19*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	66		29-151
2051-24-3	Decachlorobiphenyl	56		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-6-8 Lab Sample ID: 240-635-5

Matrix: Solid Lab File ID: P1361416.D

Analysis Method: 8082A Date Collected: 05/31/2011 13:30

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.02(g) Date Analyzed: 06/14/2011 15:50

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 12.5 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	38	U	38	24
11104-28-2	Aroclor-1221	38	U	38	18
11141-16-5	Aroclor-1232	38	U	38	16
53469-21-9	Aroclor-1242	38	U	38	15
12672-29-6	Aroclor-1248	38	U	38	19
11097-69-1	Aroclor-1254	38	U	38	19
11096-82-5	Aroclor-1260	38	U	38	19

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	77		29-151
2051-24-3	Decachlorobiphenyl	70		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-0-2 | Lab Sample ID: 240-635-10

Matrix: Solid | Lab File ID: P1361419.D

Analysis Method: 8082A | Date Collected: 05/31/2011 11:30

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.11(g) | Date Analyzed: 06/14/2011 16:35

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 12.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*380*	*U*	*380*	*240*
11104-28-2	*Aroclor-1221*	*380*	*U*	*380*	*180*
11141-16-5	*Aroclor-1232*	*380*	*U*	*380*	*160*
53469-21-9	*Aroclor-1242*	*380*	*U*	*380*	*150*
12672-29-6	*Aroclor-1248*	*380*	*U*	*380*	*190*
11097-69-1	*Aroclor-1254*	*380*	*U*	*380*	*190*
11096-82-5	*Aroclor-1260*	*1300*		*380*	*190*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	0	X	29-151
2051-24-3	Decachlorobiphenyl	0	X	14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-0-2 Lab Sample ID: 240-635-10

Matrix: Solid Lab File ID: P1361419.D

Analysis Method: 8082A Date Collected: 05/31/2011 11:30

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.11(g) Date Analyzed: 06/14/2011 16:35

Con. Extract Vol.: 10(mL) Dilution Factor: 10

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 12.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	380	U	380	240
11104-28-2	Aroclor-1221	380	U	380	180
11141-16-5	Aroclor-1232	380	U	380	160
53469-21-9	Aroclor-1242	380	U	380	150
12672-29-6	Aroclor-1248	380	U	380	190
11097-69-1	Aroclor-1254	380	U	380	190
11096-82-5	Aroclor-1260	1200		380	190

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	0	X	29-151
2051-24-3	Decachlorobiphenyl	0	X	14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-6-8 | Lab Sample ID: 240-635-11

Matrix: Solid | Lab File ID: P1361422.D

Analysis Method: 8082A | Date Collected: 05/31/2011 11:45

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.03(g) | Date Analyzed: 06/14/2011 17:20

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*39*	*U*	*39*	*25*
11104-28-2	*Aroclor-1221*	*39*	*U*	*39*	*19*
11141-16-5	*Aroclor-1232*	*39*	*U*	*39*	*17*
53469-21-9	*Aroclor-1242*	*39*	*U*	*39*	*15*
12672-29-6	*Aroclor-1248*	*39*	*U*	*39*	*20*
11097-69-1	*Aroclor-1254*	*39*	*U*	*39*	*20*
11096-82-5	*Aroclor-1260*	*39*	*U*	*39*	*20*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	62		29-151
2051-24-3	Decachlorobiphenyl	68		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-6-8 Lab Sample ID: 240-635-11

Matrix: Solid Lab File ID: P1361422.D

Analysis Method: 8082A Date Collected: 05/31/2011 11:45

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.03(g) Date Analyzed: 06/14/2011 17:20

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 15.6 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	39	U	39	25
11104-28-2	Aroclor-1221	39	U	39	19
11141-16-5	Aroclor-1232	39	U	39	17
53469-21-9	Aroclor-1242	39	U	39	15
12672-29-6	Aroclor-1248	39	U	39	20
11097-69-1	Aroclor-1254	39	U	39	20
11096-82-5	Aroclor-1260	39	U	39	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	66		29-151
2051-24-3	Decachlorobiphenyl	70		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 | Lab Sample ID: 240-635-7

Matrix: Solid | Lab File ID: P1361417.D

Analysis Method: 8082A | Date Collected: 05/31/2011 16:10

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 29.98(g) | Date Analyzed: 06/14/2011 16:05

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*37*	*U*	*37*	*24*
11104-28-2	*Aroclor-1221*	*37*	*U*	*37*	*18*
11141-16-5	*Aroclor-1232*	*37*	*U*	*37*	*16*
53469-21-9	*Aroclor-1242*	*37*	*U*	*37*	*15*
12672-29-6	*Aroclor-1248*	*37*	*U*	*37*	*19*
11097-69-1	*Aroclor-1254*	*37*	*U*	*37*	*19*
11096-82-5	*Aroclor-1260*	*94*		*37*	*19*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	67		29-151
2051-24-3	Decachlorobiphenyl	78		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 Lab Sample ID: 240-635-7

Matrix: Solid Lab File ID: P1361417.D

Analysis Method: 8082A Date Collected: 05/31/2011 16:10

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 29.98(g) Date Analyzed: 06/14/2011 16:05

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 11.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	37	U	37	24
11104-28-2	Aroclor-1221	37	U	37	18
11141-16-5	Aroclor-1232	37	U	37	16
53469-21-9	Aroclor-1242	37	U	37	15
12672-29-6	Aroclor-1248	37	U	37	19
11097-69-1	Aroclor-1254	37	U	37	19
11096-82-5	Aroclor-1260	92		37	19

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	72		29-151
2051-24-3	Decachlorobiphenyl	85		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 Lab Sample ID: 240-635-8

Matrix: Solid Lab File ID: P1361418.D

Analysis Method: 8082A Date Collected: 05/31/2011 16:20

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.00(g) Date Analyzed: 06/14/2011 16:20

Con. Extract Vol.: 10(mL) Dilution Factor: 10

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 11.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*370*	*U*	*370*	*240*
11104-28-2	*Aroclor-1221*	*370*	*U*	*370*	*180*
11141-16-5	*Aroclor-1232*	*370*	*U*	*370*	*160*
53469-21-9	*Aroclor-1242*	*370*	*U*	*370*	*150*
12672-29-6	*Aroclor-1248*	*370*	*U*	*370*	*190*
11097-69-1	*Aroclor-1254*	*370*	*U*	*370*	*190*
11096-82-5	*Aroclor-1260*	*2700*		*370*	*190*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	0	X	29-151
2051-24-3	Decachlorobiphenyl	0	X	14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 | Lab Sample ID: 240-635-8

Matrix: Solid | Lab File ID: P1361418.D

Analysis Method: 8082A | Date Collected: 05/31/2011 16:20

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.00(g) | Date Analyzed: 06/14/2011 16:20

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	370	U	370	240
11104-28-2	Aroclor-1221	370	U	370	180
11141-16-5	Aroclor-1232	370	U	370	160
53469-21-9	Aroclor-1242	370	U	370	150
12672-29-6	Aroclor-1248	370	U	370	190
11097-69-1	Aroclor-1254	370	U	370	190
11096-82-5	Aroclor-1260	2700		370	190

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	0	X	29-151
2051-24-3	Decachlorobiphenyl	0	X	14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-0-2 Lab Sample ID: 240-635-19

Matrix: Solid Lab File ID: P1361425.D

Analysis Method: 8082A Date Collected: 05/31/2011 14:05

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.04(g) Date Analyzed: 06/14/2011 18:05

Con. Extract Vol.: 10(mL) Dilution Factor: 10

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 13.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*380*	*U*	*380*	*240*
11104-28-2	*Aroclor-1221*	*380*	*U*	*380*	*180*
11141-16-5	*Aroclor-1232*	*380*	*U*	*380*	*160*
53469-21-9	*Aroclor-1242*	*380*	*U*	*380*	*150*
12672-29-6	*Aroclor-1248*	*380*	*U*	*380*	*200*
11097-69-1	*Aroclor-1254*	*380*	*U*	*380*	*200*
11096-82-5	*Aroclor-1260*	*1900*		*380*	*200*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	0	X	29-151
2051-24-3	Decachlorobiphenyl	0	X	14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-0-2 Lab Sample ID: 240-635-19

Matrix: Solid Lab File ID: P1361425.D

Analysis Method: 8082A Date Collected: 05/31/2011 14:05

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.04(g) Date Analyzed: 06/14/2011 18:05

Con. Extract Vol.: 10(mL) Dilution Factor: 10

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 13.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	380	U	380	240
11104-28-2	Aroclor-1221	380	U	380	180
11141-16-5	Aroclor-1232	380	U	380	160
53469-21-9	Aroclor-1242	380	U	380	150
12672-29-6	Aroclor-1248	380	U	380	200
11097-69-1	Aroclor-1254	380	U	380	200
11096-82-5	Aroclor-1260	1700		380	200

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	0	X	29-151
2051-24-3	Decachlorobiphenyl	0	X	14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-6-8 | Lab Sample ID: 240-635-20

Matrix: Solid | Lab File ID: P1361426.D

Analysis Method: 8082A | Date Collected: 05/31/2011 14:08

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.11(g) | Date Analyzed: 06/14/2011 18:20

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 8.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*36*	*U*	*36*	*23*
11104-28-2	*Aroclor-1221*	*36*	*U*	*36*	*17*
11141-16-5	*Aroclor-1232*	*36*	*U*	*36*	*15*
53469-21-9	*Aroclor-1242*	*22*	*J*	*36*	*14*
12672-29-6	*Aroclor-1248*	*36*	*U*	*36*	*18*
11097-69-1	*Aroclor-1254*	*36*	*U*	*36*	*18*
11096-82-5	*Aroclor-1260*	*37*		*36*	*18*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	70		29-151
2051-24-3	Decachlorobiphenyl	54		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-6-8 | Lab Sample ID: 240-635-20

Matrix: Solid | Lab File ID: P1361426.D

Analysis Method: 8082A | Date Collected: 05/31/2011 14:08

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.11(g) | Date Analyzed: 06/14/2011 18:20

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 8.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	36	U	36	23
11104-28-2	Aroclor-1221	36	U	36	17
11141-16-5	Aroclor-1232	36	U	36	15
53469-21-9	Aroclor-1242	21	J	36	14
12672-29-6	Aroclor-1248	36	U	36	18
11097-69-1	Aroclor-1254	36	U	36	18
11096-82-5	Aroclor-1260	37		36	18

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	64		29-151
2051-24-3	Decachlorobiphenyl	73		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-0-3 | Lab Sample ID: 240-635-16

Matrix: Solid | Lab File ID: P1361423.D

Analysis Method: 8082A | Date Collected: 05/31/2011 11:32

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.07(g) | Date Analyzed: 06/14/2011 17:35

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 13.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*380*	*U*	*380*	*240*
11104-28-2	*Aroclor-1221*	*380*	*U*	*380*	*180*
11141-16-5	*Aroclor-1232*	*380*	*U*	*380*	*160*
53469-21-9	*Aroclor-1242*	*380*	*U*	*380*	*150*
12672-29-6	*Aroclor-1248*	*380*	*U*	*380*	*200*
11097-69-1	*Aroclor-1254*	*380*	*U*	*380*	*200*
11096-82-5	*Aroclor-1260*	*2600*		*380*	*200*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	0	X	29-151
2051-24-3	Decachlorobiphenyl	0	X	14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-0-3 | Lab Sample ID: 240-635-16

Matrix: Solid | Lab File ID: P1361423.D

Analysis Method: 8082A | Date Collected: 05/31/2011 11:32

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.07(g) | Date Analyzed: 06/14/2011 17:35

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 13.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	380	U	380	240
11104-28-2	Aroclor-1221	380	U	380	180
11141-16-5	Aroclor-1232	380	U	380	160
53469-21-9	Aroclor-1242	380	U	380	150
12672-29-6	Aroclor-1248	380	U	380	200
11097-69-1	Aroclor-1254	380	U	380	200
11096-82-5	Aroclor-1260	2400		380	200

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	0	X	29-151
2051-24-3	Decachlorobiphenyl	0	X	14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-6-8 | Lab Sample ID: 240-635-17

Matrix: Solid | Lab File ID: P1361424.D

Analysis Method: 8082A | Date Collected: 05/31/2011 11:38

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.20(g) | Date Analyzed: 06/14/2011 17:50

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*38*	*U*	*38*	*24*
11104-28-2	*Aroclor-1221*	*38*	*U*	*38*	*18*
11141-16-5	*Aroclor-1232*	*38*	*U*	*38*	*16*
53469-21-9	*Aroclor-1242*	*130*		*38*	*15*
12672-29-6	*Aroclor-1248*	*38*	*U*	*38*	*19*
11097-69-1	*Aroclor-1254*	*38*	*U*	*38*	*19*
11096-82-5	*Aroclor-1260*	*68*		*38*	*19*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	84		29-151
2051-24-3	Decachlorobiphenyl	229	X	14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-6-8 | Lab Sample ID: 240-635-17

Matrix: Solid | Lab File ID: P1361424.D

Analysis Method: 8082A | Date Collected: 05/31/2011 11:38

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.20(g) | Date Analyzed: 06/14/2011 17:50

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 13.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	38	U	38	24
11104-28-2	Aroclor-1221	38	U	38	18
11141-16-5	Aroclor-1232	38	U	38	16
53469-21-9	Aroclor-1242	130		38	15
12672-29-6	Aroclor-1248	38	U	38	19
11097-69-1	Aroclor-1254	38	U	38	19
11096-82-5	Aroclor-1260	47		38	19

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	75		29-151
2051-24-3	Decachlorobiphenyl	79		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-0-2 | Lab Sample ID: 240-635-22

Matrix: Solid | Lab File ID: P1361427.D

Analysis Method: 8082A | Date Collected: 05/31/2011 15:23

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.00(g) | Date Analyzed: 06/14/2011 18:35

Con. Extract Vol.: 10(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 6.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*710*	*U*	*710*	*450*
11104-28-2	*Aroclor-1221*	*710*	*U*	*710*	*340*
11141-16-5	*Aroclor-1232*	*710*	*U*	*710*	*300*
53469-21-9	*Aroclor-1242*	*710*	*U*	*710*	*280*
12672-29-6	*Aroclor-1248*	*710*	*U*	*710*	*360*
11097-69-1	*Aroclor-1254*	*710*	*U*	*710*	*360*
11096-82-5	*Aroclor-1260*	*3600*		*710*	*360*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	0	X	29-151
2051-24-3	Decachlorobiphenyl	0	X	14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-0-2 Lab Sample ID: 240-635-22

Matrix: Solid Lab File ID: P1361427.D

Analysis Method: 8082A Date Collected: 05/31/2011 15:23

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.00(g) Date Analyzed: 06/14/2011 18:35

Con. Extract Vol.: 10(mL) Dilution Factor: 20

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 6.8 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	710	U	710	450
11104-28-2	Aroclor-1221	710	U	710	340
11141-16-5	Aroclor-1232	710	U	710	300
53469-21-9	Aroclor-1242	710	U	710	280
12672-29-6	Aroclor-1248	710	U	710	360
11097-69-1	Aroclor-1254	710	U	710	360
11096-82-5	Aroclor-1260	3400		710	360

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	0	X	29-151
2051-24-3	Decachlorobiphenyl	0	X	14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-6-8 | Lab Sample ID: 240-635-23

Matrix: Solid | Lab File ID: P1361428.D

Analysis Method: 8082A | Date Collected: 05/31/2011 15:26

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.08(g) | Date Analyzed: 06/14/2011 18:50

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 11.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*37*	*U*	*37*	*24*
11104-28-2	*Aroclor-1221*	*37*	*U*	*37*	*18*
11141-16-5	*Aroclor-1232*	*37*	*U*	*37*	*16*
53469-21-9	*Aroclor-1242*	*37*	*U*	*37*	*15*
12672-29-6	*Aroclor-1248*	*37*	*U*	*37*	*19*
11097-69-1	*Aroclor-1254*	*37*	*U*	*37*	*19*
11096-82-5	*Aroclor-1260*	*21*	*J*	*37*	*19*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	61		29-151
2051-24-3	Decachlorobiphenyl	69		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-6-8 | Lab Sample ID: 240-635-23

Matrix: Solid | Lab File ID: P1361428.D

Analysis Method: 8082A | Date Collected: 05/31/2011 15:26

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.08(g) | Date Analyzed: 06/14/2011 18:50

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 11.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	37	U	37	24
11104-28-2	Aroclor-1221	37	U	37	18
11141-16-5	Aroclor-1232	37	U	37	16
53469-21-9	Aroclor-1242	37	U	37	15
12672-29-6	Aroclor-1248	37	U	37	19
11097-69-1	Aroclor-1254	37	U	37	19
11096-82-5	Aroclor-1260	19	J	37	19

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	69		29-151
2051-24-3	Decachlorobiphenyl	76		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-0-2 | Lab Sample ID: 240-635-25

Matrix: Solid | Lab File ID: P1361508.D

Analysis Method: 8082A | Date Collected: 05/31/2011 16:24

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.04(g) | Date Analyzed: 06/15/2011 14:13

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 12.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4871 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*38*	*U*	*38*	*24*
11104-28-2	*Aroclor-1221*	*38*	*U*	*38*	*18*
11141-16-5	*Aroclor-1232*	*38*	*U*	*38*	*16*
53469-21-9	*Aroclor-1242*	*38*	*U*	*38*	*15*
12672-29-6	*Aroclor-1248*	*38*	*U*	*38*	*20*
11097-69-1	*Aroclor-1254*	*38*	*U*	*38*	*20*
11096-82-5	*Aroclor-1260*	*230*		*38*	*20*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	71		29-151
2051-24-3	Decachlorobiphenyl	93		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-0-2 Lab Sample ID: 240-635-25

Matrix: Solid Lab File ID: P1361508.D

Analysis Method: 8082A Date Collected: 05/31/2011 16:24

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.04(g) Date Analyzed: 06/15/2011 14:13

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 12.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4871 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	38	U	38	24
11104-28-2	Aroclor-1221	38	U	38	18
11141-16-5	Aroclor-1232	38	U	38	16
53469-21-9	Aroclor-1242	38	U	38	15
12672-29-6	Aroclor-1248	38	U	38	20
11097-69-1	Aroclor-1254	38	U	38	20
11096-82-5	Aroclor-1260	220		38	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	81		29-151
2051-24-3	Decachlorobiphenyl	90		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-6-8 Lab Sample ID: 240-635-26

Matrix: Solid Lab File ID: P1361430.D

Analysis Method: 8082A Date Collected: 05/31/2011 16:30

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.03(g) Date Analyzed: 06/14/2011 19:20

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 15.6 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*39*	*U*	*39*	*25*
11104-28-2	*Aroclor-1221*	*39*	*U*	*39*	*19*
11141-16-5	*Aroclor-1232*	*39*	*U*	*39*	*17*
53469-21-9	*Aroclor-1242*	*39*	*U*	*39*	*15*
12672-29-6	*Aroclor-1248*	*39*	*U*	*39*	*20*
11097-69-1	*Aroclor-1254*	*39*	*U*	*39*	*20*
11096-82-5	*Aroclor-1260*	*39*	*U*	*39*	*20*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	60		29-151
2051-24-3	Decachlorobiphenyl	77		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-6-8 Lab Sample ID: 240-635-26

Matrix: Solid Lab File ID: P1361430.D

Analysis Method: 8082A Date Collected: 05/31/2011 16:30

Extraction Method: 3540C Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.03(g) Date Analyzed: 06/14/2011 19:20

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 15.6 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	39	U	39	25
11104-28-2	Aroclor-1221	39	U	39	19
11141-16-5	Aroclor-1232	39	U	39	17
53469-21-9	Aroclor-1242	39	U	39	15
12672-29-6	Aroclor-1248	39	U	39	20
11097-69-1	Aroclor-1254	39	U	39	20
11096-82-5	Aroclor-1260	39	U	39	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	63		29-151
2051-24-3	Decachlorobiphenyl	77		14-163

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 | Lab Sample ID: 240-635-1

Matrix: Solid | Lab File ID: 06091114_007.d

Analysis Method: 8015C | Date Collected: 05/31/2011 15:05

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 09:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 19.3 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	57	J	62	31

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	102		64-116
460-00-4	4-Bromofluorobenzene	96		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-10-12 | Lab Sample ID: 240-635-2

Matrix: Solid | Lab File ID: 06091114_010.d

Analysis Method: 8015C | Date Collected: 05/31/2011 15:10

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 10:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 14.1 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	58	U	58	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	99		64-116
460-00-4	4-Bromofluorobenzene	94		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-18-20 | Lab Sample ID: 240-635-3

Matrix: Solid | Lab File ID: 06091114_011.d

Analysis Method: 8015C | Date Collected: 05/31/2011 15:15

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 11:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 17.7 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	61	U	61	30

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	87		64-116
460-00-4	4-Bromofluorobenzene	76		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-0-2 | Lab Sample ID: 240-635-4

Matrix: Solid | Lab File ID: 06091114_012.d

Analysis Method: 8015C | Date Collected: 05/31/2011 13:15

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 12:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 9.4 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	55	U	55	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	91		64-116
460-00-4	4-Bromofluorobenzene	81		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-20-22 | Lab Sample ID: 240-635-6

Matrix: Solid | Lab File ID: 06091114_015.d

Analysis Method: 8015C | Date Collected: 05/31/2011 13:45

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 13:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 18.2 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	61	U	61	31

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	95		64-116
460-00-4	4-Bromofluorobenzene	84		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-6-8 | Lab Sample ID: 240-635-5

Matrix: Solid | Lab File ID: 06091114_014.d

Analysis Method: 8015C | Date Collected: 05/31/2011 13:30

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 13:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 12.5 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	57	U	57	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	98		64-116
460-00-4	4-Bromofluorobenzene	91		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-0-2 | Lab Sample ID: 240-635-10

Matrix: Solid | Lab File ID: 06091114_019.d

Analysis Method: 8015C | Date Collected: 05/31/2011 11:30

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 17:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 12.9 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	57	U	57	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	85		64-116
460-00-4	4-Bromofluorobenzene	76		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-20-22 | Lab Sample ID: 240-635-12

Matrix: Solid | Lab File ID: 06091114_021.d

Analysis Method: 8015C | Date Collected: 05/31/2011 12:00

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 18:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 19.5 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	62	U	62	31

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	93		64-116
460-00-4	4-Bromofluorobenzene	80		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-6-8 | Lab Sample ID: 240-635-11

Matrix: Solid | Lab File ID: 06091114_020.d

Analysis Method: 8015C | Date Collected: 05/31/2011 11:45

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 17:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 15.6 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	59	U	59	30

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	94		64-116
460-00-4	4-Bromofluorobenzene	87		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 | Lab Sample ID: 240-635-7

Matrix: Solid | Lab File ID: 06091114_016.d

Analysis Method: 8015C | Date Collected: 05/31/2011 16:10

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 14:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 11.2 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	56	U	56	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	87		64-116
460-00-4	4-Bromofluorobenzene	78		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-20-22 | Lab Sample ID: 240-635-9

Matrix: Solid | Lab File ID: 06091114_018.d

Analysis Method: 8015C | Date Collected: 05/31/2011 16:30

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 16:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 15.7 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	59	U	59	30

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	88		64-116
460-00-4	4-Bromofluorobenzene	79		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 | Lab Sample ID: 240-635-8

Matrix: Solid | Lab File ID: 06091114_017.d

Analysis Method: 8015C | Date Collected: 05/31/2011 16:20

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 15:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 11.2 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	56	U	56	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	95		64-116
460-00-4	4-Bromofluorobenzene	89		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-0-2 | Lab Sample ID: 240-635-19

Matrix: Solid | Lab File ID: 06091114_026.d

Analysis Method: 8015C | Date Collected: 05/31/2011 14:05

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 21:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 13.1 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	58	U	58	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	81		64-116
460-00-4	4-Bromofluorobenzene	71		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-18-20 | Lab Sample ID: 240-635-21

Matrix: Solid | Lab File ID: 06101114_008.d

Analysis Method: 8015C | Date Collected: 05/31/2011 14:10

Sample wt/vol: 5(g) | Date Analyzed: 06/10/2011 11:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 19.0 | Level: (low/med) Low

Analysis Batch No.: 116109 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	44	J	62	31

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	102		64-116
460-00-4	4-Bromofluorobenzene	95		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-6-8 | Lab Sample ID: 240-635-20

Matrix: Solid | Lab File ID: 06101114_005.d

Analysis Method: 8015C | Date Collected: 05/31/2011 14:08

Sample wt/vol: 5(g) | Date Analyzed: 06/10/2011 09:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 8.2 | Level: (low/med) Low

Analysis Batch No.: 116109 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	57		54	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	102		64-116
460-00-4	4-Bromofluorobenzene	96		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-0-3 | Lab Sample ID: 240-635-16

Matrix: Solid | Lab File ID: 06091114_022.d

Analysis Method: 8015C | Date Collected: 05/31/2011 11:32

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 18:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 13.5 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	58	U	58	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	85		64-116
460-00-4	4-Bromofluorobenzene	77		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-18-20 | Lab Sample ID: 240-635-18

Matrix: Solid | Lab File ID: 06091114_025.d

Analysis Method: 8015C | Date Collected: 05/31/2011 11:46

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 20:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 18.1 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	61	U	61	31

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	94		64-116
460-00-4	4-Bromofluorobenzene	85		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-6-8 | Lab Sample ID: 240-635-17

Matrix: Solid | Lab File ID: 06091114_023.d

Analysis Method: 8015C | Date Collected: 05/31/2011 11:38

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 19:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 13.3 | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	130		58	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	88		64-116
460-00-4	4-Bromofluorobenzene	81		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-0-2 | Lab Sample ID: 240-635-22

Matrix: Solid | Lab File ID: 06101114_009.d

Analysis Method: 8015C | Date Collected: 05/31/2011 15:23

Sample wt/vol: 5(g) | Date Analyzed: 06/10/2011 11:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 6.8 | Level: (low/med) Low

Analysis Batch No.: 116109 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	54	U	54	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	99		64-116
460-00-4	4-Bromofluorobenzene	90		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-20-22 | Lab Sample ID: 240-635-24

Matrix: Solid | Lab File ID: 06101114_011.d

Analysis Method: 8015C | Date Collected: 05/31/2011 15:30

Sample wt/vol: 5(g) | Date Analyzed: 06/10/2011 12:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 22.6 | Level: (low/med) Low

Analysis Batch No.: 116109 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	65	U	65	32

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	103		64-116
460-00-4	4-Bromofluorobenzene	96		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-6-8 | Lab Sample ID: 240-635-23

Matrix: Solid | Lab File ID: 06101114_010.d

Analysis Method: 8015C | Date Collected: 05/31/2011 15:26

Sample wt/vol: 5(g) | Date Analyzed: 06/10/2011 12:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 11.6 | Level: (low/med) Low

Analysis Batch No.: 116109 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	57	U	57	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	101		64-116
460-00-4	4-Bromofluorobenzene	95		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-0-2 | Lab Sample ID: 240-635-25

Matrix: Solid | Lab File ID: 06101114_012.d

Analysis Method: 8015C | Date Collected: 05/31/2011 16:24

Sample wt/vol: 5(g) | Date Analyzed: 06/10/2011 13:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 12.9 | Level: (low/med) Low

Analysis Batch No.: 116109 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	57	U	57	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	98		64-116
460-00-4	4-Bromofluorobenzene	89		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-20-22 | Lab Sample ID: 240-635-27

Matrix: Solid | Lab File ID: 06101114_015.d

Analysis Method: 8015C | Date Collected: 05/31/2011 16:35

Sample wt/vol: 5(g) | Date Analyzed: 06/10/2011 15:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 17.0 | Level: (low/med) Low

Analysis Batch No.: 116109 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	60	U	60	30

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	99		64-116
460-00-4	4-Bromofluorobenzene	91		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-6-8 | Lab Sample ID: 240-635-26

Matrix: Solid | Lab File ID: 06101114_014.d

Analysis Method: 8015C | Date Collected: 05/31/2011 16:30

Sample wt/vol: 5(g) | Date Analyzed: 06/10/2011 14:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 15.6 | Level: (low/med) Low

Analysis Batch No.: 116109 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	59	U	59	30

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	100		64-116
460-00-4	4-Bromofluorobenzene	94		51-117

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 | Lab Sample ID: 240-635-1

Matrix: Solid | Lab File ID: P5061017.D

Analysis Method: 8015C | Date Collected: 05/31/2011 15:05

Extraction Method: 3540C | Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.93(g) | Date Analyzed: 06/10/2011 18:15

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 19.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4325 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	700		410	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	0	X	10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-10-12 Lab Sample ID: 240-635-2

Matrix: Solid Lab File ID: P5060925.D

Analysis Method: 8015C Date Collected: 05/31/2011 15:10

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.95(g) Date Analyzed: 06/10/2011 00:42

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 14.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	16	J	19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	47		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-18-20 Lab Sample ID: 240-635-3

Matrix: Solid Lab File ID: P5060926.D

Analysis Method: 8015C Date Collected: 05/31/2011 15:15

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.87(g) Date Analyzed: 06/10/2011 01:10

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 17.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	19	J	20	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	38		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-0-2 Lab Sample ID: 240-635-4

Matrix: Solid Lab File ID: P5060927.D

Analysis Method: 8015C Date Collected: 05/31/2011 13:15

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.84(g) Date Analyzed: 06/10/2011 01:38

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 9.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	210		19	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	47		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-20-22 Lab Sample ID: 240-635-6

Matrix: Solid Lab File ID: P5060929.D

Analysis Method: 8015C Date Collected: 05/31/2011 13:45

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.81(g) Date Analyzed: 06/10/2011 02:34

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 18.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	11	J	21	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	36		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-117-6-8 Lab Sample ID: 240-635-5

Matrix: Solid Lab File ID: P5060928.D

Analysis Method: 8015C Date Collected: 05/31/2011 13:30

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.80(g) Date Analyzed: 06/10/2011 02:06

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 12.5 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	23		19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	47		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-0-2 Lab Sample ID: 240-635-10

Matrix: Solid Lab File ID: P5060935.D

Analysis Method: 8015C Date Collected: 05/31/2011 11:30

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.94(g) Date Analyzed: 06/10/2011 05:21

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 12.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	110		19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	35		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-20-22 Lab Sample ID: 240-635-12

Matrix: Solid Lab File ID: P5060836.D

Analysis Method: 8015C Date Collected: 05/31/2011 12:00

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 30.04(g) Date Analyzed: 06/09/2011 04:25

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 19.5 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4029 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	21	U	21	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	47		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-6-8 | Lab Sample ID: 240-635-11

Matrix: Solid | Lab File ID: P5060835.D

Analysis Method: 8015C | Date Collected: 05/31/2011 11:45

Extraction Method: 3540C | Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.90(g) | Date Analyzed: 06/09/2011 03:56

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4029 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	12	J	20	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	42		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 | Lab Sample ID: 240-635-7

Matrix: Solid | Lab File ID: P5060930.D

Analysis Method: 8015C | Date Collected: 05/31/2011 16:10

Extraction Method: 3540C | Date Extracted: 06/06/2011 09:56

Sample wt/vol: 30.07(g) | Date Analyzed: 06/10/2011 03:02

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	61		19	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	42		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-20-22 Lab Sample ID: 240-635-9

Matrix: Solid Lab File ID: P5060932.D

Analysis Method: 8015C Date Collected: 05/31/2011 16:30

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 30.18(g) Date Analyzed: 06/10/2011 03:58

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 15.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	*Total Petroleum Hydrocarbons (C10-C32)*	*23*		*20*	*11*

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	4	X	10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-20-22 RE | Lab Sample ID: 240-635-9 RE

Matrix: Solid | Lab File ID: P14R0000016.D

Analysis Method: 8015C | Date Collected: 05/31/2011 16:30

Extraction Method: 3540C | Date Extracted: 06/17/2011 11:12

Sample wt/vol: 30.08(g) | Date Analyzed: 06/20/2011 18:24

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 15.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5349 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	320	H	20	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	42		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 Lab Sample ID: 240-635-8

Matrix: Solid Lab File ID: P5060931.D

Analysis Method: 8015C Date Collected: 05/31/2011 16:20

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 30.16(g) Date Analyzed: 06/10/2011 03:30

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 11.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	40		19	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	42		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-0-2 Lab Sample ID: 240-635-19

Matrix: Solid Lab File ID: P5060937.D

Analysis Method: 8015C Date Collected: 05/31/2011 14:05

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 30.11(g) Date Analyzed: 06/10/2011 06:17

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 13.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	280		19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	44		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-18-20 Lab Sample ID: 240-635-21

Matrix: Solid Lab File ID: P5060842.D

Analysis Method: 8015C Date Collected: 05/31/2011 14:10

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.93(g) Date Analyzed: 06/09/2011 07:14

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 19.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4029 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	97		21	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	48		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-6-8 Lab Sample ID: 240-635-20

Matrix: Solid Lab File ID: P5060841.D

Analysis Method: 8015C Date Collected: 05/31/2011 14:08

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.83(g) Date Analyzed: 06/09/2011 06:46

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 8.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4029 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	46		18	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	15		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-0-3 | Lab Sample ID: 240-635-16

Matrix: Solid | Lab File ID: P5060936.D

Analysis Method: 8015C | Date Collected: 05/31/2011 11:32

Extraction Method: 3540C | Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.91(g) | Date Analyzed: 06/10/2011 05:49

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 13.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	280		19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	40		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-18-20 Lab Sample ID: 240-635-18

Matrix: Solid Lab File ID: P5060839.D

Analysis Method: 8015C Date Collected: 05/31/2011 11:46

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 30.12(g) Date Analyzed: 06/09/2011 05:50

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 18.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4029 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	14	J	20	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	42		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-6-8 Lab Sample ID: 240-635-17

Matrix: Solid Lab File ID: P5060838.D

Analysis Method: 8015C Date Collected: 05/31/2011 11:38

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 30.08(g) Date Analyzed: 06/09/2011 05:21

Con. Extract Vol.: 5.00(mL) Dilution Factor: 5

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 13.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4029 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	340		96	53

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	36		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-0-2 | Lab Sample ID: 240-635-22

Matrix: Solid | Lab File ID: P5060938.D

Analysis Method: 8015C | Date Collected: 05/31/2011 15:23

Extraction Method: 3540C | Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.93(g) | Date Analyzed: 06/10/2011 06:44

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 6.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	150		18	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	45		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-20-22 | Lab Sample ID: 240-635-24

Matrix: Solid | Lab File ID: P5061406.D

Analysis Method: 8015C | Date Collected: 05/31/2011 15:30

Extraction Method: 3540C | Date Extracted: 06/07/2011 11:55

Sample wt/vol: 30.01(g) | Date Analyzed: 06/14/2011 14:05

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 22.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4654 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	16	J B	22	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	46		10-110

FORM I 8015C

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-6-8 | Lab Sample ID: 240-635-23

Matrix: Solid | Lab File ID: P5060844.D

Analysis Method: 8015C | Date Collected: 05/31/2011 15:26

Extraction Method: 3540C | Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.90(g) | Date Analyzed: 06/09/2011 08:11

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 11.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4029 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	14	J	19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	49		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-0-2 | Lab Sample ID: 240-635-25

Matrix: Solid | Lab File ID: P5061407.D

Analysis Method: 8015C | Date Collected: 05/31/2011 16:24

Extraction Method: 3540C | Date Extracted: 06/07/2011 11:55

Sample wt/vol: 30.06(g) | Date Analyzed: 06/14/2011 14:46

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 12.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4654 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	22	B	19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	36		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-20-22 Lab Sample ID: 240-635-27

Matrix: Solid Lab File ID: P5061409.D

Analysis Method: 8015C Date Collected: 05/31/2011 16:35

Extraction Method: 3540C Date Extracted: 06/07/2011 11:55

Sample wt/vol: 30.09(g) Date Analyzed: 06/14/2011 16:07

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 17.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 4654 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	15	J B	20	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	40		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-6-8 | Lab Sample ID: 240-635-26

Matrix: Solid | Lab File ID: P5061408.D

Analysis Method: 8015C | Date Collected: 05/31/2011 16:30

Extraction Method: 3540C | Date Extracted: 06/07/2011 11:55

Sample wt/vol: 30.11(g) | Date Analyzed: 06/14/2011 15:26

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4654 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	15	J B	20	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	40		10-110

Appendix C

Support Documentation

CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: GSP PHASE II

Report Number: 240-635-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/01/2011; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 1.7 3.0 and 2.2 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-115-18-20 (240-635-3), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-117-20-22 (240-635-6), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-119-20-22 (240-635-9), G-SP-SB-118-0-2 (240-635-13), G-SP-SB-118-6-8 (240-635-14), G-SP-SB-118-20-22 (240-635-15), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-121-18-20 (240-635-18), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-120-18-20 (240-635-21), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-122-20-22 (240-635-24), G-SP-SB-129-0-2 (240-635-25), G-SP-SB-129-6-8 (240-635-26) and G-SP-SB-129-20-22 (240-635-27) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/11/2011 and 06/12/2011.

Methylene Chloride was detected in method blank MB 240-3928/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Naphthalene was detected in method blank MB 240-3928/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Acetone and Methylene Chloride were detected in method blank MB 240-4426/28 at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Acetone and Methylene Chloride were detected in method blank MB 240-4446/6 at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Naphthalene was detected in method blank MB 240-4446/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Dibromofluoromethane (Surr) failed the surrogate recovery criteria low for G-SP-SB-121-6-8 (240-635-17). 1,2-Dichloroethane-d4 (Surr) and Toluene-d8 (Surr) failed the surrogate recovery criteria high for G-SP-SB-120-0-2 (240-635-19).

Methylene Chloride failed the recovery criteria high for LCS 240-3928/2-A. Chloroethane failed the recovery criteria high for LCS

240-4426/6. Chloroethane failed the recovery criteria high for LCS 240-4446/5. Refer to the QC report for details.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

The following sample was diluted due to the abundance of non-target analytes: G-SP-SB-120-6-8 (240-635-20). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the volatiles analyses.

All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-115-18-20 (240-635-3), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-117-20-22 (240-635-6), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-119-20-22 (240-635-9), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-118-20-22 (240-635-12), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-121-18-20 (240-635-18), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-120-18-20 (240-635-21), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-122-20-22 (240-635-24), G-SP-SB-129-0-2 (240-635-25), G-SP-SB-129-6-8 (240-635-26) and G-SP-SB-129-20-22 (240-635-27) were analyzed for Semi volatiles in accordance with 8270D. The samples were analyzed on 06/21/2011, 06/28/2011, 06/29/2011, 07/04/2011, 07/14/2011 and 07/16/2011.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 240-3689/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Di-n-butyl phthalate was detected in method blank MB 240-6980/18-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for G-SP-SB-121-6-8 (240-635-17). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for G-SP-SB-120-18-20 (240-635-21). 2,4,6-Tribromophenol (Surr), 2-Fluorobiphenyl (Surr), 2-Fluorophenol (Surr), Nitrobenzene-d5 (Surr), Phenol-d5 (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria low for G-SP-SB-119-0-2 (240-635-7). 2,4,6-Tribromophenol (Surr), 2-Fluorobiphenyl (Surr), 2-Fluorophenol (Surr), Nitrobenzene-d5 (Surr), Phenol-d5 (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria low for G-SP-SB-119-6-8 (240-635-8). Refer to the QC report for details.

3,3'-Dichlorobenzidine and Caprolactam failed the recovery criteria low for LCS 240-3689/2-A. Several analytes failed the recovery criteria low for LCS 240-7865/5-A. Refer to the QC report for details.

Several analytes failed the recovery criteria low for the MS of sample G-SP-SB-115-0-2MS (240-635-1) in batch 240-7057. Several analytes failed the recovery criteria high.

Several analytes failed the recovery criteria low for the MSD of sample G-SP-SB-115-0-2MSD (240-635-1) in batch 240-6612. Several analytes exceeded the rpd limit.

2,4-Dinitrophenol, Caprolactam and Hexachlorocyclopentadiene failed the recovery criteria low for the MS of sample G-SP-SB-119-6-8MS (240-635-8) in batch 240-8694.

Hexachlorocyclopentadiene failed the recovery criteria low for the MSD of sample G-SP-SB-119-6-8MSD (240-635-8) in batch 240-8694. 4,6-Dinitro-2-methylphenol, Caprolactam, Fluoranthene and Pyrene exceeded the rpd limit.

Samples G-SP-SB-115-0-2 (240-635-1)[2X], G-SP-SB-117-0-2 (240-635-4)[3X], G-SP-SB-119-20-22 (240-635-9)[2X], G-SP-SB-118-0-2 (240-635-10)[2X], G-SP-SB-121-0-3 (240-635-16)[2X], G-SP-SB-121-6-8 (240-635-17)[10X], G-SP-SB-120-0-2 (240-635-19)[3X], G-SP-SB-120-6-8 (240-635-20)[3X], G-SP-SB-120-18-20 (240-635-21)[20X] and G-SP-SB-122-6-8 (240-635-23)[3X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Internal standard responses were outside of acceptance limits for the following sample(s): G-SP-SB-121-0-3 (240-635-16). The sample(s) shows evidence of matrix interference.

No other difficulties were encountered during the Semi volatiles analyses.

All other quality control parameters were within the acceptance limits.

GRO

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-115-18-20 (240-635-3), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-117-20-22 (240-635-6), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8

(240-635-8), G-SP-SB-119-20-22 (240-635-9), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-118-20-22 (240-635-12), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-121-18-20 (240-635-18), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-120-18-20 (240-635-21), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-122-20-22 (240-635-24), G-SP-SB-129-0-2 (240-635-25), G-SP-SB-129-6-8 (240-635-26) and G-SP-SB-129-20-22 (240-635-27) were analyzed for GRO in accordance with 8015C. The samples were analyzed on 06/09/2011 and 06/10/2011.

No difficulties were encountered during the GRO analyses.

All quality control parameters were within the acceptance limits.

DRO

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-115-18-20 (240-635-3), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-117-20-22 (240-635-6), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-119-20-22 (240-635-9), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-118-20-22 (240-635-12), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-121-18-20 (240-635-18), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-120-18-20 (240-635-21), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-122-20-22 (240-635-24), G-SP-SB-129-0-2 (240-635-25), G-SP-SB-129-6-8 (240-635-26) and G-SP-SB-129-20-22 (240-635-27) were analyzed for DRO in accordance with 8015C. The samples were analyzed on 06/09/2011, 06/10/2011, 06/14/2011 and 06/20/2011.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-3872/23-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

n-Nonane failed the surrogate recovery criteria low for G-SP-SB-115-0-2 (240-635-1). n-Nonane failed the surrogate recovery criteria low for G-SP-SB-115-0-2MS (240-635-1MS). n-Nonane failed the surrogate recovery criteria low for G-SP-SB-115-0-2MSD (240-635-1MSD). Refer to the QC report for details.

Diesel failed the recovery criteria high for the MS of sample G-SP-SB-115-0-2MS (240-635-1) in batch 240-4325.

Diesel failed the recovery criteria low for the MSD of sample G-SP-SB-115-0-2MSD (240-635-1) in batch 240-4325. Diesel exceeded the rpd limit.

Refer to the QC report for details.

Samples G-SP-SB-115-0-2 (240-635-1)[20X] and G-SP-SB-121-6-8 (240-635-17)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following sample was analyzed outside of analytical holding time due to failing surrogate on original extraction.: G-SP-SB-119-20-22 (240-635-9).

★ Sample G-SP-SB-122-6-8 (240-635-23) was suspected to be double surrogated. The surrogate volume was adjusted accordingly.

No other difficulties were encountered during the DRO analyses.

All other quality control parameters were within the acceptance limits.

PCBS

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-129-0-2 (240-635-25) and G-SP-SB-129-6-8 (240-635-26) were analyzed for PCBs in accordance with 8082A. The samples were analyzed on 06/14/2011 and 06/15/2011.

Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for G-SP-SB-118-0-2 (240-635-10). Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for G-SP-SB-121-0-3 (240-635-16). Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for G-SP-SB-120-0-2 (240-635-19). Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for G-SP-SB-122-0-2 (240-635-22). Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for G-SP-SB-119-6-8 (240-635-8). Refer to the QC report for details.

Samples G-SP-SB-119-6-8 (240-635-8)[10X], G-SP-SB-118-0-2 (240-635-10)[10X], G-SP-SB-121-0-3 (240-635-16)[10X], G-SP-SB-120-0-2 (240-635-19)[10X] and G-SP-SB-122-0-2 (240-635-22)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: (240-635-1 MS), (240-635-1 MSD), (LCS 240-3834/2-A), (MB 240-3834/1-A), G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-129-0-2 (240-635-25), G-SP-SB-129-6-8 (240-635-26).

The following sample(s) appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: G-SP-SB-119-0-2 (240-635-7). The sample(s) has been quantified and reported as Aroclor 1260. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result

No other difficulties were encountered during the PCBs analyses.

All other quality control parameters were within the acceptance limits.

METALS (ICP)

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-129-0-2 (240-635-25) and G-SP-SB-129-6-8 (240-635-26) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were analyzed on 07/05/2011.

Barium, Molybdenum and Zinc were detected in method blank MB 240-3490/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Antimony failed the recovery criteria low for the MS of sample G-SP-SB-115-0-2MS (240-635-1) in batch 240-7218.

Antimony failed the recovery criteria low for the MSD of sample G-SP-SB-115-0-2MSD (240-635-1) in batch 240-7218.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

MERCURY

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-129-0-2 (240-635-25) and G-SP-SB-129-6-8 (240-635-26) were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were analyzed on 06/17/2011.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

METHOD SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-635-1

Description	Lab Location	Method	Preparation Method
Matrix Solid			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Closed System Purge and Trap			SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Soxhlet Extraction			SW846 3540C
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL NC	SW846 8015C	
Soxhlet Extraction			SW846 3540C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL NC	SW846 8082A	
Soxhlet Extraction			SW846 3540C
Metals (ICP)	TAL NC	SW846 6010C	
Preparation, Metals			SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL NC	SW846 7471B	
Preparation, Mercury			SW846 7471B
Percent Moisture	TAL NC	EPA Moisture	
Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	TAL CHI	SW846 8015C	
Purge and Trap	TAL CHI		SW846 5030C

Lab References:

TAL CHI = TestAmerica Chicago

TAL NC = TestAmerica North Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 007046
Address: 20251 Century Blvd Ste 200	Telephone: (301)528-5552	Telephone: (703) 342-8389	Telephone: (330)497-9396	1 of 3 COCs
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@TetraTech.com			
Phone: (301)528-5552				
Project Name: GSP Phase II	Method of Shipment/Carrier:			
Project Number: 112IC03279	Shipping/Tracking No:			
PO#				

Analysis Turnaround Time (in BUS days)
TAT if different from below _____
☐ 3 weeks
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

For lab use only
Walk-in client ☐
Lab pickup ☐
Lab sampling ☐
Job/SDG No.

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: UPDW	Filtered Sample (Y/N)	Composite=C / Grab=G	Analyses: VOCs	SVOCs	DRO	PCBs	Metals	Mercury	GRO	Sample Specific Notes / Special Instructions:
GSP-SB-115-0-2	5/31/11	1505		X	X								3	3			X	X	X	X	X	X	X	
GSP-SB-115-10-12	↓	1510			↓								3	3			X	X	X	X	X	X	X	
GSP-SB-115-18-20	↓	1515			↓								2	3			X	X	X				X	
GSP-SB-117-0-2	↓	1315			↓								3	3			X	X	X	X	X	X	X	
GSP-SB-117-6-8	↓	1330			↓								3	3			X	X	X	X	X	X	X	
GSP-SB-117-20-22	↓	1345			↓								2	3			X	X	X				X	
GSP-SB-119-0-2	↓	1610			↓								3	3			X	X	X	X	X	X	X	
GSP-SB-119-6-8	↓	1620			↓								3	3			X	X	X	X	X	X	X	
GSP-SB-119-20-22	↓	1630			↓								2	3			X	X	X				X	
GSP-SB-118-0-2	↓	1130			↓								3				X	X	X	X	X	X	X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	5/31/11 - 1830			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA	Date/Time: 6-1-11 950

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TAL 0018-1 (04/10)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 007047
Address: 20251 Century Blvd Ste 200	Telephone: (301) 528-5552	Telephone: (703) 342-8389	Telephone: (330) 497-9396	2 of 3 COCs
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@tetratech.com	Analysis Turnaround Time (in BUS days)		For lab use only
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: GSP Phase II	Method of Shipment/Carrier:			Job/SDG No.
Project Number: 112IC03279	Shipping/Tracking No:			
PO #				

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: MeOH + VPBV	Filtered Sample (Y/N)	Composite C/Grab G	VOC	SVOCs	DRO	PCBs	Metals	Mercury	GRO	Sample Specific Notes / Special Instructions:
GSP-SB-118-6-8	5/31/11	1145			X								3				O	X	X	X	X	X	X	
GSP-SB-118-20-22		1200											2				O	X	X				X	
GSP-SB-118-0-2		1415												3			X							
GSP-SB-118-6-8		1430												3			X							
GSP-SB-118-20-22		1445												3			X							
GSP-SB-121-0-3		1132											3	3			X	X	X	X	X	X	X	
GSP-SB-121-6-8		1138											3	3			X	X	X	X	X	X	X	
GSP-SB-121-18-20		1146											2	3			X	X	X				X	
GSP-SB-120-0-2		1405											3	3			X	X	X	X	X	X	X	
GSP-SB-120-6-8		1408											3	3			X	X	X	X	X	X	X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	5/31/11 – 1830			
			Received in Laboratory by: [signature]	TAL	6-1-11 950

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TAL 0018-1 (04/10)

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 007048
Address: 20251 Century Blvd Ste 200	Telephone: (301)528-5552	Telephone: (703)342-8384	Telephone: (350) 497-9546	3 of 3 COCs
City/State/Zip: Germantown MD, 20874	Email: Dev.Murali@TetraTech.com	Analysis Turnaround Time (In BUS days)	Analyses	For lab use only: Walk-in client ☐ Lab pickup ☐ Mail ☐ Lab sampling ☐ Job/SDG No.:
Phone: (301)528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: GSP Phase II	Method of Shipment/Carrier:			
Project Number: 112ICO0279	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other: Na2S2O3 + DI/ VOA	Filtered Sample (Y/N)	Composite=C / Grab=G	VOCs	SVOCs	DRO	PCBs	Metals	Mercury	GRO	Sample Specific Notes / Special Instructions:
GSP-SB-120-18-20	5/31/11	1410			X								2	3			X	X	X				X	
GSP-SB-122-0-2		1523											3	3			X	X	X	X	X	X	X	
GSP-SB-122-6-8		1526											3	3			X	X	X	X	X	X	X	
GSP-SB-122-20-22		1530											2	3			X	X	X				X	
GSP-SB-129-0-2		1624											3	3			X	X	X	X	X	X	X	
GSP-SB-129-6-8		1630											3	3			X	X	X	X	X	X	X	
GSP-SB-129-20-22		1635											2	3			X	X	X				X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Tetra Tech	5/31/11 – 1830			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAL	Date/Time: 6/1/11 950

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TAL 0018-1 (04/10)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** _____
North Canton Facility

Client Tetratech Project _____ By: _____
Cooler Received on 6-1-11 Opened on 6-1-11 (Signature)
FedEx ☑ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # _____ Multiple Coolers ☑ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☑ No ☐ Intact? Yes ☑ No ☐ NA ☐
   If YES, Quantity 4 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☑ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt _____ °C See back of form for multiple coolers/temps ☑
   METHOD: IR ☑ Other ☐ _____
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐ BACK
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☑
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☑
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☐ No ☑ Were VOAs on the COC? Yes ☐ No ☑

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 100110-HNO_3; *Sulfuric Acid Lot#* 110410-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN$/*NaOH*. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant
T.A. NO #	2.2	IR	Ice
Client	3.0	〃	〃
TA NO #	1.7	〃	〃

Discrepancies Cont'd:

Login Sample Receipt Checklist

Client: Tetra Tech NUS Inc

Job Number: 240-635-1

Login Number: 635
List Number: 1
Creator: Livengood, Chris

List Source: TestAmerica North Canton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2 3.0 1.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech NUS Inc

Job Number: 240-635-1

Login Number: 635
List Number: 1
Creator: Kelsey, Shawn M

List Source: TestAmerica Chicago
List Creation: 06/07/11 11:48 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

HOLDTIM

SDG: 240-635-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	G-SP-SB-121-0-3	240-635-16	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-129-6-8	240-635-26	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-129-0-2	240-635-25	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-122-6-8	240-635-23	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-121-6-8	240-635-17	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-120-6-8	240-635-20	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-120-0-2	240-635-19	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-119-6-8	240-635-8	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-115-10-12	240-635-2	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-122-0-2	240-635-22	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-115-0-2	240-635-1	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-119-0-2	240-635-7	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-117-0-2	240-635-4	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-117-6-8	240-635-5	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-118-0-2	240-635-10	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	G-SP-SB-118-6-8	240-635-11	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
M	MG/KG	G-SP-SB-119-6-8	240-635-8	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-121-0-3	240-635-16	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-129-0-2	240-635-25	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-122-6-8	240-635-23	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-121-6-8	240-635-17	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-120-6-8	240-635-20	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-120-0-2	240-635-19	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-129-6-8	240-635-26	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-118-6-8	240-635-11	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-118-0-2	240-635-10	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-117-6-8	240-635-5	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-122-0-2	240-635-22	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-117-0-2	240-635-4	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-115-10-12	240-635-2	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-115-0-2	240-635-1	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-119-0-2	240-635-7	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
OS	UG/KG	G-SP-SB-122-6-8	240-635-23	NM	05/31/2011	06/08/2011	06/21/2011	8	13	21

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/KG	G-SP-SB-119-6-8	240-635-8	NM	05/31/2011	07/11/2011	07/16/2011	41	5	46
OS	UG/KG	G-SP-SB-120-0-2	240-635-19	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OS	UG/KG	G-SP-SB-120-6-8	240-635-20	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OS	UG/KG	G-SP-SB-121-18-20	240-635-18	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OS	UG/KG	G-SP-SB-121-6-8	240-635-17	NM	05/31/2011	06/06/2011	07/04/2011	6	28	34
OS	UG/KG	G-SP-SB-119-6-8	240-635-8	NM	05/31/2011	06/06/2011	07/04/2011	6	28	34
OS	UG/KG	G-SP-SB-122-20-22	240-635-24	NM	05/31/2011	06/08/2011	06/21/2011	8	13	21
OS	UG/KG	G-SP-SB-118-0-2	240-635-10	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OS	UG/KG	G-SP-SB-129-0-2	240-635-25	NM	05/31/2011	06/08/2011	06/21/2011	8	13	21
OS	UG/KG	G-SP-SB-129-20-22	240-635-27	NM	05/31/2011	06/08/2011	06/21/2011	8	13	21
OS	UG/KG	G-SP-SB-122-0-2	240-635-22	NM	05/31/2011	06/06/2011	06/29/2011	6	23	29
OS	UG/KG	G-SP-SB-119-20-22	240-635-9	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OS	UG/KG	G-SP-SB-119-0-2	240-635-7	NM	05/31/2011	07/02/2011	07/14/2011	32	12	44
OS	UG/KG	G-SP-SB-119-0-2	240-635-7	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OS	UG/KG	G-SP-SB-118-20-22	240-635-12	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OS	UG/KG	G-SP-SB-117-6-8	240-635-5	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OS	UG/KG	G-SP-SB-117-20-22	240-635-6	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OS	UG/KG	G-SP-SB-117-0-2	240-635-4	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/KG	G-SP-SB-115-18-20	240-635-3	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OS	UG/KG	G-SP-SB-115-10-12	240-635-2	NM	05/31/2011	06/06/2011	06/29/2011	6	23	29
OS	UG/KG	G-SP-SB-115-0-2	240-635-1	NM	05/31/2011	06/06/2011	06/29/2011	6	23	29
OS	UG/KG	G-SP-SB-129-6-8	240-635-26	NM	05/31/2011	06/08/2011	06/21/2011	8	13	21
OS	UG/KG	G-SP-SB-121-0-3	240-635-16	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OS	UG/KG	G-SP-SB-118-6-8	240-635-11	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OS	UG/KG	G-SP-SB-120-18-20	240-635-21	NM	05/31/2011	06/06/2011	06/28/2011	6	22	28
OV	UG/KG	G-SP-SB-117-6-8	240-635-5	NM	06/01/2011	06/01/2011	06/11/2011	0	10	10
OV	UG/KG	G-SP-SB-120-0-2	240-635-19	NM	06/01/2011	06/01/2011	06/11/2011	0	10	10
OV	UG/KG	G-SP-SB-119-6-8	240-635-8	NM	06/01/2011	06/01/2011	06/11/2011	0	10	10
OV	UG/KG	G-SP-SB-119-20-22	240-635-9	NM	06/01/2011	06/01/2011	06/11/2011	0	10	10
OV	UG/KG	G-SP-SB-119-0-2	240-635-7	NM	06/01/2011	06/01/2011	06/11/2011	0	10	10
OV	UG/KG	G-SP-SB-118-6-8	240-635-14	NM	06/01/2011	06/01/2011	06/12/2011	0	11	11
OV	UG/KG	G-SP-SB-120-18-20	240-635-21	NM	06/01/2011	06/01/2011	06/12/2011	0	11	11
OV	UG/KG	G-SP-SB-118-0-2	240-635-13	NM	06/01/2011	06/01/2011	06/11/2011	0	10	10
OV	UG/KG	G-SP-SB-121-18-20	240-635-18	NM	06/01/2011	06/01/2011	06/11/2011	0	10	10
OV	UG/KG	G-SP-SB-117-20-22	240-635-6	NM	06/01/2011	06/01/2011	06/11/2011	0	10	10
OV	UG/KG	G-SP-SB-117-0-2	240-635-4	NM	06/01/2011	06/01/2011	06/11/2011	0	10	10

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/KG	G-SP-SB-115-18-20	240-635-3	NM	06/01/2011	06/01/2011	06/11/2011	0	10	10
OV	UG/KG	G-SP-SB-115-10-12	240-635-2	NM	06/01/2011	06/01/2011	06/11/2011	0	10	10
OV	UG/KG	G-SP-SB-115-0-2	240-635-1	NM	06/01/2011	06/01/2011	06/11/2011	0	10	10
OV	UG/KG	G-SP-SB-118-20-22	240-635-15	NM	06/01/2011	06/01/2011	06/12/2011	0	11	11
OV	UG/KG	G-SP-SB-129-0-2	240-635-25	NM	06/01/2011	06/01/2011	06/12/2011	0	11	11
OV	UG/KG	G-SP-SB-120-6-8	240-635-20	NM	06/07/2011	06/07/2011	06/12/2011	0	5	5
OV	UG/KG	G-SP-SB-129-20-22	240-635-27	NM	06/01/2011	06/01/2011	06/12/2011	0	11	11
OV	UG/KG	G-SP-SB-121-0-3	240-635-16	NM	06/01/2011	06/01/2011	06/12/2011	0	11	11
OV	UG/KG	G-SP-SB-122-6-8	240-635-23	NM	06/01/2011	06/01/2011	06/12/2011	0	11	11
OV	UG/KG	G-SP-SB-122-20-22	240-635-24	NM	06/01/2011	06/01/2011	06/12/2011	0	11	11
OV	UG/KG	G-SP-SB-122-0-2	240-635-22	NM	06/01/2011	06/01/2011	06/12/2011	0	11	11
OV	UG/KG	G-SP-SB-121-6-8	240-635-17	NM	06/07/2011	06/07/2011	06/11/2011	0	4	4
OV	UG/KG	G-SP-SB-129-6-8	240-635-26	NM	06/01/2011	06/01/2011	06/12/2011	0	11	11
PCB	UG/KG	G-SP-SB-120-0-2	240-635-19	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-120-6-8	240-635-20	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-121-6-8	240-635-17	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-122-0-2	240-635-22	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-122-6-8	240-635-23	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	G-SP-SB-129-0-2	240-635-25	NM	05/31/2011	06/07/2011	06/15/2011	7	8	15
PCB	UG/KG	G-SP-SB-129-6-8	240-635-26	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-119-6-8	240-635-8	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-119-0-2	240-635-7	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-115-0-2	240-635-1	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-115-10-12	240-635-2	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-117-0-2	240-635-4	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-117-6-8	240-635-5	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-118-0-2	240-635-10	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-121-0-3	240-635-16	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
PCB	UG/KG	G-SP-SB-118-6-8	240-635-11	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
DRO	MG/KG	G-SP-SB-117-20-22	240-635-6	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-119-20-22	240-635-9	NM	05/31/2011	06/17/2011	06/20/2011	17	3	20
DRO	MG/KG	G-SP-SB-119-20-22	240-635-9	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-119-0-2	240-635-7	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-118-6-8	240-635-11	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
DRO	MG/KG	G-SP-SB-118-20-22	240-635-12	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
DRO	MG/KG	G-SP-SB-129-20-22	240-635-27	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
DRO	MG/KG	G-SP-SB-119-6-8	240-635-8	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-117-6-8	240-635-5	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-121-0-3	240-635-16	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-117-0-2	240-635-4	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-118-0-2	240-635-10	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-120-0-2	240-635-19	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-120-6-8	240-635-20	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
DRO	MG/KG	G-SP-SB-121-18-20	240-635-18	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
DRO	MG/KG	G-SP-SB-121-6-8	240-635-17	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
DRO	MG/KG	G-SP-SB-122-0-2	240-635-22	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-122-20-22	240-635-24	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
DRO	MG/KG	G-SP-SB-122-6-8	240-635-23	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
DRO	MG/KG	G-SP-SB-129-0-2	240-635-25	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
DRO	MG/KG	G-SP-SB-115-0-2	240-635-1	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-129-6-8	240-635-26	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
DRO	MG/KG	G-SP-SB-115-10-12	240-635-2	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-115-18-20	240-635-3	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
DRO	MG/KG	G-SP-SB-120-18-20	240-635-21	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
GRO	UG/KG	G-SP-SB-115-10-12	240-635-2	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-119-6-8	240-635-8	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-115-0-2	240-635-1	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-115-18-20	240-635-3	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-129-6-8	240-635-26	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
GRO	UG/KG	G-SP-SB-117-20-22	240-635-6	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-117-6-8	240-635-5	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-118-0-2	240-635-10	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-118-20-22	240-635-12	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-118-6-8	240-635-11	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-117-0-2	240-635-4	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-119-20-22	240-635-9	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-129-20-22	240-635-27	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
GRO	UG/KG	G-SP-SB-120-0-2	240-635-19	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-120-18-20	240-635-21	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
GRO	UG/KG	G-SP-SB-120-6-8	240-635-20	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
GRO	UG/KG	G-SP-SB-121-0-3	240-635-16	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-121-18-20	240-635-18	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
GRO	UG/KG	G-SP-SB-121-6-8	240-635-17	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
GRO	UG/KG	G-SP-SB-122-0-2	240-635-22	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
GRO	UG/KG	G-SP-SB-122-20-22	240-635-24	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
GRO	UG/KG	G-SP-SB-122-6-8	240-635-23	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
GRO	UG/KG	G-SP-SB-129-0-2	240-635-25	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
GRO	UG/KG	G-SP-SB-119-0-2	240-635-7	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	MG/KG	G-SP-SB-120-6-8	240-635-20	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
TPH	MG/KG	G-SP-SB-119-6-8	240-635-8	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
TPH	MG/KG	G-SP-SB-115-0-2	240-635-1	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
TPH	MG/KG	G-SP-SB-115-10-12	240-635-2	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
TPH	MG/KG	G-SP-SB-115-18-20	240-635-3	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
TPH	MG/KG	G-SP-SB-117-0-2	240-635-4	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
TPH	MG/KG	G-SP-SB-117-20-22	240-635-6	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
TPH	MG/KG	G-SP-SB-117-6-8	240-635-5	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
TPH	MG/KG	G-SP-SB-118-0-2	240-635-10	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
TPH	MG/KG	G-SP-SB-118-20-22	240-635-12	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
TPH	MG/KG	G-SP-SB-118-6-8	240-635-11	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
TPH	MG/KG	G-SP-SB-119-0-2	240-635-7	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TPH	MG/KG	G-SP-SB-121-18-20	240-635-18	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
TPH	MG/KG	G-SP-SB-119-20-22	240-635-9	NM	05/31/2011	06/17/2011	06/20/2011	17	3	20
TPH	MG/KG	G-SP-SB-129-6-8	240-635-26	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
TPH	MG/KG	G-SP-SB-120-0-2	240-635-19	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
TPH	MG/KG	G-SP-SB-120-18-20	240-635-21	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
TPH	MG/KG	G-SP-SB-121-0-3	240-635-16	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
TPH	MG/KG	G-SP-SB-121-6-8	240-635-17	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
TPH	MG/KG	G-SP-SB-122-0-2	240-635-22	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
TPH	MG/KG	G-SP-SB-122-20-22	240-635-24	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
TPH	MG/KG	G-SP-SB-122-6-8	240-635-23	NM	05/31/2011	06/06/2011	06/09/2011	6	3	9
TPH	MG/KG	G-SP-SB-129-0-2	240-635-25	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
TPH	MG/KG	G-SP-SB-129-20-22	240-635-27	NM	05/31/2011	06/07/2011	06/14/2011	7	7	14
TPH	MG/KG	G-SP-SB-119-20-22	240-635-9	NM	05/31/2011	06/06/2011	06/10/2011	6	4	10
TPH	UG/KG	G-SP-SB-115-10-12	240-635-2	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-120-0-2	240-635-19	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-129-6-8	240-635-26	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
TPH	UG/KG	G-SP-SB-115-0-2	240-635-1	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-115-18-20	240-635-3	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TPH	UG/KG	G-SP-SB-117-20-22	240-635-6	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-117-6-8	240-635-5	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-118-0-2	240-635-10	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-118-20-22	240-635-12	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-118-6-8	240-635-11	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-119-0-2	240-635-7	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-117-0-2	240-635-4	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-119-6-8	240-635-8	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-129-20-22	240-635-27	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
TPH	UG/KG	G-SP-SB-120-18-20	240-635-21	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
TPH	UG/KG	G-SP-SB-120-6-8	240-635-20	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
TPH	UG/KG	G-SP-SB-121-0-3	240-635-16	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-121-18-20	240-635-18	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-121-6-8	240-635-17	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9
TPH	UG/KG	G-SP-SB-122-0-2	240-635-22	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
TPH	UG/KG	G-SP-SB-122-20-22	240-635-24	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
TPH	UG/KG	G-SP-SB-122-6-8	240-635-23	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10
TPH	UG/KG	G-SP-SB-129-0-2	240-635-25	NM	05/31/2011	06/10/2011	06/10/2011	10	0	10

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TPH	UG/KG	G-SP-SB-119-20-22	240-635-9	NM	05/31/2011	06/09/2011	06/09/2011	9	0	9

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: BFB14821.D BFB Injection Date: 05/13/2011

Instrument ID: A3UX14 BFB Injection Time: 10:01

Analysis Batch No.: 1969

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.9	
75	30.0 - 60.0 % of mass 95	45.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	79.5	
175	5.0 - 9.0 % of mass 174	5.8	(7.3)1
176	95.0 - 101.0 % of mass 174	77.0	(96.9)1
177	5.0 - 9.0 % of mass 176	5.0	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-1969/3	148155.D	05/13/2011	10:44
	STD8260 240-1969/4	148156.D	05/13/2011	11:06
	STD8260 240-1969/5	148157.D	05/13/2011	11:27
	STD8260 240-1969/6	148158.D	05/13/2011	11:49
	STD8260 240-1969/7	148159.D	05/13/2011	12:10
	STD8260 240-1969/8	148160.D	05/13/2011	12:31
	STD8260 240-1969/9	148161.D	05/13/2011	12:53
	STD8260 240-1969/10	148162.D	05/13/2011	13:14
	ICV 240-1969/11	148163.D	05/13/2011	13:36
	STD8A9 240-1969/13	148164.D	05/13/2011	13:57
	STD7A9 240-1969/14	148165.D	05/13/2011	14:19
	STD6A9 240-1969/15	148166.D	05/13/2011	14:40
	STD5A9 240-1969/16	148167.D	05/13/2011	15:02
	STD4A9 240-1969/17	148168.D	05/13/2011	15:23
	STD3A9 240-1969/18	148169.D	05/13/2011	15:44
	STD2A9 240-1969/19	148170.D	05/13/2011	16:06
	STD1A9 240-1969/20	148171.D	05/13/2011	16:27

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-1969/10	148162.D
Level 2	STD8260 240-1969/9	148161.D
Level 3	STD8260 240-1969/8	148160.D
Level 4	STD8260 240-1969/7	148159.D
Level 5	STD8260 240-1969/6	148158.D
Level 6	STD8260 240-1969/5	148157.D
Level 7	STD8260 240-1969/4	148156.D
Level 8	STD8260 240-1969/3	148155.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dichlorodifluoromethane	+++++	0.1307	0.1813	0.1935	0.1905	Ave		0.1809				12.0		15.0			
	0.1910	0.1876	0.1917														
Chloromethane	0.3183	0.2746	0.2949	0.2980	0.2897	Ave		0.2918			0.1000	4.4		15.0			
	0.2888	0.2850	0.2852														
Vinyl chloride	0.2115	0.1963	0.2324	0.2339	0.2328	Ave		0.2223				5.9		15.0			
	0.2285	0.2237	0.2193														
Bromomethane	+++++	+++++	0.0802	0.0741	0.0726	Ave		0.0706				8.8		15.0			
	0.0670	0.0659	0.0635														
Chloroethane	+++++	0.0616	0.0517	0.0536	0.0498	Ave		0.0509				11.0		15.0			
	0.0491	0.0451	0.0455														
Trichlorofluoromethane	0.1628	0.1645	0.2193	0.2342	0.2237	Ave		0.2149				15.0		15.0			
	0.2383	0.2350	0.2411														
Acrolein	0.0438	0.0390	0.0403	0.0394	0.0411	Ave		0.0402 NT				4.1		15.0			
	0.0387	0.0394	0.0401														
1,1-Dichloroethene	0.1825	0.1653	0.2063	0.1906	0.1861	Ave		0.1866				6.1		15.0			
	0.1926	0.1838	0.1855														
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1552	0.1274	0.2001	0.1855	0.1814	Ave		0.1753				13.0		15.0			
	0.1873	0.1828	0.1831														
Acetone	0.1352	0.1017	0.0883	0.0916	0.0946	Lin1	0.4864	0.0818							0.9980		0.9900
	0.0835	0.0851	0.0825														
Iodomethane	0.3452	0.3376	0.3939	0.3758	0.3610	Ave		0.3631				4.8		15.0			
	0.3704	0.3620	0.3593														
Carbon disulfide	0.3858	0.3626	0.4688	0.4573	0.4652	Ave		0.4616				13.0		15.0			
	0.5030	0.5187	0.5315														
Acetonitrile	0.0465	0.0390	0.0352	0.0353	0.0360	Ave		0.0363 NT				13.0		15.0			
	0.0325	0.0328	0.0328														
Methyl acetate	0.2396	0.2188	0.2257	0.2123	0.2208	Ave		0.2191				4.8		15.0			
	0.2042	0.2136	0.2180														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
tert-Butyl alcohol	0.0220	0.0203	0.0215	0.0212	0.0224	Ave		0.0217				6.6		15.0			
	0.0192	0.0230	0.0236														
Acrylonitrile	0.1161	0.1061	0.1061	0.1047	0.1060	Ave		0.1046				5.5		15.0			
	0.0979	0.1004	0.0993														
trans-1,2-Dichloroethene	0.2375	0.2083	0.2518	0.2275	0.2254	Ave		0.2275				5.7		15.0			
	0.2281	0.2212	0.2204														
Methyl tert-butyl ether	0.5833	0.5341	0.5924	0.5609	0.5714	Ave		0.5685				3.2		15.0			
	0.5556	0.5732	0.5770														
Hexane	0.0388	0.0386	0.0568	0.0546	0.0515	Ave		0.0501				14.0		15.0			
	0.0532	0.0532	0.0541														
1,1-Dichloroethane	0.3859	0.3709	0.4539	0.4277	0.4229	Ave		0.4178			0.1000	6.4		15.0			
	0.4303	0.4229	0.4280														
Vinyl acetate	0.0354	0.0292	0.0259	0.0286	0.0307	Ave		0.0316				12.0		15.0			
	0.0308	0.0356	0.0367														
2,2-Dichloropropane	0.1247	0.1337	0.1588	0.1527	0.1561	Ave		0.1535				11.0		15.0			
	0.1678	0.1684	0.1656														
cis-1,2-Dichloroethene	0.2399	0.2284	0.2726	0.2462	0.2467	Ave		0.2456				5.2		15.0			
	0.2500	0.2408	0.2399														
2-Butanone	0.1370	0.1203	0.1136	0.1204	0.1187	Ave		0.1203				6.5		15.0			
	0.1102	0.1204	0.1218														
Bromochloromethane	0.1367	0.1233	0.1399	0.1309	0.1300	Ave		0.1307				4.1		15.0			
	0.1293	0.1279	0.1275														
Tetrahydrofuran	+++++	0.0761	0.0931	0.0811	0.0776	Ave		0.0799				8.3		15.0			
	0.0717	0.0791	0.0806														
Chloroform	0.3577	0.3286	0.3971	0.3589	0.3673	Ave		0.3650				5.2		15.0			
	0.3701	0.3691	0.3712														
1,1,1-Trichloroethane	0.2243	0.2320	0.2950	0.2924	0.2941	Ave		0.2857				13.0		15.0			
	0.3146	0.3171	0.3165														
Cyclohexane	0.3955	0.3242	0.5235	0.4931	0.4835	Ave		0.4625				15.0		15.0			
	0.5007	0.4878	0.4917														
Carbon tetrachloride	+++++	+++++	0.2718	0.2675	0.2786	Ave		0.2938				8.2		15.0			
	0.3061	0.3162	0.3225														
1,1-Dichloropropene	0.2512	0.2451	0.3099	0.2800	0.2821	Ave		0.2791				7.6		15.0			
	0.2939	0.2837	0.2865														
Benzene	0.9367	0.8077	0.9426	0.8592	0.8405	Ave		0.8703				5.3		15.0			
	0.8594	0.8486	0.8677														
1,2-Dichloroethane	0.3610	0.3234	0.3750	0.3268	0.3387	Ave		0.3410				5.2		15.0			
	0.3297	0.3352	0.3387														
Trichloroethene	0.2480	0.2251	0.2912	0.2569	0.2553	Ave		0.2582				7.2		15.0			
	0.2692	0.2589	0.2607														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Methylcyclohexane	+++++	0.2626	0.4415	0.3974	0.3950	Ave		0.3865				15.0		15.0			
	0.4093	0.4016	0.3981														
1,2-Dichloropropane	0.2291	0.2260	0.2529	0.2372	0.2228	Ave		0.2331				4.0		15.0			
	0.2280	0.2354	0.2334														
Dibromomethane	0.1140	0.1172	0.1238	0.1241	0.1236	Ave		0.1218				3.3		15.0			
	0.1227	0.1257	0.1232														
1,4-Dioxane	0.0023	0.0025	0.0025	0.0024	0.0024	Ave		0.0023				4.9		15.0			
	0.0021	0.0023	0.0022														
Bromodichloromethane	0.1842	0.1814	0.2199	0.2049	0.2169	Ave		0.2201				13.0		15.0			
	0.2400	0.2538	0.2597														
2-Chloroethyl vinyl ether	0.1201	0.1129	0.1024	0.1270	0.1037	Ave		0.1159				9.9		15.0			
	0.1052	0.1323	0.1235														
cis-1,3-Dichloropropene	+++++	0.2163	0.2481	0.2518	0.2532	Ave		0.2676				13.0		15.0			
	0.2809	0.3106	0.3122														
4-Methyl-2-pentanone	0.2914	0.2977	0.3153	0.3153	0.3391	Ave		0.3207				6.6		15.0			
	0.3159	0.3375	0.3537														
Toluene	1.3797	1.1975	1.4438	1.2030	1.2369	Ave		1.2828				6.8		15.0			
	1.2781	1.2323	1.2907														
trans-1,3-Dichloropropene	0.2288	0.2213	0.2588	0.2740	0.2849	Lin1	-0.301	0.3618							0.9940		0.9900
	0.3204	0.3613	0.3771														
Ethyl methacrylate	0.2341	0.2570	0.3081	0.2879	0.2864	Ave		0.2919				12.0		15.0			
	0.2877	0.3373	0.3365														
1,1,2-Trichloroethane	0.2269	0.2238	0.2486	0.2237	0.2209	Ave		0.2271				4.1		15.0			
	0.2175	0.2267	0.2289														
Tetrachloroethene	0.2466	0.2328	0.3191	0.2613	0.2722	Ave		0.2700				9.6		15.0			
	0.2851	0.2696	0.2733														
1,3-Dichloropropane	0.3855	0.3693	0.4084	0.3691	0.3606	Ave		0.3779				4.2		15.0			
	0.3629	0.3850	0.3819														
2-Hexanone	0.1867	0.1953	0.2006	0.2184	0.2103	Ave		0.2080				8.3		15.0			
	0.1916	0.2308	0.2307														
Dibromochloromethane	+++++	+++++	0.2290	0.2069	0.2361	Ave		0.2553				15.0		15.0			
	0.2647	0.2895	0.3055														
1,2-Dibromoethane	0.2185	0.2084	0.2478	0.2257	0.2236	Ave		0.2310				6.4		15.0			
	0.2299	0.2463	0.2477														
Chlorobenzene	0.9274	0.8393	0.9758	0.8681	0.8514	Ave		0.8850			0.3000	5.1		15.0			
	0.8639	0.8712	0.8825														
1,1,1,2-Tetrachloroethane	+++++	+++++	0.2895	0.2495	0.2979	Ave		0.2996				9.5		15.0			
	0.3204	0.3112	0.3289														
Ethylbenzene	0.4701	0.4216	0.4985	0.4497	0.4424	Ave		0.4558				4.9		15.0			
	0.4565	0.4523	0.4551														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.5516 0.5569	0.5079 0.5488	0.6088 0.5499	0.5483	0.5344	Ave		0.5508				5.1		15.0			
o-Xylene	0.5646 0.5652	0.5079 0.5334	0.6234 0.5321	0.5321	0.5541	Ave		0.5516				6.3		15.0			
Styrene	0.8149 0.8802	0.7539 0.9285	0.9192 0.9239	0.8589	0.8639	Ave		0.8679				7.0		15.0			
Bromoform	0.0856 0.1469	0.0938 0.1780	0.1141 0.1879	0.1157	0.1287	Qua	-0.352	0.1602	0.0001		0.1000				0.9990		0.9900
Isopropylbenzene	1.2781 1.5490	1.2333 1.4885	1.6120 1.5613	1.4126	1.4701	Ave		1.4506				9.3		15.0			
1,1,2,2-Tetrachloroethane	0.4608 0.5165	0.4211 0.5093	0.5159 0.5146	0.4928	0.4989	Ave		0.4912			0.3000	6.9		15.0			
Bromobenzene	0.7470 0.7148	0.6925 0.7174	0.7921 0.7008	0.7563	0.7003	Ave		0.7277				4.7		15.0			
1,2,3-Trichloropropane	0.2089 0.1764	0.1790 0.1831	0.1944 0.1786	0.1892	0.1833	Ave		0.1866				5.8		15.0			
trans-1,4-Dichloro-2-butene	0.1636 0.1691	0.1704 0.2159	0.1683 0.2131	0.1701	0.1698	Ave		0.1800				12.0		15.0			
n-Propylbenzene	0.7738 0.8272	0.7050 0.7944	0.8646 0.7944	0.7963	0.7847	Ave		0.7926				5.7		15.0			
2-Chlorotoluene	0.7565 0.7429	0.6995 0.7115	0.8022 0.7134	0.7326	0.7184	Ave		0.7346				4.5		15.0			
1,3,5-Trimethylbenzene	2.0302 2.4951	1.9774 2.2842	2.4837 2.4078	2.2922	2.3398	Ave		2.2888				8.4		15.0			
4-Chlorotoluene	0.7661 0.7198	0.6853 0.7200	0.7828 0.7152	0.7401	0.7067	Ave		0.7295				4.4		15.0			
tert-Butylbenzene	1.8911 2.3939	1.9120 2.1518	2.3161 2.3077	2.0751	2.1555	Ave		2.1504				8.6		15.0			
1,2,4-Trimethylbenzene	2.1779 2.4862	2.0485 2.3360	2.5549 2.4254	2.3446	2.3266	Ave		2.3375				7.0		15.0			
sec-Butylbenzene	2.4199 3.2401	2.3931 2.9565	3.2020 3.1679	2.8781	2.9685	Ave		2.9033				11.0		15.0			
1,3-Dichlorobenzene	1.4217 1.3933	1.3260 1.3602	1.5660 1.3460	1.3769	1.3557	Ave		1.3932				5.4		15.0			
p-Isopropyltoluene	2.1473 2.7849	2.0718 2.6216	2.7358 2.7414	2.5559	2.5552	Ave		2.5268				11.0		15.0			
1,4-Dichlorobenzene	1.4903 1.3883	1.3816 1.3867	1.5928 1.3833	1.3848	1.3745	Ave		1.4228				5.5		15.0			
n-Butylbenzene	1.7590 2.2383	1.7428 2.1573	2.2739 2.2436	2.0719	2.1098	Ave		2.0746				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.3968 1.3577	1.2998 1.2950	1.4899 1.3060	1.3053	1.3320	Ave		1.3478				5.0		15.0			
1,2-Dibromo-3-Chloropropane	0.0707 0.1046	0.0876 0.1247	0.0952 0.1329	0.0857	0.0954	Lin1	-0.109	0.1254							0.9900		0.9900
1,3,5-Trichlorobenzene	0.9946 1.1061	0.9513 1.0267	1.1209 1.0624	1.0151	1.0582	Ave		1.0419				5.4		15.0			
1,2,4-Trichlorobenzene	0.9861 1.0305	0.8526 0.9312	1.0951 0.9734	0.9084	1.0057	Ave		0.9729				7.8		15.0			
Hexachlorobutadiene	0.3762 0.5137	0.3615 0.4619	0.5023 0.4733	0.4571	0.4662	Ave		0.4515				12.0		15.0			
Naphthalene	2.2685 2.4252	2.1387 2.3049	2.5447 2.5154	2.1018	2.3987	Ave		2.3372				7.0		15.0			
1,2,3-Trichlorobenzene	0.9222 0.9831	0.8033 0.8870	1.0574 0.9142	0.8671	0.9714	Ave		0.9257				8.4		15.0			
Dibromofluoromethane (Surr)	0.2238 0.2544	0.2114 0.2370	0.2193 0.2265	0.2214	0.2271	Qua	-0.161	0.2546	0						1.0000		0.9900
1,2-Dichloroethane-d4 (Surr)	0.2940 0.2809	0.2856 0.2666	0.2688 0.2610	0.2569	0.2604	Qua	-0.052	0.2774	0						1.0000		0.9900
Toluene-d8 (Surr)	1.1464 1.2650	1.0512 1.1381	1.1588 1.1451	1.0183	1.0737	Qua	-0.404	1.1914	0						0.9990		0.9900
4-Bromofluorobenzene (Surr)	1.0754 0.8680	0.8867 0.8378	0.8327 0.7886	0.8199	0.7755	Qua	-0.431	0.8899	0						1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 13:57 Calibration End Date: 05/13/2011 16:27 Calibration ID: 987

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1A9 240-1969/20	148171.D
Level 2	STD2A9 240-1969/19	148170.D
Level 3	STD3A9 240-1969/18	148169.D
Level 4	STD4A9 240-1969/17	148168.D
Level 5	STD5A9 240-1969/16	148167.D
Level 6	STD6A9 240-1969/15	148166.D
Level 7	STD7A9 240-1969/14	148165.D
Level 8	STD8A9 240-1969/13	148164.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.3307 0.2592	0.2526 0.2622	0.2552 0.2677	0.2634	0.2556	Ave		0.2683				9.6		15.0			
Ethyl ether	0.2444 0.1903	0.2216 0.2071	0.2105 0.1866	0.2175	0.2109	Ave		0.2111				8.6		15.0			
3-Chloro-1-propene	0.0919 0.0996	0.0769 0.1071	0.0810 0.1116	0.0945	0.0950	Ave		0.0947				12.0		15.0			
Methylene Chloride	0.2962 0.2168	0.2181 0.2234	0.2173 0.2182	0.2215	0.2173	Ave		0.2286				12.0		15.0			
2-Chloro-1,3-butadiene	0.3698 0.4360	0.3394 0.4568	0.3825 0.4648	0.4155	0.4091	Ave		0.4092				11.0		15.0			
Diisopropyl ether	0.1961 0.1929	0.1770 0.1941	0.1837 0.1866	0.1942	0.1894	Ave		0.1893				3.4		15.0			
Ethyl-t-butyl ether (ETBE)	0.6828 0.7382	0.6579 0.7700	0.6589 0.8071	0.7073	0.7035	Ave		0.7157				7.4		15.0			
Propionitrile	0.0390 0.0375	0.0395 0.0364	0.0358 0.0352	0.0358	0.0355	Ave		0.0368	NT			4.5		15.0			
Ethyl acetate	0.1831 0.2330	0.1796 0.2325	0.1900 0.2311	0.2155	0.2123	Ave		0.2096				11.0		15.0			
Methacrylonitrile	0.1228 0.1529	0.1452 0.1572	0.1353 0.1584	0.1473	0.1506	Ave		0.1462				8.2		15.0			
Isobutyl alcohol	0.0060 0.0086	0.0069 0.0092	0.0070 0.0090	0.0072	0.0076	Ave		0.0077	NT			15.0		15.0			
Tert-amyl-methyl ether (TAME)	0.4511 0.4885	0.4394 0.5147	0.4308 0.5252	0.4700	0.4748	Ave		0.4743				7.2		15.0			
n-Heptane	0.0512 0.0612	0.0372 0.0610	0.0575 0.0622	0.0601	0.0578	Ave		0.0560				15.0		15.0			
n-Butanol	0.0060 0.0080	0.0085 0.0090	0.0068 0.0091	0.0061	0.0079	Lin1	-0.101	0.0088	NT						0.9950		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 13:57 Calibration End Date: 05/13/2011 16:27 Calibration ID: 987

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Methyl methacrylate	0.1770 0.2231	0.1634 0.2265	0.1737 0.2260	0.2207	0.1790	Ave		0.1987				14.0		15.0			
2-Nitropropane	0.0285 0.0323	0.0235 0.0414	0.0250 0.0511	0.0283	0.0255	Qua	-0.092	0.0302 NT	0.0001						1.0000		0.9900
n-Butyl acetate	0.3656 0.4982	0.4015 0.5066	0.3763 0.5120	0.4143	0.4242	Ave		0.4373				14.0		15.0			
Cyclohexanone	0.0227 0.0277	0.0195 0.0298	0.0245 0.0291	0.0247	0.0273	Ave		0.0257 NT				14.0		15.0			
1,2,3-Trimethylbenzene	1.9349 2.1478	1.9001 2.2411	1.9102 2.2835	2.1068	2.0922	Ave		2.0771				7.2		15.0			
2-Methylnaphthalene	1.4494 1.3723	1.3533 1.5439	1.2640 1.4798	1.2633	1.3960	Ave		1.3902				7.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-1969/11 Calibration Date: 05/13/2011 13:36

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148163.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1809	0.1714		0.0474	0.0500	-5.2	50.0
Chloromethane	Ave	0.2918	0.2785	0.1000	0.0477	0.0500	-4.6	50.0
Vinyl chloride	Ave	0.2223	0.2152		0.0484	0.0500	-3.2	20.0
Bromomethane	Ave	0.0706	0.0622		0.0441	0.0500	-11.8	50.0
Chloroethane	Ave	0.0509	0.0444		0.0436	0.0500	-12.8	50.0
Trichlorofluoromethane	Ave	0.2149	0.2429		0.0565	0.0500	13.0	50.0
Acrolein	Ave	0.0402	0.0393		0.146	0.150	-2.4	50.0
1,1-Dichloroethene	Ave	0.1866	0.2081		0.0558	0.0500	11.5	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1753	0.2091		0.0596	0.0500	19.2	50.0
Acetone	Lin1		0.0853		0.0983	0.100	-1.7	50.0
Iodomethane	Ave	0.3631	0.4066		0.0560	0.0500	12.0	50.0
Carbon disulfide	Ave	0.4616	0.5060		0.0548	0.0500	9.6	50.0
Acetonitrile	Ave	0.0363	0.0348		0.144	0.150	-4.1	50.0
Methyl acetate	Ave	0.2191	0.2252		0.0514	0.0500	2.8	50.0
tert-Butyl alcohol	Ave	0.0217	0.0223		1.03	1.00	3.0	50.0
Acrylonitrile	Ave	0.1046	0.1012		0.145	0.150	-3.2	50.0
trans-1,2-Dichloroethene	Ave	0.2275	0.2306		0.0507	0.0500	1.4	50.0
Methyl tert-butyl ether	Ave	0.5685	0.5747		0.0505	0.0500	1.1	50.0
Hexane	Ave	0.0501	0.0561		0.0560	0.0500	12.0	20.0
1,1-Dichloroethane	Ave	0.4178	0.4336	0.1000	0.0519	0.0500	3.8	50.0
Vinyl acetate	Ave	0.0316	0.0332		0.0525	0.0500	4.9	50.0
2,2-Dichloropropane	Ave	0.1535	0.1471		0.0479	0.0500	-4.1	50.0
cis-1,2-Dichloroethene	Ave	0.2456	0.2479		0.0505	0.0500	1.0	50.0
2-Butanone	Ave	0.1203	0.1115		0.0927	0.100	-7.3	50.0
Bromochloromethane	Ave	0.1307	0.1294		0.0495	0.0500	-1.0	50.0
Tetrahydrofuran	Ave	0.0799	0.0797		0.0499	0.0500	-0.3	50.0
Chloroform	Ave	0.3650	0.3722		0.0510	0.0500	2.0	20.0
1,1,1-Trichloroethane	Ave	0.2857	0.3007		0.0526	0.0500	5.2	50.0
Cyclohexane	Ave	0.4625	0.5050		0.0546	0.0500	9.2	50.0
1,1-Dichloropropene	Ave	0.2791	0.2861		0.0513	0.0500	2.5	50.0
Carbon tetrachloride	Ave	0.2938	0.2949		0.0502	0.0500	0.4	50.0
Benzene	Ave	0.8703	0.8392		0.0482	0.0500	-3.6	50.0
1,2-Dichloroethane	Ave	0.3410	0.3395		0.0498	0.0500	-0.5	50.0
Trichloroethene	Ave	0.2582	0.2622		0.0508	0.0500	1.5	50.0
Methylcyclohexane	Ave	0.3865	0.4050		0.0524	0.0500	4.8	50.0
1,2-Dichloropropane	Ave	0.2331	0.2274		0.0488	0.0500	-2.5	20.0
Dibromomethane	Ave	0.1218	0.1278		0.0525	0.0500	4.9	50.0
Bromodichloromethane	Ave	0.2201	0.2314		0.0526	0.0500	5.1	50.0
2-Chloroethyl vinyl ether	Ave	0.1159	0.1029		0.0444	0.0500	-11.2	50.0
cis-1,3-Dichloropropene	Ave	0.2676	0.2522		0.0471	0.0500	-5.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-1969/11 Calibration Date: 05/13/2011 13:36

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148163.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Methyl-2-pentanone	Ave	0.3207	0.3246		0.101	0.100	1.2	50.0
Toluene	Ave	1.283	1.237		0.0482	0.0500	-3.6	20.0
trans-1,3-Dichloropropene	Lin1		0.3046		0.0429	0.0500	-14.2	50.0
1,1,2-Trichloroethane	Ave	0.2271	0.2258		0.0497	0.0500	-0.6	50.0
Tetrachloroethene	Ave	0.2700	0.2778		0.0514	0.0500	2.9	50.0
1,3-Dichloropropane	Ave	0.3779	0.3691		0.0488	0.0500	-2.3	50.0
2-Hexanone	Ave	0.2080	0.2004		0.0963	0.100	-3.7	50.0
Dibromochloromethane	Ave	0.2553	0.2494		0.0489	0.0500	-2.3	50.0
1,2-Dibromoethane	Ave	0.2310	0.2313		0.0501	0.0500	0.1	50.0
Chlorobenzene	Ave	0.8850	0.8444	0.3000	0.0477	0.0500	-4.6	50.0
1,1,1,2-Tetrachloroethane	Ave	0.2996	0.3092		0.0516	0.0500	3.2	50.0
Ethylbenzene	Ave	0.4558	0.4441		0.0487	0.0500	-2.6	20.0
m-Xylene & p-Xylene	Ave	0.5508	0.5403		0.0981	0.100	-1.9	50.0
o-Xylene	Ave	0.5516	0.5538		0.0502	0.0500	0.4	50.0
Styrene	Ave	0.8679	0.8479		0.0488	0.0500	-2.3	50.0
Bromoform	Qua		0.1386	0.1000	0.0437	0.0500	-12.6	50.0
Isopropylbenzene	Ave	1.451	1.487		0.0512	0.0500	2.5	50.0
1,1,2,2-Tetrachloroethane	Ave	0.4912	0.5016	0.3000	0.0511	0.0500	2.1	50.0
Bromobenzene	Ave	0.7277	0.7047		0.0484	0.0500	-3.2	50.0
1,2,3-Trichloropropane	Ave	0.1866	0.1847		0.0495	0.0500	-1.0	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1800	0.1839		0.102	0.100	2.1	50.0
n-Propylbenzene	Ave	0.7926	0.8123		0.0512	0.0500	2.5	50.0
2-Chlorotoluene	Ave	0.7346	0.7204		0.0490	0.0500	-1.9	50.0
1,3,5-Trimethylbenzene	Ave	2.289	2.364		0.0516	0.0500	3.3	50.0
4-Chlorotoluene	Ave	0.7295	0.6905		0.0473	0.0500	-5.3	50.0
tert-Butylbenzene	Ave	2.150	2.293		0.0533	0.0500	6.6	50.0
1,2,4-Trimethylbenzene	Ave	2.338	2.419		0.0517	0.0500	3.5	50.0
sec-Butylbenzene	Ave	2.903	3.072		0.0529	0.0500	5.8	50.0
1,3-Dichlorobenzene	Ave	1.393	1.334		0.0479	0.0500	-4.2	50.0
p-Isopropyltoluene	Ave	2.527	2.726		0.0539	0.0500	7.9	50.0
1,4-Dichlorobenzene	Ave	1.423	1.337		0.0470	0.0500	-6.1	50.0
n-Butylbenzene	Ave	2.075	2.151		0.0518	0.0500	3.7	50.0
1,2-Dichlorobenzene	Ave	1.348	1.307		0.0485	0.0500	-3.0	50.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1066		0.0434	0.0500	-13.2	50.0
1,2,4-Trichlorobenzene	Ave	0.9729	1.017		0.0522	0.0500	4.5	50.0
Hexachlorobutadiene	Ave	0.4515	0.4695		0.0520	0.0500	4.0	50.0
Naphthalene	Ave	2.337	2.454		0.0525	0.0500	5.0	50.0
1,2,3-Trichlorobenzene	Ave	0.9257	0.9622		0.0520	0.0500	3.9	50.0
Dibromofluoromethane (Surr)	Qua		0.2552		0.0522	0.0500	4.4	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2845		0.0523	0.0500	4.6	50.0
Toluene-d8 (Surr)	Qua		1.268		0.0541	0.0500	8.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-1969/11 Calibration Date: 05/13/2011 13:36

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148163.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Bromofluorobenzene (Surr)	Qua		0.8627		0.0504	0.0500	0.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-1969/11 Calibration Date: 05/13/2011 13:36

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 13:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 16:27

Lab File ID: 148163.D Conc. Units: ng/uL Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.2111	0.1902		0.0450	0.0500	-9.9	50.0
Methylene Chloride	Ave	0.2286	0.2191		0.0479	0.0500	-4.1	50.0
Diisopropyl ether	Ave	0.1893	0.1964		0.0519	0.0500	3.8	50.0
Isobutyl alcohol	Ave	0.0077	0.0091		2.97	2.50	18.7	50.0
Cyclohexanone	Ave	0.0257	0.0129		0.504	1.00	-49.6	50.0
1,2,3-Trimethylbenzene	Ave	2.077	2.474		0.0595	0.0500	19.1	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: BFB14848.D BFB Injection Date: 06/11/2011

Instrument ID: A3UX14 BFB Injection Time: 10:55

Analysis Batch No.: 4426

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.2	
75	30.0 - 60.0 % of mass 95	44.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	88.7	
175	5.0 - 9.0 % of mass 174	6.4	(7.2)1
176	95.0 - 101.0 % of mass 174	85.9	(96.8)1
177	5.0 - 9.0 % of mass 176	5.4	(6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-4426/4	148879.D	06/11/2011	11:38
	CCV 240-4426/5	148880.D	06/11/2011	12:00
	LCS 240-4426/6	148881.D	06/11/2011	12:21
	MB 240-4426/28	148885.D	06/11/2011	13:47
G-SP-SB-115-0-2	240-635-1	148886.D	06/11/2011	14:08
G-SP-SB-115-10-12	240-635-2	148887.D	06/11/2011	14:30
G-SP-SB-115-18-20	240-635-3	148888.D	06/11/2011	14:51
G-SP-SB-117-0-2	240-635-4	148889.D	06/11/2011	15:13
G-SP-SB-117-6-8	240-635-5	148890.D	06/11/2011	15:34
G-SP-SB-117-20-22	240-635-6	148891.D	06/11/2011	15:56
G-SP-SB-119-0-2	240-635-7	148892.D	06/11/2011	16:17
G-SP-SB-119-6-8	240-635-8	148893.D	06/11/2011	16:39
G-SP-SB-119-20-22	240-635-9	148894.D	06/11/2011	17:00
G-SP-SB-118-0-2	240-635-13	148895.D	06/11/2011	17:22
G-SP-SB-121-18-20	240-635-18	148899.D	06/11/2011	18:48
G-SP-SB-120-0-2	240-635-19	148900.D	06/11/2011	19:09
	LCS 240-3928/2-A	148906.D	06/11/2011	21:17
	MB 240-3928/1-A	148907.D	06/11/2011	21:39
G-SP-SB-121-6-8	240-635-17	148908.D	06/11/2011	22:00

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4426/4 Calibration Date: 06/11/2011 11:38

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148879.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1809	0.2363		65300	50000	30.6	50.0
Chloromethane	Ave	0.2918	0.3417	0.1000	58600	50000	17.1	50.0
Vinyl chloride	Ave	0.2223	0.2489		56000	50000	12.0	20.0
Bromomethane	Ave	0.0706	0.0803		56900	50000	13.8	50.0
Chloroethane	Ave	0.0509	0.1309		129000	50000	157.1*	50.0
Trichlorofluoromethane	Ave	0.2149	0.2471		57500	50000	15.0	50.0
Acrolein	Ave	0.0402	0.0326 N1		406000	500000	-18.9	50.0
1,1-Dichloroethene	Ave	0.1866	0.1955		52400	50000	4.8	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1753	0.1960		55900	50000	11.8	50.0
Acetone	Lin1		0.0901		104000	100000	4.2	50.0
Iodomethane	Ave	0.3631	0.3740		51500	50000	3.0	50.0
Carbon disulfide	Ave	0.4616	0.4078		44200	50000	-11.7	50.0
Acetonitrile	Ave	0.0363	0.0321 N1		443000	500000	-11.4	50.0
Methyl acetate	Ave	0.2191	0.2331		106000	100000	6.4	50.0
tert-Butyl alcohol	Ave	0.0217	0.0190		878000	1000000	-12.2	50.0
Acrylonitrile	Ave	0.1046	0.1024		97900	100000	-2.1	50.0
trans-1,2-Dichloroethene	Ave	0.2275	0.2373		52100	50000	4.3	50.0
Methyl tert-butyl ether	Ave	0.5685	0.5993		52700	50000	5.4	50.0
Hexane	Ave	0.0501	0.0542		54100	50000	8.2	20.0
1,1-Dichloroethane	Ave	0.4178	0.4436	0.1000	53100	50000	6.2	50.0
Vinyl acetate	Ave	0.0316	0.0256		40500	50000	-19.0	50.0
2,2-Dichloropropane	Ave	0.1535	0.1661		54100	50000	8.2	50.0
cis-1,2-Dichloroethene	Ave	0.2456	0.2551		51900	50000	3.9	50.0
2-Butanone	Ave	0.1203	0.1191		99000	100000	-1.0	50.0
Bromochloromethane	Ave	0.1307	0.1319		50400	50000	0.9	50.0
Tetrahydrofuran	Ave	0.0799	0.0800		50100	50000	0.1	50.0
Chloroform	Ave	0.3650	0.3791		51900	50000	3.9	20.0
1,1,1-Trichloroethane	Ave	0.2857	0.3130		54800	50000	9.5	50.0
Cyclohexane	Ave	0.4625	0.5257		56800	50000	13.7	50.0
1,1-Dichloropropene	Ave	0.2791	0.2895		51900	50000	3.7	50.0
Carbon tetrachloride	Ave	0.2938	0.2939		50000	50000	0.0	50.0
Benzene	Ave	0.8703	0.8699		50000	50000	-0.0	50.0
1,2-Dichloroethane	Ave	0.3410	0.3522		51600	50000	3.3	50.0
Trichloroethene	Ave	0.2582	0.2659		51500	50000	3.0	50.0
Methylcyclohexane	Ave	0.3865	0.4027		52100	50000	4.2	50.0
1,2-Dichloropropane	Ave	0.2331	0.2360		50600	50000	1.2	20.0
Dibromomethane	Ave	0.1218	0.1242		51000	50000	2.0	50.0
1,4-Dioxane	Ave	0.0023	0.0020 N1		2180000	2500000	-12.7	50.0
Bromodichloromethane	Ave	0.2201	0.2214		50300	50000	0.6	50.0
2-Chloroethyl vinyl ether	Ave	0.1159	0.1044		90100	100000	-9.9	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4426/4 Calibration Date: 06/11/2011 11:38

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148879.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Ave	0.2676	0.2769		51700	50000	3.5	50.0
4-Methyl-2-pentanone	Ave	0.3207	0.3319		104000	100000	3.5	50.0
Toluene	Ave	1.283	1.245		48500	50000	-3.0	20.0
trans-1,3-Dichloropropene	Lin1		0.3137		44200	50000	-11.6	50.0
Ethyl methacrylate	Ave	0.2919	0.2794		47900	50000	-4.3	50.0
1,1,2-Trichloroethane	Ave	0.2271	0.2278		50100	50000	0.3	50.0
Tetrachloroethene	Ave	0.2700	0.2748		50900	50000	1.8	50.0
1,3-Dichloropropane	Ave	0.3779	0.3615		47800	50000	-4.3	50.0
2-Hexanone	Ave	0.2080	0.1974		94900	100000	-5.1	50.0
Dibromochloromethane	Ave	0.2553	0.2300		45000	50000	-9.9	50.0
1,2-Dibromoethane	Ave	0.2310	0.2298		49700	50000	-0.5	50.0
Chlorobenzene	Ave	0.8850	0.8534	0.3000	48200	50000	-3.6	50.0
1,1,1,2-Tetrachloroethane	Ave	0.2996	0.3128		52200	50000	4.4	50.0
Ethylbenzene	Ave	0.4558	0.4433		48600	50000	-2.7	20.0
m-Xylene & p-Xylene	Ave	0.5508	0.5399		98000	100000	-2.0	50.0
o-Xylene	Ave	0.5516	0.5524		50100	50000	0.1	50.0
Styrene	Ave	0.8679	0.8397		48400	50000	-3.2	50.0
Bromoform	Qua		0.1154	0.1000	36900	50000	-26.2	50.0
Isopropylbenzene	Ave	1.451	1.509		52000	50000	4.0	50.0
1,1,2,2-Tetrachloroethane	Ave	0.4912	0.5139	0.3000	52300	50000	4.6	50.0
Bromobenzene	Ave	0.7277	0.7286		50100	50000	0.1	50.0
1,2,3-Trichloropropane	Ave	0.1866	0.1837		49200	50000	-1.6	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1800	0.1768		49100	50000	-1.8	50.0
n-Propylbenzene	Ave	0.7926	0.8244		52000	50000	4.0	50.0
2-Chlorotoluene	Ave	0.7346	0.7549		51400	50000	2.8	50.0
1,3,5-Trimethylbenzene	Ave	2.289	2.483		54200	50000	8.5	50.0
4-Chlorotoluene	Ave	0.7295	0.7157		49100	50000	-1.9	50.0
tert-Butylbenzene	Ave	2.150	2.361		54900	50000	9.8	50.0
1,2,4-Trimethylbenzene	Ave	2.338	2.469		52800	50000	5.6	50.0
sec-Butylbenzene	Ave	2.903	3.177		54700	50000	9.4	50.0
1,3-Dichlorobenzene	Ave	1.393	1.373		49300	50000	-1.5	50.0
p-Isopropyltoluene	Ave	2.527	2.710		53600	50000	7.3	50.0
1,4-Dichlorobenzene	Ave	1.423	1.363		47900	50000	-4.2	50.0
n-Butylbenzene	Ave	2.075	2.169		52300	50000	4.6	50.0
1,2-Dichlorobenzene	Ave	1.348	1.368		50800	50000	1.5	50.0
1,2-Dibromo-3-Chloropropane	Lin1		0.0938		38300	50000	-23.4	50.0
1,3,5-Trichlorobenzene	Ave	1.042	1.083		52000	50000	4.0	50.0
1,2,4-Trichlorobenzene	Ave	0.9729	1.002		51500	50000	3.0	50.0
Hexachlorobutadiene	Ave	0.4515	0.4891		54200	50000	8.3	50.0
Naphthalene	Ave	2.337	2.409		51500	50000	3.1	50.0
1,2,3-Trichlorobenzene	Ave	0.9257	0.9777		52800	50000	5.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4426/4 Calibration Date: 06/11/2011 11:38

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148879.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Qua		0.2469		50500	50000	1.0	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2849		52300	50000	4.6	50.0
Toluene-d8 (Surr)	Qua		1.215		51900	50000	3.8	50.0
4-Bromofluorobenzene (Surr)	Qua		0.8458		49400	50000	-1.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4426/5 Calibration Date: 06/11/2011 12:00

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148880.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Qua		0.2323		47500	50000	-5.0	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2829		52000	50000	4.0	50.0
Toluene-d8 (Surr)	Qua		1.246		53200	50000	6.4	50.0
4-Bromofluorobenzene (Surr)	Qua		0.8417		49100	50000	-1.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4426/5 Calibration Date: 06/11/2011 12:00

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 13:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 16:27

Lab File ID: 148880.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.2683	0.2930		54600	50000	9.2	50.0
Ethyl ether	Ave	0.2111	0.2012		47600	50000	-4.7	50.0
3-Chloro-1-propene	Ave	0.0947	0.0999		52800	50000	5.5	50.0
Methylene Chloride	Ave	0.2286	0.2452		107000	100000	7.3	50.0
2-Chloro-1,3-butadiene	Ave	0.4092	0.4497		54900	50000	9.9	50.0
Diisopropyl ether	Ave	0.1893	0.1933		255000	250000	2.2	50.0
Ethyl-t-butyl ether (ETBE)	Ave	0.7157	0.7667		53600	50000	7.1	50.0
Propionitrile	Ave	0.0368	0.0373 NT		101000	100000	1.2	50.0
Ethyl acetate	Ave	0.2096	0.2221		106000	100000	6.0	50.0
Methacrylonitrile	Ave	0.1462	0.1538		52600	50000	5.2	50.0
Isobutyl alcohol	Ave	0.0077	0.0089 NT		1160000	1000000	15.9	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.4743	0.4925		51900	50000	3.8	50.0
n-Heptane	Ave	0.0560	0.0622		55500	50000	11.0	50.0
n-Butanol	Lin1		0.0095 NT		1090000	1000000	8.6	50.0
Methyl methacrylate	Ave	0.1987	0.1902		47900	50000	-4.3	50.0
2-Nitropropane	Qua		0.0345 NT		99800	100000	-0.2	50.0
Cyclohexanone	Ave	0.0257	0.0296 NT		577000	500000	15.4	50.0
1,2,3-Trimethylbenzene	Ave	2.077	2.355		56700	50000	13.4	50.0
2-Methylnaphthalene	Ave	1.390	1.506		108000	100000	8.4	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 148885.D Lab Sample ID: MB 240-4426/28

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: A3UX14 Date Analyzed: 06/11/2011 13:47

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-4426/6	148881.D	06/11/2011 12:21
G-SP-SB-115-0-2	240-635-1	148886.D	06/11/2011 14:08
G-SP-SB-115-10-12	240-635-2	148887.D	06/11/2011 14:30
G-SP-SB-115-18-20	240-635-3	148888.D	06/11/2011 14:51
G-SP-SB-117-0-2	240-635-4	148889.D	06/11/2011 15:13
G-SP-SB-117-6-8	240-635-5	148890.D	06/11/2011 15:34
G-SP-SB-117-20-22	240-635-6	148891.D	06/11/2011 15:56
G-SP-SB-119-0-2	240-635-7	148892.D	06/11/2011 16:17
G-SP-SB-119-6-8	240-635-8	148893.D	06/11/2011 16:39
G-SP-SB-119-20-22	240-635-9	148894.D	06/11/2011 17:00
G-SP-SB-118-0-2	240-635-13	148895.D	06/11/2011 17:22
G-SP-SB-121-18-20	240-635-18	148899.D	06/11/2011 18:48
G-SP-SB-120-0-2	240-635-19	148900.D	06/11/2011 19:09

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4426/28

Matrix: Solid | Lab File ID: 148885.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/11/2011 13:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	0.62
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	0.56
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.34
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	5.0	U	5.0	1.3
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.36
75-35-4	1,1-Dichloroethene	5.0	U	5.0	0.52
563-58-6	1,1-Dichloropropene	5.0	U	5.0	0.30
87-61-6	1,2,3-Trichlorobenzene	5.0	U	5.0	0.38
96-18-4	1,2,3-Trichloropropane	5.0	U	5.0	0.90
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.17
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	0.27
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.65
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	1.3
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	0.36
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.34
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.69
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	0.35
142-28-9	1,3-Dichloropropane	5.0	U	5.0	0.34
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	0.66
594-20-7	2,2-Dichloropropane	5.0	U	5.0	0.94
78-93-3	2-Butanone	20	U	20	1.4
110-75-8	2-Chloroethyl vinyl ether	50	U	50	1.4
95-49-8	2-Chlorotoluene	5.0	U	5.0	0.40
591-78-6	2-Hexanone	20	U	20	0.63
106-43-4	4-Chlorotoluene	5.0	U	5.0	0.41
99-87-6	p-Isopropyltoluene	5.0	U	5.0	0.21
108-10-1	4-Methyl-2-pentanone	20	U	20	0.54
67-64-1	Acetone	8.55	J	20	6.3
71-43-2	Benzene	5.0	U	5.0	0.23
108-86-1	Bromobenzene	5.0	U	5.0	0.33
75-25-2	Bromoform	5.0	U	5.0	0.33
74-83-9	Bromomethane	5.0	U	5.0	0.54
75-15-0	Carbon disulfide	5.0	U	5.0	0.44
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.37
108-90-7	Chlorobenzene	5.0	U	5.0	0.33

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-4426/28

Matrix: Solid Lab File ID: 148885.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 06/11/2011 13:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4426 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.0	U	5.0	0.55
75-00-3	Chloroethane	5.0	U	5.0	0.86
67-66-3	Chloroform	5.0	U	5.0	0.29
74-87-3	Chloromethane	5.0	U	5.0	0.41
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.36
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.34
74-95-3	Dibromomethane	5.0	U	5.0	0.63
74-97-5	Bromochloromethane	5.0	U	5.0	0.71
75-71-8	Dichlorodifluoromethane	5.0	U	5.0	0.50
75-27-4	Bromodichloromethane	5.0	U	5.0	0.28
75-65-0	tert-Butyl alcohol	200	U	200	7.6
100-41-4	Ethylbenzene	5.0	U	5.0	0.26
87-68-3	Hexachlorobutadiene	5.0	U	5.0	1.2
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	5.0	U	5.0	0.16
1634-04-4	Methyl tert-butyl ether	20	U	20	0.43
75-09-2	Methylene Chloride	10.9		5.0	0.67
179601-23-1	m-Xylene & p-Xylene	10	U	10	1.2
91-20-3	Naphthalene	5.0	U	5.0	0.19
104-51-8	n-Butylbenzene	5.0	U	5.0	0.23
103-65-1	n-Propylbenzene	5.0	U	5.0	0.40
95-47-6	o-Xylene	5.0	U	5.0	0.35
135-98-8	sec-Butylbenzene	5.0	U	5.0	0.18
100-42-5	Styrene	5.0	U	5.0	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.37
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.22
127-18-4	Tetrachloroethene	5.0	U	5.0	0.52
108-88-3	Toluene	5.0	U	5.0	0.27
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.41
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.54
79-01-6	Trichloroethene	5.0	U	5.0	0.42
75-69-4	Trichlorofluoromethane	5.0	U	5.0	0.34
108-05-4	Vinyl acetate	10	U	10	0.25
75-01-4	Vinyl chloride	5.0	U	5.0	0.39
1330-20-7	Xylenes, Total	10	U	10	0.67

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4426/28

Matrix: Solid | Lab File ID: 148885.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/11/2011 13:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.0	U	5.0	0.29
106-93-4	1,2-Dibromoethane	5.0	U	5.0	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	102		67-125
1868-53-7	Dibromofluoromethane (Surr)	85		37-132
460-00-4	4-Bromofluorobenzene (Surr)	95		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4426/28

Matrix: Solid | Lab File ID: 148885.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/11/2011 13:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 148907.D Lab Sample ID: MB 240-3928/1-A

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: A3UX14 Date Analyzed: 06/11/2011 21:39

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-3928/2-A	148906.D	06/11/2011 21:17
G-SP-SB-121-6-8	240-635-17	148908.D	06/11/2011 22:00
G-SP-SB-120-6-8	240-635-20	148918.D	06/12/2011 10:49

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-3928/1-A

Matrix: Solid | Lab File ID: 148907.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5.00(g) | Date Analyzed: 06/11/2011 21:39

Soil Aliquot Vol: 100 (uL) | Dilution Factor: 1

Soil Extract Vol.: 5(mL) | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Medium

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	250	U	250	9.1
71-55-6	1,1,1-Trichloroethane	250	U	250	21
79-34-5	1,1,2,2-Tetrachloroethane	250	U	250	8.9
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	250	U	250	39
75-34-3	1,1-Dichloroethane	250	U	250	17
75-35-4	1,1-Dichloroethene	250	U	250	18
563-58-6	1,1-Dichloropropene	250	U	250	10
87-61-6	1,2,3-Trichlorobenzene	250	U	250	10
96-18-4	1,2,3-Trichloropropane	250	U	250	21
526-73-8	1,2,3-Trimethylbenzene	250	U	250	0.17
120-82-1	1,2,4-Trichlorobenzene	250	U	250	7.3
95-63-6	1,2,4-Trimethylbenzene	250	U	250	5.0
96-12-8	1,2-Dibromo-3-Chloropropane	500	U	500	50
95-50-1	1,2-Dichlorobenzene	250	U	250	8.6
107-06-2	1,2-Dichloroethane	250	U	250	10
78-87-5	1,2-Dichloropropane	250	U	250	8.2
541-73-1	1,3-Dichlorobenzene	250	U	250	4.8
142-28-9	1,3-Dichloropropane	250	U	250	22
106-46-7	1,4-Dichlorobenzene	250	U	250	8.0
594-20-7	2,2-Dichloropropane	250	U	250	23
78-93-3	2-Butanone	1000	U	1000	43
110-75-8	2-Chloroethyl vinyl ether	1000	U	1000	43
95-49-8	2-Chlorotoluene	250	U	250	9.0
591-78-6	2-Hexanone	1000	U	1000	20
106-43-4	4-Chlorotoluene	250	U	250	9.9
99-87-6	p-Isopropyltoluene	250	U	250	4.8
108-10-1	4-Methyl-2-pentanone	1000	U	1000	48
67-64-1	Acetone	1000	U	1000	170
71-43-2	Benzene	250	U	250	12
108-86-1	Bromobenzene	250	U	250	13
75-25-2	Bromoform	250	U	250	19
74-83-9	Bromomethane	250	U	250	29
75-15-0	Carbon disulfide	250	U	250	12
56-23-5	Carbon tetrachloride	250	U	250	6.4
108-90-7	Chlorobenzene	250	U	250	6.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-3928/1-A

Matrix: Solid | Lab File ID: 148907.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5.00(g) | Date Analyzed: 06/11/2011 21:39

Soil Aliquot Vol: 100 (uL) | Dilution Factor: 1

Soil Extract Vol.: 5(mL) | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Medium

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	250	U	250	12
75-00-3	Chloroethane	250	U	250	61
67-66-3	Chloroform	250	U	250	8.8
74-87-3	Chloromethane	250	U	250	14
156-59-2	cis-1,2-Dichloroethene	250	U	250	6.9
10061-01-5	cis-1,3-Dichloropropene	250	U	250	7.9
74-95-3	Dibromomethane	250	U	250	14
74-97-5	Bromochloromethane	250	U	250	13
75-71-8	Dichlorodifluoromethane	250	U	250	16
75-27-4	Bromodichloromethane	250	U	250	9.9
75-65-0	tert-Butyl alcohol	10000	U	10000	240
100-41-4	Ethylbenzene	250	U	250	5.4
87-68-3	Hexachlorobutadiene	250	U	250	14
108-20-3	Diisopropyl ether	500	U	500	50
98-82-8	Isopropylbenzene	250	U	250	6.5
1634-04-4	Methyl tert-butyl ether	1000	U	1000	7.1
75-09-2	Methylene Chloride	550		250	77
179601-23-1	m-Xylene & p-Xylene	500	U	500	6.2
91-20-3	Naphthalene	13.7	J	250	6.7
104-51-8	n-Butylbenzene	250	U	250	8.0
103-65-1	n-Propylbenzene	250	U	250	14
95-47-6	o-Xylene	250	U	250	8.5
135-98-8	sec-Butylbenzene	250	U	250	4.7
100-42-5	Styrene	250	U	250	5.6
994-05-8	Tert-amyl-methyl ether (TAME)	250	U	250	0.37
637-92-3	Ethyl-t-butyl ether (ETBE)	250	U	250	0.22
127-18-4	Tetrachloroethene	250	U	250	12
108-88-3	Toluene	250	U	250	17
156-60-5	trans-1,2-Dichloroethene	250	U	250	9.2
10061-02-6	trans-1,3-Dichloropropene	250	U	250	20
79-01-6	Trichloroethene	250	U	250	9.7
75-69-4	Trichlorofluoromethane	250	U	250	16
108-05-4	Vinyl acetate	500	U	500	23
75-01-4	Vinyl chloride	250	U	250	18
1330-20-7	Xylenes, Total	500	U	500	8.1

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-3928/1-A

Matrix: Solid | Lab File ID: 148907.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5.00(g) | Date Analyzed: 06/11/2011 21:39

Soil Aliquot Vol: 100 (uL) | Dilution Factor: 1

Soil Extract Vol.: 5(mL) | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Medium

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	250	U	250	6.5
106-93-4	1,2-Dibromoethane	250	U	250	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	84		33-134
1868-53-7	Dibromofluoromethane (Surr)	72		30-122
460-00-4	4-Bromofluorobenzene (Surr)	79		26-141
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		39-128

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton	Job No.: 240-635-1
SDG No.:	
Client Sample ID:	Lab Sample ID: MB 240-3928/1-A
Matrix: Solid	Lab File ID: 148907.D
Analysis Method: 8260B	Date Collected:
Sample wt/vol: 5.00(g)	Date Analyzed: 06/11/2011 21:39
Soil Aliquot Vol: 100 (uL)	Dilution Factor: 1
Soil Extract Vol.: 5(mL)	GC Column: DB-624 ID: 0.18(mm)
% Moisture:	Level: (low/med) Medium
Analysis Batch No.: 4426	Units: ug/Kg
Number TICs Found: 0	TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: BFB14849.D BFB Injection Date: 06/12/2011

Instrument ID: A3UX14 BFB Injection Time: 07:58

Analysis Batch No.: 4446

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.0	
75	30.0 - 60.0 % of mass 95	45.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.1	(0.1)1
174	50.0 - 120.00 % of mass 95	90.4	
175	5.0 - 9.0 % of mass 174	6.6	(7.3)1
176	95.0 - 101.0 % of mass 174	88.0	(97.4)1
177	5.0 - 9.0 % of mass 176	5.3	(6.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-4446/3	148912.D	06/12/2011	08:40
	CCV 240-4446/4	148913.D	06/12/2011	09:02
	LCS 240-4446/5	148914.D	06/12/2011	09:23
	MB 240-4446/6	148915.D	06/12/2011	09:45
G-SP-SB-120-6-8	240-635-20	148918.D	06/12/2011	10:49
G-SP-SB-118-6-8	240-635-14	148920.D	06/12/2011	11:32
G-SP-SB-118-20-22	240-635-15	148921.D	06/12/2011	11:53
G-SP-SB-121-0-3	240-635-16	148922.D	06/12/2011	12:15
G-SP-SB-120-18-20	240-635-21	148924.D	06/12/2011	12:58
G-SP-SB-122-0-2	240-635-22	148925.D	06/12/2011	13:19
G-SP-SB-122-6-8	240-635-23	148926.D	06/12/2011	13:41
G-SP-SB-122-20-22	240-635-24	148927.D	06/12/2011	14:02
G-SP-SB-129-0-2	240-635-25	148928.D	06/12/2011	14:24
G-SP-SB-129-6-8	240-635-26	148929.D	06/12/2011	14:45
G-SP-SB-129-20-22	240-635-27	148930.D	06/12/2011	15:07
	240-699-F-3-A MS	148934.D	06/12/2011	16:32
	240-699-H-3-A MSD	148935.D	06/12/2011	16:54

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4446/3 Calibration Date: 06/12/2011 08:40

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148912.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1809	0.2146		59300	50000	18.6	50.0
Chloromethane	Ave	0.2918	0.3198	0.1000	54800	50000	9.6	50.0
Vinyl chloride	Ave	0.2223	0.2352		52900	50000	5.8	20.0
Bromomethane	Ave	0.0706	0.0827		58600	50000	17.2	50.0
Chloroethane	Ave	0.0509	0.0671		65900	50000	31.7	50.0
Trichlorofluoromethane	Ave	0.2149	0.2583		60100	50000	20.2	50.0
Acrolein	Ave	0.0402	0.0340 NT		423000	500000	-15.4	50.0
1,1-Dichloroethene	Ave	0.1866	0.1877		50300	50000	0.6	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1753	0.1942		55400	50000	10.7	50.0
Acetone	Lin1		0.0877		101000	100000	1.2	50.0
Iodomethane	Ave	0.3631	0.3486		48000	50000	-4.0	50.0
Carbon disulfide	Ave	0.4616	0.3448		37300	50000	-25.3	50.0
Acetonitrile	Ave	0.0363	0.0331 NT		456000	500000	-8.8	50.0
Methyl acetate	Ave	0.2191	0.2153		98300	100000	-1.7	50.0
tert-Butyl alcohol	Ave	0.0217	0.0166		768000	1000000	-23.2	50.0
Acrylonitrile	Ave	0.1046	0.0982		93900	100000	-6.1	50.0
trans-1,2-Dichloroethene	Ave	0.2275	0.2216		48700	50000	-2.6	50.0
Methyl tert-butyl ether	Ave	0.5685	0.5074		44600	50000	-10.8	50.0
Hexane	Ave	0.0501	0.0540		53900	50000	7.7	20.0
1,1-Dichloroethane	Ave	0.4178	0.4202	0.1000	50300	50000	0.6	50.0
Vinyl acetate	Ave	0.0316	0.0255		40400	50000	-19.3	50.0
2,2-Dichloropropane	Ave	0.1535	0.1483		48300	50000	-3.4	50.0
cis-1,2-Dichloroethene	Ave	0.2456	0.2400		48900	50000	-2.3	50.0
2-Butanone	Ave	0.1203	0.1129		93800	100000	-6.2	50.0
Bromochloromethane	Ave	0.1307	0.1233		47200	50000	-5.7	50.0
Tetrahydrofuran	Ave	0.0799	0.0740		46300	50000	-7.4	50.0
Chloroform	Ave	0.3650	0.3722		51000	50000	2.0	20.0
1,1,1-Trichloroethane	Ave	0.2857	0.3015		52800	50000	5.5	50.0
Cyclohexane	Ave	0.4625	0.5161		55800	50000	11.6	50.0
1,1-Dichloropropene	Ave	0.2791	0.2923		52400	50000	4.7	50.0
Carbon tetrachloride	Ave	0.2938	0.2831		48200	50000	-3.6	50.0
Benzene	Ave	0.8703	0.8586		49300	50000	-1.3	50.0
1,2-Dichloroethane	Ave	0.3410	0.3497		51300	50000	2.5	50.0
Trichloroethene	Ave	0.2582	0.2642		51200	50000	2.3	50.0
Methylcyclohexane	Ave	0.3865	0.3967		51300	50000	2.6	50.0
1,2-Dichloropropane	Ave	0.2331	0.2321		49800	50000	-0.4	20.0
Dibromomethane	Ave	0.1218	0.1200		49300	50000	-1.4	50.0
1,4-Dioxane	Ave	0.0023	0.0020 NT		2130000	2500000	-14.7	50.0
Bromodichloromethane	Ave	0.2201	0.2060		46800	50000	-6.4	50.0
2-Chloroethyl vinyl ether	Ave	0.1159	0.1017		87700	100000	-12.3	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4446/3 Calibration Date: 06/12/2011 08:40

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148912.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Ave	0.2676	0.2537		47400	50000	-5.2	50.0
4-Methyl-2-pentanone	Ave	0.3207	0.3153		98300	100000	-1.7	50.0
Toluene	Ave	1.283	1.294		50400	50000	0.9	20.0
trans-1,3-Dichloropropene	Lin1		0.2939		41500	50000	-17.0	50.0
Ethyl methacrylate	Ave	0.2919	0.2719		46600	50000	-6.8	50.0
1,1,2-Trichloroethane	Ave	0.2271	0.2255		49600	50000	-0.7	50.0
Tetrachloroethene	Ave	0.2700	0.2916		54000	50000	8.0	50.0
1,3-Dichloropropane	Ave	0.3779	0.3763		49800	50000	-0.4	50.0
2-Hexanone	Ave	0.2080	0.1954		93900	100000	-6.1	50.0
Dibromochloromethane	Ave	0.2553	0.2155		42200	50000	-15.6	50.0
1,2-Dibromoethane	Ave	0.2310	0.2290		49600	50000	-0.9	50.0
Chlorobenzene	Ave	0.8850	0.8774	0.3000	49600	50000	-0.9	50.0
1,1,1,2-Tetrachloroethane	Ave	0.2996	0.2965		49500	50000	-1.0	50.0
Ethylbenzene	Ave	0.4558	0.4577		50200	50000	0.4	20.0
m-Xylene & p-Xylene	Ave	0.5508	0.5666		103000	100000	2.9	50.0
o-Xylene	Ave	0.5516	0.5468		49600	50000	-0.9	50.0
Styrene	Ave	0.8679	0.8816		50800	50000	1.6	50.0
Bromoform	Qua		0.1118	0.1000	35900	50000	-28.2	50.0
Isopropylbenzene	Ave	1.451	1.504		51800	50000	3.7	50.0
1,1,2,2-Tetrachloroethane	Ave	0.4912	0.4916	0.3000	50000	50000	0.0	50.0
Bromobenzene	Ave	0.7277	0.7304		50200	50000	0.4	50.0
1,2,3-Trichloropropane	Ave	0.1866	0.1825		48900	50000	-2.2	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1800	0.1737		48200	50000	-3.5	50.0
n-Propylbenzene	Ave	0.7926	0.8445		53300	50000	6.5	50.0
2-Chlorotoluene	Ave	0.7346	0.7543		51300	50000	2.7	50.0
1,3,5-Trimethylbenzene	Ave	2.289	2.516		55000	50000	9.9	50.0
4-Chlorotoluene	Ave	0.7295	0.7428		50900	50000	1.8	50.0
tert-Butylbenzene	Ave	2.150	2.378		55300	50000	10.6	50.0
1,2,4-Trimethylbenzene	Ave	2.338	2.467		52800	50000	5.5	50.0
sec-Butylbenzene	Ave	2.903	3.239		55800	50000	11.5	50.0
1,3-Dichlorobenzene	Ave	1.393	1.385		49700	50000	-0.6	50.0
p-Isopropyltoluene	Ave	2.527	2.764		54700	50000	9.4	50.0
1,4-Dichlorobenzene	Ave	1.423	1.397		49100	50000	-1.8	50.0
n-Butylbenzene	Ave	2.075	2.192		52800	50000	5.7	50.0
1,2-Dichlorobenzene	Ave	1.348	1.345		49900	50000	-0.2	50.0
1,2-Dibromo-3-Chloropropane	Lin1		0.0718		29500	50000	-41.0	50.0
1,3,5-Trichlorobenzene	Ave	1.042	1.033		49600	50000	-0.8	50.0
1,2,4-Trichlorobenzene	Ave	0.9729	0.9348		48000	50000	-3.9	50.0
Hexachlorobutadiene	Ave	0.4515	0.4788		53000	50000	6.0	50.0
Naphthalene	Ave	2.337	2.149		46000	50000	-8.1	50.0
1,2,3-Trichlorobenzene	Ave	0.9257	0.8994		48600	50000	-2.8	50.0

FORM VII 8260B

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4446/3 Calibration Date: 06/12/2011 08:40

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148912.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Qua		0.2370		48400	50000	-3.2	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2836		52100	50000	4.2	50.0
Toluene-d8 (Surr)	Qua		1.239		52900	50000	5.8	50.0
4-Bromofluorobenzene (Surr)	Qua		0.8302		48400	50000	-3.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4446/4 Calibration Date: 06/12/2011 09:02

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148913.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Qua		0.2177		44400	50000	-11.2	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2821		51800	50000	3.6	50.0
Toluene-d8 (Surr)	Qua		1.251		53400	50000	6.8	50.0
4-Bromofluorobenzene (Surr)	Qua		0.8655		50500	50000	1.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4446/4 Calibration Date: 06/12/2011 09:02

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 13:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 16:27

Lab File ID: 148913.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.2683	0.2938		54700	50000	9.5	50.0
Ethyl ether	Ave	0.2111	0.1975		46800	50000	-6.4	50.0
3-Chloro-1-propene	Ave	0.0947	0.0850		44900	50000	-10.2	50.0
Methylene Chloride	Ave	0.2286	0.2181		95400	100000	-4.6	50.0
2-Chloro-1,3-butadiene	Ave	0.4092	0.4229		51700	50000	3.3	50.0
Diisopropyl ether	Ave	0.1893	0.1818		240000	250000	-4.0	50.0
Ethyl-t-butyl ether (ETBE)	Ave	0.7157	0.6689		46700	50000	-6.5	50.0
Propionitrile	Ave	0.0368	0.0342	NT	93000	100000	-7.0	50.0
Ethyl acetate	Ave	0.2096	0.2194		105000	100000	4.7	50.0
Methacrylonitrile	Ave	0.1462	0.1498		51200	50000	2.4	50.0
Isobutyl alcohol	Ave	0.0077	0.0084	NT	1090000	1000000	8.7	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.4743	0.4257		44900	50000	-10.3	50.0
n-Heptane	Ave	0.0560	0.0617		55100	50000	10.2	50.0
n-Butanol	Lin1		0.0081	NT	922000	1000000	-7.8	50.0
Methyl methacrylate	Ave	0.1987	0.1806		45500	50000	-9.1	50.0
2-Nitropropane	Qua		0.0279	NT	83300	100000	-16.7	50.0
Cyclohexanone	Ave	0.0257	0.0286	NT	557000	500000	11.3	50.0
1,2,3-Trimethylbenzene	Ave	2.077	2.339		56300	50000	12.6	50.0
2-Methylnaphthalene	Ave	1.390	1.328		95500	100000	-4.5	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 148915.D Lab Sample ID: MB 240-4446/6

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: A3UX14 Date Analyzed: 06/12/2011 09:45

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-4446/5	148914.D	06/12/2011 09:23
G-SP-SB-118-6-8	240-635-14	148920.D	06/12/2011 11:32
G-SP-SB-118-20-22	240-635-15	148921.D	06/12/2011 11:53
G-SP-SB-121-0-3	240-635-16	148922.D	06/12/2011 12:15
G-SP-SB-120-18-20	240-635-21	148924.D	06/12/2011 12:58
G-SP-SB-122-0-2	240-635-22	148925.D	06/12/2011 13:19
G-SP-SB-122-6-8	240-635-23	148926.D	06/12/2011 13:41
G-SP-SB-122-20-22	240-635-24	148927.D	06/12/2011 14:02
G-SP-SB-129-0-2	240-635-25	148928.D	06/12/2011 14:24
G-SP-SB-129-6-8	240-635-26	148929.D	06/12/2011 14:45
G-SP-SB-129-20-22	240-635-27	148930.D	06/12/2011 15:07
	240-699-F-3-A MS	148934.D	06/12/2011 16:32
	240-699-H-3-A MSD	148935.D	06/12/2011 16:54

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4446/6

Matrix: Solid | Lab File ID: 148915.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/12/2011 09:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	0.62
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	0.56
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.34
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	5.0	U	5.0	1.3
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.36
75-35-4	1,1-Dichloroethene	5.0	U	5.0	0.52
563-58-6	1,1-Dichloropropene	5.0	U	5.0	0.30
87-61-6	1,2,3-Trichlorobenzene	5.0	U	5.0	0.38
96-18-4	1,2,3-Trichloropropane	5.0	U	5.0	0.90
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.17
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	0.27
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.65
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	1.3
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	0.36
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.34
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.69
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	0.35
142-28-9	1,3-Dichloropropane	5.0	U	5.0	0.34
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	0.66
594-20-7	2,2-Dichloropropane	5.0	U	5.0	0.94
78-93-3	2-Butanone	20	U	20	1.4
110-75-8	2-Chloroethyl vinyl ether	50	U	50	1.4
95-49-8	2-Chlorotoluene	5.0	U	5.0	0.40
591-78-6	2-Hexanone	20	U	20	0.63
106-43-4	4-Chlorotoluene	5.0	U	5.0	0.41
99-87-6	p-Isopropyltoluene	5.0	U	5.0	0.21
108-10-1	4-Methyl-2-pentanone	20	U	20	0.54
67-64-1	Acetone	7.93	J	20	6.3
71-43-2	Benzene	5.0	U	5.0	0.23
108-86-1	Bromobenzene	5.0	U	5.0	0.33
75-25-2	Bromoform	5.0	U	5.0	0.33
74-83-9	Bromomethane	5.0	U	5.0	0.54
75-15-0	Carbon disulfide	5.0	U	5.0	0.44
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.37
108-90-7	Chlorobenzene	5.0	U	5.0	0.33

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4446/6

Matrix: Solid | Lab File ID: 148915.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/12/2011 09:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.0	U	5.0	0.55
75-00-3	Chloroethane	5.0	U	5.0	0.86
67-66-3	Chloroform	5.0	U	5.0	0.29
74-87-3	Chloromethane	5.0	U	5.0	0.41
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.36
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.34
74-95-3	Dibromomethane	5.0	U	5.0	0.63
74-97-5	Bromochloromethane	5.0	U	5.0	0.71
75-71-8	Dichlorodifluoromethane	5.0	U	5.0	0.50
75-27-4	Bromodichloromethane	5.0	U	5.0	0.28
75-65-0	tert-Butyl alcohol	200	U	200	7.6
100-41-4	Ethylbenzene	5.0	U	5.0	0.26
87-68-3	Hexachlorobutadiene	5.0	U	5.0	1.2
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	5.0	U	5.0	0.16
1634-04-4	Methyl tert-butyl ether	20	U	20	0.43
75-09-2	Methylene Chloride	6.20		5.0	0.67
179601-23-1	m-Xylene & p-Xylene	10	U	10	1.2
91-20-3	Naphthalene	0.417	J	5.0	0.19
104-51-8	n-Butylbenzene	5.0	U	5.0	0.23
103-65-1	n-Propylbenzene	5.0	U	5.0	0.40
95-47-6	o-Xylene	5.0	U	5.0	0.35
135-98-8	sec-Butylbenzene	5.0	U	5.0	0.18
100-42-5	Styrene	5.0	U	5.0	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.37
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.22
127-18-4	Tetrachloroethene	5.0	U	5.0	0.52
108-88-3	Toluene	5.0	U	5.0	0.27
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.41
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.54
79-01-6	Trichloroethene	5.0	U	5.0	0.42
75-69-4	Trichlorofluoromethane	5.0	U	5.0	0.34
108-05-4	Vinyl acetate	10	U	10	0.25
75-01-4	Vinyl chloride	5.0	U	5.0	0.39
1330-20-7	Xylenes, Total	10	U	10	0.67

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4446/6

Matrix: Solid | Lab File ID: 148915.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/12/2011 09:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.0	U	5.0	0.29
106-93-4	1,2-Dibromoethane	5.0	U	5.0	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		67-125
1868-53-7	Dibromofluoromethane (Surr)	87		37-132
460-00-4	4-Bromofluorobenzene (Surr)	94		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4446/6

Matrix: Solid | Lab File ID: 148915.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/12/2011 09:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 4446 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM	#	DCA	#	TOL	#	BFB	#
G-SP-SB-115-0-2	240-635-1	88		104		105		95	
G-SP-SB-115-10-12	240-635-2	85		107		105		97	
G-SP-SB-115-18-20	240-635-3	87		102		112		114	
G-SP-SB-117-0-2	240-635-4	84		101		109		108	
G-SP-SB-117-6-8	240-635-5	86		109		108		95	
G-SP-SB-117-20-22	240-635-6	85		102		108		96	
G-SP-SB-119-0-2	240-635-7	84		108		105		99	
G-SP-SB-119-6-8	240-635-8	86		110		107		96	
G-SP-SB-119-20-22	240-635-9	83		103		112		113	
G-SP-SB-118-0-2	240-635-13	84		106		105		97	
G-SP-SB-118-6-8	240-635-14	82		110		105		94	
G-SP-SB-118-20-22	240-635-15	83		102		111		104	
G-SP-SB-121-0-3	240-635-16	80		104		110		106	
G-SP-SB-121-18-20	240-635-18	91		115		105		93	
G-SP-SB-120-0-2	240-635-19	102		128	X	127	X	118	
G-SP-SB-120-18-20	240-635-21	83		108		106		97	
G-SP-SB-122-0-2	240-635-22	83		106		109		103	
G-SP-SB-122-6-8	240-635-23	83		104		104		94	
G-SP-SB-122-20-22	240-635-24	84		103		109		95	
G-SP-SB-129-0-2	240-635-25	83		103		110		107	
G-SP-SB-129-6-8	240-635-26	84		108		107		95	
G-SP-SB-129-20-22	240-635-27	85		107		106		96	
	MB 240-4426/28	85		103		102		95	
	MB 240-4446/6	87		104		103		94	
	LCS 240-4426/6	99		102		105		100	
	LCS 240-4446/5	100		104		107		99	
	240-699-F-3-A MS	99		101		156	X	151 *	X
	240-699-H-3-A MSD	104		108		151 *	X	131	*

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	37-132
DCA = 1,2-Dichloroethane-d4 (Surr)	58-123
TOL = Toluene-d8 (Surr)	67-125
BFB = 4-Bromofluorobenzene (Surr)	52-136

Column to be used to flag recovery values

FORM II 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Medium

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM	#	DCA	#	TOL	#	BFB	#
G-SP-SB-121-6-8	240-635-17	23	X	76		71		64	
G-SP-SB-120-6-8	240-635-20	61		85		83		81	
	MB 240-3928/1-A	72		90		84		79	
	LCS 240-3928/2-A	81		93		85		80	

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	30-122
DCA = 1,2-Dichloroethane-d4 (Surr)	39-128
TOL = Toluene-d8 (Surr)	33-134
BFB = 4-Bromofluorobenzene (Surr)	26-141

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Medium Lab File ID: 148906.D

Lab ID: LCS 240-3928/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	500	423	85	27-121	
1,1,1-Trichloroethane	500	455	91	38-122	
1,1,2,2-Tetrachloroethane	500	453	91	54-121	
1,1,2-Trichloro-1,2,2-trichfluoroethane	500	535	107	48-151	
1,1-Dichloroethane	500	500	100	63-117	
1,1-Dichloroethene	500	479	96	44-143	
1,1-Dichloropropene	500	462	92	60-123	
1,2,3-Trichlorobenzene	500	490	98	43-129	
1,2,3-Trichloropropane	500	452	90	74-124	
1,2,3-Trimethylbenzene	500	575	115	70-130	
1,2,4-Trichlorobenzene	500	449	90	41-135	
1,2,4-Trimethylbenzene	500	486	97	62-133	
1,2-Dibromo-3-Chloropropane	500	313 J	63	10-129	
1,2-Dichlorobenzene	500	462	92	68-118	
1,2-Dichloroethane	500	500	100	68-119	
1,2-Dichloropropane	500	478	96	73-113	
1,3-Dichlorobenzene	500	458	92	66-121	
1,3-Dichloropropane	500	463	93	74-119	
1,4-Dichlorobenzene	500	435	87	65-119	
2,2-Dichloropropane	500	418	84	25-123	
2-Butanone	1000	990 J	99	10-199	
2-Chloroethyl vinyl ether	500	424 J	85	25-140	
2-Chlorotoluene	500	472	94	68-122	
2-Hexanone	1000	900 J	90	43-130	
4-Chlorotoluene	500	460	92	68-122	
p-Isopropyltoluene	500	484	97	56-136	
4-Methyl-2-pentanone	1000	945 J	95	49-121	
Acetone	1000	1220	122	16-156	
Benzene	500	479	96	70-117	
Bromobenzene	500	465	93	72-120	
Bromoform	500	320	64	10-117	
Bromomethane	500	505	101	10-114	
Carbon disulfide	500	267	53	10-132	
Carbon tetrachloride	500	376	75	29-118	
Chlorobenzene	500	455	91	71-116	
Dibromochloromethane	500	285	57	22-113	
Chloroethane	500	585	117	10-120	
Chloroform	500	489	98	63-116	
Chloromethane	500	475	95	25-110	
cis-1,2-Dichloroethene	500	478	96	60-125	
cis-1,3-Dichloropropene	500	327	65	25-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Medium Lab File ID: 148906.D

Lab ID: LCS 240-3928/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dibromomethane	500	462	92	68-118	
Bromochloromethane	500	478	96	56-128	
Dichlorodifluoromethane	500	323	65	10-110	
Bromodichloromethane	500	362	72	28-123	
tert-Butyl alcohol	10000	9760 J	98	70-130	
Ethylbenzene	500	464	93	66-119	
Hexachlorobutadiene	500	448	90	34-135	
Diisopropyl ether	500	493 J	99	71-113	
Isopropylbenzene	500	467	93	61-123	
Methyl tert-butyl ether	500	478 J	96	34-157	
Methylene Chloride	500	1220	244	27-172	*
m-Xylene & p-Xylene	1000	910	91	67-118	
Naphthalene	500	515	103	37-126	
n-Butylbenzene	500	471	94	51-137	
n-Propylbenzene	500	450	90	64-130	
o-Xylene	500	505	101	68-120	
sec-Butylbenzene	500	474	95	58-131	
Styrene	500	447	89	60-120	
Tetrachloroethene	500	475	95	58-131	
Toluene	500	461	92	66-123	
trans-1,2-Dichloroethene	500	453	91	58-121	
trans-1,3-Dichloropropene	500	320	64	22-122	
Trichloroethene	500	475	95	59-124	
Trichlorofluoromethane	500	491	98	17-145	
Vinyl acetate	500	339 J	68	60-125	
Vinyl chloride	500	478	96	33-110	
tert-Butylbenzene	500	478	96	58-128	
1,2-Dibromoethane	500	427	85	47-123	

Column to be used to flag recovery and RPD values.

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 148881.D

Lab ID: LCS 240-4426/6 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	47.5	95	81-119	
1,1,1-Trichloroethane	50.0	51.6	103	77-126	
1,1,2,2-Tetrachloroethane	50.0	46.0	92	77-123	
1,1,2-Trichloro-1,2,2-trichfluoroethane	50.0	55.6	111	82-138	
1,1-Dichloroethane	50.0	49.1	98	76-115	
1,1-Dichloroethene	50.0	50.2	100	75-135	
1,1-Dichloropropene	50.0	48.7	97	80-120	
1,2,3-Trichlorobenzene	50.0	46.0	92	61-121	
1,2,3-Trichloropropane	50.0	45.3	91	84-126	
1,2,3-Trimethylbenzene	50.0	56.0	112	70-130	
1,2,4-Trichlorobenzene	50.0	44.2	88	64-124	
1,2,4-Trimethylbenzene	50.0	49.1	98	80-129	
1,2-Dibromo-3-Chloropropane	50.0	33.1	66	61-132	
1,2-Dichlorobenzene	50.0	45.9	92	76-110	
1,2-Dichloroethane	50.0	47.1	94	72-120	
1,2-Dichloropropane	50.0	46.6	93	87-113	
1,3-Dichlorobenzene	50.0	45.4	91	78-111	
1,3-Dichloropropane	50.0	45.2	90	82-118	
1,4-Dichlorobenzene	50.0	44.3	89	75-110	
2,2-Dichloropropane	50.0	50.7	101	69-135	
2-Butanone	100	87.6	88	52-131	
2-Chloroethyl vinyl ether	50.0	42.2 J	84	28-173	
2-Chlorotoluene	50.0	46.4	93	78-119	
2-Hexanone	100	90.0	90	64-136	
4-Chlorotoluene	50.0	46.2	92	79-118	
p-Isopropyltoluene	50.0	51.8	104	77-131	
4-Methyl-2-pentanone	100	92.2	92	67-135	
Acetone	100	113	113	41-137	
Benzene	50.0	46.2	92	79-112	
Bromobenzene	50.0	45.9	92	81-115	
Bromoform	50.0	34.7	69	62-133	
Bromomethane	50.0	46.3	93	42-136	
Carbon disulfide	50.0	41.0	82	62-146	
Carbon tetrachloride	50.0	47.2	94	71-129	
Chlorobenzene	50.0	44.6	89	78-110	
Dibromochloromethane	50.0	40.0	80	72-127	
Chloroethane	50.0	112	224	58-117	*
Chloroform	50.0	49.0	98	77-114	
Chloromethane	50.0	46.9	94	50-110	
cis-1,2-Dichloroethene	50.0	47.7	95	76-113	
cis-1,3-Dichloropropene	50.0	44.9	90	74-128	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 148881.D

Lab ID: LCS 240-4426/6 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dibromomethane	50.0	47.5	95	85-120	
Bromochloromethane	50.0	45.5	91	79-111	
Dichlorodifluoromethane	50.0	38.8	78	26-113	
Bromodichloromethane	50.0	45.9	92	84-122	
tert-Butyl alcohol	1000	776	78	60-125	
Ethylbenzene	50.0	44.5	89	79-117	
Hexachlorobutadiene	50.0	47.2	94	54-131	
Diisopropyl ether	50.0	47.4	95	82-119	
Isopropylbenzene	50.0	48.2	96	76-122	
Methyl tert-butyl ether	50.0	45.5	91	49-165	
Methylene Chloride	50.0	58.5	117	75-118	
m-Xylene & p-Xylene	100	91.1	91	80-117	
Naphthalene	50.0	44.8	90	65-123	
n-Butylbenzene	50.0	49.1	98	68-135	
n-Propylbenzene	50.0	48.9	98	81-129	
o-Xylene	50.0	46.6	93	80-120	
sec-Butylbenzene	50.0	50.4	101	74-129	
Styrene	50.0	45.0	90	87-117	
Tetrachloroethene	50.0	48.2	96	79-114	
Toluene	50.0	45.0	90	75-111	
trans-1,2-Dichloroethene	50.0	47.3	95	78-117	
trans-1,3-Dichloropropene	50.0	39.8	80	73-131	
Trichloroethene	50.0	47.7	95	79-113	
Trichlorofluoromethane	50.0	53.9	108	57-146	
Vinyl acetate	50.0	46.1	92	70-130	
Vinyl chloride	50.0	46.6	93	57-114	
tert-Butylbenzene	50.0	49.9	100	76-126	
1,2-Dibromoethane	50.0	46.2	92	83-117	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 148914.D

Lab ID: LCS 240-4446/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	49.8	100	81-119	
1,1,1-Trichloroethane	50.0	51.8	104	77-126	
1,1,2,2-Tetrachloroethane	50.0	48.4	97	77-123	
1,1,2-Trichloro-1,2,2-trichfluoroethane	50.0	59.9	120	82-138	
1,1-Dichloroethane	50.0	50.7	101	76-115	
1,1-Dichloroethene	50.0	51.9	104	75-135	
1,1-Dichloropropene	50.0	50.2	100	80-120	
1,2,3-Trichlorobenzene	50.0	47.9	96	61-121	
1,2,3-Trichloropropane	50.0	47.2	94	84-126	
1,2,3-Trimethylbenzene	50.0	59.7	119	70-130	
1,2,4-Trichlorobenzene	50.0	45.7	91	64-124	
1,2,4-Trimethylbenzene	50.0	51.4	103	80-129	
1,2-Dibromo-3-Chloropropane	50.0	31.0	62	61-132	
1,2-Dichlorobenzene	50.0	47.5	95	76-110	
1,2-Dichloroethane	50.0	49.9	100	72-120	
1,2-Dichloropropane	50.0	47.6	95	87-113	
1,3-Dichlorobenzene	50.0	48.4	97	78-111	
1,3-Dichloropropane	50.0	46.6	93	82-118	
1,4-Dichlorobenzene	50.0	46.5	93	75-110	
2,2-Dichloropropane	50.0	48.3	97	69-135	
2-Butanone	100	84.8	85	52-131	
2-Chloroethyl vinyl ether	50.0	39.9 J	80	28-173	
2-Chlorotoluene	50.0	49.6	99	78-119	
2-Hexanone	100	85.7	86	64-136	
4-Chlorotoluene	50.0	47.3	95	79-118	
p-Isopropyltoluene	50.0	55.2	110	77-131	
4-Methyl-2-pentanone	100	96.7	97	67-135	
Acetone	100	97.1	97	41-137	
Benzene	50.0	48.2	96	79-112	
Bromobenzene	50.0	47.4	95	81-115	
Bromoform	50.0	32.7	65	62-133	
Bromomethane	50.0	54.1	108	42-136	
Carbon disulfide	50.0	38.5	77	62-146	
Carbon tetrachloride	50.0	48.1	96	71-129	
Chlorobenzene	50.0	46.2	92	78-110	
Dibromochloromethane	50.0	39.8	80	72-127	
Chloroethane	50.0	126	252	58-117	*
Chloroform	50.0	51.4	103	77-114	
Chloromethane	50.0	52.2	104	50-110	
cis-1,2-Dichloroethene	50.0	48.2	96	76-113	
cis-1,3-Dichloropropene	50.0	41.7	83	74-128	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 148914.D

Lab ID: LCS 240-4446/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dibromomethane	50.0	48.8	98	85-120	
Bromochloromethane	50.0	47.5	95	79-111	
Dichlorodifluoromethane	50.0	49.0	98	26-113	
Bromodichloromethane	50.0	44.7	89	84-122	
tert-Butyl alcohol	1000	677	68	60-125	
Ethylbenzene	50.0	47.5	95	79-117	
Hexachlorobutadiene	50.0	50.2	100	54-131	
Diisopropyl ether	50.0	47.9	96	82-119	
Isopropylbenzene	50.0	50.2	100	76-122	
Methyl tert-butyl ether	50.0	45.1	90	49-165	
Methylene Chloride	50.0	51.6	103	75-118	
m-Xylene & p-Xylene	100	96.4	96	80-117	
Naphthalene	50.0	45.4	91	65-123	
n-Butylbenzene	50.0	51.9	104	68-135	
n-Propylbenzene	50.0	51.2	102	81-129	
o-Xylene	50.0	49.4	99	80-120	
sec-Butylbenzene	50.0	53.5	107	74-129	
Styrene	50.0	47.0	94	87-117	
Tetrachloroethene	50.0	51.3	103	79-114	
Toluene	50.0	48.1	96	75-111	
trans-1,2-Dichloroethene	50.0	48.7	97	78-117	
trans-1,3-Dichloropropene	50.0	38.1	76	73-131	
Trichloroethene	50.0	48.9	98	79-113	
Trichlorofluoromethane	50.0	58.0	116	57-146	
Vinyl acetate	50.0	45.4	91	70-130	
Vinyl chloride	50.0	51.6	103	57-114	
tert-Butylbenzene	50.0	52.9	106	76-126	
1,2-Dibromoethane	50.0	45.8	92	83-117	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 148934.D

Lab ID: 240-699-F-3-A MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	53.9	4.7 U	30.8	57	34-135	
1,1,1-Trichloroethane	53.9	4.7 U	40.2	75	51-128	
1,1,2,2-Tetrachloroethane	53.9	4.7 U	50.9	94	16-179	*
1,1,2-Trichloro-1,2,2-trichfluoroethane	53.9	4.7 U	57.7	107	50-147	
1,1-Dichloroethane	53.9	4.7 U	42.6	79	54-122	
1,1-Dichloroethene	53.9	4.7 U	44.7	83	49-157	
1,1-Dichloropropene	53.9	4.7 U	34.2	63	50-122	
1,2,3-Trichlorobenzene	53.9	4.7 U	12.2	23	10-110	*
1,2,3-Trichloropropane	53.9	4.7 U	57.3	106	32-174	*
1,2,3-Trimethylbenzene	53.9	4.7 U	35.1	65	70-130	* F
1,2,4-Trichlorobenzene	53.9	4.7 U	11.8	22	10-111	*
1,2,4-Trimethylbenzene	53.9	4.7 U	31.1	58	10-173	*
1,2-Dibromo-3-Chloropropane	53.9	9.5 U	19.0	35	10-153	*
1,2-Dichlorobenzene	53.9	4.7 U	20.5	38	17-122	*
1,2-Dichloroethane	53.9	4.7 U	32.8	61	49-123	
1,2-Dichloropropane	53.9	4.7 U	31.7	59	61-117	F
1,3-Dichlorobenzene	53.9	4.7 U	21.8	40	16-126	*
1,3-Dichloropropane	53.9	4.7 U	34.5	64	54-128	
1,4-Dichlorobenzene	53.9	4.7 U	19.5	36	15-121	*
2,2-Dichloropropane	53.9	4.7 U	38.2	71	49-132	
2-Butanone	108	19 U	77.9	72	30-143	
2-Chloroethyl vinyl ether	53.9	47 U	14.8 J	27	10-162	
2-Chlorotoluene	53.9	4.7 U	32.9	61	11-162	*
2-Hexanone	108	19 U	67.3	62	37-147	
4-Chlorotoluene	53.9	4.7 U	26.4	49	15-149	*
p-Isopropyltoluene	53.9	4.7 U	27.3	51	10-165	*
4-Methyl-2-pentanone	108	19 U	103	96	43-147	
Acetone	108	19 U	91.6	85	24-140	
Benzene	53.9	4.7 U	32.3	60	53-118	
Bromobenzene	53.9	4.7 U	28.1	52	24-144	*
Bromoform	53.9	4.7 U	12.5	23	18-129	
Bromomethane	53.9	4.7 U	47.4	88	33-130	
Carbon disulfide	53.9	4.7 U	22.1	41	20-151	
Carbon tetrachloride	53.9	4.7 U	34.5	64	32-137	
Chlorobenzene	53.9	4.7 U	20.2	37	37-116	
Dibromochloromethane	53.9	4.7 U	19.2	36	29-135	
Chloroethane	53.9	4.7 U	103	191	45-118	F
Chloroform	53.9	4.7 U	36.9	68	53-119	
Chloromethane	53.9	4.7 U	53.1	98	34-117	
cis-1,2-Dichloroethene	53.9	4.7 U	31.5	58	50-119	
cis-1,3-Dichloropropene	53.9	4.7 U	15.2	28	27-133	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 148934.D

Lab ID: 240-699-F-3-A MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Dibromomethane	53.9	4.7 U	24.3	45	52-123	F
Bromochloromethane	53.9	4.7 U	31.1	58	53-116	
Dichlorodifluoromethane	53.9	4.7 U	51.9	96	17-115	
Bromodichloromethane	53.9	4.7 U	22.0	41	35-132	
tert-Butyl alcohol	1080	190 U	1100	102	60-125	
Ethylbenzene	53.9	4.7 U	23.8	44	30-131	
Hexachlorobutadiene	53.9	4.7 U	18.5	34	10-131	*
Diisopropyl ether	53.9	9.5 U	44.6	83	62-128	
Isopropylbenzene	53.9	4.7 U	20.9	39	21-134	
Methyl tert-butyl ether	53.9	19 U	47.3	88	51-157	
Methylene Chloride	53.9	3.9 J	43.8	74	54-115	
m-Xylene & p-Xylene	108	9.5 U	43.5	40	29-131	
Naphthalene	53.9	4.7 U	9.98	19	10-124	*
n-Butylbenzene	53.9	4.7 U	19.6	36	10-148	*
n-Propylbenzene	53.9	4.7 U	34.7	64	10-178	*
o-Xylene	53.9	4.7 U	21.8	40	29-134	
sec-Butylbenzene	53.9	4.7 U	32.2	60	10-172	*
Styrene	53.9	4.7 U	13.5	25	27-127	F
Tetrachloroethene	53.9	4.7 U	35.2	65	31-135	
Toluene	53.9	4.7 U	35.1	65	39-129	
trans-1,2-Dichloroethene	53.9	4.7 U	34.2	63	50-123	
trans-1,3-Dichloropropene	53.9	4.7 U	17.6	33	28-137	
Trichloroethene	53.9	4.7 U	26.4	49	10-177	
Trichlorofluoromethane	53.9	4.7 U	49.2	91	36-142	
Vinyl acetate	53.9	9.5 U	11 U	0	70-130	F
Vinyl chloride	53.9	4.7 U	49.6	92	42-117	
tert-Butylbenzene	53.9	4.7 U	39.5	73	10-163	*
1,2-Dibromoethane	53.9	4.7 U	25.0	46	45-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 148935.D

Lab ID: 240-699-H-3-A MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	45.8	26.8	59	14	30	34-135	*
1,1,1-Trichloroethane	45.8	41.7	91	3	30	51-128	
1,1,2,2-Tetrachloroethane	45.8	41.9	92	19	30	16-179	*
1,1,2-Trichloro-1,2,2-trichfluoroethane	45.8	63.2	138	9	30	50-147	
1,1-Dichloroethane	45.8	41.5	91	3	30	54-122	
1,1-Dichloroethene	45.8	48.3	105	8	30	49-157	
1,1-Dichloropropene	45.8	34.7	76	1	30	50-122	
1,2,3-Trichlorobenzene	45.8	11.9	26	2	30	10-110	*
1,2,3-Trichloropropane	45.8	46.2	101	22	30	32-174	*
1,2,3-Trimethylbenzene	45.8	29.8	65	16	30	70-130	* F
1,2,4-Trichlorobenzene	45.8	11.1	24	6	30	10-111	*
1,2,4-Trimethylbenzene	45.8	26.5	58	16	30	10-173	*
1,2-Dibromo-3-Chloropropane	45.8	16.7	36	13	30	10-153	*
1,2-Dichlorobenzene	45.8	18.3	40	11	30	17-122	*
1,2-Dichloroethane	45.8	27.8	61	16	30	49-123	
1,2-Dichloropropane	45.8	27.8	61	13	30	61-117	
1,3-Dichlorobenzene	45.8	19.1	42	13	30	16-126	*
1,3-Dichloropropane	45.8	27.8	61	22	30	54-128	*
1,4-Dichlorobenzene	45.8	17.1	37	13	30	15-121	*
2,2-Dichloropropane	45.8	39.2	86	3	30	49-132	
2-Butanone	91.6	77.1	84	1	30	30-143	
2-Chloroethyl vinyl ether	45.8	10.9 J	24	30	30	10-162	
2-Chlorotoluene	45.8	28.0	61	16	30	11-162	*
2-Hexanone	91.6	61.8	67	9	30	37-147	*
4-Chlorotoluene	45.8	22.5	49	16	30	15-149	*
p-Isopropyltoluene	45.8	24.3	53	12	30	10-165	*
4-Methyl-2-pentanone	91.6	92.2	101	11	30	43-147	*
Acetone	91.6	96.6	105	5	30	24-140	
Benzene	45.8	29.7	65	8	30	53-118	
Bromobenzene	45.8	24.2	53	15	30	24-144	*
Bromoform	45.8	10.4	23	18	30	18-129	*
Bromomethane	45.8	47.4	104	0	30	33-130	
Carbon disulfide	45.8	23.4	51	6	30	20-151	
Carbon tetrachloride	45.8	37.2	81	7	30	32-137	
Chlorobenzene	45.8	17.8	39	13	30	37-116	*
Dibromochloromethane	45.8	15.8	35	19	30	29-135	*
Chloroethane	45.8	100	219	3	30	45-118	F
Chloroform	45.8	34.3	75	7	30	53-119	
Chloromethane	45.8	55.4	121	4	30	34-117	F
cis-1,2-Dichloroethene	45.8	28.9	63	8	30	50-119	
cis-1,3-Dichloropropene	45.8	11.8	26	25	30	27-133	F

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 148935.D

Lab ID: 240-699-H-3-A MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dibromomethane	45.8	20.2	44	19	30	52-123	F
Bromochloromethane	45.8	27.5	60	12	30	53-116	
Dichlorodifluoromethane	45.8	58.4	128	12	30	17-115	F
Bromodichloromethane	45.8	18.6	41	17	30	35-132	
tert-Butyl alcohol	916	1210	132	10	30	60-125	F
Ethylbenzene	45.8	21.6	47	10	30	30-131	*
Hexachlorobutadiene	45.8	17.0	37	8	30	10-131	*
Diisopropyl ether	45.8	42.9	94	4	30	62-128	
Isopropylbenzene	45.8	19.7	43	6	30	21-134	*
Methyl tert-butyl ether	45.8	46.3	101	2	30	51-157	
Methylene Chloride	45.8	41.9	83	4	30	54-115	
m-Xylene & p-Xylene	91.6	39.4	43	10	30	29-131	*
Naphthalene	45.8	9.80	21	2	30	10-124	*
n-Butylbenzene	45.8	17.8	39	10	30	10-148	*
n-Propylbenzene	45.8	30.4	66	13	30	10-178	*
o-Xylene	45.8	20.7	45	5	30	29-134	*
sec-Butylbenzene	45.8	29.2	64	10	30	10-172	*
Styrene	45.8	11.6	25	15	30	27-127	* F
Tetrachloroethene	45.8	34.4	75	2	30	31-135	*
Toluene	45.8	32.1	70	9	30	39-129	*
trans-1,2-Dichloroethene	45.8	34.4	75	1	30	50-123	
trans-1,3-Dichloropropene	45.8	14.2	31	21	30	28-137	*
Trichloroethene	45.8	24.8	54	6	30	10-177	
Trichlorofluoromethane	45.8	52.8	115	7	30	36-142	
Vinyl acetate	45.8	9.2 U	0	NC	30	70-130	F
Vinyl chloride	45.8	54.1	118	9	30	42-117	F
tert-Butylbenzene	45.8	35.6	78	10	30	10-163	*
1,2-Dibromoethane	45.8	20.2	44	21	30	45-127	* F

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: STD8260 240-1969/5 Date Analyzed: 05/13/2011 11:27

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18 (mm)

Lab File ID (Standard): 148157.D Heated Purge: (Y/N) Y

Calibration ID: 985

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1868366	6.90	1308047	9.61	665164	11.57
UPPER LIMIT		3736732	7.40	2616094	10.11	1330328	12.07
LOWER LIMIT		934183	6.40	654024	9.11	332582	11.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-1969/11		1872329	6.90	1293714	9.61	666495	11.57

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-4426/4 Date Analyzed: 06/11/2011 11:38

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 148879.D Heated Purge: (Y/N) Y

Calibration ID: 987

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1576904	6.90	1136088	9.61	563063	11.57
UPPER LIMIT		3153808	7.40	2272176	10.11	1126126	12.07
LOWER LIMIT		788452	6.40	568044	9.11	281532	11.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-4426/5		1595354	6.90	1110895	9.61	563944	11.57
LCS 240-4426/6		1629959	6.90	1178621	9.61	589436	11.57
MB 240-4426/28		1581972	6.90	1096780	9.61	544232	11.57
240-635-1	G-SP-SB-115-0-2	1447017	6.90	992775	9.61	500028	11.57
240-635-2	G-SP-SB-115-10-12	1615450	6.90	1138180	9.61	564114	11.57
240-635-3	G-SP-SB-115-18-20	1524780	6.90	983277	9.61	371799	11.57
240-635-4	G-SP-SB-117-0-2	1529446	6.90	992871	9.61	401751	11.57
240-635-5	G-SP-SB-117-6-8	1581041	6.90	1066929	9.61	550666	11.57
240-635-6	G-SP-SB-117-20-22	1480283	6.90	995756	9.61	492056	11.57
240-635-7	G-SP-SB-119-0-2	1580204	6.90	1121381	9.61	549178	11.57
240-635-8	G-SP-SB-119-6-8	1539014	6.90	1050260	9.61	529416	11.57
240-635-9	G-SP-SB-119-20-22	1516952	6.90	982403	9.61	390865	11.57
240-635-13	G-SP-SB-118-0-2	1207846	6.90	818258	9.61	401700	11.57
240-635-18	G-SP-SB-121-18-20	1393297	6.90	958047	9.61	495495	11.57
240-635-19	G-SP-SB-120-0-2	1173402	6.90	772386	9.61	362250	11.57
LCS 240-3928/2-A		1496357	6.90	1052223	9.61	545920	11.57
MB 240-3928/1-A		1510969	6.90	1026984	9.61	518713	11.57
240-635-17	G-SP-SB-121-6-8	1462272	6.90	972191	9.61	498571	11.57

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-4446/3 Date Analyzed: 06/12/2011 08:40

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 148912.D Heated Purge: (Y/N) Y

Calibration ID: 987

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1528976	6.90	1071428	9.61	536472	11.57
UPPER LIMIT		3057952	7.40	2142856	10.11	1072944	12.07
LOWER LIMIT		764488	6.40	535714	9.11	268236	11.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-4446/4		1545968	6.90	1047232	9.61	514313	11.57
LCS 240-4446/5		1506974	6.90	1038618	9.61	521213	11.57
MB 240-4446/6		1405743	6.90	965666	9.61	483044	11.57
240-635-20	G-SP-SB-120-6-8	1499357	6.90	1019718	9.61	503583	11.57
240-635-14	G-SP-SB-118-6-8	1515770	6.90	1035060	9.61	524443	11.57
240-635-15	G-SP-SB-118-20-22	1400197	6.90	868159	9.61	358460	11.57
240-635-16	G-SP-SB-121-0-3	1471212	6.90	940872	9.61	401393	11.57
240-635-21	G-SP-SB-120-18-20	1452460	6.90	979372	9.61	478594	11.57
240-635-22	G-SP-SB-122-0-2	1432118	6.90	926046	9.61	388800	11.57
240-635-23	G-SP-SB-122-6-8	1395833	6.90	933071	9.61	461237	11.57
240-635-24	G-SP-SB-122-20-22	1338065	6.90	868235	9.61	419352	11.57
240-635-25	G-SP-SB-129-0-2	1461481	6.90	956109	9.61	388005	11.57
240-635-26	G-SP-SB-129-6-8	1394816	6.90	929276	9.61	455993	11.57
240-635-27	G-SP-SB-129-20-22	1385096	6.90	930735	9.61	457080	11.57
240-699-F-3-A MS		1314630	6.90	551924	9.61	128424*	11.57
240-699-H-3-A MSD		1086457	6.90	449846*	9.61	110017*	11.57

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 9DF0625.D DFTPP Injection Date: 06/25/2011

Instrument ID: A4HP9 DFTPP Injection Time: 10:36

Analysis Batch No.: 6131

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.0	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	63.6	
70	Less than 2.0% of mass 69	0.2	(0.2)1
127	25.0 - 75.0% of mass 198	55.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.4	
275	10.0- 30.0% of mass 198	25.8	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	13.8	
442	40.0 - 110.0% of mass 198	86.4	
443	15.0 - 24.0% of mass 442	15.8	(18.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-6131/5	9SMH0625.D	06/25/2011	10:53
	STD5 240-6131/6	9SMM0625.D	06/25/2011	11:13
	STD4 240-6131/7	9SM0625.D	06/25/2011	11:33
	STD3 240-6131/8	9SML0625.D	06/25/2011	11:52
	STD2 240-6131/9	9SL0625.D	06/25/2011	12:12
	STD1 240-6131/10	9SLL0625.D	06/25/2011	12:31
	STD7 240-6131/4	9SH0625.D	06/25/2011	13:05
	STD8 240-6131/3	9SHH0625.D	06/25/2011	13:24
	STD9 240-6131/2	9HHH0625.D	06/25/2011	13:43
	ICV 240-6131/11	9TCLICV.D	06/25/2011	14:03

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6131/10	9SLL0625.D
Level 2	STD2 240-6131/9	9SL0625.D
Level 3	STD3 240-6131/8	9SML0625.D
Level 4	STD4 240-6131/7	9SM0625.D
Level 5	STD5 240-6131/6	9SMM0625.D
Level 6	STD6 240-6131/5	9SMH0625.D
Level 7	STD7 240-6131/4	9SH0625.D
Level 8	STD8 240-6131/3	9SHH0625.D
Level 9	STD9 240-6131/2	9HHH0625.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,4-Dioxane		0.8560	0.8337	0.8909	0.8098	Ave		0.8138				5.4		20.0			
	0.7953	0.7930	0.7548	0.7769													
N-Nitrosodimethylamine		1.5042	1.5350	1.5528	1.4994	Ave		1.4862				3.1		20.0			
	1.4539	1.4569	1.4084	1.4786													
Pyridine		2.3892	2.2358	2.4903	2.2632	Ave		2.3314				3.6		20.0			
	2.3007	2.3281	2.2633	2.3803													
Ethyl methacrylate		2.1120	2.0835	2.1465	1.9741	Ave		2.0109				4.5		20.0			
	1.9580	1.9493	1.8858	1.9782													
3-Chloropropionitrile		0.8717	0.8655	0.8657	0.8107	Ave		0.8257				4.4		20.0			
	0.7997	0.7919	0.7836	0.8164													
Malononitrile		2.4341	2.4742	2.6427	2.4957	Ave		2.4549				3.6		20.0			
	2.4434	2.4145	2.3433	2.3918													
Benzaldehyde		2.0014	1.8459	1.9677	1.7004	Qua	0.1616	1.9023	-0.057		0.0100				0.9990		0.9900
	1.3149	1.0605	+++++														
Phenol		2.5904	2.5946	2.6114	2.4650	Ave		2.5137			0.8000	3.0		20.0			
	2.4693	2.4418	2.4265	2.5102													
Aniline		3.2547	3.1592	3.3132	3.1131	Ave		3.2041				3.2		20.0			
	3.1147	3.1316	3.1566	3.3897													
Bis(2-chloroethyl)ether		2.1075	2.0635	2.0723	1.9633	Ave		1.9749			0.7000	4.7		20.0			
	1.8892	1.9143	1.8802	1.9085													
2-Chlorophenol		1.4258	1.4801	1.5480	1.4228	Ave		1.4295			0.8000	4.1		20.0			
	1.4044	1.3916	1.3587	1.4047													
1,3-Dichlorobenzene		1.4839	1.4304	1.4712	1.3654	Ave		1.3797				5.3		20.0			
	1.3174	1.3198	1.2959	1.3536													
1,4-Dichlorobenzene		1.4752	1.4926	1.4902	1.4116	Ave		1.4163				4.3		20.0			
	1.3680	1.3589	1.3432	1.3906													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzyl alcohol	1.1075	1.1622 1.1149	1.0989 1.0948	1.1599 1.1372	1.1307	Ave		1.1257				2.3		20.0			
1,2-Dichlorobenzene	1.2364	1.4094 1.2327	1.3476 1.2116	1.3814 1.2543	1.2718	Ave		1.2932				5.8		20.0			
2-Methylphenol	1.5645	1.6792 1.5418	1.6454 1.5310	1.6975 1.5866	1.5685	Ave		1.6018			0.7000	4.0		20.0			
2,2'-oxybis[1-chloropropane]	1.6566	1.8444 1.6114	1.7601 1.5929	1.8180 1.6428	1.6928	Ave		1.7024				5.6		20.0			
3 & 4 Methylphenol	1.6329	1.7052 1.6210	1.7198 1.6056	1.7443 1.6572	1.6762	Ave		1.6703				3.0		20.0			
N-Nitrosodi-n-propylamine	1.5584	1.6219 1.4938	1.6799 1.4581	1.7254 1.4715	1.6162	Ave		1.5782			0.5000	6.3		20.0			
Acetophenone	2.2020	2.4368 2.1754	2.4041 2.1351	2.4680 2.1730	2.3105	Ave		2.2881			0.0100	5.8		20.0			
Hexachloroethane	0.6067	0.6163 0.5974	0.6514 0.5849	0.6662 0.6088	0.6304	Ave		0.6203			0.3000	4.4		20.0			
Nitrobenzene	0.5917	0.6395 0.5880	0.6234 0.5761	0.6280 0.6083	0.5906	Ave		0.6057			0.2000	3.7		20.0			
Isophorone	1.0864	1.1094 1.0782	1.1091 1.0674	1.1421 1.1287	1.0805	Ave		1.1002			0.4000	2.4		20.0			
2-Nitrophenol	0.1903	0.1867 0.1855	0.1915 0.1812	0.1941 0.1839	0.1946	Ave		0.1885			0.1000	2.6		20.0			
2,4-Dimethylphenol	0.4425	0.4525 0.4269	0.4702 0.4096	0.4803 0.4104	0.4504	Ave		0.4428			0.2000	5.9		20.0			
1,3,5-Trichlorobenzene	0.2720	0.2942 0.2725	0.3027 0.2637	0.2991 0.2710	0.2864	Ave		0.2827				5.2		20.0			
Bis(2-chloroethoxy)methane	0.5643	0.6046 0.5550	0.6068 0.5437	0.6114 0.5705	0.5806	Ave		0.5796			0.3000	4.4		20.0			
Benzoic acid	0.3085	0.0909 0.3153	0.1271 0.3141	0.1722 0.3521	0.2668	Qua	-0.250	0.2731	0.0016						0.9980		0.9900
2,4-Dichlorophenol	0.2652	0.2459 0.2637	0.2632 0.2583	0.2867 0.2669	0.2649	Ave		0.2643			0.2000	4.3		20.0			
1,2,4-Trichlorobenzene	0.2777	0.3013 0.2817	0.2970 0.2765	0.3007 0.2862	0.2871	Ave		0.2885				3.5		20.0			
Naphthalene	1.2945 1.0810	1.1449 1.0730	1.1364 1.0432	1.1326 0.9943	1.0807	Ave		1.1090			0.7000	7.6		20.0			
4-Chloroaniline	0.4783	0.4627 0.4453	0.4765 0.4425	0.5139 0.4778	0.4706	Ave		0.4709			0.0100	4.8		20.0			
Hexachlorobutadiene	0.1527	0.1655 0.1579	0.1627 0.1540	0.1652 0.1616	0.1584	Ave		0.1598			0.0100	3.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,2,3-Trichlorobenzene		0.2864	0.2718	0.2833	0.2637	Ave		0.2701				3.7		20.0			
	0.2649	0.2646	0.2576	0.2688													
1,1'-Biphenyl	+++++	1.5463	1.5122	1.5347	1.4428	Ave		1.4584			0.0100	4.4		20.0			
	1.4207	1.3990	1.3796	1.4318													
2-Chloronaphthalene	+++++	1.1077	1.0977	1.1113	1.0394	Ave		1.0737			0.8000	2.7		20.0			
	1.0516	1.0622	1.0459	1.0734													
Caprolactam		0.1116	0.1340	0.1542	0.1503	Ave		0.1439			0.0100	10.0		20.0			
	0.1522	0.1477	0.1468	0.1542													
4-Chloro-3-methylphenol		0.3761	0.3903	0.3975	0.3925	Ave		0.3865			0.2000	2.2		20.0			
	0.3839	0.3827	0.3743	0.3946													
2-Methylnaphthalene	0.6370	0.5840	0.5612	0.5839	0.5679	Ave		0.5720			0.4000	4.9		20.0			
	0.5537	0.5535	0.5422	0.5645													
1-Methylnaphthalene	0.7121	0.6896	0.6399	0.6761	0.6433	Ave		0.6522				5.1		20.0			
	0.6301	0.6283	0.6111	0.6395													
1,2,3,5-Tetrachlorobenzene		0.5213	0.4882	0.5059	0.4799	Ave		0.4909				3.5		20.0			
	0.4701	0.4790	0.4818	0.5011													
Hexachlorocyclopentadiene		0.3050	0.3235	0.3358	0.3308	Ave		0.3328			0.0500	4.3		20.0			
	0.3381	0.3352	0.3386	0.3551													
2,4,6-Trichlorophenol		0.3303	0.3428	0.3760	0.3440	Ave		0.3515			0.2000	3.9		20.0			
	0.3612	0.3498	0.3580	0.3499													
Dibenzofuran	+++++	1.7252	1.6657	1.7307	1.5848	Ave		1.6457			0.8000	3.4		20.0			
	1.5993	1.6133	1.6095	1.6369													
2,4,5-Trichlorophenol		0.3220	0.3598	0.3828	0.3705	Ave		0.3656			0.2000	5.6		20.0			
	0.3581	0.3871	0.3678	0.3768													
2,4-Toluene diamine		0.3153	0.3410	0.3603	0.2914	Ave		0.3017				21.0	*	20.0			
	0.2004																
1,2,3,4 -Tetrachlorobenzene		0.5017	0.4864	0.4924	0.4453	Ave		0.4648				5.5		20.0			
	0.4389	0.4452	0.4416	0.4668													
2-Nitroaniline		0.5328	0.5404	0.5402	0.5319	Ave		0.5329			0.0100	1.3		20.0			
	0.5379	0.5250	0.5216	0.5334													
Dimethyl phthalate		1.3017	1.2503	1.2998	1.2215	Ave		1.2627			0.0100	2.2		20.0			
	1.2443	1.2499	1.2546	1.2798													
2,6-Dinitrotoluene		0.2637	0.2667	0.2772	0.2783	Ave		0.2778				3.1		20.0			
	0.2806	0.2821	0.2852	0.2884													
1,2-Dinitrobenzene		0.1413	0.1432	0.1570	0.1544	Ave		0.1542				5.1		20.0			
	0.1578	0.1576	0.1584	0.1639													
Acenaphthylene	2.1641	1.9461	1.9597	1.9662	1.8683	Ave		1.9318			0.9000	5.3		20.0			
	1.8937	1.9095	1.8876	1.7912													
3-Nitroaniline		0.3335	0.3379	0.3591	0.3504	Ave		0.3507			0.0100	2.8		20.0			
	0.3589	0.3529	0.3532	0.3600													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,4-Dinitrophenol		0.1066	0.1316	0.1769	0.2042	Qua	-0.231	0.2450	0		0.0100				1.0000		0.9900
	0.2362	0.2307	0.2327	0.2310													
Acenaphthene	1.4518	1.2539	1.2030	1.2200	1.1521	Ave		1.1829			0.9000	10.0		20.0			
	1.1276	1.0849	1.0633	1.0895													
4-Nitrophenol		0.1967	0.1979	0.2457	0.2591	Ave		0.2448				12.0		20.0			
	0.2704	0.2636	0.2618	0.2633													
2,4-Dinitrotoluene		0.3482	0.3694	0.3878	0.3702	Ave		0.3756			0.2000	3.7		20.0			
	0.3751	0.3788	0.3804	0.3950													
2,3,5,6-Tetrachlorophenol		0.2914	0.2908	0.3038	0.2993	Ave		0.3038				3.1		20.0			
	0.3096	0.3073	0.3101	0.3179													
Diethyl phthalate		1.3963	1.3467	1.3687	1.3146	Ave		1.3498			0.0100	2.0		20.0			
	1.3434	1.3354	1.3254	1.3679													
4-Chlorophenyl phenyl ether		0.6270	0.6327	0.6368	0.5964	Ave		0.6125			0.4000	2.8		20.0			
	0.6007	0.6027	0.5921	0.6120													
4-Nitroaniline		0.3473	0.3607	0.3962	0.3685	Ave		0.3627			0.0100	4.2		20.0			
	0.3667	0.3547	0.3504	0.3570													
Fluorene	1.4172	1.2884	1.3031	1.2750	1.2205	Ave		1.2604			0.9000	5.6		20.0			
	1.2254	1.1979	1.1893	1.2269													
4,6-Dinitro-2-methylphenol		0.0833	0.1071	0.1229	0.1379	Ave		0.1303			0.0100	19.0		20.0			
	0.1481	0.1458	0.1470	0.1505													
N-Nitrosodiphenylamine		0.5871	0.5968	0.5983	0.5716	Ave		0.5824			0.0100	2.2		20.0			
	0.5715	0.5712	0.5696	0.5929													
Azobenzene		1.3751	1.3937	1.4201	1.3575	Ave		1.3406				6.3		20.0			
	1.3876	1.3441	1.2908	1.1558													
4-Bromophenyl phenyl ether		0.1956	0.1986	0.1965	0.1846	Ave		0.1912			0.1000	2.8		20.0			
	0.1905	0.1859	0.1860	0.1919													
Hexachlorobenzene	0.2122	0.1866	0.1862	0.1889	0.1742	Ave		0.1851			0.1000	6.3		20.0			
	0.1781	0.1774	0.1750	0.1873													
Atrazine		0.1859	0.1980	0.2070	0.1963	Ave		0.1866			0.0100	7.8		20.0			
	0.1875	0.1824	0.1753	0.1604													
Pentachlorophenol		0.1163	0.1092	0.1228	0.1331	Ave		0.1317			0.0500	11.0		20.0			
	0.1400	0.1406	0.1396	0.1523													
Phenanthrene	1.2968	1.1263	1.0701	1.1269	1.0601	Ave		1.1002			0.7000	7.2		20.0			
	1.0580	1.0629	1.0501	1.0507													
Anthracene	1.1594	1.1377	1.1090	1.1348	1.0788	Ave		1.1021			0.7000	3.4		20.0			
	1.1002	1.0850	1.0751	1.0387													
Carbazole		1.0692	1.0952	1.1385	1.0743	Ave		1.0856			0.0100	2.2		20.0			
	1.0966	1.0706	1.0681	1.0723													
Di-n-butyl phthalate		1.3187	1.2973	1.3899	1.3279	Ave		1.3082			0.0100	6.1		20.0			
	1.3672	1.3324	1.3072	1.1254													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Fluoranthene	1.3293	1.1774	1.1741	1.1988	1.1411	Ave		1.1874			0.6000	4.9		20.0			
	1.1923	1.1689	1.1787	1.1259													
Benzidine		0.6364	0.6660	0.7033	0.7066	Ave		0.7031				5.1		20.0			
	0.7453	0.7115	0.7181	0.7378													
Pyrene	1.3903	1.2319	1.2422	1.2700	1.2171	Ave		1.2591			0.6000	4.1		20.0			
	1.2549	1.2410	1.2435	1.2412													
Butyl benzyl phthalate		0.5883	0.5544	0.5968	0.5858	Ave		0.5808			0.0100	2.6		20.0			
	0.5982	0.5720	0.5682	0.5826													
3,3'-Dimethoxybenzidine		0.2285	0.2622	0.2968	0.2842	Ave		0.2665				7.9		20.0			
	0.2826	0.2622	0.2591	0.2561													
Bis(2-ethylhexyl) phthalate		0.8238	0.8005	0.8235	0.8121	Ave		0.8071			0.0100	2.4		20.0			
	0.8300	0.7949	0.7710	0.8009													
4,4'-Methylene bis(2-chloroaniline)		0.1979	0.2036	0.2113	0.2144	Ave		0.2133				5.0		20.0			
	0.2165	0.2138	0.2148	0.2343													
3,3'-Dichlorobenzidine		0.4040	0.3987	0.4354	0.4132	Ave		0.4199			0.0100	3.7		20.0			
	0.4303	0.4142	0.4199	0.4432													
Benzo[a]anthracene	1.4265	1.2156	1.1774	1.2251	1.1588	Ave		1.2229			0.8000	6.7		20.0			
	1.1726	1.1978	1.1751	1.2577													
Chrysene	1.3026	1.1039	1.1329	1.1648	1.0509	Ave		1.1408			0.7000	6.2		20.0			
	1.1299	1.0968	1.1189	1.1666													
Di-n-octyl phthalate		1.4464	1.4591	1.5896	1.5771	Ave		1.5712			0.0100	5.0		20.0			
	1.6646	1.5917	1.5956	1.6451													
Benzo[b]fluoranthene	1.3325	1.2326	1.3287	1.4202	1.3542	Ave		1.3459			0.7000	4.2		20.0			
	1.4151	1.3306	1.3192	1.3796													
Benzo[k]fluoranthene	1.4532	1.2356	1.2173	1.2427	1.1584	Ave		1.2571			0.7000	7.4		20.0			
	1.1505	1.2518	1.2605	1.3444													
Benzo[a]pyrene	1.1924	1.1376	1.1499	1.1873	1.1240	Ave		1.1734			0.7000	3.0		20.0			
	1.1767	1.1796	1.1688	1.2440													
Indeno[1,2,3-cd]pyrene	1.2189	1.1723	1.2248	1.2809	1.2291	Ave		1.2648			0.5000	4.6		20.0			
	1.2990	1.2954	1.2950	1.3682													
Dibenzo(a,h)anthracene	1.0014	0.9224	0.9635	1.0459	1.0120	Ave		1.0297			0.4000	6.0		20.0			
	1.0761	1.0655	1.0581	1.1224													
Benzo[g,h,i]perylene	1.0262	1.0096	1.0192	1.0439	1.0182	Ave		1.0461			0.5000	3.2		20.0			
	1.0655	1.0576	1.0571	1.1178													
2-Fluorophenol (Surr)		1.5045	1.5928	1.6618	1.6081	Ave		1.5626				3.5		20.0			
	1.5327	1.5416	1.5083	1.5513													
Phenol-d5 (Surr)		2.2809	2.2422	2.2951	2.1422	Ave		2.1874				3.5		20.0			
	2.1466	2.1204	2.0887	2.1829													
Nitrobenzene-d5 (Surr)	0.7409	0.6136	0.6263	0.6399	0.6019	Ave		0.6185				8.2		20.0			
	0.6015	0.5922	0.5829	0.5671													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Fluorobiphenyl (Surr)	1.5275 1.2717	1.3583 1.2738	1.3482 1.2557	1.3325 1.3093	1.2503	Ave		1.3253				6.5		20.0			
2,4,6-Tribromophenol (Surr)	 0.1401	0.1339 0.1466	0.1345 0.1439	0.1462 0.1550	0.1366	Ave		0.1421				5.1		20.0			
Terphenyl-d14 (Surr)	0.7575 0.7144	0.7411 0.7167	0.7084 0.7108	0.7240 0.7641	0.6811	Ave		0.7242				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-6131/11 Calibration Date: 06/25/2011 14:03

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8138	0.7962		9.78	10.0	-2.2	30.0
N-Nitrosodimethylamine	Ave	1.486	1.472		9.91	10.0	-0.9	30.0
Pyridine	Ave	2.331	2.302		9.88	10.0	-1.2	30.0
Ethyl methacrylate	Ave	2.011	2.008		9.98	10.0	-0.2	30.0
3-Chloropropionitrile	Ave	0.8257	0.8021		9.71	10.0	-2.9	30.0
Malononitrile	Ave	2.455	2.443		9.95	10.0	-0.5	30.0
Benzaldehyde	Qua		1.252	0.0100	8.87	10.0	-11.3	30.0
Phenol	Ave	2.514	2.498	0.8000	9.94	10.0	-0.6	30.0
Aniline	Ave	3.204	3.193		9.96	10.0	-0.4	30.0
Bis(2-chloroethyl)ether	Ave	1.975	1.918	0.7000	9.71	10.0	-2.9	30.0
2-Chlorophenol	Ave	1.430	1.424	0.8000	9.96	10.0	-0.4	30.0
1,3-Dichlorobenzene	Ave	1.380	1.363		9.88	10.0	-1.2	30.0
1,4-Dichlorobenzene	Ave	1.416	1.423		10.0	10.0	0.5	30.0
Benzyl alcohol	Ave	1.126	1.096		9.74	10.0	-2.6	30.0
1,2-Dichlorobenzene	Ave	1.293	1.277		9.88	10.0	-1.2	30.0
2-Methylphenol	Ave	1.602	1.588	0.7000	9.91	10.0	-0.9	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.702	1.649		9.69	10.0	-3.1	30.0
3 & 4 Methylphenol	Ave	1.670	1.650		9.88	10.0	-1.2	30.0
N-Nitrosodi-n-propylamine	Ave	1.578	1.556	0.5000	9.86	10.0	-1.4	30.0
Acetophenone	Ave	2.288	2.219	0.0100	9.70	10.0	-3.0	30.0
Hexachloroethane	Ave	0.6203	0.6102	0.3000	9.84	10.0	-1.6	30.0
Nitrobenzene	Ave	0.6057	0.6096	0.2000	10.1	10.0	0.6	30.0
Isophorone	Ave	1.100	1.109	0.4000	10.1	10.0	0.8	30.0
2-Nitrophenol	Ave	0.1885	0.1920	0.1000	10.2	10.0	1.8	30.0
2,4-Dimethylphenol	Ave	0.4428	0.4322	0.2000	9.76	10.0	-2.4	30.0
1,3,5-Trichlorobenzene	Ave	0.2827	0.2823		9.98	10.0	-0.2	30.0
Bis(2-chloroethoxy)methane	Ave	0.5796	0.5684	0.3000	9.81	10.0	-1.9	30.0
Benzoic acid	Qua		0.2971		20.3	20.0	1.5	30.0
2,4-Dichlorophenol	Ave	0.2643	0.2672	0.2000	10.1	10.0	1.1	30.0
1,2,4-Trichlorobenzene	Ave	0.2885	0.2912		10.1	10.0	0.9	30.0
Naphthalene	Ave	1.109	1.088	0.7000	9.81	10.0	-1.9	30.0
4-Chloroaniline	Ave	0.4709	0.4645	0.0100	9.86	10.0	-1.4	30.0
Hexachlorobutadiene	Ave	0.1598	0.1605	0.0100	10.0	10.0	0.5	30.0
1,2,3-Trichlorobenzene	Ave	0.2701	0.2702		10.0	10.0	0.0	30.0
Caprolactam	Ave	0.1439	0.1543	0.0100	10.7	10.0	7.3	30.0
4-Chloro-3-methylphenol	Ave	0.3865	0.3975	0.2000	10.3	10.0	2.8	30.0
2-Methylnaphthalene	Ave	0.5720	0.5641	0.4000	9.86	10.0	-1.4	30.0
1-Methylnaphthalene	Ave	0.6522	0.6450		9.89	10.0	-1.1	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4909	0.4827		9.83	10.0	-1.7	30.0
Hexachlorocyclopentadiene	Ave	0.3328	0.3283	0.0500	9.86	10.0	-1.4	30.0
2,4,6-Trichlorophenol	Ave	0.3515	0.3452	0.2000	9.82	10.0	-1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-6131/11 Calibration Date: 06/25/2011 14:03

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3656	0.3824	0.2000	10.5	10.0	4.6	30.0
2,4-Toluene diamine	Ave	0.3017	0.1261		4.18	10.0	-58.2*	30.0
1,1'-Biphenyl	Ave	1.458	1.439	0.0100	9.87	10.0	-1.3	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4648	0.4491		9.66	10.0	-3.4	30.0
2-Chloronaphthalene	Ave	1.074	1.074	0.8000	10.0	10.0	0.0	30.0
2-Nitroaniline	Ave	0.5329	0.5380	0.0100	10.1	10.0	1.0	30.0
Dimethyl phthalate	Ave	1.263	1.274	0.0100	10.1	10.0	0.9	30.0
2,6-Dinitrotoluene	Ave	0.2778	0.2915		10.5	10.0	5.0	30.0
1,2-Dinitrobenzene	Ave	0.1542	0.1626		10.5	10.0	5.5	30.0
Acenaphthylene	Ave	1.932	1.960	0.9000	10.1	10.0	1.4	30.0
3-Nitroaniline	Ave	0.3507	0.3656	0.0100	10.4	10.0	4.2	30.0
2,4-Dinitrophenol	Qua		0.2315	0.0100	20.1	20.0	0.5	30.0
Acenaphthene	Ave	1.183	1.110	0.9000	9.38	10.0	-6.2	30.0
4-Nitrophenol	Ave	0.2448	0.2447		10.0	10.0	-0.0	30.0
2,4-Dinitrotoluene	Ave	0.3756	0.3958	0.2000	10.5	10.0	5.4	30.0
Dibenzofuran	Ave	1.646	1.662	0.8000	10.1	10.0	1.0	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3038	0.3117		10.3	10.0	2.6	30.0
Diethyl phthalate	Ave	1.350	1.369	0.0100	10.1	10.0	1.4	30.0
4-Chlorophenyl phenyl ether	Ave	0.6125	0.6250	0.4000	10.2	10.0	2.0	30.0
4-Nitroaniline	Ave	0.3627	0.3680	0.0100	10.1	10.0	1.5	30.0
Fluorene	Ave	1.260	1.241	0.9000	9.85	10.0	-1.5	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1303	0.1479	0.0100	11.3	10.0	13.5	30.0
N-Nitrosodiphenylamine	Ave	0.5824	0.5881	0.0100	10.1	10.0	1.0	30.0
Azobenzene	Ave	1.341	1.369		10.2	10.0	2.1	30.0
4-Bromophenyl phenyl ether	Ave	0.1912	0.1959	0.1000	10.2	10.0	2.5	30.0
Hexachlorobenzene	Ave	0.1851	0.1852	0.1000	10.0	10.0	0.0	30.0
Atrazine	Ave	0.1866	0.1853	0.0100	9.93	10.0	-0.7	30.0
Pentachlorophenol	Ave	0.1317	0.1410	0.0500	21.4	20.0	7.0	30.0
Phenanthrene	Ave	1.100	1.091	0.7000	9.92	10.0	-0.8	30.0
Anthracene	Ave	1.102	1.108	0.7000	10.1	10.0	0.6	30.0
Carbazole	Ave	1.086	1.109	0.0100	10.2	10.0	2.1	30.0
Di-n-butyl phthalate	Ave	1.308	1.382	0.0100	10.6	10.0	5.7	30.0
Fluoranthene	Ave	1.187	1.219	0.6000	10.3	10.0	2.7	30.0
Benzidine	Ave	0.7031	0.7269		10.3	10.0	3.4	30.0
Pyrene	Ave	1.259	1.247	0.6000	9.90	10.0	-1.0	30.0
Butyl benzyl phthalate	Ave	0.5808	0.5731	0.0100	9.87	10.0	-1.3	30.0
3,3'-Dimethoxybenzidine	Ave	0.2665	0.2894		10.9	10.0	8.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8071	0.8073	0.0100	10.0	10.0	0.0	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2133	0.2150		10.1	10.0	0.8	30.0
3,3'-Dichlorobenzidine	Ave	0.4199	0.4244	0.0100	10.1	10.0	1.1	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-6131/11 Calibration Date: 06/25/2011 14:03

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.223	1.163	0.8000	9.51	10.0	-4.9	30.0
Chrysene	Ave	1.141	1.104	0.7000	9.68	10.0	-3.2	30.0
Di-n-octyl phthalate	Ave	1.571	1.639	0.0100	10.4	10.0	4.3	30.0
Benzo[b]fluoranthene	Ave	1.346	1.248	0.7000	9.27	10.0	-7.3	30.0
Benzo[k]fluoranthene	Ave	1.257	1.370	0.7000	10.9	10.0	9.0	30.0
Benzo[a]pyrene	Ave	1.173	1.196	0.7000	10.2	10.0	1.9	30.0
Dibenzo(a,h)anthracene	Ave	1.030	1.091	0.4000	10.6	10.0	5.9	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.265	1.331	0.5000	10.5	10.0	5.2	30.0
Benzo[g,h,i]perylene	Ave	1.046	1.074	0.5000	10.3	10.0	2.7	30.0
2-Fluorophenol (Surr)	Ave	1.563	1.599		10.2	10.0	2.3	30.0
Phenol-d5 (Surr)	Ave	2.187	2.171		9.92	10.0	-0.8	30.0
Nitrobenzene-d5 (Surr)	Ave	0.6185	0.5616		9.08	10.0	-9.2	30.0
2-Fluorobiphenyl (Surr)	Ave	1.325	1.302		9.82	10.0	-1.8	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1421	0.1438		10.1	10.0	1.2	30.0
Terphenyl-d14 (Surr)	Ave	0.7242	0.7232		9.99	10.0	-0.1	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 9DF0627.D DFTPP Injection Date: 06/27/2011

Instrument ID: A4HP9 DFTPP Injection Time: 08:19

Analysis Batch No.: 6919

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.1	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	63.9	
70	Less than 2.0% of mass 69	0.2	(0.3)1
127	25.0 - 75.0% of mass 198	53.7	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	25.0	
365	Greater than 0.75% of mass 198	3.0	
441	Present, but less than mass 443	12.4	
442	40.0 - 110.0% of mass 198	75.9	
443	15.0 - 24.0% of mass 442	14.8	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-6919/2	9SMH0627.D	06/27/2011	08:46
	CCV 240-6919/3	9AMH0627.D	06/27/2011	09:10
	MB 240-3689/1-A	MB3689.D	06/27/2011	09:29
	LCS 240-3689/2-A	LCS3689.D	06/27/2011	09:48

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-6919/2 Calibration Date: 06/27/2011 08:46

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9SMH0627.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8138	0.8063		9.91	10.0	-0.9	20.0
N-Nitrosodimethylamine	Ave	1.486	1.489		10.0	10.0	0.2	20.0
Pyridine	Ave	2.331	2.324		9.97	10.0	-0.3	20.0
Ethyl methacrylate	Ave	2.011	2.027		10.1	10.0	0.8	20.0
3-Chloropropionitrile	Ave	0.8257	0.8151		9.87	10.0	-1.3	20.0
Malononitrile	Ave	2.455	2.515		10.2	10.0	2.4	20.0
Benzaldehyde	Qua		1.481	0.0100	12.1	10.0	21.0*	20.0
Phenol	Ave	2.514	2.463	0.8000	9.80	10.0	-2.0	20.0
Aniline	Ave	3.204	3.260		10.2	10.0	1.7	20.0
Bis(2-chloroethyl)ether	Ave	1.975	1.908	0.7000	9.66	10.0	-3.4	20.0
2-Chlorophenol	Ave	1.430	1.402	0.8000	9.81	10.0	-1.9	20.0
1,3-Dichlorobenzene	Ave	1.380	1.388		10.1	10.0	0.6	20.0
1,4-Dichlorobenzene	Ave	1.416	1.418		10.0	10.0	0.1	20.0
Benzyl alcohol	Ave	1.126	1.048		9.31	10.0	-6.9	20.0
1,2-Dichlorobenzene	Ave	1.293	1.297		10.0	10.0	0.3	20.0
2-Methylphenol	Ave	1.602	1.597	0.7000	9.97	10.0	-0.3	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.702	1.667		9.79	10.0	-2.1	20.0
3 & 4 Methylphenol	Ave	1.670	1.647		9.86	10.0	-1.4	20.0
N-Nitrosodi-n-propylamine	Ave	1.578	1.554	0.5000	9.84	10.0	-1.6	20.0
Acetophenone	Ave	2.288	2.267	0.0100	9.91	10.0	-0.9	20.0
Hexachloroethane	Ave	0.6203	0.6007	0.3000	9.69	10.0	-3.1	20.0
Nitrobenzene	Ave	0.6057	0.5890	0.2000	9.72	10.0	-2.8	20.0
Isophorone	Ave	1.100	1.068	0.4000	9.71	10.0	-2.9	20.0
2-Nitrophenol	Ave	0.1885	0.1875	0.1000	9.95	10.0	-0.5	20.0
2,4-Dimethylphenol	Ave	0.4428	0.4386	0.2000	9.90	10.0	-1.0	20.0
1,3,5-Trichlorobenzene	Ave	0.2827	0.2868		10.1	10.0	1.5	20.0
Bis(2-chloroethoxy)methane	Ave	0.5796	0.5621	0.3000	9.70	10.0	-3.0	20.0
Benzoic acid	Qua		0.2331		16.4	20.0	-18.0	20.0
2,4-Dichlorophenol	Ave	0.2643	0.2656	0.2000	10.0	10.0	0.5	20.0
1,2,4-Trichlorobenzene	Ave	0.2885	0.2876		9.97	10.0	-0.3	20.0
Naphthalene	Ave	1.109	1.091	0.7000	9.84	10.0	-1.6	20.0
4-Chloroaniline	Ave	0.4709	0.4673	0.0100	9.92	10.0	-0.8	20.0
Hexachlorobutadiene	Ave	0.1598	0.1609	0.0100	10.1	10.0	0.7	20.0
1,2,3-Trichlorobenzene	Ave	0.2701	0.2689		9.95	10.0	-0.5	20.0
Caprolactam	Ave	0.1439	0.1408	0.0100	9.79	10.0	-2.1	20.0
4-Chloro-3-methylphenol	Ave	0.3865	0.3812	0.2000	9.86	10.0	-1.4	20.0
2-Methylnaphthalene	Ave	0.5720	0.5588	0.4000	9.77	10.0	-2.3	20.0
1-Methylnaphthalene	Ave	0.6522	0.6357		9.75	10.0	-2.5	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4909	0.4946		10.1	10.0	0.7	20.0
Hexachlorocyclopentadiene	Ave	0.3328	0.2990	0.0500	8.99	10.0	-10.1	20.0
2,4,6-Trichlorophenol	Ave	0.3515	0.3418	0.2000	9.72	10.0	-2.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-6919/2 Calibration Date: 06/27/2011 08:46

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9SMH0627.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3656	0.3879	0.2000	10.6	10.0	6.1	20.0
2,4-Toluene diamine	Ave	0.3017	0.2403		7.96	10.0	-20.4*	20.0
1,1'-Biphenyl	Ave	1.458	1.442	0.0100	9.89	10.0	-1.1	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4648	0.4622		9.94	10.0	-0.6	20.0
2-Chloronaphthalene	Ave	1.074	1.069	0.8000	9.96	10.0	-0.4	20.0
2-Nitroaniline	Ave	0.5329	0.5233	0.0100	9.82	10.0	-1.8	20.0
Dimethyl phthalate	Ave	1.263	1.264	0.0100	10.0	10.0	0.0	20.0
2,6-Dinitrotoluene	Ave	0.2778	0.2879		10.4	10.0	3.7	20.0
1,2-Dinitrobenzene	Ave	0.1542	0.1592		10.3	10.0	3.3	20.0
Acenaphthylene	Ave	1.932	1.934	0.9000	10.0	10.0	0.1	20.0
3-Nitroaniline	Ave	0.3507	0.3592	0.0100	10.2	10.0	2.4	20.0
2,4-Dinitrophenol	Qua		0.1910	0.0100	16.7	20.0	-16.5	20.0
Acenaphthene	Ave	1.183	1.140	0.9000	9.63	10.0	-3.7	20.0
4-Nitrophenol	Ave	0.2448	0.2182		8.91	10.0	-10.9	20.0
2,4-Dinitrotoluene	Ave	0.3756	0.3831	0.2000	10.2	10.0	2.0	20.0
Dibenzofuran	Ave	1.646	1.656	0.8000	10.1	10.0	0.6	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3038	0.2771		9.12	10.0	-8.8	20.0
Diethyl phthalate	Ave	1.350	1.326	0.0100	9.82	10.0	-1.8	20.0
4-Chlorophenyl phenyl ether	Ave	0.6125	0.6201	0.4000	10.1	10.0	1.2	20.0
4-Nitroaniline	Ave	0.3627	0.3697	0.0100	10.2	10.0	1.9	20.0
Fluorene	Ave	1.260	1.227	0.9000	9.73	10.0	-2.7	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1303	0.1365	0.0100	10.5	10.0	4.7	20.0
N-Nitrosodiphenylamine	Ave	0.5824	0.5796	0.0100	9.95	10.0	-0.5	20.0
Azobenzene	Ave	1.341	1.355		10.1	10.0	1.1	20.0
4-Bromophenyl phenyl ether	Ave	0.1912	0.1964	0.1000	10.3	10.0	2.7	20.0
Hexachlorobenzene	Ave	0.1851	0.1863	0.1000	10.1	10.0	0.6	20.0
Atrazine	Ave	0.1866	0.1911	0.0100	10.2	10.0	2.4	20.0
Pentachlorophenol	Ave	0.1317	0.1174	0.0500	17.8	20.0	-10.9	20.0
Phenanthrene	Ave	1.100	1.070	0.7000	9.72	10.0	-2.8	20.0
Anthracene	Ave	1.102	1.098	0.7000	9.96	10.0	-0.4	20.0
Carbazole	Ave	1.086	1.089	0.0100	10.0	10.0	0.3	20.0
Di-n-butyl phthalate	Ave	1.308	1.342	0.0100	10.3	10.0	2.6	20.0
Fluoranthene	Ave	1.187	1.183	0.6000	9.96	10.0	-0.4	20.0
Benzidine	Ave	0.7031	0.6891		9.80	10.0	-2.0	20.0
Pyrene	Ave	1.259	1.247	0.6000	9.91	10.0	-0.9	20.0
Butyl benzyl phthalate	Ave	0.5808	0.5781	0.0100	9.95	10.0	-0.5	20.0
3,3'-Dimethoxybenzidine	Ave	0.2665	0.2681		10.1	10.0	0.6	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8071	0.7907	0.0100	9.80	10.0	-2.0	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2133	0.2103		9.86	10.0	-1.4	20.0
3,3'-Dichlorobenzidine	Ave	0.4199	0.4222	0.0100	10.1	10.0	0.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-6919/2 Calibration Date: 06/27/2011 08:46

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9SMH0627.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.223	1.208	0.8000	9.88	10.0	-1.2	20.0
Chrysene	Ave	1.141	1.094	0.7000	9.59	10.0	-4.1	20.0
Di-n-octyl phthalate	Ave	1.571	1.570	0.0100	10.0	10.0	-0.1	20.0
Benzo[b]fluoranthene	Ave	1.346	1.361	0.7000	10.1	10.0	1.1	20.0
Benzo[k]fluoranthene	Ave	1.257	1.254	0.7000	9.98	10.0	-0.2	20.0
Benzo[a]pyrene	Ave	1.173	1.183	0.7000	10.1	10.0	0.8	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.265	1.304	0.5000	10.3	10.0	3.1	20.0
Dibenzo(a,h)anthracene	Ave	1.030	1.073	0.4000	10.4	10.0	4.2	20.0
Benzo[g,h,i]perylene	Ave	1.046	1.073	0.5000	10.3	10.0	2.5	20.0
2-Fluorophenol (Surr)	Ave	1.563	1.573		10.1	10.0	0.7	20.0
Phenol-d5 (Surr)	Ave	2.187	2.157		9.86	10.0	-1.4	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6185	0.5889		9.52	10.0	-4.8	20.0
2-Fluorobiphenyl (Surr)	Ave	1.325	1.284		9.69	10.0	-3.1	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1421	0.1380		9.71	10.0	-2.9	20.0
Terphenyl-d14 (Surr)	Ave	0.7242	0.7205		9.95	10.0	-0.5	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: MB3689.D Lab Sample ID: MB 240-3689/1-A

Matrix: Solid Date Extracted: 06/06/2011 09:52

Instrument ID: A4HP9 Date Analyzed: 06/27/2011 09:29

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-3689/2-A	LCS3689.D	06/27/2011 09:48
G-SP-SB-115-18-20	240-635-3	635F3A.D	06/28/2011 19:11
G-SP-SB-117-6-8	240-635-5	635F5A.D	06/28/2011 19:30
G-SP-SB-117-20-22	240-635-6	635F6A.D	06/28/2011 19:50
G-SP-SB-118-6-8	240-635-11	635D11A.D	06/28/2011 20:09
G-SP-SB-121-18-20	240-635-18	635F18A.D	06/28/2011 20:29
G-SP-SB-118-20-22	240-635-12	635C12A.D	06/28/2011 20:48
G-SP-SB-119-0-2	240-635-7	635F7A.D	06/28/2011 21:08
G-SP-SB-120-18-20	240-635-21	635F21A.D	06/28/2011 21:27
G-SP-SB-120-6-8	240-635-20	635F20B.D	06/28/2011 22:06
G-SP-SB-117-0-2	240-635-4	635G4A.D	06/28/2011 22:25
G-SP-SB-120-0-2	240-635-19	635G19B.D	06/28/2011 22:45
G-SP-SB-119-20-22	240-635-9	635F9A.D	06/28/2011 23:04
G-SP-SB-118-0-2	240-635-10	635C10A.D	06/28/2011 23:24
G-SP-SB-121-0-3	240-635-16	635F16A.D	06/28/2011 23:43
G-SP-SB-115-0-2	240-635-1	635F1A.D	06/29/2011 00:02
G-SP-SB-115-0-2 MSD	240-635-1 MSD	635F1CD.D	06/29/2011 00:41
G-SP-SB-115-10-12	240-635-2	635G2A.D	06/29/2011 01:01
G-SP-SB-122-0-2	240-635-22	635F22B.D	06/29/2011 01:39
G-SP-SB-119-6-8	240-635-8	635G8A.D	07/04/2011 19:33
G-SP-SB-121-6-8	240-635-17	635G17A.D	07/04/2011 19:52
G-SP-SB-115-0-2 MS	240-635-1 MS	635F1BS.D	07/04/2011 20:11

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-3689/1-A

Matrix: Solid | Lab File ID: MB3689.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.00(g) | Date Analyzed: 06/27/2011 09:29

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6919 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	50	U	50	27
123-91-1	1,4-Dioxane	100	U	100	22
88-06-2	2,4,6-Trichlorophenol	150	U	150	80
95-95-4	2,4,5-Trichlorophenol	150	U	150	25
120-83-2	2,4-Dichlorophenol	150	U	150	20
105-67-9	2,4-Dimethylphenol	150	U	150	20
51-28-5	2,4-Dinitrophenol	330	U	330	80
121-14-2	2,4-Dinitrotoluene	200	U	200	27
91-58-7	2-Chloronaphthalene	50	U	50	3.3
95-57-8	2-Chlorophenol	50	U	50	27
91-57-6	2-Methylnaphthalene	6.7	U	6.7	3.3
95-48-7	2-Methylphenol	200	U	200	80
88-74-4	2-Nitroaniline	200	U	200	9.1
88-75-5	2-Nitrophenol	50	U	50	27
15831-10-4	3 & 4 Methylphenol	400	U	400	20
91-94-1	3,3'-Dichlorobenzidine	100	U	100	18
99-09-2	3-Nitroaniline	200	U	200	16
534-52-1	4,6-Dinitro-2-methylphenol	150	U	150	80
101-55-3	4-Bromophenyl phenyl ether	50	U	50	13
59-50-7	4-Chloro-3-methylphenol	150	U	150	21
106-47-8	4-Chloroaniline	150	U	150	17
7005-72-3	4-Chlorophenyl phenyl ether	50	U	50	13
100-01-6	4-Nitroaniline	200	U	200	26
83-32-9	Acenaphthene	6.7	U	6.7	3.3
208-96-8	Acenaphthylene	6.7	U	6.7	3.3
98-86-2	Acetophenone	100	U	100	9.2
120-12-7	Anthracene	6.7	U	6.7	3.3
1912-24-9	Atrazine	200	U	200	9.1
100-52-7	Benzaldehyde	100	U	100	12
56-55-3	Benzo[a]anthracene	6.7	U	6.7	3.3
50-32-8	Benzo[a]pyrene	6.7	U	6.7	3.3
205-99-2	Benzo[b]fluoranthene	6.7	U	6.7	3.3
191-24-2	Benzo[g,h,i]perylene	6.7	U	6.7	3.3
207-08-9	Benzo[k]fluoranthene	6.7	U	6.7	3.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-3689/1-A

Matrix: Solid | Lab File ID: MB3689.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.00(g) | Date Analyzed: 06/27/2011 09:29

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6919 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	100	U	100	22
111-44-4	Bis(2-chloroethyl)ether	100	U	100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	26.1	J	50	19
85-68-7	Butyl benzyl phthalate	50	U	50	10
105-60-2	Caprolactam	330	U	330	37
86-74-8	Carbazole	50	U	50	27
218-01-9	Chrysene	6.7	U	6.7	1.1
84-74-2	Di-n-butyl phthalate	50	U	50	15
117-84-0	Di-n-octyl phthalate	50	U	50	27
53-70-3	Dibenzo(a,h)anthracene	6.7	U	6.7	3.3
132-64-9	Dibenzofuran	50	U	50	3.3
84-66-2	Diethyl phthalate	50	U	50	16
131-11-3	Dimethyl phthalate	50	U	50	17
206-44-0	Fluoranthene	6.7	U	6.7	3.3
86-73-7	Fluorene	6.7	U	6.7	3.3
118-74-1	Hexachlorobenzene	6.7	U	6.7	2.1
87-68-3	Hexachlorobutadiene	50	U	50	27
77-47-4	Hexachlorocyclopentadiene	330	U	330	27
67-72-1	Hexachloroethane	50	U	50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	6.7	U	6.7	3.3
78-59-1	Isophorone	50	U	50	13
621-64-7	N-Nitrosodi-n-propylamine	50	U	50	27
62-75-9	N-Nitrosodimethylamine	100	U	100	16
86-30-6	N-Nitrosodiphenylamine	50	U	50	21
91-20-3	Naphthalene	6.7	U	6.7	3.3
98-95-3	Nitrobenzene	100	U	100	2.2
87-86-5	Pentachlorophenol	150	U	150	80
85-01-8	Phenanthrene	6.7	U	6.7	3.3
108-95-2	Phenol	50	U	50	27
129-00-0	Pyrene	6.7	U	6.7	3.3
108-60-1	2,2'-oxybis[1-chloropropane]	100	U	100	9.5
606-20-2	2,6-Dinitrotoluene	200	U	200	21
100-02-7	4-Nitrophenol	330	U	330	80

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-3689/1-A

Matrix: Solid | Lab File ID: MB3689.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 30.00(g) | Date Analyzed: 06/27/2011 09:29

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6919 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	88		41-119
4165-62-2	Phenol-d5 (Surr)	63		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		24-112
367-12-4	2-Fluorophenol (Surr)	65		26-110
321-60-8	2-Fluorobiphenyl (Surr)	59		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	56		10-118

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 9DF0628.D DFTPP Injection Date: 06/28/2011

Instrument ID: A4HP9 DFTPP Injection Time: 16:02

Analysis Batch No.: 6612

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.1	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	64.7	
70	Less than 2.0% of mass 69	0.5	(0.7)1
127	25.0 - 75.0% of mass 198	54.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	24.9	
365	Greater than 0.75% of mass 198	3.0	
441	Present, but less than mass 443	12.6	
442	40.0 - 110.0% of mass 198	76.4	
443	15.0 - 24.0% of mass 442	14.4	(18.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-6612/2	9SMH0628.D	06/28/2011	16:19
	CCV 240-6612/3	9AMH0628.D	06/28/2011	16:50
G-SP-SB-115-18-20	240-635-3	635F3A.D	06/28/2011	19:11
G-SP-SB-117-6-8	240-635-5	635F5A.D	06/28/2011	19:30
G-SP-SB-117-20-22	240-635-6	635F6A.D	06/28/2011	19:50
G-SP-SB-118-6-8	240-635-11	635D11A.D	06/28/2011	20:09
G-SP-SB-121-18-20	240-635-18	635F18A.D	06/28/2011	20:29
G-SP-SB-118-20-22	240-635-12	635C12A.D	06/28/2011	20:48
G-SP-SB-119-0-2	240-635-7	635F7A.D	06/28/2011	21:08
G-SP-SB-120-18-20	240-635-21	635F21A.D	06/28/2011	21:27
G-SP-SB-120-6-8	240-635-20	635F20B.D	06/28/2011	22:06
G-SP-SB-117-0-2	240-635-4	635G4A.D	06/28/2011	22:25
G-SP-SB-120-0-2	240-635-19	635G19B.D	06/28/2011	22:45
G-SP-SB-119-20-22	240-635-9	635F9A.D	06/28/2011	23:04
G-SP-SB-118-0-2	240-635-10	635C10A.D	06/28/2011	23:24
G-SP-SB-121-0-3	240-635-16	635F16A.D	06/28/2011	23:43
G-SP-SB-115-0-2	240-635-1	635F1A.D	06/29/2011	00:02
G-SP-SB-115-0-2 MSD	240-635-1 MSD	635F1CD.D	06/29/2011	00:41
G-SP-SB-115-10-12	240-635-2	635G2A.D	06/29/2011	01:01
G-SP-SB-122-0-2	240-635-22	635F22B.D	06/29/2011	01:39

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-6612/2 Calibration Date: 06/28/2011 16:19

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9SMH0628.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8138	0.8339		10.2	10.0	2.5	20.0
N-Nitrosodimethylamine	Ave	1.486	1.486		10.0	10.0	-0.0	20.0
Pyridine	Ave	2.331	2.323		9.97	10.0	-0.3	20.0
Ethyl methacrylate	Ave	2.011	1.991		9.90	10.0	-1.0	20.0
3-Chloropropionitrile	Ave	0.8257	0.8145		9.87	10.0	-1.3	20.0
Malononitrile	Ave	2.455	2.482		10.1	10.0	1.1	20.0
Benzaldehyde	Qua		1.051	0.0100	6.85	10.0	-31.5*	20.0
Phenol	Ave	2.514	2.484	0.8000	9.88	10.0	-1.2	20.0
Aniline	Ave	3.204	3.259		10.2	10.0	1.7	20.0
Bis(2-chloroethyl)ether	Ave	1.975	1.974	0.7000	10.0	10.0	-0.0	20.0
2-Chlorophenol	Ave	1.430	1.395	0.8000	9.76	10.0	-2.4	20.0
1,3-Dichlorobenzene	Ave	1.380	1.380		10.0	10.0	0.0	20.0
1,4-Dichlorobenzene	Ave	1.416	1.439		10.2	10.0	1.6	20.0
Benzyl alcohol	Ave	1.126	0.9282		8.25	10.0	-17.5	20.0
1,2-Dichlorobenzene	Ave	1.293	1.300		10.0	10.0	0.5	20.0
2-Methylphenol	Ave	1.602	1.760	0.7000	11.0	10.0	9.9	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.702	1.689		9.92	10.0	-0.8	20.0
3 & 4 Methylphenol	Ave	1.670	1.635		9.79	10.0	-2.1	20.0
N-Nitrosodi-n-propylamine	Ave	1.578	1.586	0.5000	10.1	10.0	0.5	20.0
Acetophenone	Ave	2.288	2.303	0.0100	10.1	10.0	0.6	20.0
Hexachloroethane	Ave	0.6203	0.6131	0.3000	9.88	10.0	-1.2	20.0
Nitrobenzene	Ave	0.6057	0.5990	0.2000	9.89	10.0	-1.1	20.0
Isophorone	Ave	1.100	1.128	0.4000	10.3	10.0	2.6	20.0
2-Nitrophenol	Ave	0.1885	0.1976	0.1000	10.5	10.0	4.8	20.0
1,3,5-Trichlorobenzene	Ave	0.2827	0.2810		9.94	10.0	-0.6	20.0
2,4-Dimethylphenol	Ave	0.4428	0.4467	0.2000	10.1	10.0	0.9	20.0
Bis(2-chloroethoxy)methane	Ave	0.5796	0.5703	0.3000	9.84	10.0	-1.6	20.0
Benzoic acid	Qua		0.2651		18.4	20.0	-8.0	20.0
2,4-Dichlorophenol	Ave	0.2643	0.2774	0.2000	10.5	10.0	5.0	20.0
1,2,4-Trichlorobenzene	Ave	0.2885	0.2879		9.98	10.0	-0.2	20.0
Naphthalene	Ave	1.109	1.102	0.7000	9.94	10.0	-0.6	20.0
4-Chloroaniline	Ave	0.4709	0.4582	0.0100	9.73	10.0	-2.7	20.0
Hexachlorobutadiene	Ave	0.1598	0.1631	0.0100	10.2	10.0	2.1	20.0
1,2,3-Trichlorobenzene	Ave	0.2701	0.2681		9.93	10.0	-0.7	20.0
Caprolactam	Ave	0.1439	0.1601	0.0100	11.1	10.0	11.3	20.0
4-Chloro-3-methylphenol	Ave	0.3865	0.4085	0.2000	10.6	10.0	5.7	20.0
2-Methylnaphthalene	Ave	0.5720	0.5748	0.4000	10.0	10.0	0.5	20.0
1-Methylnaphthalene	Ave	0.6522	0.6483		9.94	10.0	-0.6	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4909	0.4690		9.55	10.0	-4.5	20.0
Hexachlorocyclopentadiene	Ave	0.3328	0.2859	0.0500	8.59	10.0	-14.1	20.0
2,4,6-Trichlorophenol	Ave	0.3515	0.3331	0.2000	9.48	10.0	-5.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-6612/2 Calibration Date: 06/28/2011 16:19

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9SMH0628.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3656	0.3863	0.2000	10.6	10.0	5.6	20.0
2,4-Toluene diamine	Ave	0.3017	0.1051		3.48	10.0	-65.2	20.0
1,1'-Biphenyl	Ave	1.458	1.388	0.0100	9.52	10.0	-4.8	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4648	0.4348		9.35	10.0	-6.5	20.0
2-Chloronaphthalene	Ave	1.074	1.038	0.8000	9.67	10.0	-3.3	20.0
2-Nitroaniline	Ave	0.5329	0.5247	0.0100	9.85	10.0	-1.5	20.0
Dimethyl phthalate	Ave	1.263	1.268	0.0100	10.0	10.0	0.4	20.0
2,6-Dinitrotoluene	Ave	0.2778	0.2848		10.3	10.0	2.5	20.0
1,2-Dinitrobenzene	Ave	0.1542	0.1589		10.3	10.0	3.0	20.0
Acenaphthylene	Ave	1.932	1.903	0.9000	9.85	10.0	-1.5	20.0
3-Nitroaniline	Ave	0.3507	0.3547	0.0100	10.1	10.0	1.1	20.0
Acenaphthene	Ave	1.183	1.089	0.9000	9.21	10.0	-7.9	20.0
2,4-Dinitrophenol	Qua		0.2022	0.0100	17.7	20.0	-11.5	20.0
4-Nitrophenol	Ave	0.2448	0.2410		9.85	10.0	-1.5	20.0
2,4-Dinitrotoluene	Ave	0.3756	0.3920	0.2000	10.4	10.0	4.4	20.0
Dibenzofuran	Ave	1.646	1.617	0.8000	9.83	10.0	-1.7	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3038	0.2959		9.74	10.0	-2.6	20.0
Diethyl phthalate	Ave	1.350	1.336	0.0100	9.90	10.0	-1.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.6125	0.6101	0.4000	9.96	10.0	-0.4	20.0
Fluorene	Ave	1.260	1.206	0.9000	9.57	10.0	-4.3	20.0
4-Nitroaniline	Ave	0.3627	0.3600	0.0100	9.92	10.0	-0.8	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1303	0.1319	0.0100	10.1	10.0	1.2	20.0
N-Nitrosodiphenylamine	Ave	0.5824	0.5552	0.0100	9.53	10.0	-4.7	20.0
Azobenzene	Ave	1.341	1.328		9.91	10.0	-0.9	20.0
4-Bromophenyl phenyl ether	Ave	0.1912	0.1909	0.1000	9.99	10.0	-0.1	20.0
Hexachlorobenzene	Ave	0.1851	0.1809	0.1000	9.77	10.0	-2.3	20.0
Atrazine	Ave	0.1866	0.1861	0.0100	9.97	10.0	-0.3	20.0
Pentachlorophenol	Ave	0.1317	0.1072	0.0500	16.3	20.0	-18.6	20.0
Phenanthrene	Ave	1.100	1.039	0.7000	9.44	10.0	-5.6	20.0
Anthracene	Ave	1.102	1.063	0.7000	9.64	10.0	-3.6	20.0
Carbazole	Ave	1.086	1.059	0.0100	9.75	10.0	-2.5	20.0
Di-n-butyl phthalate	Ave	1.308	1.343	0.0100	10.3	10.0	2.7	20.0
Fluoranthene	Ave	1.187	1.156	0.6000	9.73	10.0	-2.7	20.0
Benzidine	Ave	0.7031	0.7562		10.8	10.0	7.5	20.0
Pyrene	Ave	1.259	1.236	0.6000	9.81	10.0	-1.9	20.0
Butyl benzyl phthalate	Ave	0.5808	0.5917	0.0100	10.2	10.0	1.9	20.0
3,3'-Dimethoxybenzidine	Ave	0.2665	0.3002		11.3	10.0	12.7	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8071	0.8091	0.0100	10.0	10.0	0.2	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2133	0.2209		10.4	10.0	3.5	20.0
3,3'-Dichlorobenzidine	Ave	0.4199	0.4311	0.0100	10.3	10.0	2.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-6612/2 Calibration Date: 06/28/2011 16:19

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9SMH0628.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.223	1.157	0.8000	9.46	10.0	-5.4	20.0
Chrysene	Ave	1.141	1.133	0.7000	9.93	10.0	-0.7	20.0
Di-n-octyl phthalate	Ave	1.571	1.607	0.0100	10.2	10.0	2.2	20.0
Benzo[b]fluoranthene	Ave	1.346	1.214	0.7000	9.02	10.0	-9.8	20.0
Benzo[k]fluoranthene	Ave	1.257	1.352	0.7000	10.8	10.0	7.5	20.0
Benzo[a]pyrene	Ave	1.173	1.163	0.7000	9.92	10.0	-0.8	20.0
Dibenzo(a,h)anthracene	Ave	1.030	1.080	0.4000	10.5	10.0	4.9	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.265	1.298	0.5000	10.3	10.0	2.6	20.0
Benzo[g,h,i]perylene	Ave	1.046	1.075	0.5000	10.3	10.0	2.8	20.0
2-Fluorophenol (Surr)	Ave	1.563	1.568		10.0	10.0	0.4	20.0
Phenol-d5 (Surr)	Ave	2.187	2.239		10.2	10.0	2.3	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6185	0.5686		9.19	10.0	-8.1	20.0
2-Fluorobiphenyl (Surr)	Ave	1.325	1.259		9.50	10.0	-5.0	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1421	0.1358		9.56	10.0	-4.4	20.0
Terphenyl-d14 (Surr)	Ave	0.7242	0.7357		10.2	10.0	1.6	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 9DF0701.D DFTPP Injection Date: 07/01/2011

Instrument ID: A4HP9 DFTPP Injection Time: 12:18

Analysis Batch No.: 7010

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	42.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	69.5	
70	Less than 2.0% of mass 69	0.0	(0.0)1
127	25.0 - 75.0% of mass 198	57.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	25.6	
365	Greater than 0.75% of mass 198	3.7	
441	Present, but less than mass 443	13.5	
442	40.0 - 110.0% of mass 198	77.0	
443	15.0 - 24.0% of mass 442	15.1	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-7010/5	9SMH0701.D	07/01/2011	12:35
	STD5 240-7010/6	9SMM0701.D	07/01/2011	13:00
	STD4 240-7010/7	9SM0701.D	07/01/2011	13:19
	STD3 240-7010/8	9SML0701.D	07/01/2011	13:57
	STD2 240-7010/9	9SL0701.D	07/01/2011	14:31
	STD1 240-7010/10	9SLL0701.D	07/01/2011	14:50
	STD7 240-7010/4	9SH0701.D	07/01/2011	15:09
	STD8 240-7010/3	9SHH0701.D	07/01/2011	15:28
	STD9 240-7010/2	9HHH0701.D	07/01/2011	15:48
	ICV 240-7010/11	9TCLICV.D	07/01/2011	16:07

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-7010/10	9SLL0701.D
Level 2	STD2 240-7010/9	9SL0701.D
Level 3	STD3 240-7010/8	9SML0701.D
Level 4	STD4 240-7010/7	9SM0701.D
Level 5	STD5 240-7010/6	9SMM0701.D
Level 6	STD6 240-7010/5	9SMH0701.D
Level 7	STD7 240-7010/4	9SH0701.D
Level 8	STD8 240-7010/3	9SHH0701.D
Level 9	STD9 240-7010/2	9HHH0701.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.7810	0.9571 0.7823	0.8693 0.7533	0.8737 0.7537	0.8218	Ave		0.8240				8.7		20.0			
N-Nitrosodimethylamine	1.4235	1.5700 1.4646	1.5660 1.4070	1.5725 1.4514	1.4875	Ave		1.4928				4.6		20.0			
Pyridine	2.2228	2.0782 2.3372	2.2525 2.2465	2.3929 2.4158	2.3908	Ave		2.2921				5.0		20.0			
Ethyl methacrylate	2.0020	2.2719 2.0308	2.1882 1.9446	2.2359 2.0028	2.0993	Ave		2.0969				5.8		20.0			
3-Chloropropionitrile	0.8184	0.8957 0.8498	0.8896 0.8151	0.9273 0.8638	0.8682	Ave		0.8660				4.4		20.0			
Malononitrile	2.4701	2.5615 2.4773	2.7239 2.3554	2.6728 2.3869	2.5641	Ave		2.5265				5.1		20.0			
Benzaldehyde	1.4986	2.0297 1.2142	2.0302 0.9733	1.9700	1.7235	Qua	0.0960	1.9779	-0.051		0.0100				1.0000		0.9900
Phenol	2.4206	2.5496 2.4605	2.6221 2.3809	2.6190 2.5368	2.5003	Ave		2.5112			0.8000	3.5		20.0			
Aniline	3.0064	3.1645 3.1476	3.2612 3.0103	3.2948 3.4315	3.1510	Ave		3.1834				4.5		20.0			
Bis(2-chloroethyl)ether	1.9045	1.9786 1.9057	2.1344 1.9114	2.0529 1.9759	1.9459	Ave		1.9762			0.7000	4.1		20.0			
2-Chlorophenol	1.3917	1.4986 1.4090	1.5078 1.3622	1.5289 1.4429	1.4425	Ave		1.4480			0.8000	4.1		20.0			
1,3-Dichlorobenzene	1.3203	1.3718 1.3527	1.4232 1.3130	1.4568 1.3928	1.3775	Ave		1.3760				3.5		20.0			
1,4-Dichlorobenzene	1.3598	1.3718 1.3927	1.5446 1.3669	1.5307 1.4407	1.4272	Ave		1.4293				5.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzyl alcohol		1.1384	1.1427	1.1863	1.1274	Ave		1.1490				2.6		20.0			
	1.1185	1.1489	1.1274	1.2022													
1,2-Dichlorobenzene		1.2952	1.3680	1.4010	1.2877	Ave		1.3072				4.2		20.0			
	1.2545	1.2743	1.2449	1.3320													
2-Methylphenol		1.6094	1.6126	1.6627	1.6229	Ave		1.6081			0.7000	3.0		20.0			
	1.5524	1.5661	1.5584	1.6804													
2,2'-oxybis[1-chloropropane]		1.8540	1.8823	1.8798	1.7553	Ave		1.7766				4.9		20.0			
	1.6980	1.6907	1.6753	1.7773													
Benzoic acid		+++++	0.0915	0.1783	0.2710	Qua	-0.469	0.3011	0.0011						1.0000		0.9900
	0.2886	0.3261	0.3315	0.3465													
3 & 4 Methylphenol		1.7044	1.7700	1.7935	1.7112	Ave		1.7056				3.5		20.0			
	1.6421	1.6612	1.6272	1.7347													
N-Nitrosodi-n-propylamine		1.8596	1.7974	1.8254	1.7209	Ave		1.7394			0.5000	4.9		20.0			
	1.6542	1.6821	1.6217	1.7542													
Acetophenone		2.4582	2.4768	2.5061	2.3309	Ave		2.3792			0.0100	4.6		20.0			
	2.2262	2.3305	2.2458	2.4591													
Hexachloroethane		0.6174	0.6846	0.6717	0.6493	Ave		0.6479			0.3000	3.8		20.0			
	0.6284	0.6468	0.6202	0.6651													
Nitrobenzene		0.6869	0.6684	0.6691	0.6367	Ave		0.6499			0.2000	3.5		20.0			
	0.6278	0.6333	0.6242	0.6523													
Isophorone		1.1963	1.1975	1.1737	1.1294	Ave		1.1608			0.4000	2.7		20.0			
	1.1284	1.1342	1.1375	1.1895													
2-Nitrophenol		0.1866	0.1954	0.2090	0.1999	Ave		0.1961			0.1000	3.5		20.0			
	0.1935	0.1925	0.1917	0.2004													
2,4-Dimethylphenol		0.4897	0.4835	0.5101	0.4815	Ave		0.4794			0.2000	3.6		20.0			
	0.4630	0.4614	0.4605	0.4852													
1,3,5-Trichlorobenzene		0.3070	0.3114	0.3170	0.2846	Ave		0.2967				5.0		20.0			
	0.2778	0.2860	0.2856	0.3040													
Bis(2-chloroethoxy)methane		0.6065	0.6281	0.6236	0.5831	Ave		0.5917			0.3000	4.2		20.0			
	0.5740	0.5675	0.5631	0.5880													
2,4-Dichlorophenol		0.2545	0.2764	0.2824	0.2716	Ave		0.2718			0.2000	3.4		20.0			
	0.2722	0.2689	0.2654	0.2829													
1,2,4-Trichlorobenzene		0.2980	0.3110	0.3073	0.2905	Ave		0.2960				3.3		20.0			
	0.2858	0.2881	0.2866	0.3004													
Naphthalene	1.3348	1.1278	1.1440	1.1389	1.0841	Ave		1.1303			0.7000	7.2		20.0			
	1.0701	1.0768	1.0787	1.1173													
4-Chloroaniline		0.4722	0.4742	0.5081	0.4887	Ave		0.4761			0.0100	3.8		20.0			
	0.4565	0.4534	0.4689	0.4868													
Hexachlorobutadiene		0.1722	0.1762	0.1690	0.1676	Ave		0.1700			0.0100	3.0		20.0			
	0.1614	0.1675	0.1691	0.1770													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,2,3-Trichlorobenzene		0.2687	0.2772	0.2881	0.2710	Ave		0.2730				3.0		20.0			
	0.2617	0.2708	0.2669	0.2793													
1,1'-Biphenyl	+++++	1.5710	1.5753	1.5818	1.4592	Ave		1.5139			0.0100	4.3		20.0			
	1.4514	1.4462	1.4561	1.5699													
2-Chloronaphthalene	+++++	1.1184	1.1428	1.1432	1.0571	Ave		1.0887			0.8000	3.9		20.0			
	1.0664	1.0309	1.0554	1.0957													
Caprolactam		0.1413	0.1475	0.1520	0.1491	Ave		0.1497			0.0100	2.8		20.0			
	0.1525	0.1488	0.1504	0.1558													
4-Chloro-3-methylphenol		0.4015	0.4125	0.4367	0.4091	Ave		0.4146			0.2000	3.0		20.0			
	0.4093	0.4083	0.4078	0.4314													
2-Methylnaphthalene	0.6917	0.6013	0.6023	0.6144	0.5672	Ave		0.5930			0.4000	7.2		20.0			
	0.5597	0.5633	0.5585	0.5790													
1-Methylnaphthalene	0.8086	0.6889	0.6741	0.6937	0.6441	Ave		0.6758				8.1		20.0			
	0.6366	0.6376	0.6330	0.6651													
1,2,3,5-Tetrachlorobenzene		0.5291	0.5407	0.5254	0.5090	Ave		0.5131				4.5		20.0			
	0.4798	0.4879	0.4971	0.5355													
Hexachlorocyclopentadiene		0.3201	0.3366	0.3712	0.3530	Ave		0.3573			0.0500	6.3		20.0			
	0.3553	0.3630	0.3646	0.3945													
2,4,6-Trichlorophenol		0.3763	0.3619	0.3963	0.3695	Ave		0.3684			0.2000	4.0		20.0			
	0.3579	0.3460	0.3656	0.3737													
2,4,5-Trichlorophenol		0.3894	0.4071	0.4161	0.3806	Ave		0.3926			0.2000	3.5		20.0			
	0.3915	0.3807	0.3769	0.3987													
Dibenzofuran	+++++	1.7551	1.7087	1.7205	1.6192	Ave		1.6645			0.8000	3.6		20.0			
	1.6243	1.5907	1.6173	1.6800													
2,4-Toluene diamine		0.3104	0.3290	0.3674	0.2801	Ave		0.3067				15.0		20.0			
	0.2468																
1,2,3,4 -Tetrachlorobenzene		0.5088	0.5227	0.4959	0.4673	Ave		0.4861				5.3		20.0			
	0.4529	0.4621	0.4727	0.5067													
2-Nitroaniline		0.6280	0.6126	0.6257	0.5818	Ave		0.5968			0.0100	3.9		20.0			
	0.5899	0.5663	0.5753	0.5945													
Dimethyl phthalate		1.3771	1.3485	1.3875	1.2796	Ave		1.3195			0.0100	3.8		20.0			
	1.3045	1.2527	1.2743	1.3316													
2,6-Dinitrotoluene		0.2827	0.2873	0.3099	0.2909	Ave		0.2932				3.4		20.0			
	0.2998	0.2838	0.2878	0.3030													
1,2-Dinitrobenzene		0.1555	0.1612	0.1617	0.1533	Ave		0.1589				2.6		20.0			
	0.1624	0.1538	0.1592	0.1640													
Acenaphthylene	2.2029	2.0100	2.0190	2.0495	1.8840	Ave		1.9770			0.9000	5.4		20.0			
	1.9176	1.8615	1.8887	1.9594													
3-Nitroaniline		0.3734	0.3884	0.3785	0.3626	Ave		0.3663			0.0100	3.6		20.0			
	0.3649	0.3481	0.3525	0.3621													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Acenaphthene	1.4834 1.1447	1.2457 1.1165	1.2572 1.1234	1.2622 1.1797	1.1444	Ave		1.2174			0.9000	9.5		20.0			
2,4-Dinitrophenol	0.2411	0.1052 0.2444	0.1445 0.2495	0.1980 0.2613	0.2358	Qua	-0.117	0.2308	0.0006		0.0100				1.0000		0.9900
4-Nitrophenol	0.3022	0.2294 0.2937	0.2250 0.2975	0.2862 0.3013	0.2872	Ave		0.2778				11.0		20.0			
2,4-Dinitrotoluene	0.3966	0.3641 0.3857	0.3958 0.3919	0.4129 0.4023	0.3834	Ave		0.3916			0.2000	3.7		20.0			
2,3,5,6-Tetrachlorophenol	0.3213	0.2783 0.3138	0.3027 0.3225	0.3245 0.3366	0.3097	Ave		0.3137				5.6		20.0			
Diethyl phthalate	1.4153	1.4627 1.3624	1.4682 1.3888	1.5067 1.4715	1.3929	Ave		1.4335			0.0100	3.5		20.0			
4-Chlorophenyl phenyl ether	0.6208	0.6119 0.6041	0.6554 0.6095	0.6674 0.6434	0.6191	Ave		0.6289			0.4000	3.7		20.0			
4-Nitroaniline	0.3799	0.3811 0.3668	0.3995 0.3706	0.4002 0.3840	0.3861	Ave		0.3835			0.0100	3.1		20.0			
Fluorene	1.5926 1.2502	1.3459 1.2069	1.3477 1.2457	1.3760 1.2969	1.2454	Ave		1.3230			0.9000	8.8		20.0			
4,6-Dinitro-2-methylphenol	0.1536	0.0843 0.1524	0.1094 0.1537	0.1402 0.1616	0.1416	Ave		0.1371			0.0100	19.0		20.0			
N-Nitrosodiphenylamine	0.5711	0.6272 0.5828	0.6042 0.5856	0.6096 0.6133	0.5760	Ave		0.5962			0.0100	3.4		20.0			
Azobenzene	1.4249	1.5225 1.4353	1.4944 1.4283	1.5003 1.4873	1.4358	Ave		1.4661				2.7		20.0			
4-Bromophenyl phenyl ether	0.1910	0.1991 0.1950	0.2034 0.1955	0.2009 0.2044	0.1903	Ave		0.1975			0.1000	2.7		20.0			
Hexachlorobenzene	0.2220 0.1831	0.1951 0.1860	0.1878 0.1881	0.1899 0.1998	0.1858	Ave		0.1931			0.1000	6.2		20.0			
Atrazine	0.2037	0.2066 0.1921	0.2111 0.1948	0.2198 0.1887	0.2032	Ave		0.2025			0.0100	5.1		20.0			
Pentachlorophenol	0.1424	0.1057 0.1497	0.1177 0.1518	0.1297 0.1607	0.1347	Ave		0.1366			0.0500	14.0		20.0			
Phenanthrene	1.4028 1.0543	1.1333 1.0759	1.1332 1.0777	1.1263 1.1475	1.0606	Ave		1.1346			0.7000	9.4		20.0			
Anthracene	1.3565 1.0820	1.1194 1.1084	1.1414 1.1039	1.1621 1.1648	1.0815	Ave		1.1467			0.7000	7.4		20.0			
Carbazole	1.0806	1.1275 1.0918	1.1346 1.0894	1.1351 1.1384	1.0765	Ave		1.1092			0.0100	2.4		20.0			
Di-n-butyl phthalate	1.3965	1.4446 1.4137	1.4188 1.4072	1.4417 1.4706	1.3836	Ave		1.4221			0.0100	2.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Fluoranthene	1.4122	1.2005	1.2001	1.2256	1.1426	Ave		1.2184			0.6000	6.5		20.0			
	1.1626	1.1840	1.1834	1.2542													
Benzidine		0.6383	0.7040	0.7478	0.7358	Ave		0.7100				4.6		20.0			
	0.7224	0.7211	0.7045	0.7062													
Pyrene	1.3889	1.2402	1.2587	1.3022	1.2298	Ave		1.2717			0.6000	4.1		20.0			
	1.2342	1.2456	1.2394	1.3060													
Butyl benzyl phthalate		0.8620	0.7162	0.6433	0.6232	Ave		0.6576			0.0100	14.0		20.0			
	0.6050	0.5950	0.5933	0.6223													
3,3'-Dimethoxybenzidine		0.2834	0.3013	0.3249	0.3138	Ave		0.2919				6.8		20.0			
	0.2876	0.2687	0.2738	0.2815													
Bis(2-ethylhexyl) phthalate		0.8536	0.8584	0.9073	0.8563	Ave		0.8542			0.0100	3.1		20.0			
	0.8380	0.8343	0.8199	0.8657													
4,4'-Methylene bis(2-chloroaniline)		0.2280	0.2284	0.2304	0.2262	Ave		0.2315				3.6		20.0			
	0.2226	0.2315	0.2345	0.2501													
3,3'-Dichlorobenzidine		0.4013	0.4214	0.4439	0.4181	Ave		0.4307			0.0100	4.5		20.0			
	0.4222	0.4377	0.4358	0.4650													
Benzo[a]anthracene	1.5194	1.1806	1.1628	1.2691	1.1664	Ave		1.2491			0.8000	9.4		20.0			
	1.1877	1.1812	1.2271	1.3473													
Chrysene	1.4482	1.1757	1.1616	1.1195	1.0782	Ave		1.1576			0.7000	9.8		20.0			
	1.0768	1.1200	1.1144	1.1243													
Di-n-octyl phthalate		1.5880	1.6099	1.7601	1.7047	Ave		1.6864			0.0100	3.9		20.0			
	1.6806	1.6750	1.6901	1.7830													
Benzo[b]fluoranthene	1.6913	1.4310	1.5072	1.3943	1.3785	Ave		1.5069			0.7000	7.2		20.0			
	1.4810	1.4538	1.6281	1.5966													
Benzo[k]fluoranthene	1.3800	1.2025	1.1450	1.3265	1.1800	Ave		1.1848			0.7000	9.7		20.0			
	1.0518	1.1483	1.0224	1.2064													
Benzo[a]pyrene	1.4257	1.2027	1.1720	1.2179	1.1633	Ave		1.2165			0.7000	6.9		20.0			
	1.1510	1.1801	1.1833	1.2527													
Indeno[1,2,3-cd]pyrene	1.2796	1.2297	1.2619	1.3177	1.2801	Ave		1.2858			0.5000	2.9		20.0			
	1.2632	1.2891	1.2899	1.3611													
Dibenzo(a,h)anthracene	1.0641	1.0936	1.0649	1.1060	1.0408	Ave		1.0738			0.4000	2.8		20.0			
	1.0384	1.0605	1.0673	1.1287													
Benzo[g,h,i]perylene	1.1212	1.0262	1.0314	1.0844	1.0496	Ave		1.0594			0.5000	3.2		20.0			
	1.0345	1.0408	1.0449	1.1015													
2-Fluorophenol (Surr)		1.5893	1.5953	1.7074	1.5877	Ave		1.5772				4.3		20.0			
	1.5054	1.5532	1.4833	1.5959													
Phenol-d5 (Surr)		2.2267	2.2732	2.3274	2.1795	Ave		2.1933				3.8		20.0			
	2.1130	2.1539	2.0730	2.1995													
Nitrobenzene-d5 (Surr)	0.8071	0.6892	0.6634	0.6718	0.6346	Ave		0.6630				9.4		20.0			
	0.6348	0.5809	0.6309	0.6540													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
2-Fluorobiphenyl (Surr)	1.6152	1.3826	1.3975	1.3741	1.2825	Ave		1.3503				8.5		20.0			
	1.2651	1.2464	1.2636	1.3252													
2,4,6-Tribromophenol (Surr)		0.1436	0.1442	0.1584	0.1466	Ave		0.1512				4.2		20.0			
	0.1531	0.1499	0.1533	0.1608													
Terphenyl-d14 (Surr)	0.8690	0.7149	0.7239	0.7593	0.7195	Ave		0.7507				6.6		20.0			
	0.7166	0.7311	0.7382	0.7837													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-7010/11 Calibration Date: 07/01/2011 16:07

Instrument ID: A4HP9 Calib Start Date: 07/01/2011 12:35

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/01/2011 15:48

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8240	0.7865		9.54	10.0	-4.6	30.0
N-Nitrosodimethylamine	Ave	1.493	1.460		9.78	10.0	-2.2	30.0
Pyridine	Ave	2.292	2.252		9.83	10.0	-1.7	30.0
Ethyl methacrylate	Ave	2.097	2.044		9.75	10.0	-2.5	30.0
3-Chloropropionitrile	Ave	0.8660	0.8364		9.66	10.0	-3.4	30.0
Malononitrile	Ave	2.527	2.495		9.87	10.0	-1.2	30.0
Benzaldehyde	Qua		1.376	0.0100	8.97	10.0	-10.3	30.0
Phenol	Ave	2.511	2.416	0.8000	9.62	10.0	-3.8	30.0
Aniline	Ave	3.183	3.049		9.58	10.0	-4.2	30.0
Bis(2-chloroethyl)ether	Ave	1.976	1.907	0.7000	9.65	10.0	-3.5	30.0
2-Chlorophenol	Ave	1.448	1.397	0.8000	9.65	10.0	-3.5	30.0
1,3-Dichlorobenzene	Ave	1.376	1.341		9.75	10.0	-2.5	30.0
1,4-Dichlorobenzene	Ave	1.429	1.388		9.71	10.0	-2.9	30.0
Benzyl alcohol	Ave	1.149	1.107		9.64	10.0	-3.6	30.0
1,2-Dichlorobenzene	Ave	1.307	1.248		9.55	10.0	-4.5	30.0
2-Methylphenol	Ave	1.608	1.545	0.7000	9.61	10.0	-3.9	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.777	1.672		9.41	10.0	-5.9	30.0
3 & 4 Methylphenol	Ave	1.706	1.623		9.51	10.0	-4.9	30.0
N-Nitrosodi-n-propylamine	Ave	1.739	1.659	0.5000	9.54	10.0	-4.6	30.0
Acetophenone	Ave	2.379	2.269	0.0100	9.54	10.0	-4.6	30.0
Hexachloroethane	Ave	0.6479	0.6334	0.3000	9.78	10.0	-2.2	30.0
Nitrobenzene	Ave	0.6499	0.6229	0.2000	9.58	10.0	-4.2	30.0
Isophorone	Ave	1.161	1.112	0.4000	9.58	10.0	-4.2	30.0
2-Nitrophenol	Ave	0.1961	0.1942	0.1000	9.90	10.0	-1.0	30.0
2,4-Dimethylphenol	Ave	0.4794	0.4582	0.2000	9.56	10.0	-4.4	30.0
1,3,5-Trichlorobenzene	Ave	0.2967	0.2871		9.68	10.0	-3.2	30.0
Bis(2-chloroethoxy)methane	Ave	0.5917	0.5655	0.3000	9.56	10.0	-4.4	30.0
Benzoic acid	Qua		0.3071		20.4	20.0	2.0	30.0
2,4-Dichlorophenol	Ave	0.2718	0.2710	0.2000	9.97	10.0	-0.3	30.0
1,2,4-Trichlorobenzene	Ave	0.2960	0.2857		9.65	10.0	-3.5	30.0
Naphthalene	Ave	1.130	1.061	0.7000	9.38	10.0	-6.2	30.0
4-Chloroaniline	Ave	0.4761	0.4502	0.0100	9.46	10.0	-5.4	30.0
Hexachlorobutadiene	Ave	0.1700	0.1687	0.0100	9.92	10.0	-0.8	30.0
1,2,3-Trichlorobenzene	Ave	0.2730	0.2671		9.78	10.0	-2.2	30.0
Caprolactam	Ave	0.1497	0.1509	0.0100	10.1	10.0	0.8	30.0
4-Chloro-3-methylphenol	Ave	0.4146	0.4052	0.2000	9.77	10.0	-2.3	30.0
2-Methylnaphthalene	Ave	0.5930	0.5532	0.4000	9.33	10.0	-6.7	30.0
1-Methylnaphthalene	Ave	0.6758	0.6270		9.28	10.0	-7.2	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5131	0.4818		9.39	10.0	-6.1	30.0
Hexachlorocyclopentadiene	Ave	0.3573	0.3453	0.0500	9.67	10.0	-3.3	30.0
2,4,6-Trichlorophenol	Ave	0.3684	0.3435	0.2000	9.33	10.0	-6.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-7010/11 Calibration Date: 07/01/2011 16:07

Instrument ID: A4HP9 Calib Start Date: 07/01/2011 12:35

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/01/2011 15:48

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3926	0.3805	0.2000	9.69	10.0	-3.1	30.0
2,4-Toluene diamine	Ave	0.3067	0.2000		6.52	10.0	-34.8*	30.0
1,1'-Biphenyl	Ave	1.514	1.418	0.0100	9.37	10.0	-6.3	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4861	0.4548		9.36	10.0	-6.4	30.0
2-Chloronaphthalene	Ave	1.089	1.036	0.8000	9.52	10.0	-4.8	30.0
2-Nitroaniline	Ave	0.5968	0.5811	0.0100	9.74	10.0	-2.6	30.0
Dimethyl phthalate	Ave	1.319	1.274	0.0100	9.65	10.0	-3.5	30.0
2,6-Dinitrotoluene	Ave	0.2932	0.2885		9.84	10.0	-1.6	30.0
1,2-Dinitrobenzene	Ave	0.1589	0.1583		9.97	10.0	-0.4	30.0
Acenaphthylene	Ave	1.977	1.854	0.9000	9.38	10.0	-6.2	30.0
3-Nitroaniline	Ave	0.3663	0.3478	0.0100	9.49	10.0	-5.1	30.0
2,4-Dinitrophenol	Qua		0.2401	0.0100	20.2	20.0	1.0	30.0
Acenaphthene	Ave	1.217	1.108	0.9000	9.10	10.0	-9.0	30.0
4-Nitrophenol	Ave	0.2778	0.2528		9.10	10.0	-9.0	30.0
2,4-Dinitrotoluene	Ave	0.3916	0.3871	0.2000	9.88	10.0	-1.2	30.0
Dibenzofuran	Ave	1.664	1.604	0.8000	9.64	10.0	-3.6	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3137	0.3107		9.91	10.0	-0.9	30.0
Diethyl phthalate	Ave	1.434	1.381	0.0100	9.64	10.0	-3.6	30.0
4-Chlorophenyl phenyl ether	Ave	0.6289	0.6066	0.4000	9.65	10.0	-3.5	30.0
4-Nitroaniline	Ave	0.3835	0.3721	0.0100	9.70	10.0	-3.0	30.0
Fluorene	Ave	1.323	1.229	0.9000	9.29	10.0	-7.1	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1371	0.1478	0.0100	10.8	10.0	7.8	30.0
N-Nitrosodiphenylamine	Ave	0.5962	0.5832	0.0100	9.78	10.0	-2.2	30.0
Azobenzene	Ave	1.466	1.403		9.57	10.0	-4.3	30.0
4-Bromophenyl phenyl ether	Ave	0.1975	0.1938	0.1000	9.82	10.0	-1.8	30.0
Hexachlorobenzene	Ave	0.1931	0.1809	0.1000	9.37	10.0	-6.3	30.0
Atrazine	Ave	0.2025	0.1981	0.0100	9.78	10.0	-2.2	30.0
Pentachlorophenol	Ave	0.1366	0.1392	0.0500	20.4	20.0	2.0	30.0
Phenanthrene	Ave	1.135	1.051	0.7000	9.26	10.0	-7.4	30.0
Anthracene	Ave	1.147	1.077	0.7000	9.40	10.0	-6.0	30.0
Carbazole	Ave	1.109	1.057	0.0100	9.53	10.0	-4.7	30.0
Di-n-butyl phthalate	Ave	1.422	1.361	0.0100	9.57	10.0	-4.3	30.0
Fluoranthene	Ave	1.218	1.142	0.6000	9.37	10.0	-6.3	30.0
Benzidine	Ave	0.7100	0.6869		9.67	10.0	-3.3	30.0
Pyrene	Ave	1.272	1.214	0.6000	9.55	10.0	-4.5	30.0
Butyl benzyl phthalate	Ave	0.6576	0.6109	0.0100	9.29	10.0	-7.1	30.0
3,3'-Dimethoxybenzidine	Ave	0.2919	0.2880		9.87	10.0	-1.3	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8542	0.8257	0.0100	9.67	10.0	-3.3	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2315	0.2236		9.66	10.0	-3.4	30.0
3,3'-Dichlorobenzidine	Ave	0.4307	0.4204	0.0100	9.76	10.0	-2.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-7010/11 Calibration Date: 07/01/2011 16:07

Instrument ID: A4HP9 Calib Start Date: 07/01/2011 12:35

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/01/2011 15:48

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.249	1.187	0.8000	9.50	10.0	-5.0	30.0
Chrysene	Ave	1.158	1.086	0.7000	9.38	10.0	-6.2	30.0
Di-n-octyl phthalate	Ave	1.686	1.648	0.0100	9.77	10.0	-2.3	30.0
Benzo[b]fluoranthene	Ave	1.507	1.431	0.7000	9.49	10.0	-5.1	30.0
Benzo[k]fluoranthene	Ave	1.185	1.154	0.7000	9.74	10.0	-2.6	30.0
Benzo[a]pyrene	Ave	1.217	1.168	0.7000	9.60	10.0	-4.0	30.0
Dibenzo(a,h)anthracene	Ave	1.074	1.060	0.4000	9.87	10.0	-1.3	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.286	1.277	0.5000	9.93	10.0	-0.7	30.0
Benzo[g,h,i]perylene	Ave	1.059	1.034	0.5000	9.76	10.0	-2.4	30.0
2-Fluorophenol (Surr)	Ave	1.577	1.529		9.70	10.0	-3.0	30.0
Phenol-d5 (Surr)	Ave	2.193	2.137		9.74	10.0	-2.6	30.0
Nitrobenzene-d5 (Surr)	Ave	0.6630	0.6245		9.42	10.0	-5.8	30.0
2-Fluorobiphenyl (Surr)	Ave	1.350	1.249		9.25	10.0	-7.5	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1512	0.1495		9.88	10.0	-1.2	30.0
Terphenyl-d14 (Surr)	Ave	0.7507	0.7126		9.49	10.0	-5.1	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 9DF0704.D DFTPP Injection Date: 07/04/2011

Instrument ID: A4HP9 DFTPP Injection Time: 11:31

Analysis Batch No.: 7057

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	67.5	
70	Less than 2.0% of mass 69	0.4	(0.6)1
127	25.0 - 75.0% of mass 198	55.7	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	26.2	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	13.9	
442	40.0 - 110.0% of mass 198	83.7	
443	15.0 - 24.0% of mass 442	16.0	(19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-7057/2	9SMH0704.D	07/04/2011	11:48
	CCV 240-7057/3	9AMH0704.D	07/04/2011	12:07
G-SP-SB-119-6-8	240-635-8	635G8A.D	07/04/2011	19:33
G-SP-SB-121-6-8	240-635-17	635G17A.D	07/04/2011	19:52
G-SP-SB-115-0-2 MS	240-635-1 MS	635F1BS.D	07/04/2011	20:11

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVIS 240-7057/2 Calibration Date: 07/04/2011 11:48

Instrument ID: A4HP9 Calib Start Date: 07/01/2011 12:35

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/01/2011 15:48

Lab File ID: 9SMH0704.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8240	0.8020		9.73	10.0	-2.7	20.0
N-Nitrosodimethylamine	Ave	1.493	1.534		10.3	10.0	2.7	20.0
Pyridine	Ave	2.292	2.383		10.4	10.0	4.0	20.0
Ethyl methacrylate	Ave	2.097	2.131		10.2	10.0	1.6	20.0
3-Chloropropionitrile	Ave	0.8660	0.8781		10.1	10.0	1.4	20.0
Malononitrile	Ave	2.527	2.607		10.3	10.0	3.2	20.0
Benzaldehyde	Qua		1.418	0.0100	9.36	10.0	-6.4	20.0
Phenol	Ave	2.511	2.503	0.8000	9.97	10.0	-0.3	20.0
Aniline	Ave	3.183	3.212		10.1	10.0	0.9	20.0
Bis(2-chloroethyl)ether	Ave	1.976	1.973	0.7000	9.98	10.0	-0.2	20.0
2-Chlorophenol	Ave	1.448	1.424	0.8000	9.83	10.0	-1.7	20.0
1,3-Dichlorobenzene	Ave	1.376	1.359		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.429	1.420		9.94	10.0	-0.6	20.0
Benzyl alcohol	Ave	1.149	1.128		9.81	10.0	-1.9	20.0
1,2-Dichlorobenzene	Ave	1.307	1.289		9.86	10.0	-1.4	20.0
2-Methylphenol	Ave	1.608	1.653	0.7000	10.3	10.0	2.8	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.777	1.801		10.1	10.0	1.4	20.0
3 & 4 Methylphenol	Ave	1.706	1.717		10.1	10.0	0.7	20.0
N-Nitrosodi-n-propylamine	Ave	1.739	1.735	0.5000	9.97	10.0	-0.3	20.0
Acetophenone	Ave	2.379	2.381	0.0100	10.0	10.0	0.0	20.0
Hexachloroethane	Ave	0.6479	0.6481	0.3000	10.0	10.0	0.0	20.0
Nitrobenzene	Ave	0.6499	0.6468	0.2000	9.95	10.0	-0.5	20.0
Isophorone	Ave	1.161	1.167	0.4000	10.1	10.0	0.6	20.0
2-Nitrophenol	Ave	0.1961	0.1979	0.1000	10.1	10.0	0.9	20.0
1,3,5-Trichlorobenzene	Ave	0.2967	0.2870		9.67	10.0	-3.3	20.0
2,4-Dimethylphenol	Ave	0.4794	0.4738	0.2000	9.88	10.0	-1.2	20.0
Bis(2-chloroethoxy)methane	Ave	0.5917	0.5893	0.3000	9.96	10.0	-0.4	20.0
Benzoic acid	Qua		0.3050		20.3	20.0	1.5	20.0
2,4-Dichlorophenol	Ave	0.2718	0.2696	0.2000	9.92	10.0	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.2960	0.2884		9.75	10.0	-2.5	20.0
Naphthalene	Ave	1.130	1.093	0.7000	9.67	10.0	-3.3	20.0
4-Chloroaniline	Ave	0.4761	0.4723	0.0100	9.92	10.0	-0.8	20.0
Hexachlorobutadiene	Ave	0.1700	0.1693	0.0100	9.96	10.0	-0.4	20.0
1,2,3-Trichlorobenzene	Ave	0.2730	0.2743		10.0	10.0	0.5	20.0
Caprolactam	Ave	0.1497	0.1544	0.0100	10.3	10.0	3.1	20.0
4-Chloro-3-methylphenol	Ave	0.4146	0.4176	0.2000	10.1	10.0	0.7	20.0
2-Methylnaphthalene	Ave	0.5930	0.5640	0.4000	9.51	10.0	-4.9	20.0
1-Methylnaphthalene	Ave	0.6758	0.6414		9.49	10.0	-5.1	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5131	0.4897		9.54	10.0	-4.6	20.0
Hexachlorocyclopentadiene	Ave	0.3573	0.3479	0.0500	9.74	10.0	-2.6	20.0
2,4,6-Trichlorophenol	Ave	0.3684	0.3436	0.2000	9.33	10.0	-6.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVIS 240-7057/2 Calibration Date: 07/04/2011 11:48

Instrument ID: A4HP9 Calib Start Date: 07/01/2011 12:35

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/01/2011 15:48

Lab File ID: 9SMH0704.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3926	0.3909	0.2000	9.96	10.0	-0.4	20.0
2,4-Toluene diamine	Ave	0.3067	0.1720		5.61	10.0	-43.9	20.0
1,1'-Biphenyl	Ave	1.514	1.467	0.0100	9.69	10.0	-3.1	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4861	0.4576		9.41	10.0	-5.9	20.0
2-Chloronaphthalene	Ave	1.089	1.065	0.8000	9.79	10.0	-2.1	20.0
2-Nitroaniline	Ave	0.5968	0.6030	0.0100	10.1	10.0	1.0	20.0
Dimethyl phthalate	Ave	1.319	1.267	0.0100	9.60	10.0	-4.0	20.0
2,6-Dinitrotoluene	Ave	0.2932	0.2910		9.93	10.0	-0.7	20.0
1,2-Dinitrobenzene	Ave	0.1589	0.1567		9.86	10.0	-1.4	20.0
Acenaphthylene	Ave	1.977	1.904	0.9000	9.63	10.0	-3.7	20.0
3-Nitroaniline	Ave	0.3663	0.3571	0.0100	9.75	10.0	-2.5	20.0
2,4-Dinitrophenol	Qua		0.2423	0.0100	20.4	20.0	2.0	20.0
Acenaphthene	Ave	1.217	1.140	0.9000	9.37	10.0	-6.3	20.0
4-Nitrophenol	Ave	0.2778	0.2932		10.6	10.0	5.5	20.0
2,4-Dinitrotoluene	Ave	0.3916	0.3912	0.2000	10.0	10.0	-0.1	20.0
Dibenzofuran	Ave	1.664	1.646	0.8000	9.89	10.0	-1.1	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3137	0.3108		9.91	10.0	-0.9	20.0
Diethyl phthalate	Ave	1.434	1.381	0.0100	9.63	10.0	-3.7	20.0
4-Chlorophenyl phenyl ether	Ave	0.6289	0.6268	0.4000	9.96	10.0	-0.4	20.0
4-Nitroaniline	Ave	0.3835	0.3794	0.0100	9.89	10.0	-1.1	20.0
Fluorene	Ave	1.323	1.249	0.9000	9.44	10.0	-5.6	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1371	0.1485	0.0100	10.8	10.0	8.4	20.0
N-Nitrosodiphenylamine	Ave	0.5962	0.5729	0.0100	9.61	10.0	-3.9	20.0
Azobenzene	Ave	1.466	1.481		10.1	10.0	1.0	20.0
4-Bromophenyl phenyl ether	Ave	0.1975	0.1905	0.1000	9.65	10.0	-3.5	20.0
Hexachlorobenzene	Ave	0.1931	0.1817	0.1000	9.41	10.0	-5.9	20.0
Atrazine	Ave	0.2025	0.1923	0.0100	9.49	10.0	-5.1	20.0
Pentachlorophenol	Ave	0.1366	0.1412	0.0500	20.7	20.0	3.4	20.0
Phenanthrene	Ave	1.135	1.062	0.7000	9.36	10.0	-6.4	20.0
Anthracene	Ave	1.147	1.077	0.7000	9.39	10.0	-6.1	20.0
Carbazole	Ave	1.109	1.075	0.0100	9.69	10.0	-3.1	20.0
Di-n-butyl phthalate	Ave	1.422	1.370	0.0100	9.64	10.0	-3.6	20.0
Fluoranthene	Ave	1.218	1.145	0.6000	9.39	10.0	-6.1	20.0
Benzidine	Ave	0.7100	0.7242		10.2	10.0	2.0	20.0
Pyrene	Ave	1.272	1.245	0.6000	9.79	10.0	-2.1	20.0
Butyl benzyl phthalate	Ave	0.6576	0.6128	0.0100	9.32	10.0	-6.8	20.0
3,3'-Dimethoxybenzidine	Ave	0.2919	0.2799		9.59	10.0	-4.1	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8542	0.8475	0.0100	9.92	10.0	-0.8	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2315	0.2238		9.67	10.0	-3.3	20.0
3,3'-Dichlorobenzidine	Ave	0.4307	0.4317	0.0100	10.0	10.0	0.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVIS 240-7057/2 Calibration Date: 07/04/2011 11:48

Instrument ID: A4HP9 Calib Start Date: 07/01/2011 12:35

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/01/2011 15:48

Lab File ID: 9SMH0704.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.249	1.157	0.8000	9.26	10.0	-7.4	20.0
Chrysene	Ave	1.158	1.142	0.7000	9.86	10.0	-1.4	20.0
Di-n-octyl phthalate	Ave	1.686	1.690	0.0100	10.0	10.0	0.2	20.0
Benzo[b]fluoranthene	Ave	1.507	1.313	0.7000	8.71	10.0	-12.9	20.0
Benzo[k]fluoranthene	Ave	1.185	1.299	0.7000	11.0	10.0	9.7	20.0
Benzo[a]pyrene	Ave	1.217	1.185	0.7000	9.74	10.0	-2.6	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.286	1.296	0.5000	10.1	10.0	0.8	20.0
Dibenzo(a,h)anthracene	Ave	1.074	1.086	0.4000	10.1	10.0	1.1	20.0
Benzo[g,h,i]perylene	Ave	1.059	1.068	0.5000	10.1	10.0	0.8	20.0
2-Fluorophenol (Surr)	Ave	1.577	1.543		9.78	10.0	-2.2	20.0
Phenol-d5 (Surr)	Ave	2.193	2.205		10.1	10.0	0.5	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6630	0.6001		9.05	10.0	-9.5	20.0
2-Fluorobiphenyl (Surr)	Ave	1.350	1.299		9.62	10.0	-3.8	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1512	0.1461		9.66	10.0	-3.4	20.0
Terphenyl-d14 (Surr)	Ave	0.7507	0.7363		9.81	10.0	-1.9	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 9DF0714.D DFTPP Injection Date: 07/14/2011

Instrument ID: A4HP9 DFTPP Injection Time: 10:04

Analysis Batch No.: 8519

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.3	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	70.9	
70	Less than 2.0% of mass 69	0.3	(0.4)1
127	25.0 - 75.0% of mass 198	56.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.5	
275	10.0- 30.0% of mass 198	26.0	
365	Greater than 0.75% of mass 198	3.8	
441	Present, but less than mass 443	13.6	
442	40.0 - 110.0% of mass 198	78.2	
443	15.0 - 24.0% of mass 442	15.3	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-8519/10	9SMH0714.D	07/14/2011	10:23
	STD5 240-8519/2	9SMM0714.D	07/14/2011	10:46
	STD4 240-8519/3	9SM0714.D	07/14/2011	11:06
	STD3 240-8519/4	9SML0714.D	07/14/2011	11:25
	STD2 240-8519/5	9SL0714.D	07/14/2011	11:45
	STD1 240-8519/6	9SLL0714.D	07/14/2011	12:04
	STD7 240-8519/9	9SH0714.D	07/14/2011	12:24
	STD8 240-8519/8	9SHH0714.D	07/14/2011	12:43
	STD9 240-8519/7	9HHH0714.D	07/14/2011	13:03
	ICV 240-8519/11	9TCLICV.D	07/14/2011	13:22
	ICV 240-8519/21	9AP9ICV.D	07/14/2011	16:36
	MB 240-7865/4-A	MB7865.D	07/14/2011	17:06
	LCS 240-7865/5-A	LCS7865.D	07/14/2011	17:26

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-8519/6	9SLL0714.D
Level 2	STD2 240-8519/5	9SL0714.D
Level 3	STD3 240-8519/4	9SML0714.D
Level 4	STD4 240-8519/3	9SM0714.D
Level 5	STD5 240-8519/2	9SMM0714.D
Level 6	STD6 240-8519/10	9SMH0714.D
Level 7	STD7 240-8519/9	9SH0714.D
Level 8	STD8 240-8519/8	9SHH0714.D
Level 9	STD9 240-8519/7	9HHH0714.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.7587	0.8043 0.7199	0.7702 0.6658	0.8026 0.7097	0.7368	Ave		0.7460				6.4		20.0			
N-Nitrosodimethylamine	1.3991	1.3232 1.3161	1.3928 1.3290	1.4622 1.3424	1.3439	Ave		1.3636				3.7		20.0			
Pyridine	2.1529	1.3459 2.0091	1.6427 2.1085	2.1613 2.1891	2.0902	Ave		1.9625				16.0		20.0			
Ethyl methacrylate	2.0326	2.1052 1.9970	2.0678 1.9396	2.1894 2.0042	1.9516	Ave		2.0359				4.1		20.0			
3-Chloropropionitrile	0.8164	0.8373 0.8386	0.8159 0.8260	0.9091 0.8429	0.8210	Ave		0.8384				3.6		20.0			
Malononitrile	2.3645	2.2613 2.3288	2.3080 2.2648	2.4927 2.2389	2.3657	Ave		2.3281				3.5		20.0			
Benzaldehyde	1.4947	1.9807 1.4267	1.9784 +++++	2.0479	1.9279	Ave		1.8094			0.0100	15.0		20.0			
Phenol	2.3398	2.3104 2.3310	2.2407 2.3426	2.4539 2.4335	2.2936	Ave		2.3432			0.8000	3.0		20.0			
Aniline	2.9948	2.6137 2.8451	2.5545 2.9465	2.9691 3.1817	2.9682	Ave		2.8842				7.2		20.0			
Bis(2-chloroethyl)ether	1.8417	2.0750 1.9499	1.9533 1.8813	1.9331 1.8823	2.0679	Ave		1.9481			0.7000	4.4		20.0			
2-Chlorophenol	1.3882	1.3606 1.3742	1.3754 1.3784	1.4402 1.4374	1.3903	Ave		1.3931			0.8000	2.1		20.0			
1,3-Dichlorobenzene	1.3331	1.4194 1.3489	1.3890 1.3363	1.4480 1.4030	1.3609	Ave		1.3798				3.0		20.0			
1,4-Dichlorobenzene	1.3842	1.4754 1.4072	1.4702 1.4122	1.5141 1.4775	1.4269	Ave		1.4460				3.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzyl alcohol	1.0422	0.8975 1.0243	0.9436 1.0516	1.0611 1.0778	1.0959	Ave		1.0243				6.7		20.0			
1,2-Dichlorobenzene	1.2793	1.3721 1.2820	1.2917 1.3013	1.3866 1.3678	1.2926	Ave		1.3217				3.4		20.0			
2-Methylphenol	1.5307	1.3655 1.4953	1.5117 1.5190	1.5891 1.5792	1.5488	Ave		1.5174			0.7000	4.6		20.0			
Benzoic acid	0.2824	+++++ 0.2620	0.1041 0.3099	0.1704 0.3324	0.2382	Qua	-0.138	0.2172	0.0023						0.9970		0.9900
2,2'-oxybis[1-chloropropane]	1.5598	1.6730 1.5662	1.6291 1.5994	1.6911 1.6266	1.6447	Ave		1.6237				2.9		20.0			
3 & 4 Methylphenol	1.5793	1.4669 1.5789	1.3924 1.5890	1.5901 1.6641	1.6243	Ave		1.5606				5.6		20.0			
N-Nitrosodi-n-propylamine	1.7162	1.7163 1.7350	1.7206 1.7719	1.7458 1.8175	1.8192	Ave		1.7553			0.5000	2.5		20.0			
Acetophenone	2.3445	2.3786 2.3893	2.3968 2.4334	2.4540 2.4627	2.3996	Ave		2.4073			0.0100	1.7		20.0			
Hexachloroethane	0.6588	0.6388 0.6407	0.6660 0.6618	0.6838 0.6810	0.6755	Ave		0.6633			0.3000	2.6		20.0			
Nitrobenzene	0.6513	0.6905 0.6693	0.6630 0.6629	0.6688 0.7073	0.6622	Ave		0.6719			0.2000	2.7		20.0			
Isophorone	1.1419	1.1931 1.1685	1.1083 1.1800	1.1769 1.2549	1.1407	Ave		1.1705			0.4000	3.7		20.0			
2-Nitrophenol	0.1928	0.1677 0.1981	0.1822 0.2020	0.1991 0.2206	0.1918	Ave		0.1943			0.1000	7.9		20.0			
2,4-Dimethylphenol	0.5010	0.4931 0.4998	0.4917 0.5046	0.4959 0.5536	0.4980	Ave		0.5047			0.2000	4.0		20.0			
1,3,5-Trichlorobenzene	0.3005	0.3189 0.3108	0.3036 0.3211	0.3299 0.3549	0.3075	Ave		0.3184				5.6		20.0			
Bis(2-chloroethoxy)methane	0.5627	0.5403 0.5594	0.5394 0.5674	0.5852 0.6062	0.5712	Ave		0.5665			0.3000	3.9		20.0			
2,4-Dichlorophenol	0.2677	0.2123 0.2709	0.2575 0.2694	0.2681 0.2943	0.2755	Ave		0.2645			0.2000	8.9		20.0			
1,2,4-Trichlorobenzene	0.2977	0.2999 0.3018	0.3023 0.3049	0.3166 0.3287	0.3054	Ave		0.3072				3.4		20.0			
Naphthalene	1.1920 1.0757	1.1074 1.1144	1.0908 1.1077	1.1032 1.2104	1.0572	Ave		1.1176			0.7000	4.5		20.0			
4-Chloroaniline	0.4619	0.4510 0.4627	0.4381 0.4713	0.4568 0.5070	0.4338	Ave		0.4603			0.0100	4.9		20.0			
Hexachlorobutadiene	0.1814	0.1926 0.1902	0.1904 0.1923	0.1912 0.2066	0.1872	Ave		0.1915			0.0100	3.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,2,3-Trichlorobenzene		0.2799	0.2914	0.2815	0.2798	Ave		0.2862				3.5		20.0			
	0.2788	0.2858	0.2836	0.3090													
2,4-Toluene diamine		0.2003	0.2193	0.2965	0.2252	Qua	0.0384	0.2404	-0.004						0.9920		0.9900
	0.2162	0.1650	+++++	0.1329													
1,1'-Biphenyl	+++++	1.5208	1.5345	1.5292	1.4603	Ave		1.5837			0.0100	7.9		20.0			
	1.5185	1.5901	1.6610	1.8550													
2-Chloronaphthalene	+++++	1.0817	1.1284	1.1189	1.0842	Ave		1.1132			0.8000	3.0		20.0			
	1.0894	1.1031	1.1155	1.1844													
Caprolactam		0.1026	0.1260	0.1328	0.1422	Ave		0.1347			0.0100	11.0		20.0			
	0.1419	0.1405	0.1404	0.1513													
4-Chloro-3-methylphenol		0.4073	0.3923	0.4270	0.4221	Ave		0.4252			0.2000	4.8		20.0			
	0.4242	0.4311	0.4357	0.4618													
2-Methylnaphthalene	0.6066	0.6007	0.5628	0.5914	0.5644	Ave		0.5860			0.4000	4.1		20.0			
	0.5628	0.5742	0.5778	0.6334													
2,4-Dinitrophenol		+++++	0.1280	0.1822	0.2315	Qua	-0.068	0.2061	0.0020		0.0100				0.9990		0.9900
	0.2542	0.2644	0.2753	0.3101													
4-Nitrophenol		+++++	0.2025	0.3099	0.2854	Ave		0.2965				15.0		20.0			
	0.3348	0.3081	0.3102	0.3245													
1-Methylnaphthalene	0.7499	0.6818	0.6615	0.6783	0.6451	Ave		0.6781				5.6		20.0			
	0.6336	0.6630	0.6615	0.7277													
1,2,3,5-Tetrachlorobenzene		0.4944	0.5335	0.5304	0.5019	Ave		0.5438				8.2		20.0			
	0.5260	0.5622	0.5681	0.6338													
Hexachlorocyclopentadiene		0.3156	0.3335	0.3765	0.3738	Ave		0.3923			0.0500	13.0		20.0			
	0.4049	0.4273	0.4347	0.4723													
2,3,5,6-Tetrachlorophenol		+++++	0.3153	0.3205	0.3176	Ave		0.3326				5.2		20.0			
	0.3344	0.3326	0.3433	0.3646													
2,4,6-Trichlorophenol		0.2920	0.3253	0.3399	0.3424	Ave		0.3465			0.2000	8.5		20.0			
	0.3653	0.3547	0.3615	0.3910													
Dibenzofuran	+++++	1.7000	1.6765	1.7018	1.6221	Ave		1.7113			0.8000	4.4		20.0			
	1.6514	1.7106	1.7622	1.8660													
2,4,5-Trichlorophenol		0.3829	0.3827	0.3738	0.3827	Ave		0.3871			0.2000	4.9		20.0			
	0.4076	0.3597	0.3875	0.4203													
1,2,3,4 -Tetrachlorobenzene		0.4968	0.4910	0.5111	0.4824	Ave		0.5225				7.9		20.0			
	0.5038	0.5386	0.5486	0.6073													
4,6-Dinitro-2-methylphenol		+++++	0.0982	0.1234	0.1429	Ave		0.1405			0.0100	16.0		20.0			
	0.1504	0.1507	0.1517	0.1662													
2-Nitroaniline		0.5998	0.5808	0.6636	0.6241	Ave		0.6227			0.0100	4.0		20.0			
	0.6182	0.6270	0.6250	0.6433													
Dimethyl phthalate		1.2903	1.3375	1.3905	1.3227	Ave		1.3589			0.0100	3.8		20.0			
	1.3552	1.3439	1.3695	1.4617													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
2,6-Dinitrotoluene		0.2697	0.2798	0.2944	0.2973	Ave		0.2940				4.6		20.0			
	0.3030	0.2971	0.2975	0.3129													
1,2-Dinitrobenzene		0.1316	0.1462	0.1531	0.1518	Ave		0.1528				7.1		20.0			
	0.1634	0.1528	0.1565	0.1672													
Acenaphthylene	2.0042	1.9026	1.9501	1.9692	1.8869	Ave		1.9672			0.9000	3.7		20.0			
	1.9242	1.9559	1.9806	2.1310													
3-Nitroaniline		0.2983	0.3273	0.3376	0.3428	Ave		0.3381			0.0100	5.7		20.0			
	0.3531	0.3448	0.3391	0.3618													
Acenaphthene	1.3429	1.2033	1.2609	1.2102	1.1716	Ave		1.2622			0.9000	6.0		20.0			
	1.2089	1.2552	1.2980	1.4090													
2,4-Dinitrotoluene		0.3515	0.3851	0.4157	0.3891	Ave		0.3991			0.2000	5.9		20.0			
	0.4045	0.4047	0.4157	0.4266													
Diethyl phthalate		1.4805	1.4507	1.5137	1.4662	Ave		1.5106			0.0100	4.4		20.0			
	1.4761	1.5043	1.5316	1.6616													
4-Chlorophenyl phenyl ether		0.6752	0.6392	0.6643	0.6226	Ave		0.6621			0.4000	5.2		20.0			
	0.6360	0.6603	0.6640	0.7351													
4-Nitroaniline		0.3333	0.3761	0.3708	0.3683	Ave		0.3761			0.0100	5.8		20.0			
	0.3781	0.3817	0.3912	0.4096													
Fluorene	1.3386	1.2420	1.3034	1.2986	1.2469	Ave		1.3253			0.9000	5.7		20.0			
	1.2866	1.3390	1.3871	1.4854													
N-Nitrosodiphenylamine		0.5492	0.5755	0.5711	0.5697	Ave		0.5824			0.0100	5.4		20.0			
	0.5560	0.5953	0.5918	0.6507													
1,2-Diphenylhydrazine(as Azobenzene)		1.4050	1.4478	1.5045	1.4639	Ave		1.4785				2.8		20.0			
	1.4707	1.5156	1.4995	1.5277													
Azobenzene		1.4053	1.4422	1.5065	1.4621	Ave		1.4785				2.8		20.0			
	1.4718	1.5167	1.4957	1.5277													
4-Bromophenyl phenyl ether		0.1946	0.1974	0.1981	0.2022	Ave		0.2042			0.1000	5.1		20.0			
	0.1997	0.2062	0.2085	0.2271													
Hexachlorobenzene	0.2175	0.1915	0.1895	0.2024	0.1932	Ave		0.2010			0.1000	6.0		20.0			
	0.1926	0.1986	0.1995	0.2242													
Atrazine		0.1905	0.2059	0.2058	0.2177	Ave		0.1993			0.0100	6.3		20.0			
	0.2105	0.1960	0.1839	0.1840													
Pentachlorophenol		0.0795	0.1215	0.1279	0.1423	Qua	0.0077	0.1224	0.0011		0.0500				1.0000		0.9900
	0.1478	0.1527	0.1638	0.1776													
Phenanthrene	1.1987	1.0713	1.0793	1.0874	1.0520	Ave		1.1163			0.7000	6.5		20.0			
	1.0588	1.1112	1.1179	1.2700													
Anthracene	1.0379	1.0824	1.0817	1.1140	1.0742	Ave		1.1238			0.7000	7.2		20.0			
	1.0893	1.1531	1.1741	1.3073													
Carbazole		1.0652	1.0781	1.0738	1.0357	Ave		1.0914			0.0100	5.3		20.0			
	1.0557	1.0956	1.1016	1.2252													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Di-n-butyl phthalate		1.3552	1.3962	1.4148	1.4096	Ave		1.4325			0.0100	3.6		20.0			
	1.4178	1.5045	1.4989	1.4629													
Fluoranthene	1.1887	1.1082	1.2177	1.1842	1.1747	Ave		1.2271			0.6000	7.7		20.0			
	1.1727	1.2641	1.3015	1.4319													
Benzidine		0.4961	0.4956	0.6194	0.6498	Ave		0.6090				12.0		20.0			
	0.6434	0.6181	0.6518	0.6981													
Pyrene	1.2178	1.1840	1.2198	1.1838	1.1978	Ave		1.2315			0.6000	5.1		20.0			
	1.2011	1.2171	1.2836	1.3788													
Butyl benzyl phthalate		0.5618	0.6355	0.7000	0.6068	Ave		0.6251			0.0100	6.4		20.0			
	0.6120	0.6041	0.6331	0.6471													
3,3'-Dimethoxybenzidine		0.1768	0.2179	0.2277	0.2549	Ave		0.2385				14.0		20.0			
	0.2613	0.2343	0.2488	0.2865													
Bis(2-ethylhexyl) phthalate		0.7725	0.8684	0.8342	0.8698	Ave		0.8688			0.0100	6.6		20.0			
	0.8565	0.8781	0.8946	0.9763													
4,4'-Methylene bis(2-chloroaniline)		0.1993	0.2165	0.2169	0.2299	Ave		0.2291				8.5		20.0			
	0.2264	0.2364	0.2445	0.2630													
3,3'-Dichlorobenzidine		0.3683	0.4040	0.4064	0.4316	Ave		0.4279			0.0100	8.6		20.0			
	0.4312	0.4380	0.4510	0.4927													
Benzo[a]anthracene	1.2110	1.0945	1.1739	1.1365	1.1137	Ave		1.1605			0.8000	4.3		20.0			
	1.1340	1.1555	1.1704	1.2554													
Chrysene	1.2394	1.0804	1.1143	1.0881	1.0840	Ave		1.1337			0.7000	5.0		20.0			
	1.1231	1.1183	1.1409	1.2145													
Di-n-octyl phthalate		1.4389	1.5649	1.6060	1.6406	Ave		1.6869			0.0100	9.3		20.0			
	1.7336	1.7619	1.8117	1.9378													
Benzo[b]fluoranthene	1.1064	1.1713	1.1854	1.2356	1.2281	Ave		1.2741			0.7000	11.0		20.0			
	1.4585	1.2539	1.3061	1.5219													
Benzo[k]fluoranthene	1.4546	1.2638	1.3536	1.2948	1.2840	Ave		1.3279			0.7000	6.6		20.0			
	1.1580	1.3782	1.3828	1.3816													
Benzo[a]pyrene	1.1401	1.0762	1.1106	1.1297	1.1475	Ave		1.1673			0.7000	5.8		20.0			
	1.1741	1.2035	1.2212	1.3029													
Indeno[1,2,3-cd]pyrene	1.2705	1.1882	1.2235	1.2401	1.2740	Ave		1.2909			0.5000	5.8		20.0			
	1.3033	1.3309	1.3505	1.4368													
Dibenzo(a,h)anthracene	1.0061	0.9215	1.0240	1.0288	1.0478	Ave		1.0632			0.4000	7.8		20.0			
	1.0889	1.1157	1.1250	1.2106													
Benzo[g,h,i]perylene	0.9424	0.9400	0.9864	1.0173	1.0548	Ave		1.0306			0.5000	6.3		20.0			
	1.0527	1.0674	1.0813	1.1331													
2-Fluorophenol (Surr)		1.4065	1.3532	1.5566	1.4952	Ave		1.4595				4.3		20.0			
	1.4758	1.4396	1.4441	1.5052													
Phenol-d5 (Surr)		1.9990	1.9480	2.1175	2.0563	Ave		2.0420				2.6		20.0			
	2.0412	2.0291	2.0551	2.0894													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 8519

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/14/2011 10:23 Calibration End Date: 07/14/2011 13:03 Calibration ID: 2328

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Nitrobenzene-d5 (Surr)	0.7581 0.6688	0.6974 0.6160	0.6589 0.6132	0.7017 0.6610	0.6192	Ave		0.6660				7.2		20.0			
2-Fluorobiphenyl (Surr)	1.2615 1.3100	1.2963 1.3260	1.3419 1.3578	1.3322 1.4452	1.2942	Ave		1.3295				3.9		20.0			
2,4,6-Tribromophenol (Surr)	 0.1599	0.1390 0.1644	0.1526 0.1679	0.1601 0.1797	0.1538	Ave		0.1597				7.5		20.0			
Terphenyl-d14 (Surr)	0.7105 0.7125	0.7008 0.7382	0.7216 0.7764	0.7347 0.8331	0.7264	Ave		0.7394				5.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-8519/11 Calibration Date: 07/14/2011 13:22

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7460	0.7470		10.0	10.0	0.1	30.0
N-Nitrosodimethylamine	Ave	1.364	1.404		10.3	10.0	2.9	30.0
Pyridine	Ave	1.962	2.200		11.2	10.0	12.1	30.0
Ethyl methacrylate	Ave	2.036	2.062		10.1	10.0	1.3	30.0
3-Chloropropionitrile	Ave	0.8384	0.8567		10.2	10.0	2.2	30.0
Malononitrile	Ave	2.328	2.452		10.5	10.0	5.3	30.0
Benzaldehyde	Ave	1.809	1.694	0.0100	9.36	10.0	-6.4	30.0
Phenol	Ave	2.343	2.370	0.8000	10.1	10.0	1.1	30.0
Aniline	Ave	2.884	3.050		10.6	10.0	5.8	30.0
Bis(2-chloroethyl)ether	Ave	1.948	1.873	0.7000	9.62	10.0	-3.8	30.0
2-Chlorophenol	Ave	1.393	1.412	0.8000	10.1	10.0	1.4	30.0
1,3-Dichlorobenzene	Ave	1.380	1.401		10.2	10.0	1.5	30.0
1,4-Dichlorobenzene	Ave	1.446	1.440		9.96	10.0	-0.4	30.0
Benzyl alcohol	Ave	1.024	1.039		10.1	10.0	1.4	30.0
1,2-Dichlorobenzene	Ave	1.322	1.328		10.1	10.0	0.5	30.0
2-Methylphenol	Ave	1.517	1.485	0.7000	9.79	10.0	-2.1	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.624	1.618		9.97	10.0	-0.3	30.0
3 & 4 Methylphenol	Ave	1.561	1.611		10.3	10.0	3.2	30.0
N-Nitrosodi-n-propylamine	Ave	1.755	1.780	0.5000	10.1	10.0	1.4	30.0
Acetophenone	Ave	2.407	2.379	0.0100	9.88	10.0	-1.2	30.0
Hexachloroethane	Ave	0.6633	0.6700	0.3000	10.1	10.0	1.0	30.0
Nitrobenzene	Ave	0.6719	0.6754	0.2000	10.1	10.0	0.5	30.0
Isophorone	Ave	1.171	1.211	0.4000	10.3	10.0	3.5	30.0
2-Nitrophenol	Ave	0.1943	0.1939	0.1000	9.98	10.0	-0.2	30.0
2,4-Dimethylphenol	Ave	0.5047	0.5176	0.2000	10.3	10.0	2.5	30.0
1,3,5-Trichlorobenzene	Ave	0.3184	0.3166		9.94	10.0	-0.6	30.0
Bis(2-chloroethoxy)methane	Ave	0.5665	0.5857	0.3000	10.3	10.0	3.4	30.0
Benzoic acid	Qua		0.3015		22.8	20.0	14.0	30.0
2,4-Dichlorophenol	Ave	0.2645	0.2707	0.2000	10.2	10.0	2.3	30.0
1,2,4-Trichlorobenzene	Ave	0.3072	0.3090		10.1	10.0	0.6	30.0
Naphthalene	Ave	1.118	1.110	0.7000	9.93	10.0	-0.7	30.0
4-Chloroaniline	Ave	0.4603	0.4575	0.0100	9.94	10.0	-0.6	30.0
Hexachlorobutadiene	Ave	0.1915	0.1945	0.0100	10.2	10.0	1.6	30.0
1,2,3-Trichlorobenzene	Ave	0.2862	0.2911		10.2	10.0	1.7	30.0
Caprolactam	Ave	0.1347	0.1493	0.0100	11.1	10.0	10.8	30.0
4-Chloro-3-methylphenol	Ave	0.4252	0.4492	0.2000	10.6	10.0	5.7	30.0
2-Methylnaphthalene	Ave	0.5860	0.5868	0.4000	10.0	10.0	0.1	30.0
1-Methylnaphthalene	Ave	0.6781	0.6727		9.92	10.0	-0.8	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5438	0.5550		10.2	10.0	2.1	30.0
Hexachlorocyclopentadiene	Ave	0.3923	0.4172	0.0500	10.6	10.0	6.3	30.0
2,4,6-Trichlorophenol	Ave	0.3465	0.3701	0.2000	10.7	10.0	6.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-8519/11 Calibration Date: 07/14/2011 13:22

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3871	0.4013	0.2000	10.4	10.0	3.7	30.0
2,4-Toluene diamine	Qua		0.2015		10.1	10.0	1.0	30.0
1,1'-Biphenyl	Ave	1.584	1.591	0.0100	10.0	10.0	0.5	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5225	0.5356		10.3	10.0	2.5	30.0
2-Chloronaphthalene	Ave	1.113	1.118	0.8000	10.0	10.0	0.4	30.0
2-Nitroaniline	Ave	0.6227	0.6559	0.0100	10.5	10.0	5.3	30.0
Dimethyl phthalate	Ave	1.359	1.421	0.0100	10.5	10.0	4.6	30.0
2,6-Dinitrotoluene	Ave	0.2940	0.3102		10.6	10.0	5.5	30.0
1,2-Dinitrobenzene	Ave	0.1528	0.1617		10.6	10.0	5.8	30.0
Acenaphthylene	Ave	1.967	1.980	0.9000	10.1	10.0	0.6	30.0
3-Nitroaniline	Ave	0.3381	0.3549	0.0100	10.5	10.0	5.0	30.0
2,4-Dinitrophenol	Qua		0.2585	0.0100	21.1	20.0	5.5	30.0
Acenaphthene	Ave	1.262	1.260	0.9000	9.99	10.0	-0.1	30.0
4-Nitrophenol	Ave	0.2965	0.2863		9.65	10.0	-3.5	30.0
2,4-Dinitrotoluene	Ave	0.3991	0.4240	0.2000	10.6	10.0	6.2	30.0
Dibenzofuran	Ave	1.711	1.736	0.8000	10.1	10.0	1.5	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3326	0.3359		10.1	10.0	1.0	30.0
Diethyl phthalate	Ave	1.511	1.585	0.0100	10.5	10.0	4.9	30.0
4-Chlorophenyl phenyl ether	Ave	0.6621	0.6744	0.4000	10.2	10.0	1.9	30.0
4-Nitroaniline	Ave	0.3761	0.3944	0.0100	10.5	10.0	4.9	30.0
Fluorene	Ave	1.325	1.357	0.9000	10.2	10.0	2.4	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1405	0.1523	0.0100	10.8	10.0	8.4	30.0
N-Nitrosodiphenylamine	Ave	0.5824	0.6081	0.0100	10.4	10.0	4.4	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.479	1.508		10.2	10.0	2.0	30.0
Azobenzene	Ave	1.479	1.508		10.2	10.0	2.0	30.0
4-Bromophenyl phenyl ether	Ave	0.2042	0.2061	0.1000	10.1	10.0	0.9	30.0
Hexachlorobenzene	Ave	0.2010	0.2014	0.1000	10.0	10.0	0.2	30.0
Atrazine	Ave	0.1993	0.2126	0.0100	10.7	10.0	6.7	30.0
Pentachlorophenol	Qua		0.1528	0.0500	21.0	20.0	5.0	30.0
Phenanthrene	Ave	1.116	1.131	0.7000	10.1	10.0	1.3	30.0
Anthracene	Ave	1.124	1.149	0.7000	10.2	10.0	2.3	30.0
Carbazole	Ave	1.091	1.114	0.0100	10.2	10.0	2.1	30.0
Di-n-butyl phthalate	Ave	1.432	1.502	0.0100	10.5	10.0	4.8	30.0
Fluoranthene	Ave	1.227	1.264	0.6000	10.3	10.0	3.0	30.0
Benzidine	Ave	0.6090	0.7094		11.6	10.0	16.5	30.0
Pyrene	Ave	1.232	1.256	0.6000	10.2	10.0	2.0	30.0
Butyl benzyl phthalate	Ave	0.6251	0.6315	0.0100	10.1	10.0	1.0	30.0
3,3'-Dimethoxybenzidine	Ave	0.2385	0.2647		11.1	10.0	11.0	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8688	0.8960	0.0100	10.3	10.0	3.1	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2291	0.2402		10.5	10.0	4.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-8519/11 Calibration Date: 07/14/2011 13:22

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4279	0.4419	0.0100	10.3	10.0	3.3	30.0
Benzo[a]anthracene	Ave	1.161	1.172	0.8000	10.1	10.0	1.0	30.0
Chrysene	Ave	1.134	1.118	0.7000	9.86	10.0	-1.4	30.0
Di-n-octyl phthalate	Ave	1.687	1.795	0.0100	10.6	10.0	6.4	30.0
Benzo[b]fluoranthene	Ave	1.274	1.239	0.7000	9.73	10.0	-2.7	30.0
Benzo[k]fluoranthene	Ave	1.328	1.415	0.7000	10.7	10.0	6.6	30.0
Benzo[a]pyrene	Ave	1.167	1.213	0.7000	10.4	10.0	3.9	30.0
Dibenzo(a,h)anthracene	Ave	1.063	1.125	0.4000	10.6	10.0	5.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.291	1.349	0.5000	10.4	10.0	4.5	30.0
Benzo[g,h,i]perylene	Ave	1.031	1.079	0.5000	10.5	10.0	4.7	30.0
2-Fluorophenol (Surr)	Ave	1.460	1.504		10.3	10.0	3.0	30.0
Phenol-d5 (Surr)	Ave	2.042	2.073		10.2	10.0	1.5	30.0
Nitrobenzene-d5 (Surr)	Ave	0.6660	0.6335		9.51	10.0	-4.9	30.0
2-Fluorobiphenyl (Surr)	Ave	1.329	1.367		10.3	10.0	2.8	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1597	0.1629		10.2	10.0	2.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7394	0.7550		10.2	10.0	2.1	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 9DF0716.D DFTPP Injection Date: 07/16/2011

Instrument ID: A4HP9 DFTPP Injection Time: 09:18

Analysis Batch No.: 8694

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	68.5	
70	Less than 2.0% of mass 69	0.3	(0.5)1
127	25.0 - 75.0% of mass 198	54.2	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	26.2	
365	Greater than 0.75% of mass 198	3.7	
441	Present, but less than mass 443	14.0	
442	40.0 - 110.0% of mass 198	82.5	
443	15.0 - 24.0% of mass 442	15.9	(19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-8694/2	9SMH0716.D	07/16/2011	09:38
	CCV 240-8694/3	9AMH0716.D	07/16/2011	10:08
G-SP-SB-119-6-8 RE	240-635-8 RE	635F8F.D	07/16/2011	18:46
G-SP-SB-119-6-8 MS	240-635-8 MS	635F8GS.D	07/16/2011	19:05
G-SP-SB-119-6-8 MSD	240-635-8 MSD	635F8HD.D	07/16/2011	19:24

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-8694/2 Calibration Date: 07/16/2011 09:38

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0716.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7460	0.8097		10.9	10.0	8.5	20.0
N-Nitrosodimethylamine	Ave	1.364	1.483		10.9	10.0	8.8	20.0
Pyridine	Ave	1.962	2.300		11.7	10.0	17.2	20.0
Ethyl methacrylate	Ave	2.036	2.193		10.8	10.0	7.7	20.0
3-Chloropropionitrile	Ave	0.8384	0.8777		10.5	10.0	4.7	20.0
Malononitrile	Ave	2.328	2.478		10.6	10.0	6.4	20.0
Benzaldehyde	Ave	1.809	1.651	0.0100	9.12	10.0	-8.8	20.0
Phenol	Ave	2.343	2.393	0.8000	10.2	10.0	2.1	20.0
Aniline	Ave	2.884	3.076		10.7	10.0	6.7	20.0
Bis(2-chloroethyl)ether	Ave	1.948	1.840	0.7000	9.45	10.0	-5.5	20.0
2-Chlorophenol	Ave	1.393	1.392	0.8000	10.0	10.0	-0.0	20.0
1,3-Dichlorobenzene	Ave	1.380	1.349		9.78	10.0	-2.2	20.0
1,4-Dichlorobenzene	Ave	1.446	1.415		9.79	10.0	-2.1	20.0
Benzyl alcohol	Ave	1.024	1.040		10.2	10.0	1.5	20.0
1,2-Dichlorobenzene	Ave	1.322	1.281		9.69	10.0	-3.1	20.0
2-Methylphenol	Ave	1.517	1.527	0.7000	10.1	10.0	0.6	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.624	1.580		9.73	10.0	-2.7	20.0
3 & 4 Methylphenol	Ave	1.561	1.611		10.3	10.0	3.2	20.0
N-Nitrosodi-n-propylamine	Ave	1.755	1.760	0.5000	10.0	10.0	0.3	20.0
Acetophenone	Ave	2.407	2.390	0.0100	9.93	10.0	-0.7	20.0
Hexachloroethane	Ave	0.6633	0.6596	0.3000	9.94	10.0	-0.6	20.0
Nitrobenzene	Ave	0.6719	0.6865	0.2000	10.2	10.0	2.2	20.0
Isophorone	Ave	1.171	1.181	0.4000	10.1	10.0	0.9	20.0
2-Nitrophenol	Ave	0.1943	0.1987	0.1000	10.2	10.0	2.3	20.0
2,4-Dimethylphenol	Ave	0.5047	0.5118	0.2000	10.1	10.0	1.4	20.0
1,3,5-Trichlorobenzene	Ave	0.3184	0.3142		9.87	10.0	-1.3	20.0
Bis(2-chloroethoxy)methane	Ave	0.5665	0.5785	0.3000	10.2	10.0	2.1	20.0
Benzoic acid	Qua		0.2608		20.2	20.0	1.0	20.0
2,4-Dichlorophenol	Ave	0.2645	0.2822	0.2000	10.7	10.0	6.7	20.0
1,2,4-Trichlorobenzene	Ave	0.3072	0.3040		9.90	10.0	-1.0	20.0
Naphthalene	Ave	1.118	1.099	0.7000	9.84	10.0	-1.6	20.0
4-Chloroaniline	Ave	0.4603	0.4671	0.0100	10.1	10.0	1.5	20.0
Hexachlorobutadiene	Ave	0.1915	0.1874	0.0100	9.78	10.0	-2.2	20.0
1,2,3-Trichlorobenzene	Ave	0.2862	0.2822		9.86	10.0	-1.4	20.0
Caprolactam	Ave	0.1347	0.1455	0.0100	10.8	10.0	8.0	20.0
4-Chloro-3-methylphenol	Ave	0.4252	0.4296	0.2000	10.1	10.0	1.0	20.0
2-Methylnaphthalene	Ave	0.5860	0.5691	0.4000	9.71	10.0	-2.9	20.0
1-Methylnaphthalene	Ave	0.6781	0.6501		9.59	10.0	-4.1	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5438	0.5240		9.64	10.0	-3.6	20.0
Hexachlorocyclopentadiene	Ave	0.3923	0.3802	0.0500	9.69	10.0	-3.1	20.0
2,4,6-Trichlorophenol	Ave	0.3465	0.3627	0.2000	10.5	10.0	4.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-8694/2 Calibration Date: 07/16/2011 09:38

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0716.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3871	0.3864	0.2000	9.98	10.0	-0.2	20.0
2,4-Toluene diamine	Qua		0.2382		12.7	10.0	27.0	20.0
1,1'-Biphenyl	Ave	1.584	1.515	0.0100	9.56	10.0	-4.4	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5225	0.4968		9.51	10.0	-4.9	20.0
2-Chloronaphthalene	Ave	1.113	1.085	0.8000	9.74	10.0	-2.6	20.0
2-Nitroaniline	Ave	0.6227	0.6259	0.0100	10.1	10.0	0.5	20.0
Dimethyl phthalate	Ave	1.359	1.322	0.0100	9.73	10.0	-2.7	20.0
2,6-Dinitrotoluene	Ave	0.2940	0.2940		10.0	10.0	0.0	20.0
1,2-Dinitrobenzene	Ave	0.1528	0.1553		10.2	10.0	1.6	20.0
Acenaphthylene	Ave	1.967	1.905	0.9000	9.69	10.0	-3.1	20.0
3-Nitroaniline	Ave	0.3381	0.3435	0.0100	10.2	10.0	1.6	20.0
2,4-Dinitrophenol	Qua		0.2422	0.0100	19.9	20.0	-0.5	20.0
Acenaphthene	Ave	1.262	1.193	0.9000	9.45	10.0	-5.5	20.0
4-Nitrophenol	Ave	0.2965	0.3242		10.9	10.0	9.3	20.0
2,4-Dinitrotoluene	Ave	0.3991	0.4028	0.2000	10.1	10.0	0.9	20.0
Dibenzofuran	Ave	1.711	1.659	0.8000	9.69	10.0	-3.1	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3326	0.3160		9.50	10.0	-5.0	20.0
Diethyl phthalate	Ave	1.511	1.466	0.0100	9.71	10.0	-2.9	20.0
4-Chlorophenyl phenyl ether	Ave	0.6621	0.6332	0.4000	9.56	10.0	-4.4	20.0
4-Nitroaniline	Ave	0.3761	0.3832	0.0100	10.2	10.0	1.9	20.0
Fluorene	Ave	1.325	1.273	0.9000	9.60	10.0	-4.0	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1405	0.1469	0.0100	10.5	10.0	4.5	20.0
N-Nitrosodiphenylamine	Ave	0.5824	0.5758	0.0100	9.89	10.0	-1.1	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.479	1.504		10.2	10.0	1.7	20.0
Azobenzene	Ave	1.479	1.504		10.2	10.0	1.7	20.0
4-Bromophenyl phenyl ether	Ave	0.2042	0.2019	0.1000	9.89	10.0	-1.1	20.0
Hexachlorobenzene	Ave	0.2010	0.1988	0.1000	9.89	10.0	-1.1	20.0
Atrazine	Ave	0.1993	0.2087	0.0100	10.5	10.0	4.7	20.0
Pentachlorophenol	Qua		0.1434	0.0500	19.9	20.0	-0.5	20.0
Phenanthrene	Ave	1.116	1.081	0.7000	9.69	10.0	-3.1	20.0
Anthracene	Ave	1.124	1.095	0.7000	9.74	10.0	-2.6	20.0
Carbazole	Ave	1.091	1.083	0.0100	9.92	10.0	-0.8	20.0
Di-n-butyl phthalate	Ave	1.432	1.450	0.0100	10.1	10.0	1.2	20.0
Fluoranthene	Ave	1.227	1.199	0.6000	9.77	10.0	-2.3	20.0
Benzidine	Ave	0.6090	0.7109		11.7	10.0	16.7	20.0
Pyrene	Ave	1.232	1.227	0.6000	9.97	10.0	-0.3	20.0
Butyl benzyl phthalate	Ave	0.6251	0.6150	0.0100	9.84	10.0	-1.6	20.0
3,3'-Dimethoxybenzidine	Ave	0.2385	0.2835		11.9	10.0	18.8	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8688	0.8659	0.0100	9.97	10.0	-0.3	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2291	0.2318		10.1	10.0	1.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-8694/2 Calibration Date: 07/16/2011 09:38

Instrument ID: A4HP9 Calib Start Date: 07/14/2011 10:23

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/14/2011 13:03

Lab File ID: 9SMH0716.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4279	0.4362	0.0100	10.2	10.0	1.9	20.0
Benzo[a]anthracene	Ave	1.161	1.194	0.8000	10.3	10.0	2.9	20.0
Chrysene	Ave	1.134	1.063	0.7000	9.38	10.0	-6.2	20.0
Di-n-octyl phthalate	Ave	1.687	1.764	0.0100	10.5	10.0	4.5	20.0
Benzo[b]fluoranthene	Ave	1.274	1.330	0.7000	10.4	10.0	4.4	20.0
Benzo[k]fluoranthene	Ave	1.328	1.216	0.7000	9.16	10.0	-8.4	20.0
Benzo[a]pyrene	Ave	1.167	1.167	0.7000	10.0	10.0	0.0	20.0
Dibenzo(a,h)anthracene	Ave	1.063	1.082	0.4000	10.2	10.0	1.7	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.291	1.318	0.5000	10.2	10.0	2.1	20.0
Benzo[g,h,i]perylene	Ave	1.031	1.060	0.5000	10.3	10.0	2.9	20.0
2-Fluorophenol (Surr)	Ave	1.460	1.508		10.3	10.0	3.3	20.0
Phenol-d5 (Surr)	Ave	2.042	2.101		10.3	10.0	2.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6660	0.6433		9.66	10.0	-3.4	20.0
2-Fluorobiphenyl (Surr)	Ave	1.329	1.287		9.68	10.0	-3.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1597	0.1525		9.55	10.0	-4.5	20.0
Terphenyl-d14 (Surr)	Ave	0.7394	0.7377		9.98	10.0	-0.2	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: MB7865.D Lab Sample ID: MB 240-7865/4-A

Matrix: Solid Date Extracted: 07/11/2011 08:29

Instrument ID: A4HP9 Date Analyzed: 07/14/2011 17:06

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-7865/5-A	LCS7865.D	07/14/2011 17:26
G-SP-SB-119-6-8 RE	240-635-8 RE	635F8F.D	07/16/2011 18:46
G-SP-SB-119-6-8 MS	240-635-8 MS	635F8GS.D	07/16/2011 19:05
G-SP-SB-119-6-8 MSD	240-635-8 MSD	635F8HD.D	07/16/2011 19:24

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-7865/4-A

Matrix: Solid | Lab File ID: MB7865.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/11/2011 08:29

Sample wt/vol: 30.00(g) | Date Analyzed: 07/14/2011 17:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8519 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	50	U	50	27
123-91-1	1,4-Dioxane	100	U	100	22
88-06-2	2,4,6-Trichlorophenol	150	U	150	80
95-95-4	2,4,5-Trichlorophenol	150	U	150	25
120-83-2	2,4-Dichlorophenol	150	U	150	20
105-67-9	2,4-Dimethylphenol	150	U	150	20
51-28-5	2,4-Dinitrophenol	330	U	330	80
121-14-2	2,4-Dinitrotoluene	200	U	200	27
91-58-7	2-Chloronaphthalene	50	U	50	3.3
95-57-8	2-Chlorophenol	50	U	50	27
91-57-6	2-Methylnaphthalene	6.7	U	6.7	3.3
95-48-7	2-Methylphenol	200	U	200	80
88-74-4	2-Nitroaniline	200	U	200	9.1
88-75-5	2-Nitrophenol	50	U	50	27
15831-10-4	3 & 4 Methylphenol	400	U	400	20
91-94-1	3,3'-Dichlorobenzidine	100	U	100	18
99-09-2	3-Nitroaniline	200	U	200	16
534-52-1	4,6-Dinitro-2-methylphenol	150	U	150	80
101-55-3	4-Bromophenyl phenyl ether	50	U	50	13
59-50-7	4-Chloro-3-methylphenol	150	U	150	21
106-47-8	4-Chloroaniline	150	U	150	17
7005-72-3	4-Chlorophenyl phenyl ether	50	U	50	13
100-01-6	4-Nitroaniline	200	U	200	26
83-32-9	Acenaphthene	6.7	U	6.7	3.3
208-96-8	Acenaphthylene	6.7	U	6.7	3.3
98-86-2	Acetophenone	100	U	100	9.2
120-12-7	Anthracene	6.7	U	6.7	3.3
1912-24-9	Atrazine	200	U	200	9.1
100-52-7	Benzaldehyde	100	U	100	12
56-55-3	Benzo[a]anthracene	6.7	U	6.7	3.3
50-32-8	Benzo[a]pyrene	6.7	U	6.7	3.3
205-99-2	Benzo[b]fluoranthene	6.7	U	6.7	3.3
191-24-2	Benzo[g,h,i]perylene	6.7	U	6.7	3.3
207-08-9	Benzo[k]fluoranthene	6.7	U	6.7	3.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-7865/4-A

Matrix: Solid | Lab File ID: MB7865.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/11/2011 08:29

Sample wt/vol: 30.00(g) | Date Analyzed: 07/14/2011 17:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8519 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	100	U	100	22
111-44-4	Bis(2-chloroethyl)ether	100	U	100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	50	U	50	19
85-68-7	Butyl benzyl phthalate	50	U	50	10
105-60-2	Caprolactam	330	U	330	37
86-74-8	Carbazole	50	U	50	27
218-01-9	Chrysene	6.7	U	6.7	1.1
84-74-2	Di-n-butyl phthalate	50	U	50	15
117-84-0	Di-n-octyl phthalate	50	U	50	27
53-70-3	Dibenzo(a,h)anthracene	6.7	U	6.7	3.3
132-64-9	Dibenzofuran	50	U	50	3.3
84-66-2	Diethyl phthalate	50	U	50	16
131-11-3	Dimethyl phthalate	50	U	50	17
206-44-0	Fluoranthene	6.7	U	6.7	3.3
86-73-7	Fluorene	6.7	U	6.7	3.3
118-74-1	Hexachlorobenzene	6.7	U	6.7	2.1
87-68-3	Hexachlorobutadiene	50	U	50	27
77-47-4	Hexachlorocyclopentadiene	330	U	330	27
67-72-1	Hexachloroethane	50	U	50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	6.7	U	6.7	3.3
78-59-1	Isophorone	50	U	50	13
621-64-7	N-Nitrosodi-n-propylamine	50	U	50	27
62-75-9	N-Nitrosodimethylamine	100	U	100	16
86-30-6	N-Nitrosodiphenylamine	50	U	50	21
91-20-3	Naphthalene	6.7	U	6.7	3.3
98-95-3	Nitrobenzene	100	U	100	2.2
87-86-5	Pentachlorophenol	150	U	150	80
85-01-8	Phenanthrene	6.7	U	6.7	3.3
108-95-2	Phenol	50	U	50	27
129-00-0	Pyrene	6.7	U	6.7	3.3
108-60-1	2,2'-oxybis[1-chloropropane]	100	U	100	9.5
606-20-2	2,6-Dinitrotoluene	200	U	200	21
100-02-7	4-Nitrophenol	330	U	330	80

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-7865/4-A

Matrix: Solid | Lab File ID: MB7865.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/11/2011 08:29

Sample wt/vol: 30.00(g) | Date Analyzed: 07/14/2011 17:06

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8519 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	77		41-119
4165-62-2	Phenol-d5 (Surr)	65		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	59		24-112
367-12-4	2-Fluorophenol (Surr)	66		26-110
321-60-8	2-Fluorobiphenyl (Surr)	55		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	50		10-118

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 0620001.D DFTPP Injection Date: 06/20/2011

Instrument ID: A4HP7 DFTPP Injection Time: 11:58

Analysis Batch No.: 5339

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	63.2	
68	Less than 2.0% of mass 69	0.4	(0.9)1
69	Mass 69 relative abundance	46.3	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	55.4	
197	Less than 1.0% of mass 198	0.4	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.9	
365	Greater than 0.75% of mass 198	2.4	
441	Present, but less than mass 443	8.8	
442	40.0 - 110.0% of mass 198	60.5	
443	15.0 - 24.0% of mass 442	11.6	(19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-5339/2	0620002.D	06/20/2011	12:16
	STD4 240-5339/3	0620003.D	06/20/2011	12:35
	STD3 240-5339/4	0620004.D	06/20/2011	12:54
	STD2 240-5339/5	0620005.D	06/20/2011	13:16
	STD1 240-5339/6	0620006.D	06/20/2011	13:35
	STD9 240-5339/7	0620007.D	06/20/2011	13:53
	STD8 240-5339/8	0620008.D	06/20/2011	14:12
	STD7 240-5339/9	0620009.D	06/20/2011	14:31
	STD6 240-5339/10	0620010.D	06/20/2011	14:50
	ICV 240-5339/13	0620013.D	06/20/2011	15:47

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 5339

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2011 12:16 Calibration End Date: 06/20/2011 14:50 Calibration ID: 1543

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-5339/6	0620006.D
Level 2	STD2 240-5339/5	0620005.D
Level 3	STD3 240-5339/4	0620004.D
Level 4	STD4 240-5339/3	0620003.D
Level 5	STD5 240-5339/2	0620002.D
Level 6	STD6 240-5339/10	0620010.D
Level 7	STD7 240-5339/9	0620009.D
Level 8	STD8 240-5339/8	0620008.D
Level 9	STD9 240-5339/7	0620007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,4-Dioxane		0.6110	0.5633	0.5788	0.5541	Ave		0.5535				5.9		20.0			
	0.5066	0.5202	0.5487	0.5451													
N-Nitrosodimethylamine		0.9896	0.9737	0.9714	0.9237	Ave		0.9527				3.0		20.0			
	0.9099	0.9482	0.9323	0.9731													
Pyridine		1.4696	1.6091	1.5617	1.5074	Ave		1.5599				3.6		20.0			
	1.5329	1.5549	1.6166	1.6267													
Ethyl methacrylate		1.3801	1.3154	1.3237	1.2913	Ave		1.3066				3.4		20.0			
	1.2276	1.2718	1.3166	1.3261													
3-Chloropropionitrile		1.3658	1.3640	1.3408	1.2926	Ave		1.3358				2.3		20.0			
	1.3061	1.3524	1.3038	1.3608													
Malononitrile		1.9413	1.9755	1.9601	1.9255	Ave		1.9347				2.0		20.0			
	1.8610	1.9634	1.9010	1.9502													
Benzaldehyde		1.2774	1.3209	1.3363	1.2211	Ave		1.2101			0.0100	9.2		20.0			
	1.1755	1.0993	1.0403	+++++													
Phenol		1.8620	1.8487	1.9012	1.7883	Ave		1.8513			0.8000	2.8		20.0			
	1.7837	1.8772	1.8223	1.9271													
Aniline		2.3291	2.2748	2.4456	2.2987	Ave		2.4135				7.2		20.0			
	2.2709	2.4499	2.4430	2.7958													
Bis(2-chloroethyl)ether		1.4434	1.6648	1.5994	1.4778	Ave		1.5162			0.7000	5.3		20.0			
	1.5100	1.5353	1.4602	1.4390													
2-Chlorophenol		1.3539	1.4551	1.4600	1.3918	Ave		1.4347			0.8000	3.7		20.0			
	1.4004	1.4646	1.4294	1.5225													
1,3-Dichlorobenzene		1.4668	1.4926	1.5198	1.4212	Ave		1.4727				2.5		20.0			
	1.4298	1.4762	1.4589	1.5166													
1,4-Dichlorobenzene		1.4962	1.5581	1.5695	1.5026	Ave		1.5319				2.8		20.0			
	1.4771	1.5300	1.5174	1.6046													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 5339

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2011 12:16 Calibration End Date: 06/20/2011 14:50 Calibration ID: 1543

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Benzyl alcohol		0.9450	0.9489	0.9796	0.9153	Ave		0.9359				3.2		20.0			
	0.8941	0.9385	0.9029	0.9631													
1,2-Dichlorobenzene		1.4165	1.4443	1.4826	1.3738	Ave		1.4351				3.5		20.0			
	1.3741	1.4527	1.4180	1.5191													
2-Methylphenol		1.2833	1.3763	1.4022	1.2796	Ave		1.3586			0.7000	4.5		20.0			
	1.3225	1.4038	1.3495	1.4513													
Benzoic acid		+++++	0.0969	0.1413	0.2039	Qua	-0.373	0.2310	0.0014						0.9990		0.9900
	0.2240	0.2726	0.2765	0.2923													
2,2'-oxybis[1-chloropropane]		3.6773	3.8261	3.7974	3.5091	Ave		3.6463				3.2		20.0			
	3.5565	3.6370	3.5335	3.6337													
3 & 4 Methylphenol		1.3240	1.4030	1.4416	1.3652	Ave		1.3911				3.6		20.0			
	1.3416	1.4244	1.3635	1.4655													
N-Nitrosodi-n-propylamine		1.1930	1.2478	1.2090	1.1594	Ave		1.1880			0.5000	3.7		20.0			
	1.1216	1.1992	1.1424	1.2317													
Acetophenone		1.9790	2.0787	2.0588	1.9480	Ave		2.0047			0.0100	3.1		20.0			
	1.9387	2.0345	1.9331	2.0664													
Hexachloroethane		0.5833	0.6153	0.6069	0.5781	Ave		0.5982			0.3000	3.0		20.0			
	0.5799	0.5988	0.5952	0.6281													
Nitrobenzene		0.3827	0.4133	0.4180	0.3941	Ave		0.4078			0.2000	3.3		20.0			
	0.4133	0.4062	0.4100	0.4243													
Isophorone		0.7199	0.7612	0.7716	0.7321	Ave		0.7440			0.4000	2.8		20.0			
	0.7300	0.7306	0.7360	0.7710													
2,4-Dimethylphenol		0.3744	0.3854	0.3982	0.3857	Ave		0.3928			0.2000	3.0		20.0			
	0.3937	0.3950	0.3953	0.4145													
2-Nitrophenol		0.1738	0.1890	0.1955	0.1932	Ave		0.1971			0.1000	6.4		20.0			
	0.1988	0.2056	0.2050	0.2159													
1,3,5-Trichlorobenzene		0.3120	0.3166	0.3265	0.3033	Ave		0.3173				2.8		20.0			
	0.3140	0.3148	0.3190	0.3322													
Bis(2-chloroethoxy)methane		0.4356	0.4260	0.4354	0.4148	Ave		0.4227			0.3000	2.5		20.0			
	0.4127	0.4120	0.4127	0.4323													
2,4-Dichlorophenol		0.2566	0.2677	0.2780	0.2691	Ave		0.2742			0.2000	3.6		20.0			
	0.2749	0.2796	0.2776	0.2899													
1,2,4-Trichlorobenzene		0.3129	0.3069	0.3078	0.2981	Ave		0.3089				2.3		20.0			
	0.3073	0.3069	0.3081	0.3231													
Naphthalene	1.2122	1.0701	1.0976	1.1182	1.0552	Ave		1.0979			0.7000	4.4		20.0			
	1.0672	1.0707	1.0755	1.1140													
4-Chloroaniline		0.4492	0.4667	0.4906	0.4740	Ave		0.4750			0.0100	4.2		20.0			
	0.4744	0.4498	0.5049	0.4901													
Hexachlorobutadiene		0.1602	0.1655	0.1710	0.1602	Ave		0.1667			0.0100	2.9		20.0			
	0.1652	0.1689	0.1690	0.1736													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 5339

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2011 12:16 Calibration End Date: 06/20/2011 14:50 Calibration ID: 1543

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,2,3-Trichlorobenzene	0.2870	0.2813 0.2902	0.2859 0.2878	0.2922 0.3053	0.2764	Ave		0.2883				2.9		20.0			
Caprolactam	0.1134	0.1100 0.1169	0.1204 0.1174	0.1171 0.1150	0.1138	Ave		0.1155			0.0100	2.7		20.0			
4-Chloro-3-methylphenol	0.3205	0.3135 0.3293	0.3187 0.3298	0.3403 0.3498	0.3244	Ave		0.3283			0.2000	3.6		20.0			
2-Methylnaphthalene	0.6975 0.5690	0.5557 0.5752	0.5979 0.5815	0.6003 0.6149	0.5733	Ave		0.5961			0.4000	7.1		20.0			
2,4-Dinitrophenol	0.2332	+++++ 0.2546	0.1344 0.2407	0.1849 0.2669	0.2080	Qua	-0.168	0.2222	0.0009		0.0100				0.9970		0.9900
1-Methylnaphthalene	0.7377 0.6557	0.6569 0.6610	0.6862 0.6628	0.6824 0.7024	0.6490	Ave		0.6771				4.2		20.0			
1,2,3,5-Tetrachlorobenzene	0.5293	0.5025 0.5495	0.5170 0.5371	0.5476 0.5857	0.5006	Ave		0.5336				5.3		20.0			
Hexachlorocyclopentadiene	0.3672	0.3102 0.3872	0.3159 0.3760	0.3551 0.4125	0.3448	Ave		0.3586			0.0500	9.7		20.0			
2,4,6-Trichlorophenol	0.3550	0.3138 0.3667	0.3471 0.3645	0.3684 0.3833	0.3450	Ave		0.3555			0.2000	5.9		20.0			
2,4,5-Trichlorophenol	0.3828	0.3246 0.3911	0.3604 0.3824	0.3684 0.4173	0.3726	Ave		0.3750			0.2000	7.1		20.0			
2,4-Toluene diamine	0.2523	0.2874 0.2264	0.3315 0.2378	0.3268 0.1979	0.2953	Ave		0.2694				18.0		20.0			
1,1'-Biphenyl	1.7056 1.5209	1.4941 1.5824	1.5216 1.5537	1.5453 1.6967	1.4767	Ave		1.5663			0.0100	5.3		20.0			
1,2,3,4 -Tetrachlorobenzene	0.5063	0.5057 0.5233	0.4837 0.5080	0.5035 0.5551	0.4901	Ave		0.5095				4.3		20.0			
2-Chloronaphthalene	1.1746 1.1081	1.1194 1.1174	1.1014 1.1032	1.1270 1.1808	1.0768	Ave		1.1232			0.8000	3.0		20.0			
2-Nitroaniline	0.4743	0.4393 0.4727	0.4731 0.4703	0.4649 0.5000	0.4536	Ave		0.4685			0.0100	3.7		20.0			
Dimethyl phthalate	1.2951	1.2940 1.3140	1.2869 1.2925	1.3091 1.3802	1.2647	Ave		1.3046			0.0100	2.6		20.0			
2,6-Dinitrotoluene	0.2895	0.2520 0.2984	0.2600 0.2926	0.2806 0.3115	0.2772	Ave		0.2827				7.0		20.0			
1,2-Dinitrobenzene	0.1456	0.1217 0.1489	0.1374 0.1458	0.1433 0.1576	0.1421	Ave		0.1428				7.3		20.0			
Acenaphthylene	1.9718 1.8697	1.8524 1.8893	1.8843 1.8640	1.9152 1.9808	1.8388	Ave		1.8962			0.9000	2.7		20.0			
3-Nitroaniline	0.3520	0.3228 0.3611	0.3393 0.3582	0.3491 0.3786	0.3468	Ave		0.3510			0.0100	4.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 5339

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2011 12:16 Calibration End Date: 06/20/2011 14:50 Calibration ID: 1543

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 / LVL 6	LVL 2 / LVL 7	LVL 3 / LVL 8	LVL 4 / LVL 9	LVL 5		B	M1	M2								
Acenaphthene	1.3613 / 1.1697	1.1695 / 1.2070	1.1785 / 1.1948	1.2025 / 1.2856	1.1422	Ave		1.2123			0.9000	5.7		20.0			
4-Nitrophenol	0.2159	0.1746 / 0.2249	0.1854 / 0.2247	0.2019 / 0.2399	0.2042	Ave		0.2090				10.0		20.0			
Pentachlorophenol	0.1553	0.0976 / 0.1603	0.1138 / 0.1575	0.1282 / +++++	0.1395	Ave		0.1360			0.0500	18.0		20.0			
2,4-Dinitrotoluene	0.3937	0.3193 / 0.4003	0.3615 / 0.3965	0.3931 / 0.4260	0.3794	Ave		0.3837			0.2000	8.3		20.0			
Dibenzofuran	1.7462 / 1.5798	1.5885 / 1.5741	1.5937 / 1.5702	1.6134 / 1.6812	1.5416	Ave		1.6099			0.8000	4.0		20.0			
2,3,5,6-Tetrachlorophenol	0.3093	0.2509 / 0.3258	0.2704 / 0.3188	0.3081 / 0.3543	0.3022	Ave		0.3050				11.0		20.0			
Diethyl phthalate	1.3513	1.3595 / 1.3692	1.3087 / 1.3570	1.3757 / 1.4563	1.3219	Ave		1.3624			0.0100	3.2		20.0			
4-Chlorophenyl phenyl ether	0.6127	0.5986 / 0.6250	0.5937 / 0.6140	0.6188 / 0.6740	0.5900	Ave		0.6158			0.4000	4.3		20.0			
4-Nitroaniline	0.3857	0.3391 / 0.4085	0.3586 / 0.4005	0.3849 / 0.4369	0.3756	Ave		0.3862			0.0100	7.8		20.0			
Fluorene	1.4391 / 1.3305	1.2794 / 1.3665	1.3121 / 1.3603	1.3582 / 1.4731	1.2900	Ave		1.3566			0.9000	4.8		20.0			
4,6-Dinitro-2-methylphenol	0.1503	0.0684 / 0.1576	0.0939 / 0.1554	0.1226 / 0.1701	0.1319	Qua	-0.036	0.1369	0.0013		0.0100				0.9990		0.9900
N-Nitrosodiphenylamine	0.5859	0.5397 / 0.5803	0.5383 / 0.5761	0.5368 / 0.6190	0.5240	Ave		0.5625			0.0100	5.8		20.0			
Azobenzene	0.9480	0.9221 / 0.9222	0.9456 / 0.9265	0.9550 / 0.9728	0.9076	Ave		0.9375				2.3		20.0			
4-Bromophenyl phenyl ether	0.2042	0.2040 / 0.2061	0.1996 / 0.2053	0.2061 / 0.2228	0.1958	Ave		0.2055			0.1000	3.8		20.0			
Hexachlorobenzene	0.2272 / 0.2033	0.2046 / 0.2026	0.2058 / 0.2016	0.2008 / 0.2144	0.1938	Ave		0.2060			0.1000	4.7		20.0			
Atrazine	0.2197	0.2088 / 0.2124	0.2141 / 0.2117	0.2155 / 0.2071	0.2133	Ave		0.2128			0.0100	1.8		20.0			
Phenanthrene	1.2783 / 1.1598	1.1439 / 1.1431	1.1327 / 1.1566	1.1563 / 1.2172	1.0962	Ave		1.1649			0.7000	4.5		20.0			
Anthracene	1.1404 / 1.1687	1.1128 / 1.1645	1.1381 / 1.1646	1.1688 / 1.2397	1.1272	Ave		1.1583			0.7000	3.2		20.0			
Carbazole	1.0818	1.0390 / 1.0819	1.0745 / 1.0744	1.0929 / 1.1470	1.0408	Ave		1.0790			0.0100	3.1		20.0			
Di-n-butyl phthalate	1.3803	1.2711 / 1.3680	1.3013 / 1.3722	1.3694 / 1.4183	1.3172	Ave		1.3497			0.0100	3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 5339

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2011 12:16 Calibration End Date: 06/20/2011 14:50 Calibration ID: 1543

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Fluoranthene	1.2989	1.1319	1.1780	1.1930	1.1250	Ave		1.1954			0.6000	4.6		20.0			
	1.1855	1.1916	1.1922	1.2627													
Benzidine		0.5869	0.6477	0.7094	0.7208	Ave		0.6899				7.2		20.0			
	0.6964	0.7140	0.7031	0.7408													
Pyrene	1.2451	1.0929	1.1583	1.1364	1.1142	Ave		1.1451			0.6000	4.0		20.0			
	1.1332	1.1346	1.1086	1.1822													
Butyl benzyl phthalate		0.5163	0.5273	0.5445	0.5427	Ave		0.5407			0.0100	3.2		20.0			
	0.5408	0.5460	0.5326	0.5754													
3,3'-Dimethoxybenzidine		0.2007	0.2497	0.2730	0.2768	Ave		0.2532				9.5		20.0			
	0.2422	0.2567	0.2609	0.2654													
Bis(2-ethylhexyl) phthalate		0.7469	0.7583	0.7863	0.7624	Ave		0.7819			0.0100	4.2		20.0			
	0.7718	0.7968	0.7784	0.8539													
4,4'-Methylene bis(2-chloroaniline)		0.1939	0.2140	0.2195	0.2138	Ave		0.2205				7.1		20.0			
	0.2196	0.2315	0.2236	0.2483													
3,3'-Dichlorobenzidine		0.3954	0.4202	0.4206	0.4082	Ave		0.4263			0.0100	5.2		20.0			
	0.4237	0.4426	0.4312	0.4688													
Benzo[a]anthracene	1.3304	1.0912	1.1127	1.0959	1.0532	Ave		1.1237			0.8000	7.4		20.0			
	1.0863	1.0982	1.0827	1.1631													
Chrysene	1.2818	1.0639	1.0744	1.0509	1.0177	Ave		1.0830			0.7000	7.3		20.0			
	1.0493	1.0675	1.0319	1.1098													
Di-n-octyl phthalate		1.3706	1.4523	1.5412	1.5250	Ave		1.5413			0.0100	6.4		20.0			
	1.5679	1.5978	1.5745	1.7013													
Benzo[b]fluoranthene	1.3860	1.1937	1.2637	1.2785	1.2117	Ave		1.2918			0.7000	6.0		20.0			
	1.2786	1.2492	1.3410	1.4233													
Benzo[k]fluoranthene	1.4033	1.2616	1.2521	1.2955	1.2858	Ave		1.3112			0.7000	4.1		20.0			
	1.3095	1.3859	1.2754	1.3320													
Benzo[a]pyrene	1.1846	1.0835	1.1412	1.1712	1.1492	Ave		1.1785			0.7000	4.5		20.0			
	1.1916	1.2067	1.2011	1.2773													
Indeno[1,2,3-cd]pyrene	1.3477	1.2105	1.2845	1.3237	1.2969	Ave		1.3256			0.5000	4.4		20.0			
	1.3397	1.3440	1.3637	1.4201													
Dibenzo(a,h)anthracene	1.1787	1.0186	1.0614	1.1237	1.0973	Ave		1.1275			0.4000	5.4		20.0			
	1.1306	1.1545	1.1650	1.2178													
Benzo[g,h,i]perylene	1.1770	1.0104	1.0363	1.0878	1.0603	Ave		1.0881			0.5000	4.7		20.0			
	1.0939	1.0814	1.1029	1.1432													
2-Fluorophenol (Surr)		1.2260	1.2641	1.3578	1.2522	Ave		1.2592				3.9		20.0			
	1.1882	1.2442	1.2562	1.2851													
Phenol-d5 (Surr)		1.6563	1.7152	1.7437	1.6576	Ave		1.7170				3.1		20.0			
	1.6742	1.7568	1.7248	1.8076													
Nitrobenzene-d5 (Surr)	0.5025	0.4298	0.4348	0.4419	0.4242	Ave		0.4437				5.3		20.0			
	0.4365	0.4334	0.4357	0.4548													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 5339

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/20/2011 12:16 Calibration End Date: 06/20/2011 14:50 Calibration ID: 1543

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Fluorobiphenyl (Surr)	1.4583 1.2564	1.2888 1.2872	1.2766 1.2643	1.2810 1.3417	1.2260	Ave		1.2978				5.2		20.0			
2,4,6-Tribromophenol (Surr)	0.1486	0.1408 0.1594	0.1345 0.1558	0.1414 0.1728	0.1383	Ave		0.1490				8.7		20.0			
Terphenyl-d14 (Surr)	0.7730 0.6997	0.6867 0.7008	0.6951 0.6828	0.7054 0.7378	0.6765	Ave		0.7064				4.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-5339/13 Calibration Date: 06/20/2011 15:47

Instrument ID: A4HP7 Calib Start Date: 06/20/2011 12:16

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/20/2011 14:50

Lab File ID: 0620013.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5535	0.5702		10.3	10.0	3.0	30.0
N-Nitrosodimethylamine	Ave	0.9527	0.9294		9.76	10.0	-2.4	30.0
Pyridine	Ave	1.560	1.547		9.92	10.0	-0.8	30.0
Ethyl methacrylate	Ave	1.307	1.326		10.2	10.0	1.5	30.0
3-Chloropropionitrile	Ave	1.336	1.295		9.70	10.0	-3.0	30.0
Malononitrile	Ave	1.935	1.912		9.88	10.0	-1.2	30.0
Benzaldehyde	Ave	1.210	1.201	0.0100	9.93	10.0	-0.7	30.0
Phenol	Ave	1.851	1.817	0.8000	9.82	10.0	-1.8	30.0
Aniline	Ave	2.413	2.318		9.61	10.0	-3.9	30.0
Bis(2-chloroethyl)ether	Ave	1.516	1.508	0.7000	9.94	10.0	-0.6	30.0
2-Chlorophenol	Ave	1.435	1.386	0.8000	9.66	10.0	-3.4	30.0
1,3-Dichlorobenzene	Ave	1.473	1.433		9.73	10.0	-2.7	30.0
1,4-Dichlorobenzene	Ave	1.532	1.480		9.66	10.0	-3.4	30.0
Benzyl alcohol	Ave	0.9359	0.9243		9.88	10.0	-1.2	30.0
1,2-Dichlorobenzene	Ave	1.435	1.426		9.94	10.0	-0.6	30.0
2-Methylphenol	Ave	1.359	1.350	0.7000	9.93	10.0	-0.7	30.0
2,2'-oxybis[1-chloropropane]	Ave	3.646	3.661		10.0	10.0	0.4	30.0
3 & 4 Methylphenol	Ave	1.391	1.406		10.1	10.0	1.1	30.0
N-Nitrosodi-n-propylamine	Ave	1.188	1.177	0.5000	9.91	10.0	-0.9	30.0
Acetophenone	Ave	2.005	1.996	0.0100	9.96	10.0	-0.4	30.0
Hexachloroethane	Ave	0.5982	0.5926	0.3000	9.91	10.0	-0.9	30.0
Nitrobenzene	Ave	0.4078	0.4050	0.2000	9.93	10.0	-0.7	30.0
Isophorone	Ave	0.7440	0.7414	0.4000	9.96	10.0	-0.4	30.0
2,4-Dimethylphenol	Ave	0.3928	0.3890	0.2000	9.90	10.0	-1.0	30.0
2-Nitrophenol	Ave	0.1971	0.1947	0.1000	9.88	10.0	-1.2	30.0
1,3,5-Trichlorobenzene	Ave	0.3173	0.3084		9.72	10.0	-2.8	30.0
Benzoic acid	Qua		0.2026		17.3	20.0	-13.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.4227	0.4132	0.3000	9.77	10.0	-2.3	30.0
2,4-Dichlorophenol	Ave	0.2742	0.2670	0.2000	9.74	10.0	-2.6	30.0
1,2,4-Trichlorobenzene	Ave	0.3089	0.2968		9.61	10.0	-3.9	30.0
Naphthalene	Ave	1.098	1.061	0.7000	9.66	10.0	-3.4	30.0
4-Chloroaniline	Ave	0.4750	0.4605	0.0100	9.69	10.0	-3.1	30.0
Hexachlorobutadiene	Ave	0.1667	0.1637	0.0100	9.82	10.0	-1.8	30.0
1,2,3-Trichlorobenzene	Ave	0.2883	0.2788		9.67	10.0	-3.3	30.0
Caprolactam	Ave	0.1155	0.1148	0.0100	9.94	10.0	-0.6	30.0
4-Chloro-3-methylphenol	Ave	0.3283	0.3292	0.2000	10.0	10.0	0.3	30.0
2-Methylnaphthalene	Ave	0.5961	0.5714	0.4000	9.59	10.0	-4.1	30.0
1-Methylnaphthalene	Ave	0.6771	0.6525		9.64	10.0	-3.6	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5336	0.4916		9.21	10.0	-7.9	30.0
Hexachlorocyclopentadiene	Ave	0.3586	0.3330	0.0500	9.29	10.0	-7.1	30.0
2,4,6-Trichlorophenol	Ave	0.3555	0.3442	0.2000	9.68	10.0	-3.2	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-5339/13 Calibration Date: 06/20/2011 15:47

Instrument ID: A4HP7 Calib Start Date: 06/20/2011 12:16

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/20/2011 14:50

Lab File ID: 0620013.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3750	0.3663	0.2000	9.77	10.0	-2.3	30.0
2,4-Toluene diamine	Ave	0.2694	0.2832		10.5	10.0	5.1	30.0
1,1'-Biphenyl	Ave	1.566	1.468	0.0100	9.37	10.0	-6.3	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5095	0.4839		9.50	10.0	-5.0	30.0
2-Chloronaphthalene	Ave	1.123	1.073	0.8000	9.55	10.0	-4.5	30.0
2-Nitroaniline	Ave	0.4685	0.4643	0.0100	9.91	10.0	-0.9	30.0
Dimethyl phthalate	Ave	1.305	1.283	0.0100	9.83	10.0	-1.7	30.0
2,6-Dinitrotoluene	Ave	0.2827	0.2787		9.86	10.0	-1.4	30.0
1,2-Dinitrobenzene	Ave	0.1428	0.1468		10.3	10.0	2.8	30.0
Acenaphthylene	Ave	1.896	1.836	0.9000	9.68	10.0	-3.2	30.0
3-Nitroaniline	Ave	0.3510	0.3490	0.0100	9.94	10.0	-0.6	30.0
2,4-Dinitrophenol	Qua		0.2115	0.0100	18.4	20.0	-8.0	30.0
Acenaphthene	Ave	1.212	1.143	0.9000	9.43	10.0	-5.7	30.0
4-Nitrophenol	Ave	0.2090	0.2082		9.96	10.0	-0.4	30.0
2,4-Dinitrotoluene	Ave	0.3837	0.3928	0.2000	10.2	10.0	2.4	30.0
Dibenzofuran	Ave	1.610	1.556	0.8000	9.67	10.0	-3.3	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3050	0.2954		9.69	10.0	-3.1	30.0
Diethyl phthalate	Ave	1.362	1.354	0.0100	9.94	10.0	-0.6	30.0
4-Chlorophenyl phenyl ether	Ave	0.6158	0.6023	0.4000	9.78	10.0	-2.2	30.0
4-Nitroaniline	Ave	0.3862	0.3812	0.0100	9.87	10.0	-1.3	30.0
Fluorene	Ave	1.357	1.301	0.9000	9.59	10.0	-4.1	30.0
4,6-Dinitro-2-methylphenol	Qua		0.1347	0.0100	9.28	10.0	-7.2	30.0
N-Nitrosodiphenylamine	Ave	0.5625	0.5491	0.0100	9.76	10.0	-2.4	30.0
Azobenzene	Ave	0.9375	0.9220		9.83	10.0	-1.7	30.0
4-Bromophenyl phenyl ether	Ave	0.2055	0.1965	0.1000	9.56	10.0	-4.4	30.0
Hexachlorobenzene	Ave	0.2060	0.1917	0.1000	9.30	10.0	-7.0	30.0
Atrazine	Ave	0.2128	0.2139	0.0100	10.1	10.0	0.5	30.0
Pentachlorophenol	Ave	0.1360	0.1381	0.0500	20.3	20.0	1.5	30.0
Phenanthrene	Ave	1.165	1.098	0.7000	9.43	10.0	-5.7	30.0
Anthracene	Ave	1.158	1.125	0.7000	9.71	10.0	-2.9	30.0
Carbazole	Ave	1.079	1.037	0.0100	9.61	10.0	-3.9	30.0
Di-n-butyl phthalate	Ave	1.350	1.331	0.0100	9.86	10.0	-1.4	30.0
Fluoranthene	Ave	1.195	1.133	0.6000	9.48	10.0	-5.2	30.0
Benzidine	Ave	0.6899	0.6555		9.50	10.0	-5.0	30.0
Pyrene	Ave	1.145	1.084	0.6000	9.47	10.0	-5.3	30.0
Butyl benzyl phthalate	Ave	0.5407	0.5280	0.0100	9.77	10.0	-2.3	30.0
3,3'-Dimethoxybenzidine	Ave	0.2532	0.2354		9.30	10.0	-7.0	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7819	0.7516	0.0100	9.61	10.0	-3.9	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2205	0.2125		9.64	10.0	-3.6	30.0
3,3'-Dichlorobenzidine	Ave	0.4263	0.4069	0.0100	9.54	10.0	-4.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-5339/13 Calibration Date: 06/20/2011 15:47

Instrument ID: A4HP7 Calib Start Date: 06/20/2011 12:16

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/20/2011 14:50

Lab File ID: 0620013.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.124	1.047	0.8000	9.32	10.0	-6.8	30.0
Chrysene	Ave	1.083	1.012	0.7000	9.34	10.0	-6.6	30.0
Di-n-octyl phthalate	Ave	1.541	1.478	0.0100	9.59	10.0	-4.1	30.0
Benzo[b]fluoranthene	Ave	1.292	1.266	0.7000	9.80	10.0	-2.0	30.0
Benzo[k]fluoranthene	Ave	1.311	1.283	0.7000	9.79	10.0	-2.1	30.0
Benzo[a]pyrene	Ave	1.178	1.158	0.7000	9.82	10.0	-1.8	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.326	1.319	0.5000	9.95	10.0	-0.5	30.0
Dibenzo(a,h)anthracene	Ave	1.128	1.118	0.4000	9.92	10.0	-0.8	30.0
Benzo[g,h,i]perylene	Ave	1.088	1.082	0.5000	9.95	10.0	-0.5	30.0
2-Fluorophenol (Surr)	Ave	1.259	1.223		9.72	10.0	-2.8	30.0
Phenol-d5 (Surr)	Ave	1.717	1.652		9.62	10.0	-3.8	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4437	0.4291		9.67	10.0	-3.3	30.0
2-Fluorobiphenyl (Surr)	Ave	1.298	1.218		9.38	10.0	-6.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1490	0.1443		9.69	10.0	-3.1	30.0
Terphenyl-d14 (Surr)	Ave	0.7064	0.6637		9.39	10.0	-6.1	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 0621001.D DFTPP Injection Date: 06/21/2011

Instrument ID: A4HP7 DFTPP Injection Time: 10:43

Analysis Batch No.: 5481

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	69.3	
68	Less than 2.0% of mass 69	0.8	(1.7)1
69	Mass 69 relative abundance	48.3	
70	Less than 2.0% of mass 69	0.2	(0.4)1
127	25.0 - 75.0% of mass 198	55.6	
197	Less than 1.0% of mass 198	0.3	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	23.8	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	8.9	
442	40.0 - 110.0% of mass 198	61.1	
443	15.0 - 24.0% of mass 442	11.7	(19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-5481/2	0621002.D	06/21/2011	11:02
	CCV 240-5481/5	0621005.D	06/21/2011	11:59
	MB 240-4007/1-A	0621006.D	06/21/2011	13:03
	LCS 240-4007/2-A	0621007.D	06/21/2011	13:22
G-SP-SB-122-6-8	240-635-23	0621025.D	06/21/2011	18:46
G-SP-SB-122-20-22	240-635-24	0621026.D	06/21/2011	19:05
G-SP-SB-129-6-8	240-635-26	0621027.D	06/21/2011	19:24
G-SP-SB-129-20-22	240-635-27	0621028.D	06/21/2011	19:43
G-SP-SB-129-0-2	240-635-25	0621029.D	06/21/2011	20:02

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-5481/2 Calibration Date: 06/21/2011 11:02

Instrument ID: A4HP7 Calib Start Date: 06/20/2011 12:16

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/20/2011 14:50

Lab File ID: 0621002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5535	0.5529		9.99	10.0	-0.1	20.0
N-Nitrosodimethylamine	Ave	0.9527	0.9591		10.1	10.0	0.7	20.0
Pyridine	Ave	1.560	1.577		10.1	10.0	1.1	20.0
Ethyl methacrylate	Ave	1.307	1.333		10.2	10.0	2.0	20.0
3-Chloropropionitrile	Ave	1.336	1.359		10.2	10.0	1.7	20.0
Malononitrile	Ave	1.935	1.882		9.73	10.0	-2.7	20.0
Benzaldehyde	Ave	1.210	0.9843	0.0100	8.13	10.0	-18.7	20.0
Phenol	Ave	1.851	1.820	0.8000	9.83	10.0	-1.7	20.0
Aniline	Ave	2.413	2.271		9.41	10.0	-5.9	20.0
Bis(2-chloroethyl)ether	Ave	1.516	1.737	0.7000	11.5	10.0	14.5	20.0
2-Chlorophenol	Ave	1.435	1.425	0.8000	9.93	10.0	-0.7	20.0
1,3-Dichlorobenzene	Ave	1.473	1.462		9.93	10.0	-0.7	20.0
1,4-Dichlorobenzene	Ave	1.532	1.511		9.87	10.0	-1.3	20.0
Benzyl alcohol	Ave	0.9359	0.9081		9.70	10.0	-3.0	20.0
1,2-Dichlorobenzene	Ave	1.435	1.406		9.80	10.0	-2.0	20.0
2-Methylphenol	Ave	1.359	1.330	0.7000	9.79	10.0	-2.1	20.0
2,2'-oxybis[1-chloropropane]	Ave	3.646	3.719		10.2	10.0	2.0	20.0
3 & 4 Methylphenol	Ave	1.391	1.372		9.86	10.0	-1.4	20.0
N-Nitrosodi-n-propylamine	Ave	1.188	1.171	0.5000	9.85	10.0	-1.5	20.0
Acetophenone	Ave	2.005	1.984	0.0100	9.90	10.0	-1.0	20.0
Hexachloroethane	Ave	0.5982	0.5908	0.3000	9.88	10.0	-1.2	20.0
Nitrobenzene	Ave	0.4078	0.4124	0.2000	10.1	10.0	1.1	20.0
Isophorone	Ave	0.7440	0.7499	0.4000	10.1	10.0	0.8	20.0
2,4-Dimethylphenol	Ave	0.3928	0.3975	0.2000	10.1	10.0	1.2	20.0
2-Nitrophenol	Ave	0.1971	0.1979	0.1000	10.0	10.0	0.4	20.0
1,3,5-Trichlorobenzene	Ave	0.3173	0.3129		9.86	10.0	-1.4	20.0
Bis(2-chloroethoxy)methane	Ave	0.4227	0.4197	0.3000	9.93	10.0	-0.7	20.0
Benzoic acid	Qua		0.2400		20.0	20.0	0.0	20.0
2,4-Dichlorophenol	Ave	0.2742	0.2708	0.2000	9.88	10.0	-1.2	20.0
1,2,4-Trichlorobenzene	Ave	0.3089	0.3048		9.87	10.0	-1.3	20.0
Naphthalene	Ave	1.098	1.069	0.7000	9.74	10.0	-2.6	20.0
4-Chloroaniline	Ave	0.4750	0.4827	0.0100	10.2	10.0	1.6	20.0
Hexachlorobutadiene	Ave	0.1667	0.1655	0.0100	9.93	10.0	-0.7	20.0
1,2,3-Trichlorobenzene	Ave	0.2883	0.2851		9.89	10.0	-1.1	20.0
Caprolactam	Ave	0.1155	0.1167	0.0100	10.1	10.0	1.0	20.0
4-Chloro-3-methylphenol	Ave	0.3283	0.3330	0.2000	10.1	10.0	1.4	20.0
2-Methylnaphthalene	Ave	0.5961	0.5873	0.4000	9.85	10.0	-1.5	20.0
1-Methylnaphthalene	Ave	0.6771	0.6631		9.79	10.0	-2.1	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5336	0.5255		9.85	10.0	-1.5	20.0
Hexachlorocyclopentadiene	Ave	0.3586	0.3642	0.0500	10.2	10.0	1.6	20.0
2,4,6-Trichlorophenol	Ave	0.3555	0.3681	0.2000	10.4	10.0	3.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-5481/2 Calibration Date: 06/21/2011 11:02

Instrument ID: A4HP7 Calib Start Date: 06/20/2011 12:16

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/20/2011 14:50

Lab File ID: 0621002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3750	0.3855	0.2000	10.3	10.0	2.8	20.0
2,4-Toluene diamine	Ave	0.2694	0.1948		7.23	10.0	-27.7	20.0
1,1'-Biphenyl	Ave	1.566	1.524	0.0100	9.73	10.0	-2.7	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5095	0.5041		9.90	10.0	-1.0	20.0
2-Chloronaphthalene	Ave	1.123	1.105	0.8000	9.83	10.0	-1.7	20.0
2-Nitroaniline	Ave	0.4685	0.4707	0.0100	10.0	10.0	0.5	20.0
Dimethyl phthalate	Ave	1.305	1.290	0.0100	9.89	10.0	-1.1	20.0
2,6-Dinitrotoluene	Ave	0.2827	0.2855		10.1	10.0	1.0	20.0
1,2-Dinitrobenzene	Ave	0.1428	0.1464		10.3	10.0	2.5	20.0
Acenaphthylene	Ave	1.896	1.867	0.9000	9.85	10.0	-1.5	20.0
3-Nitroaniline	Ave	0.3510	0.3561	0.0100	10.1	10.0	1.5	20.0
2,4-Dinitrophenol	Qua		0.2423	0.0100	20.8	20.0	4.0	20.0
Acenaphthene	Ave	1.212	1.177	0.9000	9.71	10.0	-2.9	20.0
4-Nitrophenol	Ave	0.2090	0.2212		10.6	10.0	5.9	20.0
2,4-Dinitrotoluene	Ave	0.3837	0.3922	0.2000	10.2	10.0	2.2	20.0
Dibenzofuran	Ave	1.610	1.590	0.8000	9.88	10.0	-1.2	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3050	0.3153		10.3	10.0	3.4	20.0
Diethyl phthalate	Ave	1.362	1.357	0.0100	9.96	10.0	-0.4	20.0
4-Chlorophenyl phenyl ether	Ave	0.6158	0.6114	0.4000	9.93	10.0	-0.7	20.0
4-Nitroaniline	Ave	0.3862	0.3848	0.0100	9.96	10.0	-0.4	20.0
Fluorene	Ave	1.357	1.328	0.9000	9.79	10.0	-2.1	20.0
4,6-Dinitro-2-methylphenol	Qua		0.1509	0.0100	10.3	10.0	3.0	20.0
N-Nitrosodiphenylamine	Ave	0.5625	0.5664	0.0100	10.1	10.0	0.7	20.0
Azobenzene	Ave	0.9375	0.9457		10.1	10.0	0.9	20.0
4-Bromophenyl phenyl ether	Ave	0.2055	0.2026	0.1000	9.86	10.0	-1.4	20.0
Hexachlorobenzene	Ave	0.2060	0.2018	0.1000	9.79	10.0	-2.1	20.0
Atrazine	Ave	0.2128	0.2097	0.0100	9.85	10.0	-1.5	20.0
Pentachlorophenol	Ave	0.1360	0.1536	0.0500	22.6	20.0	13.0	20.0
Phenanthrene	Ave	1.165	1.133	0.7000	9.73	10.0	-2.7	20.0
Anthracene	Ave	1.158	1.152	0.7000	9.95	10.0	-0.5	20.0
Carbazole	Ave	1.079	1.063	0.0100	9.85	10.0	-1.5	20.0
Di-n-butyl phthalate	Ave	1.350	1.364	0.0100	10.1	10.0	1.0	20.0
Fluoranthene	Ave	1.195	1.177	0.6000	9.84	10.0	-1.6	20.0
Benzidine	Ave	0.6899	0.6871		9.96	10.0	-0.4	20.0
Pyrene	Ave	1.145	1.129	0.6000	9.86	10.0	-1.4	20.0
Butyl benzyl phthalate	Ave	0.5407	0.5439	0.0100	10.1	10.0	0.6	20.0
3,3'-Dimethoxybenzidine	Ave	0.2532	0.2615		10.3	10.0	3.3	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7819	0.7886	0.0100	10.1	10.0	0.9	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2205	0.2220		10.1	10.0	0.7	20.0
3,3'-Dichlorobenzidine	Ave	0.4263	0.4411	0.0100	10.3	10.0	3.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-5481/2 Calibration Date: 06/21/2011 11:02

Instrument ID: A4HP7 Calib Start Date: 06/20/2011 12:16

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/20/2011 14:50

Lab File ID: 0621002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.124	1.116	0.8000	9.93	10.0	-0.7	20.0
Chrysene	Ave	1.083	1.052	0.7000	9.71	10.0	-2.9	20.0
Di-n-octyl phthalate	Ave	1.541	1.561	0.0100	10.1	10.0	1.3	20.0
Benzo[b]fluoranthene	Ave	1.292	1.279	0.7000	9.90	10.0	-1.0	20.0
Benzo[k]fluoranthene	Ave	1.311	1.348	0.7000	10.3	10.0	2.8	20.0
Benzo[a]pyrene	Ave	1.178	1.188	0.7000	10.1	10.0	0.8	20.0
Dibenzo(a,h)anthracene	Ave	1.128	1.131	0.4000	10.0	10.0	0.3	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.326	1.333	0.5000	10.1	10.0	0.6	20.0
Benzo[g,h,i]perylene	Ave	1.088	1.085	0.5000	9.97	10.0	-0.3	20.0
2-Fluorophenol (Surr)	Ave	1.259	1.274		10.1	10.0	1.1	20.0
Phenol-d5 (Surr)	Ave	1.717	1.684		9.81	10.0	-1.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4437	0.4334		9.77	10.0	-2.3	20.0
2-Fluorobiphenyl (Surr)	Ave	1.298	1.272		9.80	10.0	-2.0	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1490	0.1543		10.4	10.0	3.5	20.0
Terphenyl-d14 (Surr)	Ave	0.7064	0.6978		9.88	10.0	-1.2	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 0621006.D Lab Sample ID: MB 240-4007/1-A

Matrix: Solid Date Extracted: 06/08/2011 10:28

Instrument ID: A4HP7 Date Analyzed: 06/21/2011 13:03

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-4007/2-A	0621007.D	06/21/2011 13:22
G-SP-SB-122-6-8	240-635-23	0621025.D	06/21/2011 18:46
G-SP-SB-122-20-22	240-635-24	0621026.D	06/21/2011 19:05
G-SP-SB-129-6-8	240-635-26	0621027.D	06/21/2011 19:24
G-SP-SB-129-20-22	240-635-27	0621028.D	06/21/2011 19:43
G-SP-SB-129-0-2	240-635-25	0621029.D	06/21/2011 20:02

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4007/1-A

Matrix: Solid | Lab File ID: 0621006.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30(g) | Date Analyzed: 06/21/2011 13:03

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	50	U	50	27
123-91-1	1,4-Dioxane	100	U	100	22
88-06-2	2,4,6-Trichlorophenol	150	U	150	80
95-95-4	2,4,5-Trichlorophenol	150	U	150	25
120-83-2	2,4-Dichlorophenol	150	U	150	20
105-67-9	2,4-Dimethylphenol	150	U	150	20
51-28-5	2,4-Dinitrophenol	330	U	330	80
121-14-2	2,4-Dinitrotoluene	200	U	200	27
91-58-7	2-Chloronaphthalene	50	U	50	3.3
95-57-8	2-Chlorophenol	50	U	50	27
91-57-6	2-Methylnaphthalene	6.7	U	6.7	3.3
95-48-7	2-Methylphenol	200	U	200	80
88-74-4	2-Nitroaniline	200	U	200	9.1
88-75-5	2-Nitrophenol	50	U	50	27
15831-10-4	3 & 4 Methylphenol	400	U	400	20
91-94-1	3,3'-Dichlorobenzidine	100	U	100	18
99-09-2	3-Nitroaniline	200	U	200	16
534-52-1	4,6-Dinitro-2-methylphenol	150	U	150	80
101-55-3	4-Bromophenyl phenyl ether	50	U	50	13
59-50-7	4-Chloro-3-methylphenol	150	U	150	21
106-47-8	4-Chloroaniline	150	U	150	17
7005-72-3	4-Chlorophenyl phenyl ether	50	U	50	13
100-01-6	4-Nitroaniline	200	U	200	26
83-32-9	Acenaphthene	6.7	U	6.7	3.3
208-96-8	Acenaphthylene	6.7	U	6.7	3.3
98-86-2	Acetophenone	100	U	100	9.2
120-12-7	Anthracene	6.7	U	6.7	3.3
1912-24-9	Atrazine	200	U	200	9.1
100-52-7	Benzaldehyde	100	U	100	12
56-55-3	Benzo[a]anthracene	6.7	U	6.7	3.3
50-32-8	Benzo[a]pyrene	6.7	U	6.7	3.3
205-99-2	Benzo[b]fluoranthene	6.7	U	6.7	3.3
191-24-2	Benzo[g,h,i]perylene	6.7	U	6.7	3.3
207-08-9	Benzo[k]fluoranthene	6.7	U	6.7	3.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4007/1-A

Matrix: Solid | Lab File ID: 0621006.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30(g) | Date Analyzed: 06/21/2011 13:03

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	100	U	100	22
111-44-4	Bis(2-chloroethyl)ether	100	U	100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	50	U	50	19
85-68-7	Butyl benzyl phthalate	50	U	50	10
105-60-2	Caprolactam	330	U	330	37
86-74-8	Carbazole	50	U	50	27
218-01-9	Chrysene	6.7	U	6.7	1.1
84-74-2	Di-n-butyl phthalate	50	U	50	15
117-84-0	Di-n-octyl phthalate	50	U	50	27
53-70-3	Dibenzo(a,h)anthracene	6.7	U	6.7	3.3
132-64-9	Dibenzofuran	50	U	50	3.3
84-66-2	Diethyl phthalate	50	U	50	16
131-11-3	Dimethyl phthalate	50	U	50	17
206-44-0	Fluoranthene	6.7	U	6.7	3.3
86-73-7	Fluorene	6.7	U	6.7	3.3
118-74-1	Hexachlorobenzene	6.7	U	6.7	2.1
87-68-3	Hexachlorobutadiene	50	U	50	27
77-47-4	Hexachlorocyclopentadiene	330	U	330	27
67-72-1	Hexachloroethane	50	U	50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	6.7	U	6.7	3.3
78-59-1	Isophorone	50	U	50	13
621-64-7	N-Nitrosodi-n-propylamine	50	U	50	27
62-75-9	N-Nitrosodimethylamine	100	U	100	16
86-30-6	N-Nitrosodiphenylamine	50	U	50	21
91-20-3	Naphthalene	6.7	U	6.7	3.3
98-95-3	Nitrobenzene	100	U	100	2.2
87-86-5	Pentachlorophenol	150	U	150	80
85-01-8	Phenanthrene	6.7	U	6.7	3.3
108-95-2	Phenol	50	U	50	27
129-00-0	Pyrene	6.7	U	6.7	3.3
108-60-1	2,2'-oxybis[1-chloropropane]	100	U	100	9.5
606-20-2	2,6-Dinitrotoluene	200	U	200	21
100-02-7	4-Nitrophenol	330	U	330	80

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4007/1-A

Matrix: Solid | Lab File ID: 0621006.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/08/2011 10:28

Sample wt/vol: 30(g) | Date Analyzed: 06/21/2011 13:03

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5481 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		41-119
4165-62-2	Phenol-d5 (Surr)	50		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	44		24-112
367-12-4	2-Fluorophenol (Surr)	60		26-110
321-60-8	2-Fluorobiphenyl (Surr)	52		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	51		10-118

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 0706001.D DFTPP Injection Date: 07/06/2011

Instrument ID: A4HP7 DFTPP Injection Time: 09:23

Analysis Batch No.: 7270

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.7	
68	Less than 2.0% of mass 69	0.8	(2.0)1
69	Mass 69 relative abundance	42.3	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	50.7	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	24.5	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.5	
442	40.0 - 110.0% of mass 198	67.1	
443	15.0 - 24.0% of mass 442	13.0	(19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-7270/2	0706002.D	07/06/2011	09:41
	STD4 240-7270/3	0706003.D	07/06/2011	10:00
	STD3 240-7270/4	0706004.D	07/06/2011	10:18
	STD2 240-7270/5	0706005.D	07/06/2011	10:37
	STD1 240-7270/6	0706006.D	07/06/2011	10:55
	STD9 240-7270/7	0706007.D	07/06/2011	11:14
	STD8 240-7270/8	0706008.D	07/06/2011	11:32
	STD7 240-7270/9	0706009.D	07/06/2011	11:51
	STD6 240-7270/10	0706010.D	07/06/2011	12:10
	ICV 240-7270/13	0706011.D	07/06/2011	12:28

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-7270/6	0706006.D
Level 2	STD2 240-7270/5	0706005.D
Level 3	STD3 240-7270/4	0706004.D
Level 4	STD4 240-7270/3	0706003.D
Level 5	STD5 240-7270/2	0706002.D
Level 6	STD6 240-7270/10	0706010.D
Level 7	STD7 240-7270/9	0706009.D
Level 8	STD8 240-7270/8	0706008.D
Level 9	STD9 240-7270/7	0706007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.4762	0.5524 0.4669	0.4337 0.4615	0.5207 0.4271	0.4471	Ave		0.4732				9.1		20.0			
N-Nitrosodimethylamine	0.8248	0.8030 0.8134	0.8353 0.8116	0.8667 0.8006	0.7791	Ave		0.8168				3.2		20.0			
Pyridine	1.3648	1.1913 1.3538	1.3217 1.3873	1.4317 1.3802	1.3198	Ave		1.3438				5.3		20.0			
Ethyl methacrylate	1.1685	1.1670 1.1497	1.1719 1.1493	1.2127 1.0428	1.0939	Ave		1.1445				4.6		20.0			
3-Chloropropionitrile	1.0023	1.0919 1.0098	1.0532 1.0238	1.0626 1.0168	0.9601	Ave		1.0276				4.0		20.0			
Malononitrile	1.6340	1.8142 1.6266	1.6565 1.6385	1.7218 1.6121	1.6643	Ave		1.6710				4.0		20.0			
Benzoic acid	0.2326	+++++ 0.2344	+++++ 0.2448	0.1377 0.2926	0.2017	Qua	0.1332	0.1515	0.0026						0.9950		0.9900
Benzaldehyde	1.0470	1.3053 0.9685	1.2148 0.9000	1.2693 0.8696	1.1888	Ave		1.0954			0.0100	16.0		20.0			
Phenol	1.6811	1.6914 1.7127	1.6878 1.7796	1.8048 1.9322	1.6808	Ave		1.7463			0.8000	5.1		20.0			
Aniline	2.2619	2.0921 2.1675	2.1237 2.2437	2.2863 2.6209	2.0990	Ave		2.2369				7.7		20.0			
Bis(2-chloroethyl)ether	1.3238	1.4290 1.4009	1.4408 1.5760	1.4840 1.4812	1.3731	Ave		1.4386			0.7000	5.4		20.0			
2-Chlorophenol	1.4044	1.4177 1.3953	1.3940 1.4507	1.4526 1.5384	1.3431	Ave		1.4245			0.8000	4.1		20.0			
1,3-Dichlorobenzene	1.4553	1.5006 1.4605	1.4809 1.4954	1.5099 1.5469	1.4101	Ave		1.4825				2.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dichlorobenzene	1.5278	1.4940 1.5263	1.5082 1.5676	1.5524 1.6305	1.4682	Ave		1.5344				3.3		20.0			
Benzyl alcohol	0.8575	0.8911 0.9065	0.8713 0.9186	0.9031 1.0228	0.8687	Ave		0.9049				5.8		20.0			
1,2-Dichlorobenzene	1.4249	1.3902 1.4613	1.4629 1.5039	1.4581 1.5768	1.3454	Ave		1.4529				4.8		20.0			
2-Methylphenol	1.2804	1.2253 1.3123	1.2842 1.3455	1.3055 1.4963	1.2384	Ave		1.3110			0.7000	6.4		20.0			
2,2'-oxybis[1-chloropropane]	2.5188	3.1017 3.0127	2.8994 3.2059	3.1408 3.3917	2.9347	Ave		3.0257				8.5		20.0			
3 & 4 Methylphenol	1.3622	1.3295 1.3659	1.3030 1.4030	1.3524 1.5409	1.2947	Ave		1.3690				5.7		20.0			
N-Nitrosodi-n-propylamine	1.1558	1.1180 1.1936	1.1449 1.2391	1.1943 1.3936	1.1308	Ave		1.1963			0.5000	7.4		20.0			
Acetophenone	1.9376	1.9912 1.9773	1.9301 2.0608	2.0008 2.3093	1.8760	Ave		2.0104			0.0100	6.6		20.0			
Hexachloroethane	0.5886	0.5777 0.5925	0.5768 0.6031	0.6054 0.6248	0.5412	Ave		0.5887			0.3000	4.2		20.0			
Nitrobenzene	0.4081	0.4065 0.4133	0.3984 0.4176	0.4166 0.4454	0.4018	Ave		0.4135			0.2000	3.5		20.0			
Isophorone	0.7508	0.7177 0.7545	0.7293 0.7750	0.7563 0.8222	0.7304	Ave		0.7545			0.4000	4.4		20.0			
2,4-Dimethylphenol	0.4068	0.3738 0.4143	0.3834 0.4279	0.3981 0.4633	0.3879	Ave		0.4069			0.2000	7.1		20.0			
2-Nitrophenol	0.2076	0.1696 0.2168	0.1852 0.2228	0.1958 0.2397	0.1955	Ave		0.2041			0.1000	11.0		20.0			
1,3,5-Trichlorobenzene	0.3287	0.3147 0.3393	0.3098 0.3420	0.3222 0.3616	0.3110	Ave		0.3287				5.5		20.0			
Bis(2-chloroethoxy)methane	0.4236	0.4053 0.4225	0.4089 0.4321	0.4239 0.4523	0.3979	Ave		0.4208			0.3000	4.1		20.0			
2,4-Dichlorophenol	0.2889	0.2556 0.2938	0.2732 0.2928	0.2870 0.3185	0.2765	Ave		0.2858			0.2000	6.4		20.0			
1,2,4-Trichlorobenzene	0.3193	0.3154 0.3288	0.3107 0.3251	0.3160 0.3451	0.3106	Ave		0.3214				3.6		20.0			
Naphthalene	1.1204 1.0720	1.0824 1.1052	1.0430 1.1208	1.0922 1.1852	1.0448	Ave		1.0962			0.7000	4.0		20.0			
4-Chloroaniline	0.4504	0.4528 0.4599	0.4290 0.4754	0.4751 0.5251	0.4637	Ave		0.4664			0.0100	6.0		20.0			
Hexachlorobutadiene	0.1811	0.1666 0.1848	0.1733 0.1879	0.1802 0.1950	0.1707	Ave		0.1800			0.0100	5.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,2,3-Trichlorobenzene		0.2855	0.2872	0.2941	0.2876	Ave		0.3003				5.1		20.0			
	0.2994	0.3078	0.3114	0.3292													
Caprolactam		0.0853	0.1000	0.1025	0.1104	Ave		0.1086			0.0100	11.0		20.0			
	0.1184	0.1197	0.1171	0.1154													
4-Chloro-3-methylphenol		0.3150	0.3151	0.3273	0.3251	Ave		0.3361			0.2000	6.3		20.0			
	0.3366	0.3440	0.3464	0.3794													
2-Methylnaphthalene	0.6319	0.5823	0.5772	0.6018	0.5813	Ave		0.6107			0.4000	5.0		20.0			
	0.6059	0.6145	0.6301	0.6717													
1-Methylnaphthalene	0.7709	0.6686	0.6497	0.6819	0.6689	Ave		0.7047				6.6		20.0			
	0.6970	0.7048	0.7150	0.7852													
2,4-Dinitrophenol		+++++	0.1259	0.1828	0.2152	Qua	-0.123	0.2059	0.0021		0.0100				0.9990		0.9900
	0.2476	0.2677	0.2807	0.3118													
4-Nitrophenol		+++++	0.1461	0.2159	0.2187	Ave		0.2007				16.0		20.0			
	0.1781	0.1844	0.2199	0.2419													
1,2,3,5-Tetrachlorobenzene		0.5141	0.5062	0.5306	0.5176	Ave		0.5496				7.6		20.0			
	0.5470	0.5730	0.5813	0.6271													
Hexachlorocyclopentadiene		0.3247	0.3274	0.3820	0.3723	Ave		0.3872			0.0500	12.0		20.0			
	0.3983	0.4185	0.4222	0.4523													
2,4,6-Trichlorophenol		0.3316	0.3429	0.3558	0.3490	Ave		0.3644			0.2000	6.6		20.0			
	0.3710	0.3770	0.3819	0.4061													
2,4,5-Trichlorophenol		0.3798	0.3742	0.3864	0.3726	Ave		0.3923			0.2000	5.4		20.0			
	0.3928	0.3865	0.4107	0.4358													
2,4-Toluene diamine		0.2746	0.3124	0.3197	0.2646	Ave		0.2574				18.0		20.0			
	0.2639	0.2208	0.2070	0.1966													
1,1'-Biphenyl	1.6193	1.4884	1.4432	1.5276	1.4746	Ave		1.6042			0.0100	8.8		20.0			
	1.6083	1.6741	1.7157	1.8869													
1,2,3,4 -Tetrachlorobenzene		0.5080	0.5053	0.5148	0.5007	Ave		0.5387				7.8		20.0			
	0.5322	0.5564	0.5694	0.6227													
2-Chloronaphthalene	1.2910	1.0896	1.1088	1.1217	1.0691	Ave		1.1457			0.8000	6.3		20.0			
	1.1062	1.1433	1.1445	1.2375													
2-Nitroaniline		0.4159	0.4385	0.4648	0.4549	Ave		0.4598			0.0100	5.4		20.0			
	0.4716	0.4598	0.4751	0.4981													
Dimethyl phthalate		1.2659	1.2421	1.3343	1.2733	Ave		1.3220			0.0100	4.6		20.0			
	1.3272	1.3564	1.3463	1.4308													
2,6-Dinitrotoluene		0.2533	0.2571	0.2867	0.2834	Ave		0.2888				8.5		20.0			
	0.2954	0.3032	0.3042	0.3269													
1,2-Dinitrobenzene		0.1251	0.1299	0.1456	0.1414	Ave		0.1448				8.5		20.0			
	0.1492	0.1541	0.1512	0.1618													
Acenaphthylene	2.0165	1.8279	1.7901	1.8514	1.7914	Ave		1.8970			0.9000	5.3		20.0			
	1.8643	1.9206	1.9304	2.0802													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
3-Nitroaniline		0.3050	0.3062	0.3423	0.3347	Ave		0.3397			0.0100	7.1		20.0			
	0.3510	0.3518	0.3503	0.3762													
Acenaphthene	1.2798	1.1784	1.1510	1.1949	1.1442	Ave		1.2314			0.9000	7.3		20.0			
	1.1974	1.2112	1.2974	1.4280													
2,4-Dinitrotoluene		0.3331	0.3639	0.3924	0.3921	Ave		0.3940			0.2000	8.3		20.0			
	0.4106	0.4155	0.4066	0.4375													
Dibenzofuran	1.8779	1.5931	1.5978	1.6189	1.5293	Ave		1.6584			0.8000	6.6		20.0			
	1.6255	1.6363	1.6507	1.7958													
2,3,5,6-Tetrachlorophenol		0.2938	0.2746	0.3014	0.3086	Ave		0.3217				10.0		20.0			
	0.3317	0.3390	0.3446	0.3797													
Diethyl phthalate		1.3205	1.3305	1.3899	1.3470	Ave		1.3757			0.0100	5.4		20.0			
	1.3522	1.3611	1.3515	1.5525													
4-Chlorophenyl phenyl ether		0.5986	0.6015	0.6278	0.6062	Ave		0.6355			0.4000	6.3		20.0			
	0.6339	0.6469	0.6465	0.7225													
4-Nitroaniline		0.3135	0.3416	0.3612	0.3651	Ave		0.3758			0.0100	11.0		20.0			
	0.3845	0.3992	0.3944	0.4471													
Fluorene	1.4546	1.2747	1.3115	1.3561	1.3211	Ave		1.3916			0.9000	6.8		20.0			
	1.3853	1.4175	1.4109	1.5930													
4,6-Dinitro-2-methylphenol		0.0856	0.0975	0.1241	0.1337	Qua	-0.035	0.1405	0.0013		0.0100				0.9990		0.9900
	0.1575	0.1575	0.1600	0.1727													
N-Nitrosodiphenylamine		0.5453	0.5584	0.5782	0.5499	Ave		0.5818			0.0100	5.7		20.0			
	0.5866	0.5894	0.5989	0.6479													
1,2-Diphenylhydrazine(as Azobenzene)		0.8869	0.8405	0.9066	0.8894	Ave		0.8778				5.9		20.0			
	0.8349	0.8269	0.8336	0.9794													
Azobenzene		0.8980	0.8529	0.9060	0.8908	Ave		0.8778				5.9		20.0			
	0.8349	0.8270	0.8337	0.9794													
4-Bromophenyl phenyl ether		0.2014	0.1912	0.1991	0.2012	Ave		0.2073			0.1000	5.8		20.0			
	0.2099	0.2096	0.2151	0.2306													
Hexachlorobenzene	0.2477	0.1884	0.2012	0.2007	0.1992	Ave		0.2080			0.1000	8.7		20.0			
	0.2002	0.2027	0.2043	0.2276													
Atrazine		0.1983	0.2052	0.2222	0.2135	Ave		0.2123			0.0100	3.9		20.0			
	0.2228	0.2147	0.2090	0.2124													
Pentachlorophenol		0.1232	0.1110	0.1279	0.1438	Ave		0.1429			0.0500	15.0		20.0			
	0.1528	0.1530	0.1557	0.1755													
Phenanthrene	1.3196	1.1404	1.1494	1.1487	1.1169	Ave		1.1759			0.7000	5.4		20.0			
	1.1510	1.1464	1.1687	1.2420													
Anthracene	1.3180	1.1170	1.1414	1.1648	1.1117	Ave		1.1858			0.7000	5.7		20.0			
	1.1807	1.1897	1.1851	1.2641													
Carbazole		1.0299	1.0665	1.0839	1.0350	Ave		1.0830			0.0100	4.0		20.0			
	1.0850	1.0938	1.1027	1.1674													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	RRF					CURVE TYPE	COEFFICIENT		#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B M1	M2								
Di-n-butyl phthalate	1.3581	1.3062 1.3584	1.2900 1.3641	1.3380 1.4300	1.2903	Ave	1.3419			0.0100	3.5		20.0			
Fluoranthene	1.3251 1.2054	1.1554 1.2120	1.1677 1.2156	1.1780 1.2962	1.1453	Ave	1.2112			0.6000	5.1		20.0			
Benzidine	0.7087	0.5175 0.6677	0.6099 0.6970	0.6869 0.6809	0.6879	Ave	0.6571				9.7		20.0			
Pyrene	1.3129 1.1049	1.1210 1.1028	1.1026 1.1214	1.1277 1.1608	1.1156	Ave	1.1411			0.6000	5.9		20.0			
Butyl benzyl phthalate	0.5221	0.6974 0.5181	0.7533 0.5262	0.5352 0.5541	0.5232	Ave	0.5787			0.0100	16.0		20.0			
3,3'-Dimethoxybenzidine	0.2639	0.2018 0.2489	0.2390 0.2455	0.2487 0.2385	0.2462	Ave	0.2416				7.4		20.0			
Bis(2-ethylhexyl) phthalate	0.7536	0.7149 0.7474	0.7112 0.7622	0.7607 0.7969	0.7642	Ave	0.7514			0.0100	3.7		20.0			
4,4'-Methylene bis(2-chloroaniline)	0.2197	0.1994 0.2215	0.1998 0.2247	0.2195 0.2367	0.2164	Ave	0.2172				5.7		20.0			
3,3'-Dichlorobenzidine	0.4229	0.3922 0.4264	0.3880 0.4337	0.4125 0.4514	0.4132	Ave	0.4175			0.0100	5.0		20.0			
Benzo[a]anthracene	1.3248 1.0756	1.0712 1.0782	1.0896 1.0906	1.0981 1.1389	1.0769	Ave	1.1160			0.8000	7.3		20.0			
Chrysene	1.2087 1.0257	1.0328 1.0180	1.0369 1.0452	1.0697 1.0984	1.0322	Ave	1.0631			0.7000	5.6		20.0			
Di-n-octyl phthalate	1.4857	1.4007 1.5054	1.3184 1.5309	1.4616 1.6050	1.4699	Ave	1.4722			0.0100	5.8		20.0			
Benzo[b]fluoranthene	1.3108 1.2255	1.1722 1.3036	1.2747 1.2890	1.2664 1.5191	1.2327	Ave	1.2882			0.7000	7.5		20.0			
Benzo[k]fluoranthene	1.4909 1.3193	1.2695 1.2706	1.1798 1.2998	1.2817 1.2450	1.2401	Ave	1.2885			0.7000	6.7		20.0			
Benzo[a]pyrene	1.2912 1.1706	1.0900 1.1793	1.1350 1.1853	1.1501 1.2584	1.1435	Ave	1.1782			0.7000	5.3		20.0			
Indeno[1,2,3-cd]pyrene	1.4352 1.2897	1.1466 1.2911	1.2350 1.2993	1.2668 1.3632	1.2573	Ave	1.2871			0.5000	6.2		20.0			
Dibenzo(a,h)anthracene	1.1437 1.1042	1.0114 1.1043	1.0396 1.1101	1.0735 1.1689	1.0583	Ave	1.0904			0.4000	4.6		20.0			
Benzo[g,h,i]perylene	1.1334 1.0580	0.9948 1.0607	1.0011 1.0567	1.0513 1.1283	1.0290	Ave	1.0570			0.5000	4.6		20.0			
2-Fluorophenol (Surr)	1.1868	1.2268 1.1850	1.1572 1.1902	1.2309 1.2095	1.1224	Ave	1.1886				3.0		20.0			
Phenol-d5 (Surr)	1.6170	1.6180 1.6486	1.6158 1.6700	1.6936 1.8302	1.5821	Ave	1.6594				4.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			# MIN RRF	%RSD	# MAX %RSD	R^2 OR COD	# MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2					
Nitrobenzene-d5 (Surr)	0.4928 0.4386	0.4244 0.4119	0.4255 0.4452	0.4503 0.4700	0.4280	Ave		0.4430			5.7	20.0		
2-Fluorobiphenyl (Surr)	1.4318 1.2975	1.2830 1.3185	1.2819 1.3449	1.2995 1.4297	1.2558	Ave		1.3269			4.8	20.0		
2,4,6-Tribromophenol (Surr)	 0.1586	0.1431 0.1596	0.1381 0.1615	0.1436 0.1831	0.1519	Ave		0.1549			9.2	20.0		
Terphenyl-d14 (Surr)	0.7665 0.6757	0.6727 0.6812	0.6601 0.6912	0.7075 0.7178	0.6752	Ave		0.6942			4.7	20.0		

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-7270/13 Calibration Date: 07/06/2011 12:28

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0706011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.4732	0.4562		9.64	10.0	-3.6	30.0
N-Nitrosodimethylamine	Ave	0.8168	0.8050		9.86	10.0	-1.4	30.0
Pyridine	Ave	1.344	1.338		9.95	10.0	-0.5	30.0
Ethyl methacrylate	Ave	1.144	1.134		9.91	10.0	-0.9	30.0
3-Chloropropionitrile	Ave	1.028	0.9839		9.58	10.0	-4.2	30.0
Malononitrile	Ave	1.671	1.576		9.43	10.0	-5.7	30.0
Benzaldehyde	Ave	1.095	1.041	0.0100	9.50	10.0	-5.0	30.0
Phenol	Ave	1.746	1.638	0.8000	9.38	10.0	-6.2	30.0
Aniline	Ave	2.237	2.021		9.04	10.0	-9.6	30.0
Bis(2-chloroethyl)ether	Ave	1.439	1.475	0.7000	10.3	10.0	2.5	30.0
2-Chlorophenol	Ave	1.425	1.369	0.8000	9.61	10.0	-3.9	30.0
1,3-Dichlorobenzene	Ave	1.482	1.440		9.71	10.0	-2.9	30.0
1,4-Dichlorobenzene	Ave	1.534	1.477		9.63	10.0	-3.7	30.0
Benzyl alcohol	Ave	0.9049	0.8304		9.18	10.0	-8.2	30.0
1,2-Dichlorobenzene	Ave	1.453	1.385		9.53	10.0	-4.7	30.0
2-Methylphenol	Ave	1.311	1.260	0.7000	9.61	10.0	-3.9	30.0
2,2'-oxybis[1-chloropropane]	Ave	3.026	2.448		8.09	10.0	-19.1	30.0
3 & 4 Methylphenol	Ave	1.369	1.282		9.37	10.0	-6.3	30.0
N-Nitrosodi-n-propylamine	Ave	1.196	1.058	0.5000	8.85	10.0	-11.5	30.0
Acetophenone	Ave	2.010	1.821	0.0100	9.06	10.0	-9.4	30.0
Hexachloroethane	Ave	0.5887	0.5407	0.3000	9.18	10.0	-8.2	30.0
Nitrobenzene	Ave	0.4135	0.3797	0.2000	9.18	10.0	-8.2	30.0
Isophorone	Ave	0.7545	0.7117	0.4000	9.43	10.0	-5.7	30.0
2,4-Dimethylphenol	Ave	0.4069	0.3834	0.2000	9.42	10.0	-5.8	30.0
2-Nitrophenol	Ave	0.2041	0.1986	0.1000	9.73	10.0	-2.7	30.0
1,3,5-Trichlorobenzene	Ave	0.3287	0.3186		9.69	10.0	-3.1	30.0
Bis(2-chloroethoxy)methane	Ave	0.4208	0.4026	0.3000	9.57	10.0	-4.3	30.0
Benzoic acid	Qua		0.2317		21.6	20.0	8.0	30.0
2,4-Dichlorophenol	Ave	0.2858	0.2834	0.2000	9.92	10.0	-0.8	30.0
1,2,4-Trichlorobenzene	Ave	0.3214	0.3095		9.63	10.0	-3.7	30.0
Naphthalene	Ave	1.096	1.074	0.7000	9.80	10.0	-2.0	30.0
4-Chloroaniline	Ave	0.4664	0.4459	0.0100	9.56	10.0	-4.4	30.0
Hexachlorobutadiene	Ave	0.1800	0.1772	0.0100	9.84	10.0	-1.6	30.0
1,2,3-Trichlorobenzene	Ave	0.3003	0.2917		9.71	10.0	-2.9	30.0
Caprolactam	Ave	0.1086	0.1163	0.0100	10.7	10.0	7.1	30.0
4-Chloro-3-methylphenol	Ave	0.3361	0.3325	0.2000	9.89	10.0	-1.1	30.0
2-Methylnaphthalene	Ave	0.6107	0.5864	0.4000	9.60	10.0	-4.0	30.0
1-Methylnaphthalene	Ave	0.7047	0.6789		9.63	10.0	-3.7	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5496	0.5356		9.74	10.0	-2.6	30.0
Hexachlorocyclopentadiene	Ave	0.3872	0.3856	0.0500	9.96	10.0	-0.4	30.0
2,4,6-Trichlorophenol	Ave	0.3644	0.3621	0.2000	9.94	10.0	-0.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-7270/13 Calibration Date: 07/06/2011 12:28

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0706011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3923	0.3874	0.2000	9.87	10.0	-1.3	30.0
2,4-Toluene diamine	Ave	0.2574	0.2501		9.71	10.0	-2.9	30.0
1,1'-Biphenyl	Ave	1.604	1.577	0.0100	9.83	10.0	-1.7	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5387	0.5271		9.78	10.0	-2.2	30.0
2-Chloronaphthalene	Ave	1.146	1.099	0.8000	9.59	10.0	-4.1	30.0
2-Nitroaniline	Ave	0.4598	0.4604	0.0100	10.0	10.0	0.1	30.0
Dimethyl phthalate	Ave	1.322	1.316	0.0100	9.96	10.0	-0.4	30.0
2,6-Dinitrotoluene	Ave	0.2888	0.2919		10.1	10.0	1.1	30.0
1,2-Dinitrobenzene	Ave	0.1448	0.1447		10.0	10.0	-0.0	30.0
Acenaphthylene	Ave	1.897	1.848	0.9000	9.74	10.0	-2.6	30.0
3-Nitroaniline	Ave	0.3397	0.3445	0.0100	10.1	10.0	1.4	30.0
2,4-Dinitrophenol	Qua		0.2545	0.0100	20.9	20.0	4.5	30.0
Acenaphthene	Ave	1.231	1.194	0.9000	9.70	10.0	-3.0	30.0
4-Nitrophenol	Ave	0.2007	0.2026		10.1	10.0	1.0	30.0
2,4-Dinitrotoluene	Ave	0.3940	0.3984	0.2000	10.1	10.0	1.1	30.0
Dibenzofuran	Ave	1.658	1.574	0.8000	9.49	10.0	-5.1	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3217	0.3209		9.97	10.0	-0.3	30.0
Diethyl phthalate	Ave	1.376	1.368	0.0100	9.95	10.0	-0.5	30.0
4-Chlorophenyl phenyl ether	Ave	0.6355	0.6277	0.4000	9.88	10.0	-1.2	30.0
4-Nitroaniline	Ave	0.3758	0.3819	0.0100	10.2	10.0	1.6	30.0
Fluorene	Ave	1.392	1.365	0.9000	9.81	10.0	-1.9	30.0
4,6-Dinitro-2-methylphenol	Qua		0.1475	0.0100	9.86	10.0	-1.4	30.0
N-Nitrosodiphenylamine	Ave	0.5818	0.5779	0.0100	9.93	10.0	-0.7	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.8778	0.9021		10.3	10.0	2.8	30.0
Azobenzene	Ave	0.8778	0.9023		10.3	10.0	2.8	30.0
4-Bromophenyl phenyl ether	Ave	0.2073	0.2061	0.1000	9.94	10.0	-0.6	30.0
Hexachlorobenzene	Ave	0.2080	0.2012	0.1000	9.67	10.0	-3.3	30.0
Atrazine	Ave	0.2123	0.2190	0.0100	10.3	10.0	3.2	30.0
Pentachlorophenol	Ave	0.1429	0.1502	0.0500	21.0	20.0	5.1	30.0
Phenanthrene	Ave	1.176	1.127	0.7000	9.58	10.0	-4.2	30.0
Anthracene	Ave	1.186	1.153	0.7000	9.72	10.0	-2.8	30.0
Carbazole	Ave	1.083	1.066	0.0100	9.84	10.0	-1.6	30.0
Di-n-butyl phthalate	Ave	1.342	1.338	0.0100	9.97	10.0	-0.3	30.0
Fluoranthene	Ave	1.211	1.187	0.6000	9.80	10.0	-2.0	30.0
Benzidine	Ave	0.6571	0.6625		10.1	10.0	0.8	30.0
Pyrene	Ave	1.141	1.090	0.6000	9.55	10.0	-4.5	30.0
Butyl benzyl phthalate	Ave	0.5787	0.5504	0.0100	9.51	10.0	-4.9	30.0
3,3'-Dimethoxybenzidine	Ave	0.2416	0.2454		10.2	10.0	1.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7514	0.7386	0.0100	9.83	10.0	-1.7	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2172	0.2150		9.90	10.0	-1.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-7270/13 Calibration Date: 07/06/2011 12:28

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0706011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4175	0.4240	0.0100	10.2	10.0	1.5	30.0
Benzo[a]anthracene	Ave	1.116	1.045	0.8000	9.37	10.0	-6.3	30.0
Chrysene	Ave	1.063	1.027	0.7000	9.66	10.0	-3.4	30.0
Di-n-octyl phthalate	Ave	1.472	1.480	0.0100	10.1	10.0	0.5	30.0
Benzo[b]fluoranthene	Ave	1.288	1.294	0.7000	10.0	10.0	0.4	30.0
Benzo[k]fluoranthene	Ave	1.289	1.252	0.7000	9.72	10.0	-2.8	30.0
Benzo[a]pyrene	Ave	1.178	1.171	0.7000	9.94	10.0	-0.6	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.287	1.268	0.5000	9.85	10.0	-1.5	30.0
Dibenzo(a,h)anthracene	Ave	1.090	1.080	0.4000	9.90	10.0	-1.0	30.0
Benzo[g,h,i]perylene	Ave	1.057	1.040	0.5000	9.84	10.0	-1.6	30.0
2-Fluorophenol (Surr)	Ave	1.189	1.169		9.84	10.0	-1.6	30.0
Phenol-d5 (Surr)	Ave	1.659	1.574		9.48	10.0	-5.2	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4430	0.4045		9.13	10.0	-8.7	30.0
2-Fluorobiphenyl (Surr)	Ave	1.327	1.261		9.50	10.0	-5.0	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1549	0.1550		10.0	10.0	0.0	30.0
Terphenyl-d14 (Surr)	Ave	0.6942	0.6722		9.68	10.0	-3.2	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 0714001.D DFTPP Injection Date: 07/14/2011

Instrument ID: A4HP7 DFTPP Injection Time: 08:45

Analysis Batch No.: 8375

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	49.5	
68	Less than 2.0% of mass 69	0.8	(1.8)1
69	Mass 69 relative abundance	42.9	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	51.9	
197	Less than 1.0% of mass 198	0.4	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	26.3	
365	Greater than 0.75% of mass 198	2.8	
441	Present, but less than mass 443	9.9	
442	40.0 - 110.0% of mass 198	70.5	
443	15.0 - 24.0% of mass 442	13.3	(18.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-8375/2	0714002.D	07/14/2011	09:03
	CCV 240-8375/3	0714003.D	07/14/2011	09:22
	CCV 240-8375/4	0714004.D	07/14/2011	09:40
	LCS 240-6980/19-A	0714007.D	07/14/2011	10:34
	MB 240-6980/18-A	0714039.D	07/14/2011	10:52
G-SP-SB-119-0-2 RE	240-635-7 RE	0714029.D	07/14/2011	16:20

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-8375/2 Calibration Date: 07/14/2011 09:03

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0714002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.4732	0.4874		10.3	10.0	3.0	20.0
N-Nitrosodimethylamine	Ave	0.8168	0.8910		10.9	10.0	9.1	20.0
Pyridine	Ave	1.344	1.445		10.8	10.0	7.5	20.0
Ethyl methacrylate	Ave	1.144	1.212		10.6	10.0	5.9	20.0
3-Chloropropionitrile	Ave	1.028	1.095		10.7	10.0	6.6	20.0
Malononitrile	Ave	1.671	1.765		10.6	10.0	5.6	20.0
Benzaldehyde	Ave	1.095	0.8502	0.0100	7.76	10.0	-22.4*	20.0
Phenol	Ave	1.746	1.782	0.8000	10.2	10.0	2.1	20.0
Aniline	Ave	2.237	2.250		10.1	10.0	0.6	20.0
Bis(2-chloroethyl)ether	Ave	1.439	1.528	0.7000	10.6	10.0	6.2	20.0
2-Chlorophenol	Ave	1.425	1.447	0.8000	10.2	10.0	1.6	20.0
1,3-Dichlorobenzene	Ave	1.482	1.523		10.3	10.0	2.7	20.0
1,4-Dichlorobenzene	Ave	1.534	1.586		10.3	10.0	3.4	20.0
Benzyl alcohol	Ave	0.9049	0.5593		6.18	10.0	-38.2*	20.0
1,2-Dichlorobenzene	Ave	1.453	1.478		10.2	10.0	1.7	20.0
2-Methylphenol	Ave	1.311	1.512	0.7000	11.5	10.0	15.4	20.0
2,2'-oxybis[1-chloropropane]	Ave	3.026	2.758		9.11	10.0	-8.9	20.0
3 & 4 Methylphenol	Ave	1.369	1.444		10.6	10.0	5.5	20.0
N-Nitrosodi-n-propylamine	Ave	1.196	1.160	0.5000	9.70	10.0	-3.0	20.0
Acetophenone	Ave	2.010	2.037	0.0100	10.1	10.0	1.3	20.0
Hexachloroethane	Ave	0.5887	0.5811	0.3000	9.87	10.0	-1.3	20.0
Nitrobenzene	Ave	0.4135	0.4051	0.2000	9.80	10.0	-2.0	20.0
Isophorone	Ave	0.7545	0.7563	0.4000	10.0	10.0	0.2	20.0
2-Nitrophenol	Ave	0.2041	0.2162	0.1000	10.6	10.0	5.9	20.0
2,4-Dimethylphenol	Ave	0.4069	0.3996	0.2000	9.82	10.0	-1.8	20.0
1,3,5-Trichlorobenzene	Ave	0.3287	0.3517		10.7	10.0	7.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4208	0.4350	0.3000	10.3	10.0	3.4	20.0
Benzoic acid	Qua		0.2178		20.5	20.0	2.5	20.0
2,4-Dichlorophenol	Ave	0.2858	0.3072	0.2000	10.7	10.0	7.5	20.0
1,2,4-Trichlorobenzene	Ave	0.3214	0.3348		10.4	10.0	4.2	20.0
Naphthalene	Ave	1.096	1.109	0.7000	10.1	10.0	1.2	20.0
4-Chloroaniline	Ave	0.4664	0.4865	0.0100	10.4	10.0	4.3	20.0
Hexachlorobutadiene	Ave	0.1800	0.1858	0.0100	10.3	10.0	3.2	20.0
1,2,3-Trichlorobenzene	Ave	0.3003	0.3154		10.5	10.0	5.0	20.0
Caprolactam	Ave	0.1086	0.1263	0.0100	11.6	10.0	16.3	20.0
4-Chloro-3-methylphenol	Ave	0.3361	0.3346	0.2000	9.96	10.0	-0.4	20.0
2-Methylnaphthalene	Ave	0.6107	0.6357	0.4000	10.4	10.0	4.1	20.0
1-Methylnaphthalene	Ave	0.7047	0.7229		10.3	10.0	2.6	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5496	0.5685		10.3	10.0	3.4	20.0
Hexachlorocyclopentadiene	Ave	0.3872	0.3710	0.0500	9.58	10.0	-4.2	20.0
2,4,6-Trichlorophenol	Ave	0.3644	0.3695	0.2000	10.1	10.0	1.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-8375/2 Calibration Date: 07/14/2011 09:03

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0714002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3923	0.4137	0.2000	10.5	10.0	5.4	20.0
2,4-Toluene diamine	Ave	0.2574	0.1829		7.10	10.0	-29.0	20.0
1,1'-Biphenyl	Ave	1.604	1.636	0.0100	10.2	10.0	2.0	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5387	0.5534		10.3	10.0	2.7	20.0
2-Chloronaphthalene	Ave	1.146	1.176	0.8000	10.3	10.0	2.7	20.0
2-Nitroaniline	Ave	0.4598	0.4276	0.0100	9.30	10.0	-7.0	20.0
Dimethyl phthalate	Ave	1.322	1.371	0.0100	10.4	10.0	3.7	20.0
2,6-Dinitrotoluene	Ave	0.2888	0.3172		11.0	10.0	9.8	20.0
1,2-Dinitrobenzene	Ave	0.1448	0.1626		11.2	10.0	12.3	20.0
Acenaphthylene	Ave	1.897	1.986	0.9000	10.5	10.0	4.7	20.0
3-Nitroaniline	Ave	0.3397	0.3660	0.0100	10.8	10.0	7.7	20.0
2,4-Dinitrophenol	Qua		0.2560	0.0100	21.0	20.0	5.0	20.0
Acenaphthene	Ave	1.231	1.250	0.9000	10.1	10.0	1.5	20.0
4-Nitrophenol	Ave	0.2007	0.1965		9.79	10.0	-2.1	20.0
2,4-Dinitrotoluene	Ave	0.3940	0.4263	0.2000	10.8	10.0	8.2	20.0
Dibenzofuran	Ave	1.658	1.660	0.8000	10.0	10.0	0.1	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3217	0.3159		9.82	10.0	-1.8	20.0
Diethyl phthalate	Ave	1.376	1.414	0.0100	10.3	10.0	2.8	20.0
4-Chlorophenyl phenyl ether	Ave	0.6355	0.6680	0.4000	10.5	10.0	5.1	20.0
Fluorene	Ave	1.392	1.436	0.9000	10.3	10.0	3.2	20.0
4-Nitroaniline	Ave	0.3758	0.4044	0.0100	10.8	10.0	7.6	20.0
4,6-Dinitro-2-methylphenol	Qua		0.1605	0.0100	10.6	10.0	6.0	20.0
N-Nitrosodiphenylamine	Ave	0.5818	0.6094	0.0100	10.5	10.0	4.7	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.8778	0.8496		9.68	10.0	-3.2	20.0
Azobenzene	Ave	0.8778	0.8498		9.68	10.0	-3.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2073	0.2178	0.1000	10.5	10.0	5.1	20.0
Hexachlorobenzene	Ave	0.2080	0.2144	0.1000	10.3	10.0	3.1	20.0
Atrazine	Ave	0.2123	0.2199	0.0100	10.4	10.0	3.6	20.0
Pentachlorophenol	Ave	0.1429	0.1424	0.0500	19.9	20.0	-0.4	20.0
Phenanthrene	Ave	1.176	1.195	0.7000	10.2	10.0	1.7	20.0
Anthracene	Ave	1.186	1.229	0.7000	10.4	10.0	3.6	20.0
Carbazole	Ave	1.083	1.139	0.0100	10.5	10.0	5.1	20.0
Di-n-butyl phthalate	Ave	1.342	1.407	0.0100	10.5	10.0	4.8	20.0
Fluoranthene	Ave	1.211	1.269	0.6000	10.5	10.0	4.8	20.0
Benzidine	Ave	0.6571	0.7258		11.0	10.0	10.5	20.0
Pyrene	Ave	1.141	1.189	0.6000	10.4	10.0	4.2	20.0
Butyl benzyl phthalate	Ave	0.5787	0.5902	0.0100	10.2	10.0	2.0	20.0
3,3'-Dimethoxybenzidine	Ave	0.2416	0.2969		12.3	10.0	22.9*	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7514	0.8261	0.0100	11.0	10.0	9.9	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2172	0.2382		11.0	10.0	9.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-8375/2 Calibration Date: 07/14/2011 09:03

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0714002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4175	0.4593	0.0100	11.0	10.0	10.0	20.0
Benzo[a]anthracene	Ave	1.116	1.156	0.8000	10.4	10.0	3.6	20.0
Chrysene	Ave	1.063	1.136	0.7000	10.7	10.0	6.9	20.0
Di-n-octyl phthalate	Ave	1.472	1.603	0.0100	10.9	10.0	8.9	20.0
Benzo[b]fluoranthene	Ave	1.288	1.444	0.7000	11.2	10.0	12.1	20.0
Benzo[k]fluoranthene	Ave	1.289	1.316	0.7000	10.2	10.0	2.1	20.0
Benzo[a]pyrene	Ave	1.178	1.255	0.7000	10.7	10.0	6.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.287	1.412	0.5000	11.0	10.0	9.7	20.0
Dibenzo(a,h)anthracene	Ave	1.090	1.207	0.4000	11.1	10.0	10.7	20.0
Benzo[g,h,i]perylene	Ave	1.057	1.156	0.5000	10.9	10.0	9.3	20.0
2-Fluorophenol (Surr)	Ave	1.189	1.248		10.5	10.0	5.0	20.0
Phenol-d5 (Surr)	Ave	1.659	1.709		10.3	10.0	3.0	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4430	0.3955		8.93	10.0	-10.7	20.0
2-Fluorobiphenyl (Surr)	Ave	1.327	1.360		10.2	10.0	2.5	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1549	0.1513		9.77	10.0	-2.3	20.0
Terphenyl-d14 (Surr)	Ave	0.6942	0.7369		10.6	10.0	6.1	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab File ID: 0714039.D Lab Sample ID: MB 240-6980/18-A

Matrix: Solid Date Extracted: 07/02/2011 08:19

Instrument ID: A4HP7 Date Analyzed: 07/14/2011 10:52

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-6980/19-A	0714007.D	07/14/2011 10:34
G-SP-SB-119-0-2 RE	240-635-7 RE	0714029.D	07/14/2011 16:20

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6980/18-A

Matrix: Solid | Lab File ID: 0714039.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/02/2011 08:19

Sample wt/vol: 30.00(g) | Date Analyzed: 07/14/2011 10:52

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	50	U	50	27
123-91-1	1,4-Dioxane	100	U	100	22
88-06-2	2,4,6-Trichlorophenol	150	U	150	80
95-95-4	2,4,5-Trichlorophenol	150	U	150	25
120-83-2	2,4-Dichlorophenol	150	U	150	20
105-67-9	2,4-Dimethylphenol	150	U	150	20
51-28-5	2,4-Dinitrophenol	330	U	330	80
121-14-2	2,4-Dinitrotoluene	200	U	200	27
91-58-7	2-Chloronaphthalene	50	U	50	3.3
95-57-8	2-Chlorophenol	50	U	50	27
91-57-6	2-Methylnaphthalene	6.7	U	6.7	3.3
95-48-7	2-Methylphenol	200	U	200	80
88-74-4	2-Nitroaniline	200	U	200	9.1
88-75-5	2-Nitrophenol	50	U	50	27
15831-10-4	3 & 4 Methylphenol	400	U	400	20
91-94-1	3,3'-Dichlorobenzidine	100	U	100	18
99-09-2	3-Nitroaniline	200	U	200	16
534-52-1	4,6-Dinitro-2-methylphenol	150	U	150	80
101-55-3	4-Bromophenyl phenyl ether	50	U	50	13
59-50-7	4-Chloro-3-methylphenol	150	U	150	21
106-47-8	4-Chloroaniline	150	U	150	17
7005-72-3	4-Chlorophenyl phenyl ether	50	U	50	13
100-01-6	4-Nitroaniline	200	U	200	26
83-32-9	Acenaphthene	6.7	U	6.7	3.3
208-96-8	Acenaphthylene	6.7	U	6.7	3.3
98-86-2	Acetophenone	100	U	100	9.2
120-12-7	Anthracene	6.7	U	6.7	3.3
1912-24-9	Atrazine	200	U	200	9.1
100-52-7	Benzaldehyde	100	U	100	12
56-55-3	Benzo[a]anthracene	6.7	U	6.7	3.3
50-32-8	Benzo[a]pyrene	6.7	U	6.7	3.3
205-99-2	Benzo[b]fluoranthene	6.7	U	6.7	3.3
191-24-2	Benzo[g,h,i]perylene	6.7	U	6.7	3.3
207-08-9	Benzo[k]fluoranthene	6.7	U	6.7	3.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6980/18-A

Matrix: Solid | Lab File ID: 0714039.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/02/2011 08:19

Sample wt/vol: 30.00(g) | Date Analyzed: 07/14/2011 10:52

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	100	U	100	22
111-44-4	Bis(2-chloroethyl)ether	100	U	100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	50	U	50	19
85-68-7	Butyl benzyl phthalate	50	U	50	10
105-60-2	Caprolactam	330	U	330	37
86-74-8	Carbazole	50	U	50	27
218-01-9	Chrysene	6.7	U	6.7	1.1
84-74-2	Di-n-butyl phthalate	19.5	J	50	15
117-84-0	Di-n-octyl phthalate	50	U	50	27
53-70-3	Dibenzo(a,h)anthracene	6.7	U	6.7	3.3
132-64-9	Dibenzofuran	50	U	50	3.3
84-66-2	Diethyl phthalate	50	U	50	16
131-11-3	Dimethyl phthalate	50	U	50	17
206-44-0	Fluoranthene	6.7	U	6.7	3.3
86-73-7	Fluorene	6.7	U	6.7	3.3
118-74-1	Hexachlorobenzene	6.7	U	6.7	2.1
87-68-3	Hexachlorobutadiene	50	U	50	27
77-47-4	Hexachlorocyclopentadiene	330	U	330	27
67-72-1	Hexachloroethane	50	U	50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	6.7	U	6.7	3.3
78-59-1	Isophorone	50	U	50	13
621-64-7	N-Nitrosodi-n-propylamine	50	U	50	27
62-75-9	N-Nitrosodimethylamine	100	U	100	16
86-30-6	N-Nitrosodiphenylamine	50	U	50	21
91-20-3	Naphthalene	6.7	U	6.7	3.3
98-95-3	Nitrobenzene	100	U	100	2.2
87-86-5	Pentachlorophenol	150	U	150	80
85-01-8	Phenanthrene	6.7	U	6.7	3.3
108-95-2	Phenol	50	U	50	27
129-00-0	Pyrene	6.7	U	6.7	3.3
108-60-1	2,2'-oxybis[1-chloropropane]	100	U	100	9.5
606-20-2	2,6-Dinitrotoluene	200	U	200	21
100-02-7	4-Nitrophenol	330	U	330	80

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-6980/18-A

Matrix: Solid | Lab File ID: 0714039.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/02/2011 08:19

Sample wt/vol: 30.00(g) | Date Analyzed: 07/14/2011 10:52

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	71		41-119
4165-62-2	Phenol-d5 (Surr)	56		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	46		24-112
367-12-4	2-Fluorophenol (Surr)	60		26-110
321-60-8	2-Fluorobiphenyl (Surr)	49		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	46		10-118

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP	#	PHL	#	NBZ	#	FBP	#	TBP	#	TPH	#
G-SP-SB-115-0-2	240-635-1	59		60		51		63		56		77	
G-SP-SB-115-10-12	240-635-2	61		63		49		61		67		85	
G-SP-SB-115-18-20	240-635-3	67		64		57		60		74		79	
G-SP-SB-117-0-2	240-635-4	62		66		49		61		54		82	
G-SP-SB-117-6-8	240-635-5	69		63		61		64		55		76	
G-SP-SB-117-20-22	240-635-6	64		62		62		65		32		79	
G-SP-SB-119-0-2	240-635-7	7	X	6	X	6	X	6	X	4	X	9	X
G-SP-SB-119-0-2 RE	240-635-7 RE	50		53		38		47		46		56	
G-SP-SB-119-6-8	240-635-8	14	X	16	X	11	X	12	X	6	X	14	X
G-SP-SB-119-6-8 RE	240-635-8 RE	58		60		44		50		43		61	
G-SP-SB-119-20-22	240-635-9	66		61		54		60		49		76	
G-SP-SB-118-0-2	240-635-10	64		59		50		60		46		79	
G-SP-SB-118-6-8	240-635-11	69		60		59		63		65		76	
G-SP-SB-118-20-22	240-635-12	63		56		53		53		49		68	
G-SP-SB-121-0-3	240-635-16	67		63		57		69		55		81	
G-SP-SB-121-6-8	240-635-17	54		72		46		58		0	X	70	
G-SP-SB-121-18-20	240-635-18	69		62		61		64		45		80	
G-SP-SB-120-0-2	240-635-19	69		65		52		67		59		90	
G-SP-SB-120-6-8	240-635-20	66		67		55		60		47		82	
G-SP-SB-120-18-20	240-635-21	41		34		46		62		0	X	87	
G-SP-SB-122-0-2	240-635-22	64		65		52		64		44		84	
G-SP-SB-122-6-8	240-635-23	69		63		54		57		67		81	
G-SP-SB-122-20-22	240-635-24	50		45		37		38		40		63	
G-SP-SB-129-0-2	240-635-25	57		51		45		48		44		66	
G-SP-SB-129-6-8	240-635-26	60		53		47		49		41		68	
G-SP-SB-129-20-22	240-635-27	64		58		47		51		43		65	
	MB 240-3689/1-A	65		63		56		59		56		88	
	MB 240-4007/1-A	60		50		44		52		51		75	
	MB 240-6980/18-A	60		56		46		49		46		71	
	MB 240-7865/4-A	66		65		59		55		50		77	
	LCS 240-3689/2-A	70		70		65		66		65		81	
	LCS 240-4007/2-A	58		56		51		54		67		75	
	LCS 240-6980/19-A	65		63		52		57		53		74	
	LCS 240-7865/5-A	60		62		49		50		35		62	

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	26-110
PHL = Phenol-d5 (Surr)	28-110
NBZ = Nitrobenzene-d5 (Surr)	24-112
FBP = 2-Fluorobiphenyl (Surr)	34-110
TBP = 2,4,6-Tribromophenol (Surr)	10-118
TPH = Terphenyl-d14 (Surr)	41-119

Column to be used to flag recovery values

FORM II 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP	#	PHL	#	NBZ	#	FBP	#	TBP	#	TPH	#
G-SP-SB-115-0-2 MS	240-635-1 MS	58		68		50		50		36		59	
G-SP-SB-119-6-8 MS	240-635-8 MS	67		68		55		55		50		66	
G-SP-SB-115-0-2 MSD	240-635-1 MSD	52		57		47		53		46		67	
G-SP-SB-119-6-8 MSD	240-635-8 MSD	74		73		57		54		51		69	

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	26-110
PHL = Phenol-d5 (Surr)	28-110
NBZ = Nitrobenzene-d5 (Surr)	24-112
FBP = 2-Fluorobiphenyl (Surr)	34-110
TBP = 2,4,6-Tribromophenol (Surr)	10-118
TPH = Terphenyl-d14 (Surr)	41-119

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: LCS3689.D

Lab ID: LCS 240-3689/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	667	463	69	50-130	
1,4-Dioxane	667	236	35	10-110	
2,4,6-Trichlorophenol	667	463	69	37-110	
2,4,5-Trichlorophenol	667	473	71	42-110	
2,4-Dichlorophenol	667	481	72	40-110	
2,4-Dimethylphenol	667	249	37	28-110	
2,4-Dinitrophenol	667	324 J	49	10-110	
2,4-Dinitrotoluene	667	523	78	55-116	
2-Chloronaphthalene	667	469	70	46-110	
2-Chlorophenol	667	459	69	39-110	
2-Methylnaphthalene	667	543	81	46-110	
2-Methylphenol	667	441	66	36-110	
2-Nitroaniline	667	473	71	47-124	
2-Nitrophenol	667	460	69	35-110	
3 & 4 Methylphenol	1330	893	67	40-110	
3,3'-Dichlorobenzidine	667	192	29	31-110	*
3-Nitroaniline	667	381	57	44-110	
4,6-Dinitro-2-methylphenol	667	453	68	21-110	
4-Bromophenyl phenyl ether	667	485	73	53-112	
4-Chloro-3-methylphenol	667	459	69	42-110	
4-Chloroaniline	667	193	29	25-110	
4-Chlorophenyl phenyl ether	667	491	74	53-110	
4-Nitroaniline	667	438	66	50-110	
Acenaphthene	667	458	69	46-110	
Acenaphthylene	667	466	70	47-110	
Acetophenone	667	467	70	50-130	
Anthracene	667	481	72	56-111	
Atrazine	667	539	81	50-130	
Benzaldehyde	667	561	84	10-130	
Benzo[a]anthracene	667	547	82	58-111	
Benzo[a]pyrene	667	435	65	44-115	
Benzo[b]fluoranthene	667	581	87	43-124	
Benzo[g,h,i]perylene	667	515	77	44-120	
Benzo[k]fluoranthene	667	395	59	38-122	
Bis(2-chloroethoxy)methane	667	454	68	42-110	
Bis(2-chloroethyl)ether	667	503	75	41-110	
Bis(2-ethylhexyl) phthalate	667	510	76	56-123	
Butyl benzyl phthalate	667	499	75	57-121	
Caprolactam	667	133 J	20	50-130	*
Carbazole	667	484	73	56-115	
Chrysene	667	439	66	56-111	
Di-n-butyl phthalate	667	527	79	57-119	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: LCS3689.D

Lab ID: LCS 240-3689/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	667	501	75	45-123	
Dibenzo(a,h)anthracene	667	511	77	45-122	
Dibenzofuran	667	475	71	50-110	
Diethyl phthalate	667	494	74	55-114	
Dimethyl phthalate	667	487	73	54-112	
Fluoranthene	667	507	76	55-118	
Fluorene	667	463	69	51-110	
Hexachlorobenzene	667	491	74	51-110	
Hexachlorobutadiene	667	465	70	39-110	
Hexachlorocyclopentadiene	667	366	55	10-110	
Hexachloroethane	667	442	66	38-110	
Indeno[1,2,3-cd]pyrene	667	510	76	45-121	
Isophorone	667	439	66	46-117	
N-Nitrosodi-n-propylamine	667	461	69	40-114	
N-Nitrosodimethylamine	667	429	64	10-130	
N-Nitrosodiphenylamine	667	460	69	54-112	
Naphthalene	667	454	68	42-110	
Nitrobenzene	667	447	67	40-110	
Pentachlorophenol	667	369	55	10-110	
Phenanthrene	667	477	71	54-110	
Phenol	667	467	70	39-110	
Pyrene	667	480	72	58-113	
2,2'-oxybis[1-chloropropane]	667	469	70	36-116	
2,6-Dinitrotoluene	667	532	80	54-115	
4-Nitrophenol	667	444	67	24-117	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0621007.D

Lab ID: LCS 240-4007/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	667	356	53	50-130	
1,4-Dioxane	667	178	27	10-110	
2,4,6-Trichlorophenol	667	393	59	37-110	
2,4,5-Trichlorophenol	667	449	67	42-110	
2,4-Dichlorophenol	667	389	58	40-110	
2,4-Dimethylphenol	667	276	41	28-110	
2,4-Dinitrophenol	667	378	57	10-110	
2,4-Dinitrotoluene	667	493	74	55-116	
2-Chloronaphthalene	667	373	56	46-110	
2-Chlorophenol	667	364	55	39-110	
2-Methylnaphthalene	667	435	65	46-110	
2-Methylphenol	667	374	56	36-110	
2-Nitroaniline	667	449	67	47-124	
2-Nitrophenol	667	345	52	35-110	
3 & 4 Methylphenol	1330	787	59	40-110	
3,3'-Dichlorobenzidine	667	303	45	31-110	
3-Nitroaniline	667	420	63	44-110	
4,6-Dinitro-2-methylphenol	667	471	71	21-110	
4-Bromophenyl phenyl ether	667	451	68	53-112	
4-Chloro-3-methylphenol	667	451	68	42-110	
4-Chloroaniline	667	314	47	25-110	
4-Chlorophenyl phenyl ether	667	449	67	53-110	
4-Nitroaniline	667	424	64	50-110	
Acenaphthene	667	387	58	46-110	
Acenaphthylene	667	395	59	47-110	
Acetophenone	667	353	53	50-130	
Anthracene	667	464	70	56-111	
Atrazine	667	512	77	50-130	
Benzaldehyde	667	388	58	10-130	
Benzo[a]anthracene	667	452	68	58-111	
Benzo[a]pyrene	667	419	63	44-115	
Benzo[b]fluoranthene	667	438	66	43-124	
Benzo[g,h,i]perylene	667	485	73	44-120	
Benzo[k]fluoranthene	667	513	77	38-122	
Bis(2-chloroethoxy)methane	667	369	55	42-110	
Bis(2-chloroethyl)ether	667	402	60	41-110	
Bis(2-ethylhexyl) phthalate	667	507	76	56-123	
Butyl benzyl phthalate	667	487	73	57-121	
Caprolactam	667	493	74	50-130	
Carbazole	667	457	68	56-115	
Chrysene	667	469	70	56-111	
Di-n-butyl phthalate	667	508	76	57-119	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0621007.D

Lab ID: LCS 240-4007/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	667	469	70	45-123	
Dibenzo(a,h)anthracene	667	481	72	45-122	
Dibenzofuran	667	417	63	50-110	
Diethyl phthalate	667	477	71	55-114	
Dimethyl phthalate	667	454	68	54-112	
Fluoranthene	667	497	74	55-118	
Fluorene	667	424	64	51-110	
Hexachlorobenzene	667	451	68	51-110	
Hexachlorobutadiene	667	340	51	39-110	
Hexachlorocyclopentadiene	667	313 J	47	10-110	
Hexachloroethane	667	326	49	38-110	
Indeno[1,2,3-cd]pyrene	667	476	71	45-121	
Isophorone	667	374	56	46-117	
N-Nitrosodi-n-propylamine	667	382	57	40-114	
N-Nitrosodimethylamine	667	348	52	10-130	
N-Nitrosodiphenylamine	667	456	68	54-112	
Naphthalene	667	351	53	42-110	
Nitrobenzene	667	361	54	40-110	
Pentachlorophenol	667	444	67	10-110	
Phenanthrene	667	455	68	54-110	
Phenol	667	377	57	39-110	
Pyrene	667	457	68	58-113	
2,2'-oxybis[1-chloropropane]	667	376	56	36-116	
2,6-Dinitrotoluene	667	487	73	54-115	
4-Nitrophenol	667	459	69	24-117	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0714007.D

Lab ID: LCS 240-6980/19-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	667	360	54	50-130	
1,4-Dioxane	667	222	33	10-110	
2,4,6-Trichlorophenol	667	365	55	37-110	
2,4,5-Trichlorophenol	667	413	62	42-110	
2,4-Dichlorophenol	667	417	62	40-110	
2,4-Dimethylphenol	667	313	47	28-110	
2,4-Dinitrophenol	667	338	51	10-110	
2,4-Dinitrotoluene	667	488	73	55-116	
2-Chloronaphthalene	667	386	58	46-110	
2-Chlorophenol	667	399	60	39-110	
2-Methylnaphthalene	667	472	71	46-110	
2-Methylphenol	667	492	74	36-110	
2-Nitroaniline	667	391	59	47-124	
2-Nitrophenol	667	397	59	35-110	
3 & 4 Methylphenol	1330	847	64	40-110	
3,3'-Dichlorobenzidine	667	289	43	31-110	
3-Nitroaniline	667	397	60	44-110	
4,6-Dinitro-2-methylphenol	667	429	64	21-110	
4-Bromophenyl phenyl ether	667	445	67	53-112	
4-Chloro-3-methylphenol	667	427	64	42-110	
4-Chloroaniline	667	320	48	25-110	
4-Chlorophenyl phenyl ether	667	441	66	53-110	
4-Nitroaniline	667	414	62	50-110	
Acenaphthene	667	385	58	46-110	
Acenaphthylene	667	404	61	47-110	
Acetophenone	667	380	57	50-130	
Anthracene	667	432	65	56-111	
Atrazine	667	486	73	50-130	
Benzaldehyde	667	415	62	10-130	
Benzo[a]anthracene	667	456	68	58-111	
Benzo[a]pyrene	667	393	59	44-115	
Benzo[b]fluoranthene	667	423	63	43-124	
Benzo[g,h,i]perylene	667	485	73	44-120	
Benzo[k]fluoranthene	667	480	72	38-122	
Bis(2-chloroethoxy)methane	667	387	58	42-110	
Bis(2-chloroethyl)ether	667	414	62	41-110	
Bis(2-ethylhexyl) phthalate	667	487	73	56-123	
Butyl benzyl phthalate	667	415	62	57-121	
Caprolactam	667	513	77	50-130	
Carbazole	667	435	65	56-115	
Chrysene	667	448	67	56-111	
Di-n-butyl phthalate	667	472	71	57-119	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0714007.D

Lab ID: LCS 240-6980/19-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	667	461	69	45-123	
Dibenzo(a,h)anthracene	667	477	72	45-122	
Dibenzofuran	667	410	61	50-110	
Diethyl phthalate	667	447	67	55-114	
Dimethyl phthalate	667	443	66	54-112	
Fluoranthene	667	455	68	55-118	
Fluorene	667	416	62	51-110	
Hexachlorobenzene	667	436	65	51-110	
Hexachlorobutadiene	667	382	57	39-110	
Hexachlorocyclopentadiene	667	276 J	41	10-110	
Hexachloroethane	667	353	53	38-110	
Indeno[1,2,3-cd]pyrene	667	477	72	45-121	
Isophorone	667	371	56	46-117	
N-Nitrosodi-n-propylamine	667	371	56	40-114	
N-Nitrosodimethylamine	667	392	59	10-130	
N-Nitrosodiphenylamine	667	425	64	54-112	
Naphthalene	667	380	57	42-110	
Nitrobenzene	667	367	55	40-110	
Pentachlorophenol	667	244	37	10-110	
Phenanthrene	667	425	64	54-110	
Phenol	667	418	63	39-110	
Pyrene	667	437	65	58-113	
2,2'-oxybis[1-chloropropane]	667	340	51	36-116	
2,6-Dinitrotoluene	667	494	74	54-115	
4-Nitrophenol	667	389	58	24-117	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: LCS7865.D

Lab ID: LCS 240-7865/5-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	667	313	47	50-130	*
1,4-Dioxane	667	149	22	10-110	
2,4,6-Trichlorophenol	667	232	35	37-110	*
2,4,5-Trichlorophenol	667	349	52	42-110	
2,4-Dichlorophenol	667	355	53	40-110	
2,4-Dimethylphenol	667	360	54	28-110	
2,4-Dinitrophenol	667	330 U	7	10-110	*
2,4-Dinitrotoluene	667	398	60	55-116	
2-Chloronaphthalene	667	333	50	46-110	
2-Chlorophenol	667	384	58	39-110	
2-Methylnaphthalene	667	363	54	46-110	
2-Methylphenol	667	413	62	36-110	
2-Nitroaniline	667	388	58	47-124	
2-Nitrophenol	667	295	44	35-110	
3 & 4 Methylphenol	1330	787	59	40-110	
3,3'-Dichlorobenzidine	667	246	37	31-110	
3-Nitroaniline	667	354	53	44-110	
4,6-Dinitro-2-methylphenol	667	134 J	20	21-110	*
4-Bromophenyl phenyl ether	667	363	54	53-112	
4-Chloro-3-methylphenol	667	357	54	42-110	
4-Chloroaniline	667	305	46	25-110	
4-Chlorophenyl phenyl ether	667	363	54	53-110	
4-Nitroaniline	667	335	50	50-110	
Acenaphthene	667	334	50	46-110	
Acenaphthylene	667	355	53	47-110	
Acetophenone	667	364	55	50-130	
Anthracene	667	375	56	56-111	
Atrazine	667	423	63	50-130	
Benzaldehyde	667	350	52	10-130	
Benzo[a]anthracene	667	363	54	58-111	*
Benzo[a]pyrene	667	336	50	44-115	
Benzo[b]fluoranthene	667	351	53	43-124	
Benzo[g,h,i]perylene	667	405	61	44-120	
Benzo[k]fluoranthene	667	401	60	38-122	
Bis(2-chloroethoxy)methane	667	390	58	42-110	
Bis(2-chloroethyl)ether	667	343	51	41-110	
Bis(2-ethylhexyl) phthalate	667	393	59	56-123	
Butyl benzyl phthalate	667	380	57	57-121	
Caprolactam	667	214 J	32	50-130	*
Carbazole	667	380	57	56-115	
Chrysene	667	369	55	56-111	*
Di-n-butyl phthalate	667	413	62	57-119	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: LCS7865.D

Lab ID: LCS 240-7865/5-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	667	367	55	45-123	
Dibenzo(a,h)anthracene	667	373	56	45-122	
Dibenzofuran	667	363	54	50-110	
Diethyl phthalate	667	383	57	55-114	
Dimethyl phthalate	667	387	58	54-112	
Fluoranthene	667	379	57	55-118	
Fluorene	667	363	54	51-110	
Hexachlorobenzene	667	350	52	51-110	
Hexachlorobutadiene	667	141	21	39-110	*
Hexachlorocyclopentadiene	667	115 J	17	10-110	
Hexachloroethane	667	112	17	38-110	*
Indeno[1,2,3-cd]pyrene	667	382	57	45-121	
Isophorone	667	370	55	46-117	
N-Nitrosodi-n-propylamine	667	385	58	40-114	
N-Nitrosodimethylamine	667	296	44	10-130	
N-Nitrosodiphenylamine	667	361	54	54-112	
Naphthalene	667	283	42	42-110	
Nitrobenzene	667	350	52	40-110	
Pentachlorophenol	667	229	34	10-110	
Phenanthrene	667	359	54	54-110	
Phenol	667	429	64	39-110	
Pyrene	667	369	55	58-113	*
2,2'-oxybis[1-chloropropane]	667	328	49	36-116	
2,6-Dinitrotoluene	667	395	59	54-115	
4-Nitrophenol	667	122 J	18	24-117	*

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 635F1BS.D

Lab ID: 240-635-1 MS Client ID: G-SP-SB-115-0-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1'-Biphenyl	831	120 U	758	91	50-130	
1,4-Dioxane	831	250 U	186 J	22	10-110	
2,4,6-Trichlorophenol	831	370 U	251 J	30	22-110	
2,4,5-Trichlorophenol	831	370 U	387	47	32-112	
2,4-Dichlorophenol	831	370 U	426	51	33-110	
2,4-Dimethylphenol	831	370 U	514	62	19-114	
2,4-Dinitrophenol	831	820 U	820 U	0	10-110	F
2,4-Dinitrotoluene	831	500 U	487 J	59	42-118	
2-Chloronaphthalene	831	120 U	467	56	40-110	
2-Chlorophenol	831	120 U	505	61	32-110	
2-Methylnaphthalene	831	400	1660	152	10-200	
2-Methylphenol	831	500 U	844	102	19-124	
2-Nitroaniline	831	500 U	537	65	31-141	
2-Nitrophenol	831	120 U	441	53	17-110	
3 & 4 Methylphenol	1660	990 U	1140	68	27-116	
3,3'-Dichlorobenzidine	831	250 U	250 U	0	10-110	F
3-Nitroaniline	831	500 U	495 J	60	24-110	
4,6-Dinitro-2-methylphenol	831	370 U	370 U	0	10-110	F
4-Bromophenyl phenyl ether	831	120 U	479	58	44-120	
4-Chloro-3-methylphenol	831	370 U	370 U	0	32-117	F
4-Chloroaniline	831	370 U	309 J	37	11-110	
4-Chlorophenyl phenyl ether	831	120 U	497	60	47-116	
4-Nitroaniline	831	500 U	524	63	23-124	
Acenaphthene	831	230	1360	135	10-200	
Acenaphthylene	831	73	618	66	10-200	
Acetophenone	831	250 U	509	61	50-130	
Anthracene	831	570	2710	257	10-200	F
Atrazine	831	500 U	500	60	50-130	
Benzaldehyde	831	250 U	475	57	10-130	
Benzo[a]anthracene	831	740	2940	265	10-200	F
Benzo[a]pyrene	831	680	2210	185	10-200	
Benzo[b]fluoranthene	831	710	2040	160	10-200	
Benzo[g,h,i]perylene	831	360	1350	119	10-200	
Benzo[k]fluoranthene	831	300	981	82	10-200	
Bis(2-chloroethoxy)methane	831	250 U	517	62	36-110	
Bis(2-chloroethyl)ether	831	250 U	830	100	32-118	
Bis(2-ethylhexyl) phthalate	831	59 J	507	54	10-200	
Butyl benzyl phthalate	831	120 U	452	54	43-138	
Caprolactam	831	820 U	625 J	75	50-130	
Carbazole	831	120 U	605	73	10-162	
Chrysene	831	790	2580	215	10-200	F
Di-n-butyl phthalate	831	120 U	492	59	31-145	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 635F1BS.D

Lab ID: 240-635-1 MS Client ID: G-SP-SB-115-0-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	831	120 U	475	57	10-182	
Dibenzo(a,h)anthracene	831	140	703	68	10-200	
Dibenzofuran	831	73 J	745	81	10-200	
Diethyl phthalate	831	120 U	482	58	48-118	
Dimethyl phthalate	831	120 U	469	56	47-116	
Fluoranthene	831	1300	4790	415	10-200	E F
Fluorene	831	500	2430	232	10-187	F
Hexachlorobenzene	831	17 U	457	55	37-122	
Hexachlorobutadiene	831	120 U	455	55	30-110	
Hexachlorocyclopentadiene	831	820 U	820 U	0	10-110	F
Hexachloroethane	831	120 U	386	46	13-110	
Indeno[1,2,3-cd]pyrene	831	310	1230	110	10-200	
Isophorone	831	120 U	485	58	32-129	
N-Nitrosodi-n-propylamine	831	120 U	504	61	30-121	
N-Nitrosodimethylamine	832	250 U	391	47	10-130	
N-Nitrosodiphenylamine	831	120 U	825	99	10-169	
Naphthalene	831	450	1140	83	10-200	
Nitrobenzene	831	250 U	635	76	33-111	
Pentachlorophenol	831	370 U	370 U	0	10-182	F
Phenanthrene	831	2100	8790	803	10-200	E F
Phenol	831	120 U	550	66	10-144	
Pyrene	831	1700	5830	495	10-200	E F
2,2'-oxybis[1-chloropropane]	831	250 U	514	62	25-124	
2,6-Dinitrotoluene	831	500 U	467 J	56	28-137	
4-Nitrophenol	831	820 U	820 U	0	10-125	F

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 635F1CD.D

Lab ID: 240-635-1 MSD Client ID: G-SP-SB-115-0-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1'-Biphenyl	831	586	71	26	30	50-130	
1,4-Dioxane	831	168 J	20	10	30	10-110	
2,4,6-Trichlorophenol	831	364 J	44	37	30	22-110	F
2,4,5-Trichlorophenol	831	585	70	41	30	32-112	F
2,4-Dichlorophenol	831	485	58	13	30	33-110	
2,4-Dimethylphenol	831	517	62	1	30	19-114	
2,4-Dinitrophenol	831	820 U	0	NC	30	10-110	F
2,4-Dinitrotoluene	831	419 J	50	15	30	42-118	
2-Chloronaphthalene	831	503	61	7	30	40-110	
2-Chlorophenol	831	470	57	7	30	32-110	
2-Methylnaphthalene	831	1300	109	24	30	10-200	
2-Methylphenol	831	477 J	57	56	30	19-124	F
2-Nitroaniline	831	510	61	5	30	31-141	
2-Nitrophenol	831	427	51	3	30	17-110	
3 & 4 Methylphenol	1660	975 J	59	15	30	27-116	
3,3'-Dichlorobenzidine	831	259	31	NC	30	10-110	
3-Nitroaniline	831	434 J	52	13	30	24-110	
4,6-Dinitro-2-methylphenol	831	370 U	0	NC	30	10-110	F
4-Bromophenyl phenyl ether	831	512	62	7	30	44-120	
4-Chloro-3-methylphenol	831	552	66	NC	30	32-117	
4-Chloroaniline	831	299 J	36	3	30	11-110	
4-Chlorophenyl phenyl ether	831	537	65	8	30	47-116	
4-Nitroaniline	831	542	65	3	30	23-124	
Acenaphthene	831	866	76	44	30	10-200	F
Acenaphthylene	831	590	62	5	30	10-200	
Acetophenone	831	468	56	8	30	50-130	
Anthracene	831	1230	80	75	30	10-200	F
Atrazine	831	538	65	7	30	50-130	
Benzaldehyde	831	432	52	10	30	10-130	
Benzo[a]anthracene	831	1410	80	71	30	10-200	F
Benzo[a]pyrene	831	1320	78	50	30	10-200	F
Benzo[b]fluoranthene	831	1180	56	53	30	10-200	F
Benzo[g,h,i]perylene	831	872	61	43	30	10-200	F
Benzo[k]fluoranthene	831	1120	99	13	30	10-200	
Bis(2-chloroethoxy)methane	831	467	56	10	30	36-110	
Bis(2-chloroethyl)ether	831	515	62	47	30	32-118	F
Bis(2-ethylhexyl) phthalate	831	555	60	9	30	10-200	
Butyl benzyl phthalate	831	532	64	16	30	43-138	
Caprolactam	831	746 J	90	18	30	50-130	
Carbazole	831	562	68	7	30	10-162	
Chrysene	831	1420	75	58	30	10-200	F
Di-n-butyl phthalate	831	535	64	8	30	31-145	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 635F1CD.D

Lab ID: 240-635-1 MSD Client ID: G-SP-SB-115-0-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Di-n-octyl phthalate	831	613	74	25	30	10-182	
Dibenzo(a,h)anthracene	831	660	63	6	30	10-200	
Dibenzofuran	831	608	64	20	30	10-200	
Diethyl phthalate	831	512	62	6	30	48-118	
Dimethyl phthalate	831	493	59	5	30	47-116	
Fluoranthene	831	2330	119	69	30	10-200	F
Fluorene	831	1190	83	69	30	10-187	F
Hexachlorobenzene	831	500	60	9	30	37-122	
Hexachlorobutadiene	831	463	56	2	30	30-110	
Hexachlorocyclopentadiene	831	820 U	0	NC	30	10-110	F
Hexachloroethane	831	297	36	26	30	13-110	
Indeno[1,2,3-cd]pyrene	831	856	66	36	30	10-200	F
Isophorone	831	395	48	20	30	32-129	
N-Nitrosodi-n-propylamine	831	463	56	8	30	30-121	
N-Nitrosodimethylamine	831	332	40	16	30	10-130	
N-Nitrosodiphenylamine	831	603	73	31	30	10-169	F
Naphthalene	831	1270	99	11	30	10-200	
Nitrobenzene	831	425	51	40	30	33-111	F
Pentachlorophenol	831	370 U	0	NC	30	10-182	F
Phenanthrene	831	3060	113	97	30	10-200	F
Phenol	831	462	56	17	30	10-144	
Pyrene	831	2720	121	73	30	10-200	F
2,2'-oxybis[1-chloropropane]	831	452	54	13	30	25-124	
2,6-Dinitrotoluene	831	520	63	11	30	28-137	
4-Nitrophenol	831	820 U	0	NC	30	10-125	F

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 635F8GS.D

Lab ID: 240-635-8 MS Client ID: G-SP-SB-119-6-8 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1'-Biphenyl	752	56 U	407	54	50-130	H
1,4-Dioxane	752	110 U	196	26	10-110	H
2,4,6-Trichlorophenol	752	170 U	395	52	22-110	H
2,4,5-Trichlorophenol	752	170 U	456	61	32-112	H
2,4-Dichlorophenol	752	170 U	486	65	33-110	H
2,4-Dimethylphenol	752	170 U	459	61	19-114	H
2,4-Dinitrophenol	752	370 U	370 U	0	10-110	H F
2,4-Dinitrotoluene	752	220 U	539	72	42-118	H
2-Chloronaphthalene	752	56 U	438	58	40-110	H
2-Chlorophenol	752	56 U	486	65	32-110	H
2-Methylnaphthalene	752	17	538	69	10-200	H
2-Methylphenol	752	220 U	497	66	19-124	H
2-Nitroaniline	752	220 U	502	67	31-141	H
2-Nitrophenol	752	56 U	416	55	17-110	H
3 & 4 Methylphenol	1500	450 U	993	66	27-116	H
3,3'-Dichlorobenzidine	752	110 U	254	34	10-110	H
3-Nitroaniline	752	220 U	477	63	24-110	H
4,6-Dinitro-2-methylphenol	752	170 U	123 J	16	10-110	H
4-Bromophenyl phenyl ether	752	56 U	458	61	44-120	H
4-Chloro-3-methylphenol	752	170 U	550	73	32-117	H
4-Chloroaniline	752	170 U	321	43	11-110	H
4-Chlorophenyl phenyl ether	752	56 U	472	63	47-116	H
4-Nitroaniline	752	220 U	398	53	23-124	H
Acenaphthene	752	50	471	56	10-200	H
Acenaphthylene	752	8.7	453	59	10-200	H
Acetophenone	752	110 U	468	62	50-130	H
Anthracene	752	94	515	56	10-200	H
Atrazine	752	220 U	520	69	50-130	H
Benzaldehyde	752	110 U	474	63	10-130	H
Benzo[a]anthracene	752	330	681	46	10-200	H
Benzo[a]pyrene	752	240	550	41	10-200	H
Benzo[b]fluoranthene	752	350	667	42	10-200	H
Benzo[g,h,i]perylene	752	170	563	52	10-200	H
Benzo[k]fluoranthene	752	160	549	52	10-200	H
Bis(2-chloroethoxy)methane	752	110 U	499	66	36-110	H
Bis(2-chloroethyl)ether	752	110 U	544	72	32-118	H
Bis(2-ethylhexyl) phthalate	752	31 J	548	69	10-200	H
Butyl benzyl phthalate	752	56 U	479	64	43-138	H
Caprolactam	752	370 U	311 J	41	50-130	H F
Carbazole	752	43 J	497	60	10-162	H
Chrysene	752	280	572	38	10-200	H
Di-n-butyl phthalate	752	56 U	502	67	31-145	H

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 635F8GS.D

Lab ID: 240-635-8 MS Client ID: G-SP-SB-119-6-8 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	752	56 U	529	70	10-182	H
Dibenzo(a,h)anthracene	752	46	456	54	10-200	H
Dibenzofuran	752	23 J	488	62	10-200	H
Diethyl phthalate	752	56 U	496	66	48-118	H
Dimethyl phthalate	752	56 U	465	62	47-116	H
Fluoranthene	752	600	812	28	10-200	H
Fluorene	752	49	513	62	10-187	H
Hexachlorobenzene	752	7.5 U	480	64	37-122	H
Hexachlorobutadiene	752	56 U	386	51	30-110	H
Hexachlorocyclopentadiene	752	370 U	370 U	0	10-110	H F
Hexachloroethane	752	56 U	290	38	13-110	H
Indeno[1,2,3-cd]pyrene	752	150	548	54	10-200	H
Isophorone	752	56 U	450	60	32-129	H
N-Nitrosodi-n-propylamine	752	56 U	465	62	30-121	H
N-Nitrosodimethylamine	753	110 U	359	48	10-130	H
N-Nitrosodiphenylamine	752	56 U	459	61	10-169	H
Naphthalene	752	19	438	56	10-200	H
Nitrobenzene	752	110 U	453	60	33-111	H
Pentachlorophenol	752	170 U	246	33	10-182	H
Phenanthrene	752	340	671	44	10-200	H
Phenol	752	56 U	526	70	10-144	H
Pyrene	752	530	702	23	10-200	H
2,2'-oxybis[1-chloropropane]	752	110 U	447	59	25-124	H
2,6-Dinitrotoluene	752	220 U	477	63	28-137	H
4-Nitrophenol	752	370 U	296 J	39	10-125	H

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 635F8HD.D

Lab ID: 240-635-8 MSD Client ID: G-SP-SB-119-6-8 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1'-Biphenyl	750	407	54	0	30	50-130	H
1,4-Dioxane	750	166	22	16	30	10-110	H
2,4,6-Trichlorophenol	750	413	55	5	30	22-110	H
2,4,5-Trichlorophenol	750	476	63	4	30	32-112	H
2,4-Dichlorophenol	750	511	68	5	30	33-110	H
2,4-Dimethylphenol	750	478	64	4	30	19-114	H
2,4-Dinitrophenol	750	161 J	21	NC	30	10-110	H
2,4-Dinitrotoluene	750	541	72	0	30	42-118	H
2-Chloronaphthalene	750	444	59	1	30	40-110	H
2-Chlorophenol	750	526	70	8	30	32-110	H
2-Methylnaphthalene	750	541	70	1	30	10-200	H
2-Methylphenol	750	526	70	6	30	19-124	H
2-Nitroaniline	750	535	71	6	30	31-141	H
2-Nitrophenol	750	430	57	3	30	17-110	H
3 & 4 Methylphenol	1500	1090	72	9	30	27-116	H
3,3'-Dichlorobenzidine	750	258	34	1	30	10-110	H
3-Nitroaniline	750	483	64	1	30	24-110	H
4,6-Dinitro-2-methylphenol	750	253	34	70	30	10-110	H F
4-Bromophenyl phenyl ether	750	465	62	2	30	44-120	H
4-Chloro-3-methylphenol	750	576	77	5	30	32-117	H
4-Chloroaniline	750	311	41	3	30	11-110	H
4-Chlorophenyl phenyl ether	750	499	67	6	30	47-116	H
4-Nitroaniline	750	487	65	20	30	23-124	H
Acenaphthene	750	490	59	4	30	10-200	H
Acenaphthylene	750	465	61	3	30	10-200	H
Acetophenone	750	511	68	9	30	50-130	H
Anthracene	750	576	64	11	30	10-200	H
Atrazine	750	532	71	2	30	50-130	H
Benzaldehyde	750	514	68	8	30	10-130	H
Benzo[a]anthracene	750	802	63	16	30	10-200	H
Benzo[a]pyrene	750	655	55	18	30	10-200	H
Benzo[b]fluoranthene	750	780	57	16	30	10-200	H
Benzo[g,h,i]perylene	750	664	65	16	30	10-200	H
Benzo[k]fluoranthene	750	645	65	16	30	10-200	H
Bis(2-chloroethoxy)methane	750	493	66	1	30	36-110	H
Bis(2-chloroethyl)ether	750	578	77	6	30	32-118	H
Bis(2-ethylhexyl) phthalate	750	520	65	5	30	10-200	H
Butyl benzyl phthalate	750	477	64	0	30	43-138	H
Caprolactam	750	445	59	35	30	50-130	H F
Carbazole	750	541	66	8	30	10-162	H
Chrysene	750	740	61	26	30	10-200	H
Di-n-butyl phthalate	750	488	65	3	30	31-145	H

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 635F8HD.D

Lab ID: 240-635-8 MSD Client ID: G-SP-SB-119-6-8 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Di-n-octyl phthalate	750	497	66	6	30	10-182	H
Dibenzo(a,h)anthracene	750	508	62	11	30	10-200	H
Dibenzofuran	750	499	63	2	30	10-200	H
Diethyl phthalate	750	477	64	4	30	48-118	H
Dimethyl phthalate	750	496	66	6	30	47-116	H
Fluoranthene	750	1160	75	35	30	10-200	H F
Fluorene	750	535	65	4	30	10-187	H
Hexachlorobenzene	750	480	64	0	30	37-122	H
Hexachlorobutadiene	750	390	52	1	30	30-110	H
Hexachlorocyclopentadiene	750	370 U	0	NC	30	10-110	H F
Hexachloroethane	750	325	43	12	30	13-110	H
Indeno[1,2,3-cd]pyrene	750	604	61	10	30	10-200	H
Isophorone	750	463	62	3	30	32-129	H
N-Nitrosodi-n-propylamine	750	511	68	10	30	30-121	H
N-Nitrosodimethylamine	751	458	61	24	30	10-130	H
N-Nitrosodiphenylamine	750	469	63	2	30	10-169	H
Naphthalene	750	442	56	1	30	10-200	H
Nitrobenzene	750	469	62	3	30	33-111	H
Pentachlorophenol	750	252	34	2	30	10-182	H
Phenanthrene	750	885	72	28	30	10-200	H
Phenol	750	577	77	9	30	10-144	H
Pyrene	750	982	60	33	30	10-200	H F
2,2'-oxybis[1-chloropropane]	750	484	65	8	30	25-124	H
2,6-Dinitrotoluene	750	518	69	8	30	28-137	H
4-Nitrophenol	750	346 J	46	16	30	10-125	H

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: STD6 240-5339/10 Date Analyzed: 06/20/2011 14:50

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0620010.D Heated Purge: (Y/N) N

Calibration ID: 1543

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		139127	3.60	534787	4.49	290803	5.76
UPPER LIMIT		278254	4.10	1069574	4.99	581606	6.26
LOWER LIMIT		69564	3.10	267394	3.99	145402	5.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-5339/13		79461	3.60	317300	4.49	180967	5.76
CCV 240-5481/2 CCVIS		161472	3.58	637864	4.47	356518	5.74
CCV 240-5481/5		151591	3.58	602285	4.47	339245	5.74

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: STD6 240-5339/10 Date Analyzed: 06/20/2011 14:50

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0620010.D Heated Purge: (Y/N) N

Calibration ID: 1543

	PHN		CRY		PRY	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	481625	6.85	544217	8.82	446537	10.28
UPPER LIMIT	963250	7.35	1088434	9.32	893074	10.78
LOWER LIMIT	240813	6.35	272109	8.32	223269	9.78
LAB SAMPLE ID CLIENT SAMPLE ID						
ICV 240-5339/13	312364	6.85	348922	8.83	283864	10.29
CCV 240-5481/2 CCVIS	599984	6.83	673284	8.80	558700	10.25
CCV 240-5481/5	604306	6.83	636724	8.80	530938	10.25

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-5481/2 Date Analyzed: 06/21/2011 11:02

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0621002.D Heated Purge: (Y/N) N

Calibration ID: 1547

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		161472	3.58	637864	4.47	356518	5.74
UPPER LIMIT		322944	4.08	1275728	4.97	713036	6.24
LOWER LIMIT		80736	3.08	318932	3.97	178259	5.24
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-4007/1-A		131167	3.58	525559	4.47	301282	5.74
LCS 240-4007/2-A		139392	3.58	575766	4.47	339886	5.74
240-635-23	G-SP-SB-122-6-8	159520	3.58	663257	4.47	415172	5.75
240-635-24	G-SP-SB-122-20-22	156710	3.58	648174	4.47	412245	5.75
240-635-26	G-SP-SB-129-6-8	155179	3.58	628412	4.47	398877	5.75
240-635-27	G-SP-SB-129-20-22	147730	3.58	651922	4.47	407648	5.74
240-635-25	G-SP-SB-129-0-2	137316	3.58	566044	4.47	365220	5.74

DCB = 1,4-Dichlorobenzene-d4
DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-5481/2 Date Analyzed: 06/21/2011 11:02

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0621002.D Heated Purge: (Y/N) N

Calibration ID: 1547

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		599984	6.83	673284	8.80	558700	10.25
UPPER LIMIT		1199968	7.33	1346568	9.30	1117400	10.75
LOWER LIMIT		299992	6.33	336642	8.30	279350	9.75
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-4007/1-A		525055	6.82	577023	8.80	471481	10.25
LCS 240-4007/2-A		581922	6.83	673002	8.80	550454	10.25
240-635-23	G-SP-SB-122-6-8	746868	6.83	782759	8.81	610228	10.27
240-635-24	G-SP-SB-122-20-22	742318	6.83	793833	8.81	623922	10.27
240-635-26	G-SP-SB-129-6-8	725356	6.83	760816	8.81	587917	10.27
240-635-27	G-SP-SB-129-20-22	727927	6.83	781599	8.81	608965	10.27
240-635-25	G-SP-SB-129-0-2	683860	6.83	745139	8.81	593630	10.26

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
Area Limit = 50%-200% of internal standard area
PRY = Perylene-d12
RT Limit = ± 0.5 minutes of internal standard RT
PRY = Perylene-d12

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: STD6 240-7270/10 Date Analyzed: 07/06/2011 12:10

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0706010.D Heated Purge: (Y/N) N

Calibration ID: 2192

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		135284	3.50	519115	4.38	302655	5.65
UPPER LIMIT		270568	4.00	1038230	4.88	605310	6.15
LOWER LIMIT		67642	3.00	259558	3.88	151328	5.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-7270/13		132432	3.50	504232	4.38	295963	5.65
CCV 240-8375/2 CCVIS		160873	3.33	624009	4.22	365620	5.48
CCV 240-8375/3		145619	3.33	574378	4.22	339413	5.48
CCV 240-8375/4		170423	3.33	654822	4.22	391151	5.48

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: STD6 240-7270/10 Date Analyzed: 07/06/2011 12:10

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0706010.D Heated Purge: (Y/N) N

Calibration ID: 2192

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		522651	6.73	615581	8.70	519509	10.08
UPPER LIMIT		1045302	7.23	1231162	9.20	1039018	10.58
LOWER LIMIT		261326	6.23	307791	8.20	259755	9.58
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-7270/13		508657	6.73	593946	8.70	495045	10.08
CCV 240-8375/2 CCVIS		630308	6.56	713485	8.52	617287	9.80
CCV 240-8375/3		594881	6.56	641899	8.53	565993	9.81
CCV 240-8375/4		665864	6.56	714442	8.51	646448	9.79

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-8375/2 Date Analyzed: 07/14/2011 09:03

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0714002.D Heated Purge: (Y/N) N

Calibration ID: 2200

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		160873	3.33	624009	4.22	365620	5.48
UPPER LIMIT		321746	3.83	1248018	4.72	731240	5.98
LOWER LIMIT		80437	2.83	312005	3.72	182810	4.98
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-6980/19-A		131368	3.32	513202	4.22	314330	5.48
MB 240-6980/18-A		135387	3.32	524036	4.22	316945	5.48
240-635-7 RE	G-SP-SB-119-0-2 RE	162454	3.32	667180	4.22	416819	5.48

DCB = 1,4-Dichlorobenzene-d4
DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-8375/2 Date Analyzed: 07/14/2011 09:03

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0714002.D Heated Purge: (Y/N) N

Calibration ID: 2200

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		630308	6.56	713485	8.52	617287	9.80
UPPER LIMIT		1260616	7.06	1426970	9.02	1234574	10.30
LOWER LIMIT		315154	6.06	356743	8.02	308644	9.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-6980/19-A		553841	6.56	619861	8.52	525746	9.80
MB 240-6980/18-A		564854	6.56	614319	8.51	539862	9.79
240-635-7 RE	G-SP-SB-119-0-2 RE	782368	6.56	974385	8.52	872724	9.82

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
Area Limit = 50%-200% of internal standard area
PRY = Perylene-d12
RT Limit = ± 0.5 minutes of internal standard RT
PRY = Perylene-d12

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: STD6 240-6131/5 Date Analyzed: 06/25/2011 10:53

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0625.D Heated Purge: (Y/N) N

Calibration ID: 1751

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		242103	3.88	910439	4.84	499782	6.14
UPPER LIMIT		484206	4.38	1820878	5.34	999564	6.64
LOWER LIMIT		121052	3.38	455220	4.34	249891	5.64
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-6131/11		287810	3.88	1092360	4.84	608484	6.14
CCV 240-6919/2 CCVIS		269096	3.85	1031305	4.81	563440	6.11
CCV 240-6919/3		250549	3.85	966722	4.81	555942	6.11
CCV 240-6612/2 CCVIS		282798	3.84	1093552	4.79	628758	6.09
CCV 240-6612/3		225159	3.83	849817	4.79	481126	6.09

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: STD6 240-6131/5 Date Analyzed: 06/25/2011 10:53

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0625.D Heated Purge: (Y/N) N

Calibration ID: 1751

	PHN		CRY		PRY	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	844551	7.22	850725	9.19	740756	10.59
UPPER LIMIT	1689102	7.72	1701450	9.69	1481512	11.09
LOWER LIMIT	422276	6.72	425363	8.69	370378	10.09
LAB SAMPLE ID CLIENT SAMPLE ID						
ICV 240-6131/11	1043532	7.23	1081344	9.19	918185	10.59
CCV 240-6919/2 CCVIS	962265	7.20	984163	9.18	852177	10.57
CCV 240-6919/3	962226	7.19	990451	9.17	854110	10.55
CCV 240-6612/2 CCVIS	1087649	7.18	1079429	9.14	972066	10.51
CCV 240-6612/3	852624	7.18	855771	9.16	743580	10.55

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-6919/2 Date Analyzed: 06/27/2011 08:46

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0627.D Heated Purge: (Y/N) N

Calibration ID: 1747

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		269096	3.85	1031305	4.81	563440	6.11
UPPER LIMIT		538192	4.35	2062610	5.31	1126880	6.61
LOWER LIMIT		134548	3.35	515653	4.31	281720	5.61
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-6919/3		250549	3.85	966722	4.81	555942	6.11
MB 240-3689/1-A		227918	3.85	888117	4.81	505713	6.10
LCS 240-3689/2-A		243732	3.85	965674	4.81	549112	6.11

DCB = 1,4-Dichlorobenzene-d4
DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-6919/2 Date Analyzed: 06/27/2011 08:46

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0627.D Heated Purge: (Y/N) N

Calibration ID: 1747

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		962265	7.20	984163	9.18	852177	10.57
UPPER LIMIT		1924530	7.70	1968326	9.68	1704354	11.07
LOWER LIMIT		481133	6.70	492082	8.68	426089	10.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-6919/3		962226	7.19	990451	9.17	854110	10.55
MB 240-3689/1-A		896725	7.19	898453	9.15	771766	10.54
LCS 240-3689/2-A		953167	7.19	959810	9.15	823082	10.53

PHN = Phenanthrene-d10

PHN = Phenanthrene-d10

CRY = Chrysene-d12

CRY = Chrysene-d12

Area Limit = 50%-200% of internal standard area

PRY = Perylene-d12

RT Limit = ± 0.5 minutes of internal standard RT

PRY = Perylene-d12

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-6612/2 Date Analyzed: 06/28/2011 16:19

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0628.D Heated Purge: (Y/N) N

Calibration ID: 1747

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		282798	3.84	1093552	4.79	628758	6.09
UPPER LIMIT		565596	4.34	2187104	5.29	1257516	6.59
LOWER LIMIT		141399	3.34	546776	4.29	314379	5.59
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-635-3	G-SP-SB-115-18-20	152054	3.83	592611	4.79	369048	6.09
240-635-5	G-SP-SB-117-6-8	229153	3.83	867926	4.79	525453	6.09
240-635-6	G-SP-SB-117-20-22	209683	3.84	819239	4.80	484622	6.09
240-635-11	G-SP-SB-118-6-8	153127	3.84	577330	4.80	360394	6.09
240-635-18	G-SP-SB-121-18-20	162697	3.83	626457	4.80	404721	6.09
240-635-12	G-SP-SB-118-20-22	158840	3.84	594874	4.80	386243	6.10
240-635-7	G-SP-SB-119-0-2	147200	3.83	589866	4.80	405412	6.10
240-635-21	G-SP-SB-120-18-20	147314	3.84	569442	4.80	391794	6.10
240-635-20	G-SP-SB-120-6-8	155188	3.84	650189	4.80	466777	6.09
240-635-4	G-SP-SB-117-0-2	171151	3.83	723307	4.80	488719	6.09
240-635-19	G-SP-SB-120-0-2	157699	3.84	662114	4.80	433129	6.10
240-635-9	G-SP-SB-119-20-22	169567	3.84	694150	4.80	465925	6.09
240-635-10	G-SP-SB-118-0-2	156255	3.84	657700	4.80	450426	6.10
240-635-16	G-SP-SB-121-0-3	132271*	3.84	539125*	4.80	348973	6.10
240-635-1	G-SP-SB-115-0-2	166556	3.84	716303	4.81	456988	6.10
240-635-1 MSD	G-SP-SB-115-0-2 MSD	168942	3.84	709898	4.81	473873	6.10
240-635-2	G-SP-SB-115-10-12	164284	3.84	709064	4.81	464083	6.11
240-635-22	G-SP-SB-122-0-2	147371	3.84	646512	4.81	414250	6.11

DCB = 1,4-Dichlorobenzene-d4

DCB = 1,4-Dichlorobenzene-d4

NPT = Naphthalene-d8

NPT = Naphthalene-d8

Area Limit = 50%-200% of internal standard area

ANT = Acenaphthene-d10

RT Limit = ± 0.5 minutes of internal standard RT

ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

Report Date: 01-Jul-2011 09:38:49 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A4HP9\20110629-1496.b\635F16A.D
Lims ID: 240-635-F-16-A Client ID: G-SP-SB-121-0-3
Inject. Date: 28-Jun-2011 23:43:30 Dil. Factor: 2.0000
Sample Type: Client
Sample ID: 635f16a,10628a.b,8270c-625,1-827042d.sub
Misc. Info.:
Operator: 001574 Instrument ID: A4HP9
Vol. Injected: 1.0000 ALS Bottle#: 24
Lims Batch ID: 6612 Lims Sample ID: 24
Detector: MS SCAN

Method: \\Ncchrom\ChromData\A4HP9\20110629-1496.b\8270 _9.m
Last Update: 01-Jul-2011 09:38:49 Calib Date: 25-Jun-2011 16:48:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A4HP9\20110626-1388.b\9AHHH625.D
Limit Group: MSS 8270D ICAL
Integrator: RTE ID Type: Deconvolution ID
Process Host: CORP-CTX-15

First Level Reviewer: ulmanm Date: 30-Jun-2011 19:04:39

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.841	3.837	0.004	94	132271	4.00	s
* 2 Naphthalene-d8	136	4.803	4.793	0.010	97	539125	4.00	s
* 3 Acenaphthene-d10	164	6.101	6.091	0.010	87	348973	4.00	
* 4 Phenanthrene-d10	188	7.191	7.176	0.015	95	659896	4.00	
* 5 Chrysene-d12	240	9.151	9.136	0.015	95	629964	4.00	
* 6 Perylene-d12	264	10.561	10.509	0.052	90	510714	4.00	
$ 7 2-Fluorophenol	112	2.853	2.843	0.010	89	259435	5.02	
$ 8 Phenol-d5	99	3.547	3.533	0.014	0	340365	4.71	
$ 9 Nitrobenzene-d5	82	4.252	4.248	0.004	82	239466	2.87	
$ 10 2-Fluorobiphenyl (Surr)	172	5.583	5.579	0.004	96	397395	3.44	
$ 11 2,4,6-Tribromophenol	330	6.688	6.663	0.025	62	51014	4.11	
$ 12 Terphenyl-d14	244	8.323	8.308	0.015	97	464603	4.07	
25 1,4-Dioxane	88		1.727					
26 N-Nitrosodimethylamine	74		1.919					
41 Benzaldehyde	77		3.506					
43 Phenol	94		3.543					
69 Bis(2-chloroethyl)ether	93		3.613					
46 2-Chlorophenol	128		3.682					
51 2-Methylphenol	108		4.003					
53 2,2'-oxybis[1-chloropropane]	45		4.019					
21 3 & 4 Methylphenol	108		4.115					
57 N-Nitrosodi-n-propylamine	70		4.120					
58 Acetophenone	105		4.131					
61 Hexachloroethane	117		4.227					
62 Nitrobenzene	77		4.264					
64 Isophorone	82		4.435					
66 2-Nitrophenol	139		4.505					
65 2,4-Dimethylphenol	107		4.515					
70 Bis(2-chloroethoxy)methane	93		4.580					
73 2,4-Dichlorophenol	162		4.686					
75 Naphthalene	128	4.819	4.815	0.004	94	117042	0.7831	

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
76 4-Chloroaniline	127		4.836					
79 Hexachlorobutadiene	225		4.895					
84 Caprolactam	113		5.103					
86 4-Chloro-3-methylphenol	107		5.189					
87 2-Methylnaphthalene	142	5.332	5.322	0.010	70	43916	0.5696	
89 Hexachlorocyclopentadiene	237		5.434					
92 2,4,6-Trichlorophenol	196		5.520					
93 2,4,5-Trichlorophenol	196		5.557					
98 1,1'-Biphenyl	154		5.653					
100 2-Chloronaphthalene	162		5.680					
102 2-Nitroaniline	65		5.744					
105 Dimethyl phthalate	163		5.856					
107 2,6-Dinitrotoluene	165		5.910					
109 Acenaphthylene	152	5.999	5.990	0.009	91	64863	0.3849	
110 3-Nitroaniline	138		6.043					
112 Acenaphthene	153	6.122	6.113	0.009	93	159875	1.55	
111 2,4-Dinitrophenol	184		6.118					
113 4-Nitrophenol	109		6.156					
114 2,4-Dinitrotoluene	165		6.209					
116 Dibenzofuran	168	6.250	6.236	0.014	85	112029	0.7803	
121 Diethyl phthalate	149		6.364					
123 4-Chlorophenyl phenyl ether	204		6.465					
126 Fluorene	166	6.501	6.487	0.014	73	153273	1.39	
125 4-Nitroaniline	138		6.492					
128 4,6-Dinitro-2-methylphenol	198		6.513					
131 N-Nitrosodiphenylamine	169		6.551					
139 4-Bromophenyl phenyl ether	248		6.823					
141 Hexachlorobenzene	284		6.898					
142 Atrazine	200		6.919					
143 Pentachlorophenol	266		7.033					
148 Phenanthrene	178	7.207	7.192	0.015	98	1808110	9.96	
149 Anthracene	178	7.244	7.229	0.015	97	591420	3.25	
151 Carbazole	167	7.356	7.336	0.020	84	216586	1.21	
154 Di-n-butyl phthalate	149		7.539					
159 Fluoranthene	202	8.083	8.063	0.020	99	3037755	15.5	
161 Pyrene	202	8.254	8.234	0.020	91	2780234	14.0	
168 Butyl benzyl phthalate	149		8.645					
173 Bis(2-ethylhexyl) phthalate	149	9.050	9.056	-0.006	82	61328	0.4825	
175 3,3'-Dichlorobenzidine	252		9.083					
177 Benzo[a]anthracene	228	9.140	9.131	0.009	97	1527662	7.93	
178 Chrysene	228	9.173	9.158	0.015	93	1298095	7.23	
180 Di-n-octyl phthalate	149		9.569					
182 Benzo[b]fluoranthene	252	10.123	10.087	0.036	86	1509251	8.78	M
183 Benzo[k]fluoranthene	252	10.139	10.114	0.025	86	684647	4.27	M
184 Benzo[a]pyrene	252	10.497	10.451	0.046	75	1156438	7.72	
189 Dibenz(a,h)anthracene	278	12.079	12.000	0.079	0	207432	1.58	M
188 Indeno[1,2,3-cd]pyrene	276	12.095	12.000	0.095	97	678335	4.20	
190 Benzo[g,h,i]perylene	276	12.575	12.454	0.121	81	616726	4.62	

Internal Std Reference

Report Date: 01-Jul-2011 09:21:17 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A4HP9\20110629-1496.b\9SMH0628.D
Lims ID: ccv tcl Client ID:
Inject. Date: 28-Jun-2011 16:19:30 Dil. Factor: 1.0000
Sample Type: CCVIS
Sample ID: L6,10628a.b,8270c-625,1-827042d.sub,2
Misc. Info.:
Operator: 001574 Instrument ID: A4HP9
Vol. Injected: 1.0000 ALS Bottle#: 2
Lims Batch ID: 6612 Lims Sample ID: 2
Sublist: chrom-8270 _9*sub9
Detector: MS SCAN

Method: \\Ncchrom\ChromData\A4HP9\20110629-1496.b\8270 _9.m
Last Update: 01-Jul-2011 09:21:16 Calib Date: 25-Jun-2011 16:48:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A4HP9\20110626-1388.b\9AHHH625.D
Limit Group: MSS 8270D ICAL
Integrator: RTE ID Type: Deconvolution ID
Process Host: CORP-CTX-15

First Level Reviewer: ulmanm Date: 30-Jun-2011 17:50:12

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.837	3.837	0.0	93	282798	4.00	
* 2 Naphthalene-d8	136	4.793	4.793	0.0	99	1093552	4.00	
* 3 Acenaphthene-d10	164	6.091	6.091	0.0	89	628758	4.00	
* 4 Phenanthrene-d10	188	7.176	7.176	0.0	95	1087649	4.00	
* 5 Chrysene-d12	240	9.136	9.136	0.0	73	1079429	4.00	
* 6 Perylene-d12	264	10.509	10.509	0.0	92	972066	4.00	
$ 7 2-Fluorophenol	112	2.843	2.843	0.0	92	1108701	10.0	
$ 8 Phenol-d5	99	3.533	3.533	0.0	0	1582613	10.2	
$ 9 Nitrobenzene-d5	82	4.248	4.248	0.0	66	1554542	9.19	
$ 10 2-Fluorobiphenyl (Surr)	172	5.579	5.579	0.0	94	1978277	9.50	
$ 11 2,4,6-Tribromophenol	330	6.663	6.663	0.0	79	213533	9.56	
$ 12 Terphenyl-d14	244	8.308	8.308	0.0	97	1985397	10.2	
25 1,4-Dioxane	88	1.727	1.727	0.0	87	589580	10.2	
26 N-Nitrosodimethylamine	74	1.919	1.919	0.0	80	1050639	10.0	
27 Pyridine	79	1.951	1.951	0.0	89	1642588	9.97	
28 Ethyl methacrylate	69	2.192	2.192	0.0	80	1407371	9.90	
29 3-Chloropropionitrile	54	2.389	2.389	0.0	83	575859	9.87	
33 Malononitrile	66	2.582	2.582	0.0	91	1754590	10.1	
41 Benzaldehyde	77	3.506	3.506	0.0	85	742782	6.85	
43 Phenol	94	3.543	3.543	0.0	94	1756227	9.88	
44 Aniline	93	3.586	3.586	0.0	97	2304210	10.2	
69 Bis(2-chloroethyl)ether	93	3.613	3.613	0.0	96	1395546	10.0	
46 2-Chlorophenol	128	3.682	3.682	0.0	92	986066	9.76	
47 1,3-Dichlorobenzene	146	3.800	3.800	0.0	90	975967	10.0	
48 1,4-Dichlorobenzene	146	3.848	3.848	0.0	76	1017681	10.2	
49 Benzyl alcohol	108	3.928	3.928	0.0	85	656234	8.25	M
50 1,2-Dichlorobenzene	146	3.971	3.971	0.0	75	918766	10.0	
51 2-Methylphenol	108	4.003	4.003	0.0	90	1244652	11.0	
53 2,2'-oxybis[1-chloropropane]	45	4.019	4.019	0.0	87	1194150	9.92	
21 3 & 4 Methylphenol	108	4.115	4.115	0.0	0	1156268	9.79	

Internal Std Reference

Report Date: 01-Jul-2011 09:21:17 Chrom Revision: 1.2 03-Jun-2011 08:44:02
Data File: \\Ncchrom\ChromData\A4HP9\20110629-1496.b\9SMH0628.D

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
57 N-Nitrosodi-n-propylamine	70	4.120	4.120	0.0	72	1121569	10.1	
58 Acetophenone	105	4.131	4.131	0.0	85	1627903	10.1	
61 Hexachloroethane	117	4.227	4.227	0.0	89	433447	9.88	
62 Nitrobenzene	77	4.264	4.264	0.0	71	1637703	9.89	
64 Isophorone	82	4.435	4.435	0.0	94	3084862	10.3	
66 2-Nitrophenol	139	4.505	4.505	0.0	89	540088	10.5	
67 1,3,5-Trichlorobenzene	180	4.515	4.515	0.0	77	768133	9.94	
65 2,4-Dimethylphenol	107	4.515	4.515	0.0	66	1221338	10.1	
70 Bis(2-chloroethoxy)methane	93	4.580	4.580	0.0	98	1559094	9.84	
71 Benzoic acid	122	4.622	4.622	0.0	82	1449275	18.4	
73 2,4-Dichlorophenol	162	4.686	4.686	0.0	96	758498	10.5	
74 1,2,4-Trichlorobenzene	180	4.751	4.751	0.0	85	787025	9.98	
75 Naphthalene	128	4.815	4.815	0.0	96	3012257	9.94	
76 4-Chloroaniline	127	4.836	4.836	0.0	73	1252688	9.73	
79 Hexachlorobutadiene	225	4.895	4.895	0.0	84	445775	10.2	
80 1,2,3-Trichlorobenzene	180	4.916	4.916	0.0	85	733015	9.93	
84 Caprolactam	113	5.103	5.103	0.0	84	437621	11.1	
86 4-Chloro-3-methylphenol	107	5.189	5.189	0.0	84	1116780	10.6	
87 2-Methylnaphthalene	142	5.322	5.322	0.0	81	1571428	10.0	
88 1-Methylnaphthalene	142	5.397	5.397	0.0	80	1772480	9.94	
90 1,2,3,5-Tetrachlorobenzene	216	5.434	5.434	0.0	87	737134	9.55	
89 Hexachlorocyclopentadiene	237	5.434	5.434	0.0	78	449393	8.59	
92 2,4,6-Trichlorophenol	196	5.520	5.520	0.0	89	523627	9.48	
93 2,4,5-Trichlorophenol	196	5.557	5.557	0.0	89	607181	10.6	
97 2,4-Toluene diamine	121	5.637	5.637	0.0	95	287181	3.48	
98 1,1'-Biphenyl	154	5.653	5.653	0.0	96	2182347	9.52	
99 1,2,3,4 -Tetrachlorobenzene	216	5.659	5.659	0.0	88	683461	9.35	
100 2-Chloronaphthalene	162	5.680	5.680	0.0	98	1631962	9.67	
102 2-Nitroaniline	65	5.744	5.744	0.0	73	824734	9.85	
105 Dimethyl phthalate	163	5.856	5.856	0.0	94	1993148	10.0	
107 2,6-Dinitrotoluene	165	5.910	5.910	0.0	78	447638	10.3	
108 ~~1,2-Dinitrobenzene~~	168	5.958	5.958	0.0	81	249746	10.3	
109 Acenaphthylene	152	5.990	5.990	0.0	90	2991047	9.85	
110 3-Nitroaniline	138	6.043	6.043	0.0	88	557609	10.1	
112 Acenaphthene	153	6.113	6.113	0.0	91	1711883	9.21	
111 2,4-Dinitrophenol	184	6.118	6.118	0.0	65	635744	17.7	
113 4-Nitrophenol	109	6.156	6.156	0.0	87	378883	9.85	
114 2,4-Dinitrotoluene	165	6.209	6.209	0.0	75	616178	10.4	
116 Dibenzofuran	168	6.236	6.236	0.0	84	2542159	9.83	
118 2,3,5,6-Tetrachlorophenol	232	6.294	6.294	0.0	83	465048	9.74	
121 Diethyl phthalate	149	6.364	6.364	0.0	95	2100313	9.90	
123 4-Chlorophenyl phenyl ether	204	6.465	6.465	0.0	83	959051	9.96	
126 Fluorene	166	6.487	6.487	0.0	79	1895770	9.57	
125 4-Nitroaniline	138	6.492	6.492	0.0	76	565816	9.92	
128 4,6-Dinitro-2-methylphenol	198	6.513	6.513	0.0	60	358652	10.1	
131 N-Nitrosodiphenylamine	169	6.551	6.551	0.0	99	1509677	9.53	
133 Azobenzene	77	6.583	6.583	0.0	93	3611388	9.91	
139 4-Bromophenyl phenyl ether	248	6.823	6.823	0.0	68	519113	9.99	
141 Hexachlorobenzene	284	6.898	6.898	0.0	73	491961	9.77	
142 Atrazine	200	6.919	6.919	0.0	78	506115	9.97	
143 Pentachlorophenol	266	7.037	7.037	0.0	80	582949	16.3	
148 Phenanthrene	178	7.192	7.192	0.0	98	2825416	9.44	

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-6612/2 Date Analyzed: 06/28/2011 16:19

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0628.D Heated Purge: (Y/N) N

Calibration ID: 1747

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1087649	7.18	1079429	9.14	972066	10.51
UPPER LIMIT		2175298	7.68	2158858	9.64	1944132	11.01
LOWER LIMIT		543825	6.68	539715	8.64	486033	10.01
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-635-3	G-SP-SB-115-18-20	666827	7.18	702436	9.14	612688	10.52
240-635-5	G-SP-SB-117-6-8	931124	7.18	939982	9.14	811938	10.52
240-635-6	G-SP-SB-117-20-22	868146	7.18	870943	9.13	752600	10.51
240-635-11	G-SP-SB-118-6-8	666651	7.18	697673	9.13	607410	10.51
240-635-18	G-SP-SB-121-18-20	773521	7.18	805541	9.13	681751	10.51
240-635-12	G-SP-SB-118-20-22	720138	7.18	750717	9.13	637446	10.51
240-635-7	G-SP-SB-119-0-2	774549	7.18	809599	9.14	697254	10.52
240-635-21	G-SP-SB-120-18-20	756354	7.18	753467	9.13	682399	10.52
240-635-20	G-SP-SB-120-6-8	863399	7.18	848264	9.14	760328	10.51
240-635-4	G-SP-SB-117-0-2	926731	7.18	868085	9.14	789207	10.52
240-635-19	G-SP-SB-120-0-2	817215	7.18	758411	9.14	683596	10.52
240-635-9	G-SP-SB-119-20-22	852862	7.18	779435	9.15	634151	10.54
240-635-10	G-SP-SB-118-0-2	837664	7.18	780014	9.15	641165	10.55
240-635-16	G-SP-SB-121-0-3	659896	7.19	629964	9.15	510714	10.56
240-635-1	G-SP-SB-115-0-2	845169	7.19	792282	9.16	629189	10.56
240-635-1 MSD	G-SP-SB-115-0-2 MSD	840841	7.20	816901	9.16	633119	10.58
240-635-2	G-SP-SB-115-10-12	849754	7.19	803936	9.17	640828	10.59
240-635-22	G-SP-SB-122-0-2	755398	7.20	697869	9.17	542303	10.59

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
Area Limit = 50%-200% of internal standard area
PRY = Perylene-d12
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: STD6 240-7010/5 Date Analyzed: 07/01/2011 12:35

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0701.D Heated Purge: (Y/N) N

Calibration ID: 1962

	DCB		NPT		ANT	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	160760	3.76	608663	4.72	335411	6.02
UPPER LIMIT	321520	4.26	1217326	5.22	670822	6.52
LOWER LIMIT	80380	3.26	304332	4.22	167706	5.52
LAB SAMPLE ID CLIENT SAMPLE ID						
ICV 240-7010/11	198510	3.76	762062	4.72	435378	6.01
CCVIS 240-7057/2	179157	3.71	692352	4.67	388902	5.97

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: STD6 240-7010/5 Date Analyzed: 07/01/2011 12:35

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0701.D Heated Purge: (Y/N) N

Calibration ID: 1962

	PHN		CRY		PRY	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	581102	7.10	583347	9.07	514197	10.39
UPPER LIMIT	1162204	7.60	1166694	9.57	1028394	10.89
LOWER LIMIT	290551	6.60	291674	8.57	257099	9.89
LAB SAMPLE ID CLIENT SAMPLE ID						
ICV 240-7010/11	752908	7.10	753899	9.05	642646	10.37
CCVIS 240-7057/2	672769	7.05	660343	9.00	569043	10.28

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCVIS 240-7057/2 Date Analyzed: 07/04/2011 11:48

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0704.D Heated Purge: (Y/N) N

Calibration ID: 1958

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		179157	3.71	692352	4.67	388902	5.97
UPPER LIMIT		358314	4.21	1384704	5.17	777804	6.47
LOWER LIMIT		89579	3.21	346176	4.17	194451	5.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-635-8	G-SP-SB-119-6-8	132700	3.71	564626	4.68	357146	5.98
240-635-17	G-SP-SB-121-6-8	139708	3.72	594252	4.68	378724	5.98
240-635-1 MS	G-SP-SB-115-0-2 MS	133283	3.72	545303	4.69	357688	5.98

DCB = 1,4-Dichlorobenzene-d4
DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCVIS 240-7057/2 Date Analyzed: 07/04/2011 11:48

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0704.D Heated Purge: (Y/N) N

Calibration ID: 1958

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		672769	7.05	660343	9.00	569043	10.28
UPPER LIMIT		1345538	7.55	1320686	9.50	1138086	10.78
LOWER LIMIT		336385	6.55	330172	8.50	284522	9.78
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-635-8	G-SP-SB-119-6-8	673569	7.07	689223	9.01	622786	10.32
240-635-17	G-SP-SB-121-6-8	685602	7.07	710442	9.02	645458	10.33
240-635-1 MS	G-SP-SB-115-0-2 MS	627799	7.07	668668	9.02	591225	10.35

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
Area Limit = 50%-200% of internal standard area
PRY = Perylene-d12
RT Limit = ± 0.5 minutes of internal standard RT
PRY = Perylene-d12

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: STD6 240-8519/10 Date Analyzed: 07/14/2011 10:23

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0714.D Heated Purge: (Y/N) N

Calibration ID: 2328

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		160508	3.95	606881	4.91	335325	6.21
UPPER LIMIT		321016	4.45	1213762	5.41	670650	6.71
LOWER LIMIT		80254	3.45	303441	4.41	167663	5.71
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-8519/11		199012	3.95	756353	4.91	433009	6.21
ICV 240-8519/21		168115	3.95	643501	4.91	369542	6.21
MB 240-7865/4-A		142037	3.94	516546	4.91	317348	6.21
LCS 240-7865/5-A		137693	3.95	543946	4.91	313473	6.21
CCV 240-8694/2 CCVIS		168554	3.86	625669	4.82	355352	6.12
CCV 240-8694/3		174949	3.86	683522	4.82	403380	6.12

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: STD6 240-8519/10 Date Analyzed: 07/14/2011 10:23

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0714.D Heated Purge: (Y/N) N

Calibration ID: 2328

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		598446	7.30	627312	9.29	525856	10.75
UPPER LIMIT		1196892	7.80	1254624	9.79	1051712	11.25
LOWER LIMIT		299223	6.80	313656	8.79	262928	10.25
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-8519/11		773447	7.30	828955	9.28	690267	10.74
ICV 240-8519/21		651928	7.30	671615	9.27	566759	10.73
MB 240-7865/4-A		553269	7.30	571750	9.31	470491	10.79
LCS 240-7865/5-A		554528	7.30	572078	9.28	471688	10.75
CCV 240-8694/2 CCVIS		616792	7.21	640275	9.18	541704	10.57
CCV 240-8694/3		704796	7.21	720916	9.18	622635	10.58

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-8694/2 Date Analyzed: 07/16/2011 09:38

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0716.D Heated Purge: (Y/N) N

Calibration ID: 2324

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		168554	3.86	625669	4.82	355352	6.12
UPPER LIMIT		337108	4.36	1251338	5.32	710704	6.62
LOWER LIMIT		84277	3.36	312835	4.32	177676	5.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-8694/3		174949	3.86	683522	4.82	403380	6.12
240-635-8 RE	G-SP-SB-119-6-8 RE	118380	3.86	489867	4.82	308538	6.12
240-635-8 MS	G-SP-SB-119-6-8 MS	105038	3.86	414682	4.82	270890	6.12
240-635-8 MSD	G-SP-SB-119-6-8 MSD	115069	3.86	485283	4.82	314660	6.13

DCB = 1,4-Dichlorobenzene-d4
DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-8694/2 Date Analyzed: 07/16/2011 09:38

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0716.D Heated Purge: (Y/N) N

Calibration ID: 2324

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		616792	7.21	640275	9.18	541704	10.57
UPPER LIMIT		1233584	7.71	1280550	9.68	1083408	11.07
LOWER LIMIT		308396	6.71	320138	8.68	270852	10.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-8694/3		704796	7.21	720916	9.18	622635	10.58
240-635-8 RE	G-SP-SB-119-6-8 RE	574338	7.21	573826	9.17	493901	10.58
240-635-8 MS	G-SP-SB-119-6-8 MS	520069	7.21	576152	9.18	492093	10.58
240-635-8 MSD	G-SP-SB-119-6-8 MSD	601112	7.22	631690	9.18	546188	10.59

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
Area Limit = 50%-200% of internal standard area
PRY = Perylene-d12
RT Limit = ± 0.5 minutes of internal standard RT
PRY = Perylene-d12

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-4680/10 Date Analyzed: 06/14/2011 14:20

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm)

Lab File ID (Standard): P1361410.D Heated Purge: (Y/N) N

Calibration ID: 1402

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB
				RT #	RT #
CONTINUING CALIBRATION SURROGATE				1.20	6.86
UPPER LIMIT				1.30	6.96
LOWER LIMIT				1.10	6.76
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID		
CCV 240-4680/10 CCVRT		06/14/2011 14:20	P1361410.D	1.20	6.86
240-635-1 MS	G-SP-SB-115-0-2 MS	06/14/2011 14:35	P1361411.D	1.20	6.86
240-635-1 MSD	G-SP-SB-115-0-2 MSD	06/14/2011 14:50	P1361412.D	1.19	6.86
240-635-1	G-SP-SB-115-0-2	06/14/2011 15:05	P1361413.D	1.20	6.86
240-635-2	G-SP-SB-115-10-12	06/14/2011 15:20	P1361414.D	1.20	6.86
240-635-4	G-SP-SB-117-0-2	06/14/2011 15:35	P1361415.D	1.20	6.84
240-635-5	G-SP-SB-117-6-8	06/14/2011 15:50	P1361416.D	1.20	6.86
240-635-7	G-SP-SB-119-0-2	06/14/2011 16:05	P1361417.D	1.20	6.86
240-635-8	G-SP-SB-119-6-8	06/14/2011 16:20	P1361418.D		
240-635-10	G-SP-SB-118-0-2	06/14/2011 16:35	P1361419.D		
MB 240-3834/1-A		06/14/2011 16:50	P1361420.D	1.19	6.86

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.1 minutes of surrogate RT
DCB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-4680/10 Date Analyzed: 06/14/2011 14:20

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P1361410.D Heated Purge: (Y/N) N

Calibration ID: 1403

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX RT #	DCB RT #
CONTINUING CALIBRATION SURROGATE				1.63	8.14
UPPER LIMIT				1.73	8.24
LOWER LIMIT				1.53	8.04
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID		
CCV 240-4680/10 CCVRT		06/14/2011 14:20	P1361410.D	1.63	8.14
240-635-1 MS	G-SP-SB-115-0-2 MS	06/14/2011 14:35	P1361411.D	1.63	8.14
240-635-1 MSD	G-SP-SB-115-0-2 MSD	06/14/2011 14:50	P1361412.D	1.63	8.14
240-635-1	G-SP-SB-115-0-2	06/14/2011 15:05	P1361413.D	1.63	8.14
240-635-2	G-SP-SB-115-10-12	06/14/2011 15:20	P1361414.D	1.63	8.14
240-635-4	G-SP-SB-117-0-2	06/14/2011 15:35	P1361415.D	1.63	8.14
240-635-5	G-SP-SB-117-6-8	06/14/2011 15:50	P1361416.D	1.63	8.14
240-635-7	G-SP-SB-119-0-2	06/14/2011 16:05	P1361417.D	1.63	8.14
240-635-8	G-SP-SB-119-6-8	06/14/2011 16:20	P1361418.D		
240-635-10	G-SP-SB-118-0-2	06/14/2011 16:35	P1361419.D		
MB 240-3834/1-A		06/14/2011 16:50	P1361420.D	1.63	8.14

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.1 minutes of surrogate RT
DCB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-4680/21 Date Analyzed: 06/14/2011 17:05

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm)

Lab File ID (Standard): P1361421.D Heated Purge: (Y/N) N

Calibration ID: 1402

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX RT #	DCB RT #
CONTINUING CALIBRATION SURROGATE				1.20	6.86
UPPER LIMIT				1.30	6.96
LOWER LIMIT				1.10	6.76
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID		
CCV 240-4680/21 CCVRT		06/14/2011 17:05	P1361421.D	1.20	6.86
240-635-11	G-SP-SB-118-6-8	06/14/2011 17:20	P1361422.D	1.19	6.86
240-635-16	G-SP-SB-121-0-3	06/14/2011 17:35	P1361423.D		
240-635-17	G-SP-SB-121-6-8	06/14/2011 17:50	P1361424.D	1.19	6.83
240-635-19	G-SP-SB-120-0-2	06/14/2011 18:05	P1361425.D		
240-635-20	G-SP-SB-120-6-8	06/14/2011 18:20	P1361426.D	1.20	6.85
240-635-22	G-SP-SB-122-0-2	06/14/2011 18:35	P1361427.D		
240-635-23	G-SP-SB-122-6-8	06/14/2011 18:50	P1361428.D	1.20	6.86
240-635-26	G-SP-SB-129-6-8	06/14/2011 19:20	P1361430.D	1.20	6.86
LCS 240-3834/2-A		06/14/2011 19:35	P1361431.D	1.20	6.86

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.1 minutes of surrogate RT
DCB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-4680/21 Date Analyzed: 06/14/2011 17:05

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P1361421.D Heated Purge: (Y/N) N

Calibration ID: 1403

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX RT #	DCB RT #
CONTINUING CALIBRATION SURROGATE				1.63	8.14
UPPER LIMIT				1.73	8.24
LOWER LIMIT				1.53	8.04
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID		
CCV 240-4680/21 CCVRT		06/14/2011 17:05	P1361421.D	1.63	8.14
240-635-11	G-SP-SB-118-6-8	06/14/2011 17:20	P1361422.D	1.63	8.14
240-635-16	G-SP-SB-121-0-3	06/14/2011 17:35	P1361423.D		
240-635-17	G-SP-SB-121-6-8	06/14/2011 17:50	P1361424.D	1.63	8.14
240-635-19	G-SP-SB-120-0-2	06/14/2011 18:05	P1361425.D		
240-635-20	G-SP-SB-120-6-8	06/14/2011 18:20	P1361426.D	1.63	8.14
240-635-22	G-SP-SB-122-0-2	06/14/2011 18:35	P1361427.D		
240-635-23	G-SP-SB-122-6-8	06/14/2011 18:50	P1361428.D	1.63	8.14
240-635-26	G-SP-SB-129-6-8	06/14/2011 19:20	P1361430.D	1.63	8.14
LCS 240-3834/2-A		06/14/2011 19:35	P1361431.D	1.63	8.14

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.1 minutes of surrogate RT
DCB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-4871/3 Date Analyzed: 06/15/2011 12:58

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm)

Lab File ID (Standard): P1361503.D Heated Purge: (Y/N) N

Calibration ID: 1402

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX RT #	DCB RT #
CONTINUING CALIBRATION SURROGATE				1.19	6.86
UPPER LIMIT				1.29	6.96
LOWER LIMIT				1.09	6.76
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID		
CCV 240-4871/3 CCVRT		06/15/2011 12:58	P1361503.D	1.19	6.86
240-635-25	G-SP-SB-129-0-2	06/15/2011 14:13	P1361508.D	1.19	6.86

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.1 minutes of surrogate RT
DCB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCV 240-4871/3 Date Analyzed: 06/15/2011 12:58

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P1361503.D Heated Purge: (Y/N) N

Calibration ID: 1403

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX RT #	DCB RT #
CONTINUING CALIBRATION SURROGATE				1.63	8.14
UPPER LIMIT				1.73	8.24
LOWER LIMIT				1.53	8.04
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID		
CCV 240-4871/3 CCVRT		06/15/2011 12:58	P1361503.D	1.63	8.14
240-635-25	G-SP-SB-129-0-2	06/15/2011 14:13	P1361508.D	1.63	8.14

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.1 minutes of surrogate RT
DCB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 13:30 Calibration End Date: 06/10/2011 14:45 Calibration ID: 1378

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/1	P1361001.D
Level 2	STD01 240-4360/2	P1361002.D
Level 3	STD02 240-4360/3	P1361003.D
Level 4	STD05 240-4360/4	P1361004.D
Level 5	STD1 240-4360/5	P1361005.D
Level 6	STD2 240-4360/6	P1361006.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1232 Peak 1	1.483	1.477	1.479	1.478	1.478	1.477	1.433 - 1.533	1.479
PCB-1232 Peak 2	1.782	1.776	1.777	1.776	1.777	1.775	1.732 - 1.832	1.777
PCB-1232 Peak 3	2.197	2.191	2.193	2.192	2.192	2.191	2.147 - 2.247	2.193
PCB-1232 Peak 4	2.326	2.319	2.320	2.318	2.319	2.319	2.276 - 2.376	2.320
PCB-1232 Peak 5	2.731	2.723	2.725	2.724	2.724	2.722	2.681 - 2.781	2.725

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 13:30 Calibration End Date: 06/10/2011 14:45 Calibration ID: 1378

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/1	P1361001.D
Level 2	STD01 240-4360/2	P1361002.D
Level 3	STD02 240-4360/3	P1361003.D
Level 4	STD05 240-4360/4	P1361004.D
Level 5	STD1 240-4360/5	P1361005.D
Level 6	STD2 240-4360/6	P1361006.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1232 Peak 1	130530400 102935624	125155130 95800317	124566415	105660330	Ave		114108036				13.0		20.0			
PCB-1232 Peak 2	89216060 79191743	89873270 76007786	88402670	79307186	Ave		83666452.4				7.4		20.0			
PCB-1232 Peak 3	184961040 168189527	181968170 165838422	176977545	161558434	Ave		173248856				5.4		20.0			
PCB-1232 Peak 4	71855800 69954951	76178010 70044944	72098120	67616186	Ave		71291335.1				4.1		20.0			
PCB-1232 Peak 5	58939620 62246951	66774290 63246319	62920920	59958480	Ave		62347763.3				4.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 13:30 Calibration End Date: 06/10/2011 14:45 Calibration ID: 1378

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/1	P1361001.D
Level 2	STD01 240-4360/2	P1361002.D
Level 3	STD02 240-4360/3	P1361003.D
Level 4	STD05 240-4360/4	P1361004.D
Level 5	STD1 240-4360/5	P1361005.D
Level 6	STD2 240-4360/6	P1361006.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	Ave	6526520 191600633	12515513	24913283	52830165	102935624	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	Ave	4460803 152015571	8987327	17680534	39653593	79191743	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	Ave	9248052 331676844	18196817	35395509	80779217	168189527	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	Ave	3592790 140089887	7617801	14419624	33808093	69954951	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	Ave	2946981 126492637	6677429	12584184	29979240	62246951	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 13:30 Calibration End Date: 06/10/2011 14:45 Calibration ID: 1379

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/1	P1361001.D
Level 2	STD01 240-4360/2	P1361002.D
Level 3	STD02 240-4360/3	P1361003.D
Level 4	STD05 240-4360/4	P1361004.D
Level 5	STD1 240-4360/5	P1361005.D
Level 6	STD2 240-4360/6	P1361006.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1232 Peak 1	2.112	2.111	2.112	2.112	2.111	2.111	2.062 - 2.162	2.112
PCB-1232 Peak 2	2.532	2.530	2.532	2.531	2.531	2.531	2.482 - 2.582	2.531
PCB-1232 Peak 3	3.012	3.010	3.010	3.010	3.010	3.011	2.962 - 3.062	3.011
PCB-1232 Peak 4	3.156	3.155	3.155	3.155	3.155	3.155	3.106 - 3.206	3.155
PCB-1232 Peak 5	3.670	3.669	3.670	3.670	3.669	3.670	3.620 - 3.720	3.670

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 13:30 Calibration End Date: 06/10/2011 14:45 Calibration ID: 1379

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/1	P1361001.D
Level 2	STD01 240-4360/2	P1361002.D
Level 3	STD02 240-4360/3	P1361003.D
Level 4	STD05 240-4360/4	P1361004.D
Level 5	STD1 240-4360/5	P1361005.D
Level 6	STD2 240-4360/6	P1361006.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1232 Peak 1	60010160 52341222	59642560 50192963	58729935	51178470	Ave		55349218.3				8.3		20.0			
PCB-1232 Peak 2	51461400 40396905	45249000 39357782	43863495	37666648	Ave		42999204.9				12.0		20.0			
PCB-1232 Peak 3	87659380 85473984	89430720 85755075	87643815	78217046	Ave		85696669.9				4.6		20.0			
PCB-1232 Peak 4	38432440 35723951	38270640 36323811	36519385	32050640	Ave		36220144.4				6.4		20.0			
PCB-1232 Peak 5	35476460 25779734	30643890 26034165	28214140	24874128	Ave		28503752.8				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 13:30 Calibration End Date: 06/10/2011 14:45 Calibration ID: 1379

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/1	P1361001.D
Level 2	STD01 240-4360/2	P1361002.D
Level 3	STD02 240-4360/3	P1361003.D
Level 4	STD05 240-4360/4	P1361004.D
Level 5	STD1 240-4360/5	P1361005.D
Level 6	STD2 240-4360/6	P1361006.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	Ave	3000508 100385926	5964256	11745987	25589235	52341222	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	Ave	2573070 78715563	4524900	8772699	18833324	40396905	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	Ave	4382969 171510149	8943072	17528763	39108523	85473984	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	Ave	1921622 72647621	3827064	7303877	16025320	35723951	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	Ave	1773823 52068329	3064389	5642828	12437064	25779734	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 15:00 Calibration End Date: 06/10/2011 16:14 Calibration ID: 1384

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/7	P1361007.D
Level 2	STD01 240-4360/8	P1361008.D
Level 3	STD02 240-4360/9	P1361009.D
Level 4	STD05 240-4360/10	P1361010.D
Level 5	STD1 240-4360/11	P1361011.D
Level 6	STD2 240-4360/12	P1361012.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1242 Peak 1	1.478	1.478	1.478	1.479	1.479	1.479	1.428 - 1.528	1.479
PCB-1242 Peak 2	1.777	1.776	1.777	1.778	1.777	1.778	1.727 - 1.827	1.777
PCB-1242 Peak 3	2.191	2.191	2.192	2.192	2.192	2.192	2.141 - 2.241	2.192
PCB-1242 Peak 4	2.320	2.320	2.320	2.320	2.320	2.320	2.270 - 2.370	2.320
PCB-1242 Peak 5	2.724	2.723	2.725	2.725	2.725	2.724	2.674 - 2.774	2.724

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 15:00 Calibration End Date: 06/10/2011 16:14 Calibration ID: 1384

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/7	P1361007.D
Level 2	STD01 240-4360/8	P1361008.D
Level 3	STD02 240-4360/9	P1361009.D
Level 4	STD05 240-4360/10	P1361010.D
Level 5	STD1 240-4360/11	P1361011.D
Level 6	STD2 240-4360/12	P1361012.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1242 Peak 1	114444540 78963868	85696440 71113201	84353190	84195926	Ave		86461194.1				17.0		20.0			
PCB-1242 Peak 2	189823780 141058849	156775020 126090234	153470520	153539002	Ave		153459568				14.0		20.0			
PCB-1242 Peak 3	349859220 320767166	337991760 298002157	334191985	331236226	Ave		328674752				5.4		20.0			
PCB-1242 Peak 4	152536360 136891400	140596040 127380120	139578015	140435232	Ave		139569528				5.8		20.0			
PCB-1242 Peak 5	149720440 136714013	138477970 128844209	137168835	138827210	Ave		138292113				4.8		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 15:00 Calibration End Date: 06/10/2011 16:14 Calibration ID: 1384

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/7	P1361007.D
Level 2	STD01 240-4360/8	P1361008.D
Level 3	STD02 240-4360/9	P1361009.D
Level 4	STD05 240-4360/10	P1361010.D
Level 5	STD1 240-4360/11	P1361011.D
Level 6	STD2 240-4360/12	P1361012.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	Ave	5722227 142226401	8569644	16870638	42097963	78963868	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 2	Ave	9491189 252180468	15677502	30694104	76769501	141058849	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 3	Ave	17492961 596004314	33799176	66838397	165618113	320767166	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 4	Ave	7626818 254760240	14059604	27915603	70217616	136891400	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 5	Ave	7486022 257688417	13847797	27433767	69413605	136714013	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 15:00 Calibration End Date: 06/10/2011 16:14 Calibration ID: 1385

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/7	P1361007.D
Level 2	STD01 240-4360/8	P1361008.D
Level 3	STD02 240-4360/9	P1361009.D
Level 4	STD05 240-4360/10	P1361010.D
Level 5	STD1 240-4360/11	P1361011.D
Level 6	STD2 240-4360/12	P1361012.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1242 Peak 1	2.113	2.111	2.112	2.113	2.112	2.112	2.063 - 2.163	2.112
PCB-1242 Peak 2	2.532	2.531	2.532	2.533	2.532	2.532	2.482 - 2.582	2.532
PCB-1242 Peak 3	3.011	3.011	3.011	3.011	3.011	3.011	2.961 - 3.061	3.011
PCB-1242 Peak 4	3.156	3.156	3.156	3.156	3.156	3.155	3.106 - 3.206	3.156
PCB-1242 Peak 5	3.670	3.670	3.670	3.671	3.671	3.670	3.620 - 3.720	3.670

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 15:00 Calibration End Date: 06/10/2011 16:14 Calibration ID: 1385

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/7	P1361007.D
Level 2	STD01 240-4360/8	P1361008.D
Level 3	STD02 240-4360/9	P1361009.D
Level 4	STD05 240-4360/10	P1361010.D
Level 5	STD1 240-4360/11	P1361011.D
Level 6	STD2 240-4360/12	P1361012.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1242 Peak 1	45067160 38697251	43617790 35947381	40783490	39566716	Ave		40613297.9				8.2		20.0			
PCB-1242 Peak 2	88928360 76263276	81939560 70132216	83282220	79371772	Ave		79986233.9				8.0		20.0			
PCB-1242 Peak 3	169928940 164774522	168687640 155465648	170256835	167343236	Ave		166076137				3.4		20.0			
PCB-1242 Peak 4	73154700 69736790	69949820 65974929	72814990	70565870	Ave		70366183.1				3.7		20.0			
PCB-1242 Peak 5	64598180 55911118	61679400 53130215	58710170	56415794	Ave		58407479.4				7.1		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 15:00 Calibration End Date: 06/10/2011 16:14 Calibration ID: 1385

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/7	P1361007.D
Level 2	STD01 240-4360/8	P1361008.D
Level 3	STD02 240-4360/9	P1361009.D
Level 4	STD05 240-4360/10	P1361010.D
Level 5	STD1 240-4360/11	P1361011.D
Level 6	STD2 240-4360/12	P1361012.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6					LVL 6				
PCB-1242 Peak 1	Ave	2253358	4361779	8156698	19783358	38697251	0.0500	0.100	0.200	0.500	1.00
		71894761					2.00				
PCB-1242 Peak 2	Ave	4446418	8193956	16656444	39685886	76263276	0.0500	0.100	0.200	0.500	1.00
		140264431					2.00				
PCB-1242 Peak 3	Ave	8496447	16868764	34051367	83671618	164774522	0.0500	0.100	0.200	0.500	1.00
		310931295					2.00				
PCB-1242 Peak 4	Ave	3657735	6994982	14562998	35282935	69736790	0.0500	0.100	0.200	0.500	1.00
		131949857					2.00				
PCB-1242 Peak 5	Ave	3229909	6167940	11742034	28207897	55911118	0.0500	0.100	0.200	0.500	1.00
		106260429					2.00				

Curve Type Legend:

Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 16:30 Calibration End Date: 06/10/2011 17:45 Calibration ID: 1390

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/13	P1361013.D
Level 2	STD01 240-4360/14	P1361014.D
Level 3	STD02 240-4360/15	P1361015.D
Level 4	STD05 240-4360/16	P1361016.D
Level 5	STD1 240-4360/17	P1361017.D
Level 6	STD2 240-4360/18	P1361018.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1248 Peak 1	1.778	1.776	1.777	1.776	1.774	1.776	1.728 - 1.828	1.776
PCB-1248 Peak 2	2.190	2.189	2.189	2.190	2.188	2.190	2.140 - 2.240	2.189
PCB-1248 Peak 3	2.725	2.723	2.724	2.724	2.722	2.724	2.675 - 2.775	2.724
PCB-1248 Peak 4	3.165	3.163	3.163	3.164	3.162	3.166	3.115 - 3.215	3.164
PCB-1248 Peak 5	3.798	3.796	3.796	3.796	3.795	3.797	3.748 - 3.848	3.796

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 16:30 Calibration End Date: 06/10/2011 17:45 Calibration ID: 1390

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/13	P1361013.D
Level 2	STD01 240-4360/14	P1361014.D
Level 3	STD02 240-4360/15	P1361015.D
Level 4	STD05 240-4360/16	P1361016.D
Level 5	STD1 240-4360/17	P1361017.D
Level 6	STD2 240-4360/18	P1361018.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1248 Peak 1	74083340 67651309	72573680 62945894	76335695	70548914	Ave		70689805.3				6.8		20.0			
PCB-1248 Peak 2	206280300 205785870	205373470 191006625	202462785	212284064	Ave		203865519				3.5		20.0			
PCB-1248 Peak 3	224064760 215596729	220581640 198104225	217109905	224435874	Ave		216648856				4.5		20.0			
PCB-1248 Peak 4	397164980 389162441	391369440 355736060	384099410	403004546	Ave		386756146				4.3		20.0			
PCB-1248 Peak 5	96993660 106056877	95334220 102061440	94683860	107591316	Ave		100453562				5.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 16:30 Calibration End Date: 06/10/2011 17:45 Calibration ID: 1390

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/13	P1361013.D
Level 2	STD01 240-4360/14	P1361014.D
Level 3	STD02 240-4360/15	P1361015.D
Level 4	STD05 240-4360/16	P1361016.D
Level 5	STD1 240-4360/17	P1361017.D
Level 6	STD2 240-4360/18	P1361018.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	Ave	3704167 125891787	7257368	15267139	35274457	67651309	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	Ave	10314015 382013250	20537347	40492557	106142032	205785870	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	Ave	11203238 396208451	22058164	43421981	112217937	215596729	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	Ave	19858249 711472119	39136944	76819882	201502273	389162441	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	Ave	4849683 204122880	9533422	18936772	53795658	106056877	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 16:30 Calibration End Date: 06/10/2011 17:45 Calibration ID: 1391

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/13	P1361013.D
Level 2	STD01 240-4360/14	P1361014.D
Level 3	STD02 240-4360/15	P1361015.D
Level 4	STD05 240-4360/16	P1361016.D
Level 5	STD1 240-4360/17	P1361017.D
Level 6	STD2 240-4360/18	P1361018.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1248 Peak 1	2.530	2.530	2.529	2.530	2.529	2.529	2.480 - 2.580	2.530
PCB-1248 Peak 2	3.009	3.008	3.008	3.010	3.008	3.009	2.959 - 3.059	3.009
PCB-1248 Peak 3	3.803	3.803	3.803	3.803	3.802	3.803	3.753 - 3.853	3.803
PCB-1248 Peak 4	4.141	4.140	4.140	4.141	4.140	4.140	4.091 - 4.191	4.140
PCB-1248 Peak 5	4.860	4.859	4.859	4.860	4.860	4.859	4.810 - 4.910	4.860

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 16:30 Calibration End Date: 06/10/2011 17:45 Calibration ID: 1391

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/13	P1361013.D
Level 2	STD01 240-4360/14	P1361014.D
Level 3	STD02 240-4360/15	P1361015.D
Level 4	STD05 240-4360/16	P1361016.D
Level 5	STD1 240-4360/17	P1361017.D
Level 6	STD2 240-4360/18	P1361018.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1248 Peak 1	41458040 36320843	40093560 34252602	36858400	36978446	Ave		37660315.1				7.0		20.0			
PCB-1248 Peak 2	109181740 106430715	105632080 99773393	99493375	107941358	Ave		104742110				4.0		20.0			
PCB-1248 Peak 3	107147120 102567717	105121380 96512695	99781640	104807424	Ave		102656329				3.8		20.0			
PCB-1248 Peak 4	119005800 116423399	116250050 108904856	110763185	118265090	Ave		114935397				3.6		20.0			
PCB-1248 Peak 5	61030820 61672718	60056070 58211669	59704930	62680708	Ave		60559485.8				2.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 16:30 Calibration End Date: 06/10/2011 17:45 Calibration ID: 1391

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/13	P1361013.D
Level 2	STD01 240-4360/14	P1361014.D
Level 3	STD02 240-4360/15	P1361015.D
Level 4	STD05 240-4360/16	P1361016.D
Level 5	STD1 240-4360/17	P1361017.D
Level 6	STD2 240-4360/18	P1361018.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	Ave	2072902 68505203	4009356	7371680	18489223	36320843	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	Ave	5459087 199546786	10563208	19898675	53970679	106430715	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	Ave	5357356 193025389	10512138	19956328	52403712	102567717	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	Ave	5950290 217809711	11625005	22152637	59132545	116423399	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	Ave	3051541 116423337	6005607	11940986	31340354	61672718	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 18:00 Calibration End Date: 06/10/2011 19:16 Calibration ID: 1396

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/19	P1361019.D
Level 2	STD01 240-4360/20	P1361020.D
Level 3	STD02 240-4360/21	P1361021.D
Level 4	STD05 240-4360/22	P1361022.D
Level 5	STD1 240-4360/23	P1361023.D
Level 6	STD2 240-4360/24	P1361024.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1221 Peak 1	1.334	1.333	1.331	1.333	1.333	1.333	1.284 - 1.384	1.333
PCB-1221 Peak 2	1.449	1.447	1.446	1.447	1.446	1.447	1.399 - 1.499	1.447
PCB-1221 Peak 3	1.478	1.477	1.476	1.477	1.477	1.478	1.428 - 1.528	1.477
PCB-1254 Peak 1	3.110	3.110	3.108	3.110	3.108	3.109	3.060 - 3.160	3.109
PCB-1254 Peak 2	3.388	3.389	3.387	3.388	3.388	3.388	3.338 - 3.438	3.388
PCB-1254 Peak 3	3.796	3.796	3.796	3.796	3.794	3.796	3.746 - 3.846	3.796
PCB-1254 Peak 4	4.097	4.097	4.096	4.096	4.095	4.096	4.047 - 4.147	4.096
PCB-1254 Peak 5	4.598	4.600	4.598	4.598	4.598	4.598	4.548 - 4.648	4.598

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 18:00 Calibration End Date: 06/10/2011 19:16 Calibration ID: 1396

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/19	P1361019.D
Level 2	STD01 240-4360/20	P1361020.D
Level 3	STD02 240-4360/21	P1361021.D
Level 4	STD05 240-4360/22	P1361022.D
Level 5	STD1 240-4360/23	P1361023.D
Level 6	STD2 240-4360/24	P1361024.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1221 Peak 1	80234660 53350402	62342610 47867565	57773200	55609580	Ave		59529669.4				19.0		20.0			
PCB-1221 Peak 2	37863460 27032946	31521830 23819151	31766450	25836792	Ave		29640104.8				17.0		20.0			
PCB-1221 Peak 3	172730180 127613372	153188360 111769964	145064580	143144462	Ave		142251820				15.0		20.0			
PCB-1254 Peak 1	189966920 169422607	200001670 125590158	178951850	179622630	Ave		173925973				15.0		20.0			
PCB-1254 Peak 2	335205840 332905160	348235420 272046317	347506020	351055208	Ave		331158994				9.0		20.0			
PCB-1254 Peak 3	320556840 350498474	333203150 268522509	346103085	347405664	Ave		327714954				9.5		20.0			
PCB-1254 Peak 4	283191720 313955307	309464030 256917802	322244580	326880272	Ave		302108952				8.9		20.0			
PCB-1254 Peak 5	341466100 371366636	369925260 313709486	385419735	386607746	Ave		361415827				7.9		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 18:00 Calibration End Date: 06/10/2011 19:16 Calibration ID: 1396

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/19	P1361019.D
Level 2	STD01 240-4360/20	P1361020.D
Level 3	STD02 240-4360/21	P1361021.D
Level 4	STD05 240-4360/22	P1361022.D
Level 5	STD1 240-4360/23	P1361023.D
Level 6	STD2 240-4360/24	P1361024.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6					LVL 6				
PCB-1221 Peak 1	Ave	4011733	6234261	11554640	27804790	53350402	0.0500	0.100	0.200	0.500	1.00
		95735129					2.00				
PCB-1221 Peak 2	Ave	1893173	3152183	6353290	12918396	27032946	0.0500	0.100	0.200	0.500	1.00
		47638301					2.00				
PCB-1221 Peak 3	Ave	8636509	15318836	29012916	71572231	127613372	0.0500	0.100	0.200	0.500	1.00
		223539927					2.00				
PCB-1254 Peak 1	Ave	9498346	20000167	35790370	89811315	169422607	0.0500	0.100	0.200	0.500	1.00
		251180316					2.00				
PCB-1254 Peak 2	Ave	16760292	34823542	69501204	175527604	332905160	0.0500	0.100	0.200	0.500	1.00
		544092633					2.00				
PCB-1254 Peak 3	Ave	16027842	33320315	69220617	173702832	350498474	0.0500	0.100	0.200	0.500	1.00
		537045017					2.00				
PCB-1254 Peak 4	Ave	14159586	30946403	64448916	163440136	313955307	0.0500	0.100	0.200	0.500	1.00
		513835604					2.00				
PCB-1254 Peak 5	Ave	17073305	36992526	77083947	193303873	371366636	0.0500	0.100	0.200	0.500	1.00
		627418972					2.00				

Curve Type Legend:

Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 18:00 Calibration End Date: 06/10/2011 19:16 Calibration ID: 1397

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/19	P1361019.D
Level 2	STD01 240-4360/20	P1361020.D
Level 3	STD02 240-4360/21	P1361021.D
Level 4	STD05 240-4360/22	P1361022.D
Level 5	STD1 240-4360/23	P1361023.D
Level 6	STD2 240-4360/24	P1361024.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1221 Peak 1	1.915	1.914	1.913	1.915	1.913	1.913	1.865 - 1.965	1.914
PCB-1221 Peak 2	2.053	2.052	2.051	2.052	2.051	2.051	2.003 - 2.103	2.052
PCB-1221 Peak 3	2.113	2.111	2.110	2.111	2.110	2.111	2.063 - 2.163	2.111
PCB-1254 Peak 1	4.363	4.362	4.361	4.361	4.362	4.361	4.313 - 4.413	4.362
PCB-1254 Peak 2	4.859	4.859	4.859	4.858	4.859	4.859	4.809 - 4.909	4.859
PCB-1254 Peak 3	5.122	5.122	5.121	5.121	5.121	5.122	5.072 - 5.172	5.122
PCB-1254 Peak 4	5.499	5.498	5.498	5.499	5.499	5.499	5.449 - 5.549	5.499
PCB-1254 Peak 5	5.714	5.715	5.715	5.716	5.716	5.716	5.664 - 5.764	5.715

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 18:00 Calibration End Date: 06/10/2011 19:16 Calibration ID: 1397

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/19	P1361019.D
Level 2	STD01 240-4360/20	P1361020.D
Level 3	STD02 240-4360/21	P1361021.D
Level 4	STD05 240-4360/22	P1361022.D
Level 5	STD1 240-4360/23	P1361023.D
Level 6	STD2 240-4360/24	P1361024.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1221 Peak 1	30621980 26575941	29920730 25209437	29238535	28618096	Ave		28364119.8				7.3		20.0			
PCB-1221 Peak 2	19890760 15352514	19199190 13867022	18955495	18403410	Ave		17611398.4				14.0		20.0			
PCB-1221 Peak 3	77271060 61324319	73183650 55772932	72104465	70820464	Ave		68412815.0				12.0		20.0			
PCB-1254 Peak 1	128289780 117882588	124159430 114644557	124237195	124089586	Ave		122217189				4.1		20.0			
PCB-1254 Peak 2	195645820 188506186	195970760 181762803	196278125	197002398	Ave		192527682				3.2		20.0			
PCB-1254 Peak 3	126138320 126174892	127407380 124305515	127966880	128912826	Ave		126817635				1.3		20.0			
PCB-1254 Peak 4	142334280 147153827	144542380 144721156	146951000	148779718	Ave		145747060				1.6		20.0			
PCB-1254 Peak 5	174439840 173265524	182709010 169167704	177592185	186757468	Ave		177321955				3.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 18:00 Calibration End Date: 06/10/2011 19:16 Calibration ID: 1397

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/19	P1361019.D
Level 2	STD01 240-4360/20	P1361020.D
Level 3	STD02 240-4360/21	P1361021.D
Level 4	STD05 240-4360/22	P1361022.D
Level 5	STD1 240-4360/23	P1361023.D
Level 6	STD2 240-4360/24	P1361024.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	Ave	1531099 50418873	2992073	5847707	14309048	26575941	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 2	Ave	994538 27734043	1919919	3791099	9201705	15352514	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 3	Ave	3863553 111545864	7318365	14420893	35410232	61324319	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 1	Ave	6414489 229289113	12415943	24847439	62044793	117882588	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 2	Ave	9782291 363525606	19597076	39255625	98501199	188506186	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 3	Ave	6306916 248611029	12740738	25593376	64456413	126174892	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 4	Ave	7116714 289442312	14454238	29390200	74389859	147153827	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 5	Ave	8721992 338335408	18270901	35518437	93378734	173265524	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1402

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1016 Peak 1	1.478	1.480	1.478	1.478	1.479	1.478	1.428 - 1.528	1.479
PCB-1016 Peak 2	1.777	1.779	1.776	1.775	1.777	1.777	1.725 - 1.825	1.777
PCB-1016 Peak 3	2.192	2.192	2.191	2.191	2.192	2.192	2.141 - 2.241	2.192
PCB-1016 Peak 4	2.320	2.321	2.319	2.319	2.320	2.320	2.269 - 2.369	2.320
PCB-1016 Peak 5	2.376	2.377	2.376	2.375	2.377	2.377	2.325 - 2.425	2.376
PCB-1260 Peak 1	3.998	4.000	3.999	3.998	3.999	3.998	3.948 - 4.048	3.999
PCB-1260 Peak 2	4.304	4.306	4.305	4.304	4.304	4.303	4.254 - 4.354	4.304
PCB-1260 Peak 3	4.598	4.599	4.598	4.597	4.598	4.598	4.547 - 4.647	4.598
PCB-1260 Peak 4	5.341	5.341	5.341	5.340	5.340	5.339	5.290 - 5.390	5.340
PCB-1260 Peak 5	5.638	5.638	5.638	5.637	5.637	5.637	5.587 - 5.687	5.638
Tetrachloro-m-xylene	1.193	1.195	1.194	1.195	1.195	1.194	1.145 - 1.245	1.194
Decachlorobiphenyl	6.857	6.858	6.857	6.857	6.857	6.857	6.807 - 6.907	6.857

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1402

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4		B	M1	M2								
	LVL 5	LVL 6														
PCB-1016 Peak 1	123865700	143125620	105190645	98128022	Ave		113350337				15.0		20.0			
	109003675	100788360														
PCB-1016 Peak 2	203037680	207103590	184231645	174964920	Ave		181448143				12.0		20.0			
	166841704	152509321														
PCB-1016 Peak 3	412721820	416895930	406321625	394149700	Ave		395538572				5.3		20.0			
	382063780	361078574														
PCB-1016 Peak 4	176680100	179466070	169997380	167788626	Ave		168953212				5.1		20.0			
	163974588	155812510														
PCB-1016 Peak 5	110990360	116880940	109901730	110894724	Ave		111394350				2.6		20.0			
	111219546	108478801														
PCB-1260 Peak 1	247565860	254582430	241516135	244687554	Ave		244111963				2.7		20.0			
	241476724	234843074														
PCB-1260 Peak 2	543237360	545553950	534557260	526537158	Ave		527110717				3.4		20.0			
	514522341	498256235														
PCB-1260 Peak 3	468491380	472777320	470243350	467123934	Ave		466356170				1.3		20.0			
	463573470	455927567														
PCB-1260 Peak 4	808900780	817771090	826860880	798828018	Ave		806305909				1.8		20.0			
	799995243	785479441														
PCB-1260 Peak 5	327204280	327392490	334765085	319290038	Ave		327827711				1.6		20.0			
	327637302	330677068														
Tetrachloro-m-xylene	6962918000	6640790800	6059870700	5586536080	Ave		5961253188				12.0		20.0			
	5507406000	5009997550														
Decachlorobiphenyl	5685028400	5402986800	5633498800	5000657320	Ave		5392536235				4.6		20.0			
	5283917780	5349128310														

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1402

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	6193285 201576719	14312562	21038129	49064011	109003675	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	10151884 305018642	20710359	36846329	87482460	166841704	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	20636091 722157148	41689593	81264325	197074850	382063780	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	8834005 311625019	17946607	33999476	83894313	163974588	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	5549518 216957601	11688094	21980346	55447362	111219546	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	12378293 469686148	25458243	48303227	122343777	241476724	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	27161868 996512469	54555395	106911452	263268579	514522341	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	23424569 911855134	47277732	94048670	233561967	463573470	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	40445039 1570958881	81777109	165372176	399414009	799995243	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	16360214 661354136	32739249	66953017	159645019	327637302	0.0500 2.00	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	Ave	17407295 500999755	33203954	60598707	139663402	275370300	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
Decachlorobiphenyl	Ave	14212571 534912831	27014934	56334988	125016433	264195889	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1403

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1016 Peak 1	2.112	2.113	2.111	2.111	2.112	2.111	2.061 - 2.161	2.112
PCB-1016 Peak 2	2.532	2.533	2.530	2.531	2.532	2.532	2.481 - 2.581	2.532
PCB-1016 Peak 3	3.010	3.011	3.009	3.010	3.011	3.010	2.960 - 3.060	3.010
PCB-1016 Peak 4	3.155	3.156	3.154	3.155	3.156	3.155	3.105 - 3.205	3.155
PCB-1016 Peak 5	3.264	3.265	3.262	3.264	3.263	3.263	3.214 - 3.314	3.264
PCB-1260 Peak 1	5.081	5.082	5.081	5.081	5.082	5.081	5.031 - 5.131	5.081
PCB-1260 Peak 2	5.330	5.331	5.329	5.330	5.330	5.329	5.280 - 5.380	5.330
PCB-1260 Peak 3	5.825	5.826	5.825	5.825	5.826	5.825	5.775 - 5.875	5.825
PCB-1260 Peak 4	6.442	6.442	6.441	6.441	6.442	6.441	6.391 - 6.491	6.442
PCB-1260 Peak 5	6.839	6.840	6.840	6.840	6.839	6.839	6.790 - 6.890	6.840
Tetrachloro-m-xylene	1.624	1.626	1.624	1.625	1.626	1.625	1.575 - 1.675	1.625
Decachlorobiphenyl	8.142	8.141	8.141	8.141	8.142	8.141	8.091 - 8.191	8.141

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1403

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4		B	M1	M2								
	LVL 5	LVL 6														
PCB-1016 Peak 1	54123980	51711250	50000665	48036378	Ave		49073453.1				7.4		20.0			
	46430606	44137840														
PCB-1016 Peak 2	102429520	104264570	99802885	94480590	Ave		95996990.5				7.9		20.0			
	90128108	84876270														
PCB-1016 Peak 3	205147920	209479280	208226480	202173684	Ave		201951124				3.7		20.0			
	196416689	190262692														
PCB-1016 Peak 4	87658200	92482630	89868770	86878262	Ave		87284951.3				4.2		20.0			
	84728621	82093225														
PCB-1016 Peak 5	66026480	71725440	70087825	68326392	Ave		68368175.3				3.2		20.0			
	67403261	66639654														
PCB-1260 Peak 1	141217300	137737720	134223555	130914598	Ave		133785153				3.7		20.0			
	130204491	128413256														
PCB-1260 Peak 2	163827840	154622410	152875155	146535160	Ave		151746464				4.6		20.0			
	146862537	145755684														
PCB-1260 Peak 3	127403120	125959050	122052630	118483844	Ave		122443788				2.9		20.0			
	120378573	120385510														
PCB-1260 Peak 4	303547040	298457310	304252700	289654470	Ave		296731974				2.1		20.0			
	291756754	292723570														
PCB-1260 Peak 5	214135780	209509140	211654735	201970128	Ave		208320715				2.1		20.0			
	205830060	206824447														
Tetrachloro-m-xylene	3001733600	3030646000	2935540400	2827889160	Ave		2913739370				3.2		20.0			
	2889446860	2797180200														
Decachlorobiphenyl	2522259600	2420519200	2488654300	2237002040	Ave		2408118942				4.2		20.0			
	2370805020	2409473490														

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1403

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	2706199 88275679	5171125	10000133	24018189	46430606	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	5121476 169752540	10426457	19960577	47240295	90128108	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	10257396 380525384	20947928	41645296	101086842	196416689	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	4382910 164186450	9248263	17973754	43439131	84728621	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	3301324 133279308	7172544	14017565	34163196	67403261	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	7060865 256826512	13773772	26844711	65457299	130204491	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	8191392 291511367	15462241	30575031	73267580	146862537	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	6370156 240771019	12595905	24410526	59241922	120378573	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	15177352 585447140	29845731	60850540	144827235	291756754	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	10706789 413648894	20950914	42330947	100985064	205830060	0.0500 2.00	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	Ave	7504334 279718020	15153230	29355404	70697229	144472343	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
Decachlorobiphenyl	Ave	6305649 240947349	12102596	24886543	55925051	118540251	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Ave = Average

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/43 Calibration Date: 06/11/2011 00:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361043.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	59529669	52715120		0.886	1.00	-11.4	20.0
PCB-1221 Peak 2	Ave	29640105	23953172		0.808	1.00	-19.2	20.0
PCB-1221 Peak 3	Ave	142251820	125366199		0.881	1.00	-11.9	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/43 Calibration Date: 06/11/2011 00:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361043.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1221 Peak 1	1.33	1.28	1.38
PCB-1221 Peak 2	1.45	1.40	1.50
PCB-1221 Peak 3	1.48	1.43	1.53

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/43 Calibration Date: 06/11/2011 00:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361043.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	28364120	25778325		0.909	1.00	-9.1	20.0
PCB-1221 Peak 2	Ave	17611398	17070675		0.969	1.00	-3.1	20.0
PCB-1221 Peak 3	Ave	68412815	65576250		0.959	1.00	-4.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/43 Calibration Date: 06/11/2011 00:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361043.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1221 Peak 1	1.91	1.87	1.97
PCB-1221 Peak 2	2.05	2.00	2.10
PCB-1221 Peak 3	2.11	2.06	2.16

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/44 Calibration Date: 06/11/2011 00:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 13:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 14:45

Lab File ID: P1361044.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	114108036	121357184		1.06	1.00	6.4	20.0
PCB-1232 Peak 2	Ave	83666452	90319312		1.08	1.00	8.0	20.0
PCB-1232 Peak 3	Ave	173248856	189426406		1.09	1.00	9.3	20.0
PCB-1232 Peak 4	Ave	71291335	81548775		1.14	1.00	14.4	20.0
PCB-1232 Peak 5	Ave	62347763	76507128		1.23	1.00	22.7*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/44 Calibration Date: 06/11/2011 00:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 13:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 14:45

Lab File ID: P1361044.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1232 Peak 1	1.48	1.43	1.53
PCB-1232 Peak 2	1.78	1.73	1.83
PCB-1232 Peak 3	2.19	2.15	2.25
PCB-1232 Peak 4	2.32	2.28	2.38
PCB-1232 Peak 5	2.72	2.68	2.78

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/44 Calibration Date: 06/11/2011 00:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 13:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 14:45

Lab File ID: P1361044.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	55349218	55327745		1.00	1.00	-0.0	20.0
PCB-1232 Peak 2	Ave	42999205	46661676		1.09	1.00	8.5	20.0
PCB-1232 Peak 3	Ave	85696670	100060648		1.17	1.00	16.8	20.0
PCB-1232 Peak 4	Ave	36220144	42257802		1.17	1.00	16.7	20.0
PCB-1232 Peak 5	Ave	28503753	31552983		1.11	1.00	10.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/44 Calibration Date: 06/11/2011 00:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 13:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 14:45

Lab File ID: P1361044.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1232 Peak 1	2.11	2.06	2.16
PCB-1232 Peak 2	2.53	2.48	2.58
PCB-1232 Peak 3	3.01	2.96	3.06
PCB-1232 Peak 4	3.16	3.11	3.21
PCB-1232 Peak 5	3.67	3.62	3.72

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/45 Calibration Date: 06/11/2011 00:31

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 15:00

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 16:14

Lab File ID: P1361045.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	86461194	88361822		1.02	1.00	2.2	20.0
PCB-1242 Peak 2	Ave	153459568	145791746		0.950	1.00	-5.0	20.0
PCB-1242 Peak 3	Ave	328674752	309891378		0.943	1.00	-5.7	20.0
PCB-1242 Peak 4	Ave	139569528	138661346		0.990	1.00	-0.7	20.0
PCB-1242 Peak 5	Ave	138292113	142599283		1.03	1.00	3.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/45 Calibration Date: 06/11/2011 00:31

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 15:00

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 16:14

Lab File ID: P1361045.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1242 Peak 1	1.48	1.43	1.53
PCB-1242 Peak 2	1.78	1.73	1.83
PCB-1242 Peak 3	2.19	2.14	2.24
PCB-1242 Peak 4	2.32	2.27	2.37
PCB-1242 Peak 5	2.72	2.67	2.77

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/45 Calibration Date: 06/11/2011 00:31

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 15:00

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 16:14

Lab File ID: P1361045.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	40613298	38570484		0.950	1.00	-5.0	20.0
PCB-1242 Peak 2	Ave	79986234	76511120		0.957	1.00	-4.3	20.0
PCB-1242 Peak 3	Ave	166076137	164264572		0.989	1.00	-1.1	20.0
PCB-1242 Peak 4	Ave	70366183	70396802		1.00	1.00	0.0	20.0
PCB-1242 Peak 5	Ave	58407479	57922191		0.990	1.00	-0.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/45 Calibration Date: 06/11/2011 00:31

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 15:00

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 16:14

Lab File ID: P1361045.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1242 Peak 1	2.11	2.06	2.16
PCB-1242 Peak 2	2.53	2.48	2.58
PCB-1242 Peak 3	3.01	2.96	3.06
PCB-1242 Peak 4	3.16	3.11	3.21
PCB-1242 Peak 5	3.67	3.62	3.72

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/46 Calibration Date: 06/11/2011 00:46

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 16:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 17:45

Lab File ID: P1361046.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	70689805	81717134		1.16	1.00	15.6	20.0
PCB-1248 Peak 2	Ave	203865519	210239913		1.03	1.00	3.1	20.0
PCB-1248 Peak 3	Ave	216648856	217421920		1.00	1.00	0.4	20.0
PCB-1248 Peak 4	Ave	386756146	350137422		0.905	1.00	-9.5	20.0
PCB-1248 Peak 5	Ave	100453562	109137011		1.09	1.00	8.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/46 Calibration Date: 06/11/2011 00:46

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 16:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 17:45

Lab File ID: P1361046.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1248 Peak 1	1.78	1.73	1.83
PCB-1248 Peak 2	2.19	2.14	2.24
PCB-1248 Peak 3	2.72	2.68	2.78
PCB-1248 Peak 4	3.16	3.12	3.22
PCB-1248 Peak 5	3.80	3.75	3.85

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/46 Calibration Date: 06/11/2011 00:46

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 16:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 17:45

Lab File ID: P1361046.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	37660315	41544874		1.10	1.00	10.3	20.0
PCB-1248 Peak 2	Ave	104742110	111115583		1.06	1.00	6.1	20.0
PCB-1248 Peak 3	Ave	102656329	93402855		0.910	1.00	-9.0	20.0
PCB-1248 Peak 4	Ave	114935397	111289201		0.968	1.00	-3.2	20.0
PCB-1248 Peak 5	Ave	60559486	58159040		0.960	1.00	-4.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/46 Calibration Date: 06/11/2011 00:46

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 16:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 17:45

Lab File ID: P1361046.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1248 Peak 1	2.53	2.48	2.58
PCB-1248 Peak 2	3.01	2.96	3.06
PCB-1248 Peak 3	3.80	3.75	3.85
PCB-1248 Peak 4	4.14	4.09	4.19
PCB-1248 Peak 5	4.86	4.81	4.91

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/47 Calibration Date: 06/11/2011 01:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361047.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1254 Peak 1	Ave	173925973	185587829		1.07	1.00	6.7	20.0
PCB-1254 Peak 2	Ave	331158994	320326635		0.967	1.00	-3.3	20.0
PCB-1254 Peak 3	Ave	327714954	312629979		0.954	1.00	-4.6	20.0
PCB-1254 Peak 4	Ave	302108952	297393294		0.984	1.00	-1.6	20.0
PCB-1254 Peak 5	Ave	361415827	368148269		1.02	1.00	1.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/47 Calibration Date: 06/11/2011 01:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361047.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1254 Peak 1	3.11	3.06	3.16
PCB-1254 Peak 2	3.39	3.34	3.44
PCB-1254 Peak 3	3.80	3.75	3.85
PCB-1254 Peak 4	4.10	4.05	4.15
PCB-1254 Peak 5	4.60	4.55	4.65

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/47 Calibration Date: 06/11/2011 01:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361047.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1254 Peak 1	Ave	122217189	114149272		0.934	1.00	-6.6	20.0
PCB-1254 Peak 2	Ave	192527682	172525788		0.896	1.00	-10.4	20.0
PCB-1254 Peak 3	Ave	126817635	118485632		0.934	1.00	-6.6	20.0
PCB-1254 Peak 4	Ave	145747060	142024678		0.975	1.00	-2.6	20.0
PCB-1254 Peak 5	Ave	177321955	172623570		0.974	1.00	-2.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/47 Calibration Date: 06/11/2011 01:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361047.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1254 Peak 1	4.36	4.31	4.41
PCB-1254 Peak 2	4.86	4.81	4.91
PCB-1254 Peak 3	5.12	5.07	5.17
PCB-1254 Peak 4	5.50	5.45	5.55
PCB-1254 Peak 5	5.72	5.66	5.76

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/48 Calibration Date: 06/11/2011 01:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361048.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	113350337	115715406		1.02	1.00	2.1	20.0
PCB-1016 Peak 2	Ave	181448143	187156612		1.03	1.00	3.1	20.0
PCB-1016 Peak 3	Ave	395538572	401061767		1.01	1.00	1.4	20.0
PCB-1016 Peak 4	Ave	168953212	181856646		1.08	1.00	7.6	20.0
PCB-1016 Peak 5	Ave	111394350	122730792		1.10	1.00	10.2	20.0
PCB-1260 Peak 1	Ave	244111963	258495406		1.06	1.00	5.9	20.0
PCB-1260 Peak 2	Ave	527110717	539652201		1.02	1.00	2.4	20.0
PCB-1260 Peak 3	Ave	466356170	487839866		1.05	1.00	4.6	20.0
PCB-1260 Peak 4	Ave	806305909	862074138		1.07	1.00	6.9	20.0
PCB-1260 Peak 5	Ave	327827711	360998607		1.10	1.00	10.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/48 Calibration Date: 06/11/2011 01:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361048.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.48	1.43	1.53
PCB-1016 Peak 2	1.78	1.73	1.83
PCB-1016 Peak 3	2.19	2.14	2.24
PCB-1016 Peak 4	2.32	2.27	2.37
PCB-1016 Peak 5	2.38	2.33	2.43
PCB-1260 Peak 1	4.00	3.95	4.05
PCB-1260 Peak 2	4.30	4.25	4.35
PCB-1260 Peak 3	4.60	4.55	4.65
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.64	5.59	5.69

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/48 Calibration Date: 06/11/2011 01:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361048.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	49073453	49770959		1.01	1.00	1.4	20.0
PCB-1016 Peak 2	Ave	95996991	94538777		0.985	1.00	-1.5	20.0
PCB-1016 Peak 3	Ave	201951124	214816174		1.06	1.00	6.4	20.0
PCB-1016 Peak 4	Ave	87284951	92523893		1.06	1.00	6.0	20.0
PCB-1016 Peak 5	Ave	68368175	73520272		1.08	1.00	7.5	20.0
PCB-1260 Peak 1	Ave	133785153	136927915		1.02	1.00	2.3	20.0
PCB-1260 Peak 2	Ave	151746464	155904546		1.03	1.00	2.7	20.0
PCB-1260 Peak 3	Ave	122443788	129161224		1.05	1.00	5.5	20.0
PCB-1260 Peak 4	Ave	296731974	319038171		1.08	1.00	7.5	20.0
PCB-1260 Peak 5	Ave	208320715	217758948		1.05	1.00	4.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-4360/48 Calibration Date: 06/11/2011 01:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361048.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.11	2.06	2.16
PCB-1016 Peak 2	2.53	2.48	2.58
PCB-1016 Peak 3	3.01	2.96	3.06
PCB-1016 Peak 4	3.16	3.11	3.21
PCB-1016 Peak 5	3.26	3.21	3.31
PCB-1260 Peak 1	5.08	5.03	5.13
PCB-1260 Peak 2	5.33	5.28	5.38
PCB-1260 Peak 3	5.83	5.78	5.88
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.84	6.79	6.89

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4680/10 Calibration Date: 06/14/2011 14:20

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361410.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	113350337	107541294		0.474	0.500	-5.1	20.0
PCB-1016 Peak 2	Ave	181448143	168820470		0.465	0.500	-7.0	20.0
PCB-1016 Peak 3	Ave	395538572	389012556		0.492	0.500	-1.6	20.0
PCB-1016 Peak 4	Ave	168953212	160057800		0.474	0.500	-5.3	20.0
PCB-1016 Peak 5	Ave	111394350	105424304		0.473	0.500	-5.4	20.0
PCB-1260 Peak 1	Ave	244111963	223320928		0.457	0.500	-8.5	20.0
PCB-1260 Peak 2	Ave	527110717	494113704		0.469	0.500	-6.3	20.0
PCB-1260 Peak 3	Ave	466356170	440653400		0.472	0.500	-5.5	20.0
PCB-1260 Peak 4	Ave	806305909	730767372		0.453	0.500	-9.4	20.0
PCB-1260 Peak 5	Ave	327827711	291779892		0.445	0.500	-11.0	20.0
Tetrachloro-m-xylene	Ave	5961253188	5490250560		0.0230	0.0250	-7.9	20.0
Decachlorobiphenyl	Ave	5392536235	4594453560		0.0213	0.0250	-14.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4680/10 Calibration Date: 06/14/2011 14:20

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361410.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.48	1.43	1.53
PCB-1016 Peak 2	1.78	1.73	1.83
PCB-1016 Peak 3	2.19	2.14	2.24
PCB-1016 Peak 4	2.32	2.27	2.37
PCB-1016 Peak 5	2.38	2.33	2.43
PCB-1260 Peak 1	4.00	3.95	4.05
PCB-1260 Peak 2	4.31	4.26	4.36
PCB-1260 Peak 3	4.60	4.55	4.65
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.64	5.59	5.69
Tetrachloro-m-xylene	1.20	1.15	1.25
Decachlorobiphenyl	6.86	6.81	6.91

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4680/10 Calibration Date: 06/14/2011 14:20

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361410.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	49073453	44895304		0.457	0.500	-8.5	20.0
PCB-1016 Peak 2	Ave	95996991	91220314		0.475	0.500	-5.0	20.0
PCB-1016 Peak 3	Ave	201951124	197718716		0.490	0.500	-2.1	20.0
PCB-1016 Peak 4	Ave	87284951	81743182		0.468	0.500	-6.3	20.0
PCB-1016 Peak 5	Ave	68368175	64986392		0.475	0.500	-4.9	20.0
PCB-1260 Peak 1	Ave	133785153	125421670		0.469	0.500	-6.3	20.0
PCB-1260 Peak 2	Ave	151746464	145077116		0.478	0.500	-4.4	20.0
PCB-1260 Peak 3	Ave	122443788	117843620		0.481	0.500	-3.8	20.0
PCB-1260 Peak 4	Ave	296731974	283924136		0.478	0.500	-4.3	20.0
PCB-1260 Peak 5	Ave	208320715	194107068		0.466	0.500	-6.8	20.0
Tetrachloro-m-xylene	Ave	2913739370	2741738920		0.0235	0.0250	-5.9	20.0
Decachlorobiphenyl	Ave	2408118942	2172582760		0.0226	0.0250	-9.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4680/10 Calibration Date: 06/14/2011 14:20

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361410.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.11	2.06	2.16
PCB-1016 Peak 2	2.53	2.48	2.58
PCB-1016 Peak 3	3.01	2.96	3.06
PCB-1016 Peak 4	3.16	3.11	3.21
PCB-1016 Peak 5	3.26	3.21	3.31
PCB-1260 Peak 1	5.08	5.03	5.13
PCB-1260 Peak 2	5.33	5.28	5.38
PCB-1260 Peak 3	5.83	5.78	5.88
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.84	6.79	6.89
Tetrachloro-m-xylene	1.63	1.58	1.68
Decachlorobiphenyl	8.14	8.09	8.19

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4680/21 Calibration Date: 06/14/2011 17:05

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361421.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	113350337	99360988		0.438	0.500	-12.3	20.0
PCB-1016 Peak 2	Ave	181448143	181866982		0.501	0.500	0.2	20.0
PCB-1016 Peak 3	Ave	395538572	413673728		0.523	0.500	4.6	20.0
PCB-1016 Peak 4	Ave	168953212	173665398		0.514	0.500	2.8	20.0
PCB-1016 Peak 5	Ave	111394350	116294918		0.522	0.500	4.4	20.0
PCB-1260 Peak 1	Ave	244111963	257423914		0.527	0.500	5.5	20.0
PCB-1260 Peak 2	Ave	527110717	549437670		0.521	0.500	4.2	20.0
PCB-1260 Peak 3	Ave	466356170	486076786		0.521	0.500	4.2	20.0
PCB-1260 Peak 4	Ave	806305909	798040848		0.495	0.500	-1.0	20.0
PCB-1260 Peak 5	Ave	327827711	321293244		0.490	0.500	-2.0	20.0
Tetrachloro-m-xylene	Ave	5961253188	5791796480		0.0243	0.0250	-2.8	20.0
Decachlorobiphenyl	Ave	5392536235	4548737600		0.0211	0.0250	-15.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4680/21 Calibration Date: 06/14/2011 17:05

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361421.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.48	1.43	1.53
PCB-1016 Peak 2	1.78	1.73	1.83
PCB-1016 Peak 3	2.19	2.14	2.24
PCB-1016 Peak 4	2.32	2.27	2.37
PCB-1016 Peak 5	2.38	2.33	2.43
PCB-1260 Peak 1	4.00	3.95	4.05
PCB-1260 Peak 2	4.31	4.26	4.36
PCB-1260 Peak 3	4.60	4.55	4.65
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.64	5.59	5.69
Tetrachloro-m-xylene	1.20	1.15	1.25
Decachlorobiphenyl	6.86	6.81	6.91

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4680/21 Calibration Date: 06/14/2011 17:05

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361421.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	49073453	47292192		0.482	0.500	-3.6	20.0
PCB-1016 Peak 2	Ave	95996991	96310922		0.502	0.500	0.3	20.0
PCB-1016 Peak 3	Ave	201951124	211951970		0.525	0.500	5.0	20.0
PCB-1016 Peak 4	Ave	87284951	87626530		0.502	0.500	0.4	20.0
PCB-1016 Peak 5	Ave	68368175	69900188		0.511	0.500	2.2	20.0
PCB-1260 Peak 1	Ave	133785153	126677672		0.473	0.500	-5.3	20.0
PCB-1260 Peak 2	Ave	151746464	144564744		0.476	0.500	-4.7	20.0
PCB-1260 Peak 3	Ave	122443788	113815828		0.465	0.500	-7.0	20.0
PCB-1260 Peak 4	Ave	296731974	273371198		0.461	0.500	-7.9	20.0
PCB-1260 Peak 5	Ave	208320715	192420314		0.462	0.500	-7.6	20.0
Tetrachloro-m-xylene	Ave	2913739370	2918507960		0.0250	0.0250	0.2	20.0
Decachlorobiphenyl	Ave	2408118942	2072285640		0.0215	0.0250	-13.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4680/21 Calibration Date: 06/14/2011 17:05

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361421.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.11	2.06	2.16
PCB-1016 Peak 2	2.53	2.48	2.58
PCB-1016 Peak 3	3.01	2.96	3.06
PCB-1016 Peak 4	3.16	3.11	3.21
PCB-1016 Peak 5	3.26	3.21	3.31
PCB-1260 Peak 1	5.08	5.03	5.13
PCB-1260 Peak 2	5.33	5.28	5.38
PCB-1260 Peak 3	5.83	5.78	5.88
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.84	6.79	6.89
Tetrachloro-m-xylene	1.63	1.58	1.68
Decachlorobiphenyl	8.14	8.09	8.19

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4680/32 Calibration Date: 06/14/2011 19:50

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361432.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	113350337	100407352		0.443	0.500	-11.4	20.0
PCB-1016 Peak 2	Ave	181448143	180019772		0.496	0.500	-0.8	20.0
PCB-1016 Peak 3	Ave	395538572	421450480		0.533	0.500	6.6	20.0
PCB-1016 Peak 4	Ave	168953212	174980572		0.518	0.500	3.6	20.0
PCB-1016 Peak 5	Ave	111394350	116282310		0.522	0.500	4.4	20.0
PCB-1260 Peak 1	Ave	244111963	264190778		0.541	0.500	8.2	20.0
PCB-1260 Peak 2	Ave	527110717	586620024		0.556	0.500	11.3	20.0
PCB-1260 Peak 3	Ave	466356170	531532756		0.570	0.500	14.0	20.0
PCB-1260 Peak 4	Ave	806305909	919787728		0.570	0.500	14.1	20.0
PCB-1260 Peak 5	Ave	327827711	378678148		0.578	0.500	15.5	20.0
Tetrachloro-m-xylene	Ave	5961253188	5849752920		0.0245	0.0250	-1.9	20.0
Decachlorobiphenyl	Ave	5392536235	5609010120		0.0260	0.0250	4.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4680/32 Calibration Date: 06/14/2011 19:50

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361432.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.48	1.43	1.53
PCB-1016 Peak 2	1.78	1.73	1.83
PCB-1016 Peak 3	2.19	2.14	2.24
PCB-1016 Peak 4	2.32	2.27	2.37
PCB-1016 Peak 5	2.38	2.33	2.43
PCB-1260 Peak 1	4.00	3.95	4.05
PCB-1260 Peak 2	4.31	4.26	4.36
PCB-1260 Peak 3	4.60	4.55	4.65
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.64	5.59	5.69
Tetrachloro-m-xylene	1.19	1.14	1.24
Decachlorobiphenyl	6.86	6.81	6.91

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4680/32 Calibration Date: 06/14/2011 19:50

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361432.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	49073453	48893234		0.498	0.500	-0.4	20.0
PCB-1016 Peak 2	Ave	95996991	99330444		0.517	0.500	3.5	20.0
PCB-1016 Peak 3	Ave	201951124	219882000		0.544	0.500	8.9	20.0
PCB-1016 Peak 4	Ave	87284951	90512394		0.519	0.500	3.7	20.0
PCB-1016 Peak 5	Ave	68368175	72391006		0.529	0.500	5.9	20.0
PCB-1260 Peak 1	Ave	133785153	141651986		0.529	0.500	5.9	20.0
PCB-1260 Peak 2	Ave	151746464	164148584		0.541	0.500	8.2	20.0
PCB-1260 Peak 3	Ave	122443788	134851242		0.551	0.500	10.1	20.0
PCB-1260 Peak 4	Ave	296731974	321189320		0.541	0.500	8.2	20.0
PCB-1260 Peak 5	Ave	208320715	226350552		0.543	0.500	8.7	20.0
Tetrachloro-m-xylene	Ave	2913739370	3014293720		0.0259	0.0250	3.5	20.0
Decachlorobiphenyl	Ave	2408118942	2424069240		0.0252	0.0250	0.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4680/32 Calibration Date: 06/14/2011 19:50

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361432.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.11	2.06	2.16
PCB-1016 Peak 2	2.53	2.48	2.58
PCB-1016 Peak 3	3.01	2.96	3.06
PCB-1016 Peak 4	3.16	3.11	3.21
PCB-1016 Peak 5	3.26	3.21	3.31
PCB-1260 Peak 1	5.08	5.03	5.13
PCB-1260 Peak 2	5.33	5.28	5.38
PCB-1260 Peak 3	5.83	5.78	5.88
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.84	6.79	6.89
Tetrachloro-m-xylene	1.62	1.58	1.68
Decachlorobiphenyl	8.14	8.09	8.19

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4871/3 Calibration Date: 06/15/2011 12:58

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361503.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	113350337	98109002		0.433	0.500	-13.4	20.0
PCB-1016 Peak 2	Ave	181448143	173437848		0.478	0.500	-4.4	20.0
PCB-1016 Peak 3	Ave	395538572	399583448		0.505	0.500	1.0	20.0
PCB-1016 Peak 4	Ave	168953212	165454180		0.490	0.500	-2.1	20.0
PCB-1016 Peak 5	Ave	111394350	110230036		0.495	0.500	-1.0	20.0
PCB-1260 Peak 1	Ave	244111963	254116424		0.521	0.500	4.1	20.0
PCB-1260 Peak 2	Ave	527110717	559133374		0.530	0.500	6.1	20.0
PCB-1260 Peak 3	Ave	466356170	515908884		0.553	0.500	10.6	20.0
PCB-1260 Peak 4	Ave	806305909	898960762		0.558	0.500	11.5	20.0
PCB-1260 Peak 5	Ave	327827711	374112436		0.571	0.500	14.1	20.0
Tetrachloro-m-xylene	Ave	5961253188	5593228800		0.0235	0.0250	-6.2	20.0
Decachlorobiphenyl	Ave	5392536235	6190351360		0.0287	0.0250	14.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4871/3 Calibration Date: 06/15/2011 12:58

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361503.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.48	1.43	1.53
PCB-1016 Peak 2	1.78	1.73	1.83
PCB-1016 Peak 3	2.19	2.14	2.24
PCB-1016 Peak 4	2.32	2.27	2.37
PCB-1016 Peak 5	2.38	2.33	2.43
PCB-1260 Peak 1	4.00	3.95	4.05
PCB-1260 Peak 2	4.31	4.26	4.36
PCB-1260 Peak 3	4.60	4.55	4.65
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.64	5.59	5.69
Tetrachloro-m-xylene	1.19	1.14	1.24
Decachlorobiphenyl	6.86	6.81	6.91

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4871/3 Calibration Date: 06/15/2011 12:58

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361503.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	49073453	45982972		0.469	0.500	-6.3	20.0
PCB-1016 Peak 2	Ave	95996991	93124514		0.485	0.500	-3.0	20.0
PCB-1016 Peak 3	Ave	201951124	204475498		0.506	0.500	1.2	20.0
PCB-1016 Peak 4	Ave	87284951	83749058		0.480	0.500	-4.1	20.0
PCB-1016 Peak 5	Ave	68368175	66660794		0.488	0.500	-2.5	20.0
PCB-1260 Peak 1	Ave	133785153	133293992		0.498	0.500	-0.4	20.0
PCB-1260 Peak 2	Ave	151746464	157403300		0.519	0.500	3.7	20.0
PCB-1260 Peak 3	Ave	122443788	130382774		0.532	0.500	6.5	20.0
PCB-1260 Peak 4	Ave	296731974	328094892		0.553	0.500	10.6	20.0
PCB-1260 Peak 5	Ave	208320715	234550330		0.563	0.500	12.6	20.0
Tetrachloro-m-xylene	Ave	2913739370	2838450840		0.0244	0.0250	-2.6	20.0
Decachlorobiphenyl	Ave	2408118942	2606291840		0.0271	0.0250	8.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4871/3 Calibration Date: 06/15/2011 12:58

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361503.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.11	2.06	2.16
PCB-1016 Peak 2	2.53	2.48	2.58
PCB-1016 Peak 3	3.01	2.96	3.06
PCB-1016 Peak 4	3.16	3.11	3.21
PCB-1016 Peak 5	3.26	3.21	3.31
PCB-1260 Peak 1	5.08	5.03	5.13
PCB-1260 Peak 2	5.33	5.28	5.38
PCB-1260 Peak 3	5.83	5.78	5.88
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.84	6.79	6.89
Tetrachloro-m-xylene	1.63	1.58	1.68
Decachlorobiphenyl	8.14	8.09	8.19

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4871/12 Calibration Date: 06/15/2011 14:58

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361511.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	113350337	97031500		0.428	0.500	-14.4	20.0
PCB-1016 Peak 2	Ave	181448143	170207556		0.469	0.500	-6.2	20.0
PCB-1016 Peak 3	Ave	395538572	393115664		0.497	0.500	-0.6	20.0
PCB-1016 Peak 4	Ave	168953212	163747950		0.485	0.500	-3.1	20.0
PCB-1016 Peak 5	Ave	111394350	108238052		0.486	0.500	-2.8	20.0
PCB-1260 Peak 1	Ave	244111963	247990932		0.508	0.500	1.6	20.0
PCB-1260 Peak 2	Ave	527110717	541184770		0.513	0.500	2.7	20.0
PCB-1260 Peak 3	Ave	466356170	491870130		0.527	0.500	5.5	20.0
PCB-1260 Peak 4	Ave	806305909	862710354		0.535	0.500	7.0	20.0
PCB-1260 Peak 5	Ave	327827711	357141464		0.545	0.500	8.9	20.0
Tetrachloro-m-xylene	Ave	5961253188	5539273160		0.0232	0.0250	-7.1	20.0
Decachlorobiphenyl	Ave	5392536235	5955178360		0.0276	0.0250	10.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4871/12 Calibration Date: 06/15/2011 14:58

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361511.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.48	1.43	1.53
PCB-1016 Peak 2	1.78	1.73	1.83
PCB-1016 Peak 3	2.19	2.14	2.24
PCB-1016 Peak 4	2.32	2.27	2.37
PCB-1016 Peak 5	2.38	2.33	2.43
PCB-1260 Peak 1	4.00	3.95	4.05
PCB-1260 Peak 2	4.31	4.26	4.36
PCB-1260 Peak 3	4.60	4.55	4.65
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.64	5.59	5.69
Tetrachloro-m-xylene	1.20	1.15	1.25
Decachlorobiphenyl	6.86	6.81	6.91

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4871/12 Calibration Date: 06/15/2011 14:58

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361511.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	49073453	45230010		0.461	0.500	-7.8	20.0
PCB-1016 Peak 2	Ave	95996991	92060066		0.480	0.500	-4.1	20.0
PCB-1016 Peak 3	Ave	201951124	201606956		0.499	0.500	-0.2	20.0
PCB-1016 Peak 4	Ave	87284951	82329052		0.472	0.500	-5.7	20.0
PCB-1016 Peak 5	Ave	68368175	65511206		0.479	0.500	-4.2	20.0
PCB-1260 Peak 1	Ave	133785153	129474522		0.484	0.500	-3.2	20.0
PCB-1260 Peak 2	Ave	151746464	152557154		0.503	0.500	0.5	20.0
PCB-1260 Peak 3	Ave	122443788	125416250		0.512	0.500	2.4	20.0
PCB-1260 Peak 4	Ave	296731974	311351790		0.525	0.500	4.9	20.0
PCB-1260 Peak 5	Ave	208320715	222595302		0.534	0.500	6.9	20.0
Tetrachloro-m-xylene	Ave	2913739370	2793488080		0.0240	0.0250	-4.1	20.0
Decachlorobiphenyl	Ave	2408118942	2498841880		0.0259	0.0250	3.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4871/12 Calibration Date: 06/15/2011 14:58

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361511.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.11	2.06	2.16
PCB-1016 Peak 2	2.53	2.48	2.58
PCB-1016 Peak 3	3.01	2.96	3.06
PCB-1016 Peak 4	3.16	3.11	3.21
PCB-1016 Peak 5	3.27	3.22	3.32
PCB-1260 Peak 1	5.08	5.03	5.13
PCB-1260 Peak 2	5.33	5.28	5.38
PCB-1260 Peak 3	5.83	5.78	5.88
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.84	6.79	6.89
Tetrachloro-m-xylene	1.63	1.58	1.68
Decachlorobiphenyl	8.14	8.09	8.19

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: MB 240-3834/1-A

Matrix: Solid Date Extracted: 06/07/2011 10:06

Lab File ID:(1) P1361420.D Lab File ID:(2) P1361420.D

Date Analyzed:(1) 06/14/2011 16:50 Date Analyzed:(2) 06/14/2011 16:50

Instrument ID:(1) A2HP13 Instrument ID:(2) A2HP13

GC Column:(1) CLP-2 ID: 0.53(mm) GC Column:(2) CLP-1 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
G-SP-SB-115-0-2 MS	240-635-1 MS	06/14/2011 14:35	06/14/2011 14:35
G-SP-SB-115-0-2 MSD	240-635-1 MSD	06/14/2011 14:50	06/14/2011 14:50
G-SP-SB-115-0-2	240-635-1	06/14/2011 15:05	06/14/2011 15:05
G-SP-SB-115-10-12	240-635-2	06/14/2011 15:20	06/14/2011 15:20
G-SP-SB-117-0-2	240-635-4	06/14/2011 15:35	06/14/2011 15:35
G-SP-SB-117-6-8	240-635-5	06/14/2011 15:50	06/14/2011 15:50
G-SP-SB-119-0-2	240-635-7	06/14/2011 16:05	06/14/2011 16:05
G-SP-SB-119-6-8	240-635-8	06/14/2011 16:20	06/14/2011 16:20
G-SP-SB-118-0-2	240-635-10	06/14/2011 16:35	06/14/2011 16:35
G-SP-SB-118-6-8	240-635-11	06/14/2011 17:20	06/14/2011 17:20
G-SP-SB-121-0-3	240-635-16	06/14/2011 17:35	06/14/2011 17:35
G-SP-SB-121-6-8	240-635-17	06/14/2011 17:50	06/14/2011 17:50
G-SP-SB-120-0-2	240-635-19	06/14/2011 18:05	06/14/2011 18:05
G-SP-SB-120-6-8	240-635-20	06/14/2011 18:20	06/14/2011 18:20
G-SP-SB-122-0-2	240-635-22	06/14/2011 18:35	06/14/2011 18:35
G-SP-SB-122-6-8	240-635-23	06/14/2011 18:50	06/14/2011 18:50
G-SP-SB-129-6-8	240-635-26	06/14/2011 19:20	06/14/2011 19:20
	LCS 240-3834/2-A	06/14/2011 19:35	06/14/2011 19:35
G-SP-SB-129-0-2	240-635-25	06/15/2011 14:13	06/15/2011 14:13

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-3834/1-A
Matrix: Solid
Lab File ID: P1361420.D
Analysis Method: 8082A
Date Collected:
Extraction Method: 3540C
Date Extracted: 06/07/2011 10:06
Sample wt/vol: 30(g)
Date Analyzed: 06/14/2011 16:50
Con. Extract Vol.: 10(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: CLP-1 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 4680
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	33	U	33	21
11104-28-2	Aroclor-1221	33	U	33	16
11141-16-5	Aroclor-1232	33	U	33	14
53469-21-9	Aroclor-1242	33	U	33	13
12672-29-6	Aroclor-1248	33	U	33	17
11097-69-1	Aroclor-1254	33	U	33	17
11096-82-5	Aroclor-1260	33	U	33	17

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	73		29-151
2051-24-3	Decachlorobiphenyl	77		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-3834/1-A
Matrix: Solid
Lab File ID: P1361420.D
Analysis Method: 8082A
Date Collected:
Extraction Method: 3540C
Date Extracted: 06/07/2011 10:06
Sample wt/vol: 30(g)
Date Analyzed: 06/14/2011 16:50
Con. Extract Vol.: 10(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: CLP-2 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 4680
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	33	U	33	21
11104-28-2	Aroclor-1221	33	U	33	16
11141-16-5	Aroclor-1232	33	U	33	14
53469-21-9	Aroclor-1242	33	U	33	13
12672-29-6	Aroclor-1248	33	U	33	17
11097-69-1	Aroclor-1254	33	U	33	17
11096-82-5	Aroclor-1260	33	U	33	17

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	78		29-151
2051-24-3	Decachlorobiphenyl	84		14-163

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): CLP-2 ID: 0.53 (mm) GC Column (2): CLP-1 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX1	#	TCX2	#	DCB1	#	DCB2	#
G-SP-SB-115-0-2	240-635-1	74		67		68		63	
G-SP-SB-115-10-12	240-635-2	68		57		75		69	
G-SP-SB-117-0-2	240-635-4	54		66		71		113	
G-SP-SB-117-6-8	240-635-5	77		66		70		56	
G-SP-SB-119-0-2	240-635-7	72		67		85		78	
G-SP-SB-119-6-8	240-635-8	0	X	0	X	0	X	0	X
G-SP-SB-118-0-2	240-635-10	0	X	0	X	0	X	0	X
G-SP-SB-118-6-8	240-635-11	66		62		70		68	
G-SP-SB-121-0-3	240-635-16	0	X	0	X	0	X	0	X
G-SP-SB-121-6-8	240-635-17	75		84		79		229	X
G-SP-SB-120-0-2	240-635-19	0	X	0	X	0	X	0	X
G-SP-SB-120-6-8	240-635-20	64		70		73		54	
G-SP-SB-122-0-2	240-635-22	0	X	0	X	0	X	0	X
G-SP-SB-122-6-8	240-635-23	69		61		76		69	
G-SP-SB-129-0-2	240-635-25	81		71		90		93	
G-SP-SB-129-6-8	240-635-26	63		60		77		77	
	MB 240-3834/1-A	78		73		84		77	
	LCS 240-3834/2-A	73		64		94		91	
G-SP-SB-115-0-2 MS	240-635-1 MS	65		66		77		82	
G-SP-SB-115-0-2 MSD	240-635-1 MSD	72		71		76		74	

	QC LIMITS
TCX = Tetrachloro-m-xylene	29-151
DCB = Decachlorobiphenyl	14-163

Column to be used to flag recovery values

FORM II 8082A

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1361431.D

Lab ID: LCS 240-3834/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	333	268	80	62-120	
Aroclor-1016	333	271	81	62-120	
Aroclor-1260	333	321	96	56-122	
Aroclor-1260	333	297	89	56-122	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1361411.D

Lab ID: 240-635-1 MS Client ID: G-SP-SB-115-0-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Aroclor-1016	411	41 U	253	62	22-157	
Aroclor-1016	411	41 U	278	68	22-157	
Aroclor-1260	411	41 U	254	62	13-161	
Aroclor-1260	411	41 U	265	64	13-161	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1361412.D

Lab ID: 240-635-1 MSD Client ID: G-SP-SB-115-0-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Aroclor-1016	411	284	69	12	30	22-157	
Aroclor-1016	411	301	73	8	30	22-157	
Aroclor-1260	411	264	64	4	30	13-161	
Aroclor-1260	411	273	66	3	30	13-161	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 MS Lab Sample ID: 240-635-1 MS

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/14/2011 14:35 Date Analyzed (2): 06/14/2011 14:35

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1016	1	1	2.11	2.06	2.16	262	278	9.4
		2	2.53	2.48	2.58	297		
		3	3.01	2.96	3.06	301		
		4	3.16	3.11	3.21	270		
		5	3.26	3.21	3.31	259		
	2	1	1.48	1.43	1.53	233	253	
		2	1.78	1.73	1.83	262		
		3	2.19	2.14	2.24	259		
		4	2.32	2.27	2.37	258		
		5	2.38	2.33	2.43	251		
Aroclor-1260	1	1	5.08	5.03	5.13	274	265	4.1
		2	5.33	5.28	5.38	289		
		3	5.83	5.78	5.88	240		
		4	6.44	6.39	6.49	253		
		5	6.84	6.79	6.89	266		
	2	1	4.00	3.95	4.05	245	254	
		2	4.31	4.26	4.36	260		
		3	4.60	4.55	4.65	280		
		4	5.34	5.29	5.39	226		
		5	5.64	5.59	5.69	259		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 MSD Lab Sample ID: 240-635-1 MSD

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/14/2011 14:50 Date Analyzed (2): 06/14/2011 14:50

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1016	1	1	2.11	2.06	2.16	286	301	5.8
		2	2.53	2.48	2.58	323		
		3	3.01	2.96	3.06	329		
		4	3.16	3.11	3.21	286		
		5	3.26	3.21	3.31	284		
	2	1	1.48	1.43	1.53	238	284	
		2	1.78	1.73	1.83	302		
		3	2.19	2.14	2.24	295		
		4	2.32	2.27	2.37	296		
		5	2.38	2.33	2.43	291		
Aroclor-1260	1	1	5.08	5.03	5.13	283	273	3.2
		2	5.33	5.28	5.38	302		
		3	5.83	5.78	5.88	249		
		4	6.44	6.39	6.49	258		
		5	6.84	6.79	6.89	274		
	2	1	4.00	3.95	4.05	248	264	
		2	4.31	4.26	4.36	276		
		3	4.60	4.55	4.65	296		
		4	5.34	5.29	5.39	233		
		5	5.64	5.59	5.69	270		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-0-2 Lab Sample ID: 240-635-7

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/14/2011 16:05 Date Analyzed (2): 06/14/2011 16:05

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1260	1	1	5.08	5.03	5.13	116	92	2.7
		2	5.33	5.28	5.38	116		
		3	5.83	5.78	5.88	74.8		
		4	6.44	6.39	6.49	76.4		
		5	6.84	6.79	6.89	75.3		
	2	1	4.00	3.95	4.05	100	94	
		2	4.31	4.26	4.36	110		
		3	4.60	4.55	4.65	107		
		4	5.34	5.29	5.39	72.7		
		5	5.64	5.59	5.69	82.0		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 Lab Sample ID: 240-635-8

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/14/2011 16:20 Date Analyzed (2): 06/14/2011 16:20

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1260	1	1	5.08	5.03	5.13	2850	2700	1.7
		2	5.33	5.28	5.38	3100		
		3	5.83	5.78	5.88	2320		
		4	6.44	6.39	6.49	2520		
		5	6.84	6.79	6.89	2470		
	2	1	4.00	3.95	4.05	2660	2700	
		2	4.31	4.26	4.36	2900		
		3	4.60	4.55	4.65	2820		
		4	5.34	5.29	5.39	2410		
		5	5.64	5.59	5.69	2690		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-118-0-2 Lab Sample ID: 240-635-10

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/14/2011 16:35 Date Analyzed (2): 06/14/2011 16:35

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Aroclor-1260	1	1	5.08	5.03	5.13	1230	1200	6.5
		2	5.33	5.28	5.38	1420		
		3	5.83	5.78	5.88	1060		
		4	6.44	6.39	6.49	1200		
		5	6.84	6.79	6.89	1200		
	2	1	4.00	3.95	4.05	1180	1300	
		2	4.31	4.26	4.36	1380		
		3	4.60	4.55	4.65	1460		
		4	5.34	5.29	5.39	1160		
		5	5.64	5.59	5.69	1340		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-0-3 Lab Sample ID: 240-635-16

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/14/2011 17:35 Date Analyzed (2): 06/14/2011 17:35

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Aroclor-1260	1	1	5.08	5.03	5.13	2450	2400	5.8
		2	5.33	5.28	5.38	2920		
		3	5.83	5.78	5.88	2090		
		4	6.44	6.39	6.49	2290		
		5	6.84	6.79	6.89	2390		
	2	1	4.00	3.95	4.05	2210	2600	
		2	4.31	4.26	4.36	2760		
		3	4.60	4.55	4.65	2910		
		4	5.34	5.29	5.39	2270		
		5	5.64	5.59	5.69	2710		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-121-6-8 Lab Sample ID: 240-635-17

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/14/2011 17:50 Date Analyzed (2): 06/14/2011 17:50

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1242	1	1	2.11	2.06	2.16	96.5	130	6.5
		2	2.53	2.48	2.58	160		
		3	3.01	2.96	3.06	129		
		4	3.16	3.11	3.21	117		
		5	3.67	3.62	3.72	127		
	2	1	1.48	1.43	1.53	94.7	130	
		2	1.77	1.73	1.83	199		
		3	2.19	2.14	2.24	134		
		4	2.32	2.27	2.37	108		
		5	2.72	2.68	2.78	136		
Aroclor-1260	1	1	5.08	5.03	5.13	55.3	47	36.7
		2	5.33	5.28	5.38	67.7		
		3	5.83	5.78	5.88	33.8		
		4	6.44	6.39	6.49	35.7		
		5	6.84	6.79	6.89	40.8		
	2	1	4.01	3.95	4.05	123	68	
		2	4.30	4.26	4.36	43.9		
		3	4.60	4.55	4.65	68.7		
		4	5.34	5.29	5.39	29.0		
		5	5.64	5.59	5.69	73.4		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-0-2 Lab Sample ID: 240-635-19

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/14/2011 18:05 Date Analyzed (2): 06/14/2011 18:05

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1260	1	1	5.08	5.03	5.13	1740	1700	9.5
		2	5.33	5.28	5.38	2080		
		3	5.83	5.78	5.88	1460		
		4	6.44	6.39	6.49	1650		
		5	6.84	6.79	6.89	1650		
	2	1	4.00	3.95	4.05	1640	1900	
		2	4.31	4.26	4.36	2010		
		3	4.60	4.55	4.65	2160		
		4	5.34	5.29	5.39	1680		
		5	5.64	5.59	5.69	1960		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-120-6-8 Lab Sample ID: 240-635-20

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/14/2011 18:20 Date Analyzed (2): 06/14/2011 18:20

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1242	1	1	2.11	2.06	2.16	13.7	21	5.3
		2	2.53	2.48	2.58	28.7		
		3	3.01	2.96	3.06	23.1		
		5	3.68	3.62	3.72	24.7		
	2	1	1.48	1.43	1.53	27.5	22	
		2	1.77	1.73	1.83	26.2		
		3	2.19	2.14	2.24	14.3		
		4	2.32	2.27	2.37	19.3		
Aroclor-1260	1	1	5.09	5.03	5.13	38.0	37	2.3
		2	5.33	5.28	5.38	34.3		
		3	5.83	5.78	5.88	37.7		
		4	6.44	6.39	6.49	38.1		
		5	6.84	6.79	6.89	38.5		
	2	1	4.01	3.95	4.05	46.8	37	
		2	4.31	4.26	4.36	34.9		
		3	4.60	4.55	4.65	33.4		
		4	5.34	5.29	5.39	32.7		
		5	5.64	5.59	5.69	34.7		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-0-2 Lab Sample ID: 240-635-22

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/14/2011 18:35 Date Analyzed (2): 06/14/2011 18:35

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Aroclor-1260	1	1	5.08	5.03	5.13	3300	3400	6.7
		2	5.33	5.28	5.38	3890		
		3	5.83	5.78	5.88	2940		
		4	6.44	6.39	6.49	3360		
		5	6.84	6.79	6.89	3410		
	2	1	4.00	3.95	4.05	3020	3600	
		2	4.31	4.26	4.36	3630		
		3	4.60	4.55	4.65	4050		
		4	5.34	5.29	5.39	3310		
		5	5.64	5.59	5.69	4070		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-122-6-8 Lab Sample ID: 240-635-23

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/14/2011 18:50 Date Analyzed (2): 06/14/2011 18:50

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Aroclor-1260	1	1	5.09	5.03	5.13	23.1	19	9.4
		2	5.33	5.28	5.38	20.4		
	2	2	4.31	4.26	4.36	18.8	21	
		3	4.60	4.55	4.65	18.6		
		5	5.64	5.59	5.69	32.8		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-129-0-2 Lab Sample ID: 240-635-25

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/15/2011 14:13 Date Analyzed (2): 06/15/2011 14:13

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Aroclor-1260	1	1	5.08	5.03	5.13	183	220	4.1
		2	5.33	5.28	5.38	240		
		3	5.83	5.78	5.88	197		
		4	6.44	6.39	6.49	218		
		5	6.84	6.79	6.89	250		
	2	1	4.00	3.95	4.05	166	230	
		2	4.31	4.26	4.36	233		
		3	4.60	4.55	4.65	273		
		4	5.34	5.29	5.39	203		
		5	5.64	5.59	5.69	259		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 240-3834/2-A

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/14/2011 19:35 Date Analyzed (2): 06/14/2011 19:35

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1016	1	1	2.11	2.06	2.16	227	271	1.2
		2	2.53	2.48	2.58	274		
		3	3.01	2.96	3.06	310		
		4	3.16	3.11	3.21	244		
		5	3.27	3.21	3.31	300		
	2	1	1.48	1.43	1.53	195	268	
		2	1.78	1.73	1.83	259		
		3	2.19	2.14	2.24	295		
		4	2.32	2.27	2.37	290		
		5	2.38	2.33	2.43	299		
Aroclor-1260	1	1	5.08	5.03	5.13	317	297	7.9
		2	5.33	5.28	5.38	307		
		3	5.83	5.78	5.88	276		
		4	6.44	6.39	6.49	283		
		5	6.84	6.79	6.89	301		
	2	1	4.00	3.95	4.05	318	321	
		2	4.31	4.26	4.36	325		
		3	4.60	4.55	4.65	363		
		4	5.34	5.29	5.39	300		
		5	5.64	5.59	5.69	301		

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Instrument ID: INST13-14 Start Date: 06/03/2011 12:11

Analysis Batch Number: 115481 End Date: 06/03/2011 16:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 500-115481/2		06/03/2011 12:11	1	06031114_019.d	DB624 0.2(mm)
IC 500-115481/3		06/03/2011 12:46	1	06031114_020.d	DB624 0.2(mm)
IC 500-115481/4		06/03/2011 13:21	1	06031114_021.d	DB624 0.2(mm)
IC 500-115481/5		06/03/2011 13:55	1	06031114_022.d	DB624 0.2(mm)
IC 500-115481/6		06/03/2011 14:30	1	06031114_023.d	DB624 0.2(mm)
IC 500-115481/7		06/03/2011 15:04	1	06031114_024.d	DB624 0.2(mm)
IC 500-115481/8		06/03/2011 15:39	1	06031114_025.d	DB624 0.2(mm)
ICV 500-115481/9		06/03/2011 16:13	1	06031114_026.d	DB624 0.2(mm)

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Chicago Job No.: 240-635-1 Analy Batch No.: 115481

SDG No.:

Instrument ID: INST13-14 GC Column: DB624 ID: 0.2(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/03/2011 12:11 Calibration End Date: 06/03/2011 15:39 Calibration ID: 4716

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 500-115481/2	06031114_019.d
Level 2	IC 500-115481/3	06031114_020.d
Level 3	IC 500-115481/4	06031114_021.d
Level 4	IC 500-115481/5	06031114_022.d
Level 5	IC 500-115481/6	06031114_023.d
Level 6	IC 500-115481/7	06031114_024.d
Level 7	IC 500-115481/8	06031114_025.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Gasoline Range Organics (C6-C9)	8882.4 7446.7	7791.0 7540.6	7587.8 7219.6	7322.1	Lin2	30936.3054	7285.80266							1.0000		0.9900
Gasoline Range Organics (GRO)-C5-C12	11032 8410.0	9084.4 8503.4	8692.9 8133.7	8253.8	Lin2	55917.2347	8152.55191							0.9990		0.9900
Gasoline Range Organics (GRO)-C6-C12	10706 8080.7	8750.3 8174.9	8387.0 7822.0	7965.0	Lin2	55653.5982	7838.30756							0.9990		0.9900
Gasoline Range Organics (GRO)-C6-C10	11136 8173.8	8876.7 8263.5	8500.1 7911.3	8060.4	Lin2	62452.3887	7898.60895							0.9990		0.9900
a,a,a-Trifluorotoluene	9950.0 8688.5	8928.4 8672.5	8699.0 8417.1	8729.6	Lin2	70.7532755	534.365942							1.0000		0.9900
4-Bromofluorobenzene	6652.0 6080.3	5808.8 6199.9	5708.6 6047.0	6045.3	Lin2	79.5610807	550.644503							0.9990		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 500-115481/9 Calibration Date: 06/03/2011 16:13

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06031114_026.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7521		202	200	1.1	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8385		199	200	-0.6	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		8147		201	200	0.4	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		8223		200	200	0.2	15.0
a,a,a-Trifluorotoluene	Lin2		8451		20.4	20.0	2.0	15.0
4-Bromofluorobenzene	Lin2		5788		19.8	20.0	-1.0	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 500-115481/9 Calibration Date: 06/03/2011 16:13

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06031114_026.d Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW	
		TO	FROM
Gasoline Range Organics (C6-C9)	13.61	6.07	21.15
Gasoline Range Organics (GRO)-C5-C12	14.73	4.51	24.94
Gasoline Range Organics (GRO)-C6-C12	15.50	6.07	24.94
Gasoline Range Organics (GRO)-C6-C10	16.25	6.07	26.42
a,a,a-Trifluorotoluene	11.81	11.72	11.92
4-Bromofluorobenzene	19.39	19.30	19.50

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Instrument ID: INST13-14 Start Date: 06/09/2011 06:19

Analysis Batch Number: 115982 End Date: 06/09/2011 21:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 500-115982/2		06/09/2011 06:19	1	06091114_002.d	DB624 0.2(mm)
MB 500-115982/3		06/09/2011 06:54	1	06091114_003.d	DB624 0.2(mm)
LCS 500-115982/4		06/09/2011 07:28	1	06091114_004.d	DB624 0.2(mm)
240-635-1	G-SP-SB-115-0-2	06/09/2011 09:12	1	06091114_007.d	DB624 0.2(mm)
240-635-1 MS	G-SP-SB-115-0-2 MS	06/09/2011 09:47	1	06091114_008.d	DB624 0.2(mm)
240-635-1 MSD	G-SP-SB-115-0-2 MSD	06/09/2011 10:21	1	06091114_009.d	DB624 0.2(mm)
240-635-2	G-SP-SB-115-10-12	06/09/2011 10:56	1	06091114_010.d	DB624 0.2(mm)
240-635-3	G-SP-SB-115-18-20	06/09/2011 11:30	1	06091114_011.d	DB624 0.2(mm)
240-635-4	G-SP-SB-117-0-2	06/09/2011 12:04	1	06091114_012.d	DB624 0.2(mm)
CCV 500-115982/13		06/09/2011 12:39	1	06091114_013.d	DB624 0.2(mm)
240-635-5	G-SP-SB-117-6-8	06/09/2011 13:13	1	06091114_014.d	DB624 0.2(mm)
240-635-6	G-SP-SB-117-20-22	06/09/2011 13:48	1	06091114_015.d	DB624 0.2(mm)
240-635-7	G-SP-SB-119-0-2	06/09/2011 14:22	1	06091114_016.d	DB624 0.2(mm)
240-635-8	G-SP-SB-119-6-8	06/09/2011 15:54	1	06091114_017.d	DB624 0.2(mm)
240-635-9	G-SP-SB-119-20-22	06/09/2011 16:29	1	06091114_018.d	DB624 0.2(mm)
240-635-10	G-SP-SB-118-0-2	06/09/2011 17:03	1	06091114_019.d	DB624 0.2(mm)
240-635-11	G-SP-SB-118-6-8	06/09/2011 17:38	1	06091114_020.d	DB624 0.2(mm)
240-635-12	G-SP-SB-118-20-22	06/09/2011 18:12	1	06091114_021.d	DB624 0.2(mm)
240-635-16	G-SP-SB-121-0-3	06/09/2011 18:47	1	06091114_022.d	DB624 0.2(mm)
240-635-17	G-SP-SB-121-6-8	06/09/2011 19:21	1	06091114_023.d	DB624 0.2(mm)
CCV 500-115982/24		06/09/2011 19:56	1	06091114_024.d	DB624 0.2(mm)
240-635-18	G-SP-SB-121-18-20	06/09/2011 20:30	1	06091114_025.d	DB624 0.2(mm)
240-635-19	G-SP-SB-120-0-2	06/09/2011 21:05	1	06091114_026.d	DB624 0.2(mm)
CCV 500-115982/27		06/09/2011 21:39	1	06091114_027.d	DB624 0.2(mm)

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-115982/2 Calibration Date: 06/09/2011 06:19

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06091114_002.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7611		414	400	3.4	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8618		416	400	4.0	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		8183		410	400	2.6	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		8272		411	400	2.8	15.0
a,a,a-Trifluorotoluene	Lin2		9146		21.3	20.0	6.5	15.0
4-Bromofluorobenzene	Lin2		6273		21.2	20.0	6.0	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-115982/2 | Calibration Date: 06/09/2011 06:19

Instrument ID: INST13-14 | Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) | Calib End Date: 06/03/2011 15:39

Lab File ID: 06091114_002.d | Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW	
		TO	FROM
Gasoline Range Organics (C6-C9)	13.66	6.12	21.20
Gasoline Range Organics (GRO)-C5-C12	14.77	4.56	24.98
Gasoline Range Organics (GRO)-C6-C12	15.55	6.12	24.98
Gasoline Range Organics (GRO)-C6-C10	16.30	6.12	26.47
a,a,a-Trifluorotoluene	11.85	11.77	11.97
4-Bromofluorobenzene	19.44	19.35	19.55

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: MB 500-115982/3

Matrix: Solid Date Extracted: 06/09/2011 06:54

Lab File ID:(1) 06091114_003.d Lab File ID:(2)

Date Analyzed:(1) 06/09/2011 06:54 Date Analyzed:(2)

Instrument ID:(1) INST13-14 Instrument ID:(2)

GC Column:(1) DB624 ID: 0.2(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 500-115982/4	06/09/2011 07:28	
G-SP-SB-115-0-2	240-635-1	06/09/2011 09:12	
G-SP-SB-115-0-2 MS	240-635-1 MS	06/09/2011 09:47	
G-SP-SB-115-0-2 MSD	240-635-1 MSD	06/09/2011 10:21	
G-SP-SB-115-10-12	240-635-2	06/09/2011 10:56	
G-SP-SB-115-18-20	240-635-3	06/09/2011 11:30	
G-SP-SB-117-0-2	240-635-4	06/09/2011 12:04	
G-SP-SB-117-6-8	240-635-5	06/09/2011 13:13	
G-SP-SB-117-20-22	240-635-6	06/09/2011 13:48	
G-SP-SB-119-0-2	240-635-7	06/09/2011 14:22	
G-SP-SB-119-6-8	240-635-8	06/09/2011 15:54	
G-SP-SB-119-20-22	240-635-9	06/09/2011 16:29	
G-SP-SB-118-0-2	240-635-10	06/09/2011 17:03	
G-SP-SB-118-6-8	240-635-11	06/09/2011 17:38	
G-SP-SB-118-20-22	240-635-12	06/09/2011 18:12	
G-SP-SB-121-0-3	240-635-16	06/09/2011 18:47	
G-SP-SB-121-6-8	240-635-17	06/09/2011 19:21	
G-SP-SB-121-18-20	240-635-18	06/09/2011 20:30	
G-SP-SB-120-0-2	240-635-19	06/09/2011 21:05	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 500-115982/3

Matrix: Solid | Lab File ID: 06091114_003.d

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/09/2011 06:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 115982 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	50	U	50	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	107		64-116
460-00-4	4-Bromofluorobenzene	104		51-117

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-115982/13 Calibration Date: 06/09/2011 12:39

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06091114_013.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7432		404	400	1.0	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8380		404	400	1.1	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		7946		398	400	-0.4	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		8030		399	400	-0.3	15.0
a,a,a-Trifluorotoluene	Lin2		9101		21.2	20.0	6.0	15.0
4-Bromofluorobenzene	Lin2		6225		20.9	20.0	4.5	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-115982/13 Calibration Date: 06/09/2011 12:39

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06091114_013.d Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW	
		TO	FROM
Gasoline Range Organics (C6-C9)	13.66	6.12	21.20
Gasoline Range Organics (GRO)-C5-C12	14.77	4.56	24.98
Gasoline Range Organics (GRO)-C6-C12	15.55	6.12	24.98
Gasoline Range Organics (GRO)-C6-C10	16.30	6.12	26.47
a,a,a-Trifluorotoluene	11.84	11.77	11.97
4-Bromofluorobenzene	19.43	19.35	19.55

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-115982/24 Calibration Date: 06/09/2011 19:56

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06091114_024.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7405		402	400	0.6	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8365		404	400	0.9	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		8049		404	400	0.9	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		8205		408	400	1.9	15.0
a,a,a-Trifluorotoluene	Lin2		8629		20.1	20.0	0.5	15.0
4-Bromofluorobenzene	Lin2		6092		20.4	20.0	2.0	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-115982/24 Calibration Date: 06/09/2011 19:56

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06091114_024.d Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW	
		TO	FROM
Gasoline Range Organics (C6-C9)	13.66	6.12	21.20
Gasoline Range Organics (GRO)-C5-C12	14.77	4.56	24.98
Gasoline Range Organics (GRO)-C6-C12	15.55	6.12	24.98
Gasoline Range Organics (GRO)-C6-C10	16.30	6.12	26.47
a,a,a-Trifluorotoluene	11.85	11.77	11.97
4-Bromofluorobenzene	19.44	19.35	19.55

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-115982/27 Calibration Date: 06/09/2011 21:39

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06091114_027.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7294		396	400	-1.0	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8215		396	400	-1.0	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		7888		395	400	-1.2	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		7984		396	400	-0.9	15.0
a,a,a-Trifluorotoluene	Lin2		8682		20.3	20.0	1.5	15.0
4-Bromofluorobenzene	Lin2		6107		20.4	20.0	2.0	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-115982/27 Calibration Date: 06/09/2011 21:39

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06091114_027.d Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW	
		TO	FROM
Gasoline Range Organics (C6-C9)	13.66	6.12	21.20
Gasoline Range Organics (GRO)-C5-C12	14.77	4.56	24.98
Gasoline Range Organics (GRO)-C6-C12	15.55	6.12	24.98
Gasoline Range Organics (GRO)-C6-C10	16.30	6.12	26.47
a,a,a-Trifluorotoluene	11.85	11.77	11.97
4-Bromofluorobenzene	19.44	19.35	19.55

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Instrument ID: INST13-14 Start Date: 06/10/2011 07:09

Analysis Batch Number: 116109 End Date: 06/10/2011 22:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/10/2011 07:09	1		DB624 0.2(mm)
CCV 500-116109/2		06/10/2011 07:44	1	06101114_002.d	DB624 0.2(mm)
MB 500-116109/3		06/10/2011 08:18	1	06101114_003.d	DB624 0.2(mm)
LCS 500-116109/4		06/10/2011 08:53	1	06101114_004.d	DB624 0.2(mm)
240-635-20	G-SP-SB-120-6-8	06/10/2011 09:27	1	06101114_005.d	DB624 0.2(mm)
240-635-20 MS	G-SP-SB-120-6-8 MS	06/10/2011 10:02	1	06101114_006.d	DB624 0.2(mm)
240-635-20 MSD	G-SP-SB-120-6-8 MSD	06/10/2011 10:36	1	06101114_007.d	DB624 0.2(mm)
240-635-21	G-SP-SB-120-18-20	06/10/2011 11:10	1	06101114_008.d	DB624 0.2(mm)
240-635-22	G-SP-SB-122-0-2	06/10/2011 11:45	1	06101114_009.d	DB624 0.2(mm)
240-635-23	G-SP-SB-122-6-8	06/10/2011 12:20	1	06101114_010.d	DB624 0.2(mm)
240-635-24	G-SP-SB-122-20-22	06/10/2011 12:54	1	06101114_011.d	DB624 0.2(mm)
240-635-25	G-SP-SB-129-0-2	06/10/2011 13:29	1	06101114_012.d	DB624 0.2(mm)
CCV 500-116109/13		06/10/2011 14:03	1	06101114_013.d	DB624 0.2(mm)
240-635-26	G-SP-SB-129-6-8	06/10/2011 14:38	1	06101114_014.d	DB624 0.2(mm)
240-635-27	G-SP-SB-129-20-22	06/10/2011 15:12	1	06101114_015.d	DB624 0.2(mm)
ZZZZZ		06/10/2011 15:47	1		DB624 0.2(mm)
ZZZZZ		06/10/2011 16:21	1		DB624 0.2(mm)
ZZZZZ		06/10/2011 16:56	1		DB624 0.2(mm)
ZZZZZ		06/10/2011 17:30	1		DB624 0.2(mm)
ZZZZZ		06/10/2011 18:05	1		DB624 0.2(mm)
ZZZZZ		06/10/2011 18:39	1		DB624 0.2(mm)
ZZZZZ		06/10/2011 19:14	1		DB624 0.2(mm)
ZZZZZ		06/10/2011 19:48	1		DB624 0.2(mm)
CCV 500-116109/24		06/10/2011 20:23	1	06101114_024.d	DB624 0.2(mm)
ZZZZZ		06/10/2011 20:57	1		DB624 0.2(mm)
ZZZZZ		06/10/2011 21:31	1		DB624 0.2(mm)
CCV 500-116109/27		06/10/2011 22:06	1		DB624 0.2(mm)

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-116109/2 Calibration Date: 06/10/2011 07:44

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06101114_002.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7684		418	400	4.4	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8758		423	400	5.7	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		8349		419	400	4.8	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		8450		420	400	5.0	15.0
a,a,a-Trifluorotoluene	Lin2		8925		20.8	20.0	4.0	15.0
4-Bromofluorobenzene	Lin2		6204		20.8	20.0	4.0	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-116109/2 Calibration Date: 06/10/2011 07:44

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06101114_002.d Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW	
		TO	FROM
Gasoline Range Organics (C6-C9)	13.68	6.14	21.22
Gasoline Range Organics (GRO)-C5-C12	14.79	4.58	24.99
Gasoline Range Organics (GRO)-C6-C12	15.57	6.14	24.99
Gasoline Range Organics (GRO)-C6-C10	16.31	6.14	26.48
a,a,a-Trifluorotoluene	11.88	11.78	11.98
4-Bromofluorobenzene	19.46	19.36	19.56

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: MB 500-116109/3

Matrix: Solid Date Extracted: 06/10/2011 08:18

Lab File ID:(1) 06101114_003.d Lab File ID:(2)

Date Analyzed:(1) 06/10/2011 08:18 Date Analyzed:(2)

Instrument ID:(1) INST13-14 Instrument ID:(2)

GC Column:(1) DB624 ID: 0.2(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 500-116109/4	06/10/2011 08:53	
G-SP-SB-120-6-8	240-635-20	06/10/2011 09:27	
G-SP-SB-120-6-8 MS	240-635-20 MS	06/10/2011 10:02	
G-SP-SB-120-6-8 MSD	240-635-20 MSD	06/10/2011 10:36	
G-SP-SB-120-18-20	240-635-21	06/10/2011 11:10	
G-SP-SB-122-0-2	240-635-22	06/10/2011 11:45	
G-SP-SB-122-6-8	240-635-23	06/10/2011 12:20	
G-SP-SB-122-20-22	240-635-24	06/10/2011 12:54	
G-SP-SB-129-0-2	240-635-25	06/10/2011 13:29	
G-SP-SB-129-6-8	240-635-26	06/10/2011 14:38	
G-SP-SB-129-20-22	240-635-27	06/10/2011 15:12	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 500-116109/3

Matrix: Solid | Lab File ID: 06101114_003.d

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/10/2011 08:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 116109 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	50	U	50	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	106		64-116
460-00-4	4-Bromofluorobenzene	100		51-117

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-116109/13 Calibration Date: 06/10/2011 14:03

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06101114_013.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7506		408	400	2.0	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8449		408	400	1.9	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		8139		408	400	2.1	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		8230		409	400	2.2	15.0
a,a,a-Trifluorotoluene	Lin2		8532		19.9	20.0	-0.5	15.0
4-Bromofluorobenzene	Lin2		6017		20.1	20.0	0.5	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago | Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-116109/13 | Calibration Date: 06/10/2011 14:03

Instrument ID: INST13-14 | Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) | Calib End Date: 06/03/2011 15:39

Lab File ID: 06101114_013.d | Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW	
		TO	FROM
Gasoline Range Organics (C6-C9)	13.68	6.14	21.22
Gasoline Range Organics (GRO)-C5-C12	14.79	4.58	24.99
Gasoline Range Organics (GRO)-C6-C12	15.57	6.14	24.99
Gasoline Range Organics (GRO)-C6-C10	16.31	6.14	26.48
a,a,a-Trifluorotoluene	11.85	11.78	11.98
4-Bromofluorobenzene	19.43	19.36	19.56

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-116109/24 Calibration Date: 06/10/2011 20:23

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06101114_024.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7278		395	400	-1.2	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8163		394	400	-1.6	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		7860		394	400	-1.5	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		7945		394	400	-1.4	15.0
a,a,a-Trifluorotoluene	Lin2		8387		19.6	20.0	-2.0	15.0
4-Bromofluorobenzene	Lin2		5903		19.7	20.0	-1.5	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 500-116109/24 Calibration Date: 06/10/2011 20:23

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06101114_024.d Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Gasoline Range Organics (C6-C9)	13.68	6.14	21.22
Gasoline Range Organics (GRO)-C5-C12	14.79	4.58	24.99
Gasoline Range Organics (GRO)-C6-C12	15.57	6.14	24.99
Gasoline Range Organics (GRO)-C6-C10	16.31	6.14	26.48
a,a,a-Trifluorotoluene	11.85	11.78	11.98
4-Bromofluorobenzene	19.44	19.36	19.56

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB624 ID: 0.2 (mm)

Client Sample ID	Lab Sample ID	TFT1	#	BFB1	#
G-SP-SB-115-0-2	240-635-1	102		96	
G-SP-SB-115-10-12	240-635-2	99		94	
G-SP-SB-115-18-20	240-635-3	87		76	
G-SP-SB-117-0-2	240-635-4	91		81	
G-SP-SB-117-6-8	240-635-5	98		91	
G-SP-SB-117-20-22	240-635-6	95		84	
G-SP-SB-119-0-2	240-635-7	87		78	
G-SP-SB-119-6-8	240-635-8	95		89	
G-SP-SB-119-20-22	240-635-9	88		79	
G-SP-SB-118-0-2	240-635-10	85		76	
G-SP-SB-118-6-8	240-635-11	94		87	
G-SP-SB-118-20-22	240-635-12	93		80	
G-SP-SB-121-0-3	240-635-16	85		77	
G-SP-SB-121-6-8	240-635-17	88		81	
G-SP-SB-121-18-20	240-635-18	94		85	
G-SP-SB-120-0-2	240-635-19	81		71	
G-SP-SB-120-6-8	240-635-20	102		96	
G-SP-SB-120-18-20	240-635-21	102		95	
G-SP-SB-122-0-2	240-635-22	99		90	
G-SP-SB-122-6-8	240-635-23	101		95	
G-SP-SB-122-20-22	240-635-24	103		96	
G-SP-SB-129-0-2	240-635-25	98		89	
G-SP-SB-129-6-8	240-635-26	100		94	
G-SP-SB-129-20-22	240-635-27	99		91	
	MB 500-115982/3	107		104	
	MB 500-116109/3	106		100	
	LCS 500-115982/4	108		106	
	LCS 500-116109/4	104		102	
G-SP-SB-115-0-2 MS	240-635-1 MS	95		88	
G-SP-SB-120-6-8 MS	240-635-20 MS	103		96	
G-SP-SB-115-0-2 MSD	240-635-1 MSD	100		91	
G-SP-SB-120-6-8 MSD	240-635-20 MSD	102		95	

	QC LIMITS
TFT = a,a,a-Trifluorotoluene	64-116
BFB = 4-Bromofluorobenzene	51-117

Column to be used to flag recovery values

FORM II 8015C

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06091114_004.d

Lab ID: LCS 500-115982/4 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	400	399	100	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06101114_004.d

Lab ID: LCS 500-116109/4 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	400	396	99	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06091114_008.d

Lab ID: 240-635-1 MS Client ID: G-SP-SB-115-0-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	496	57 J	454	80	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06101114_006.d

Lab ID: 240-635-20 MS Client ID: G-SP-SB-120-6-8 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	436	57	446	89	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06091114_009.d

Lab ID: 240-635-1 MSD Client ID: G-SP-SB-115-0-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	496	488	87	7	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06101114_007.d

Lab ID: 240-635-20 MSD Client ID: G-SP-SB-120-6-8 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	436	452	91	1	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 1563

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2011 10:32 Calibration End Date: 04/25/2011 11:01 Calibration ID: 958

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-1563/3	P5042504.D
Level 2	STD2 240-1563/4	P5042505.D
Level 3	STD3 240-1563/5	P5042506.D
Level 4	STD4 240-1563/6	P5042507.D
Level 5	STD5 240-1563/7	P5042508.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT WINDOW	AVG RT
Diesel	9.064	9.064	9.064	9.064	9.064	4.838 - 13.289	9.064
n-Nonane	3.697	3.693	3.696	3.695	3.699	3.647 - 3.747	3.696

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 1563

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2011 10:32 Calibration End Date: 04/25/2011 11:01 Calibration ID: 958

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-1563/3	P5042504.D
Level 2	STD2 240-1563/4	P5042505.D
Level 3	STD3 240-1563/5	P5042506.D
Level 4	STD4 240-1563/6	P5042507.D
Level 5	STD5 240-1563/7	P5042508.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	253880 183844	194912	213715	180853	Ave		205440.756				15.0		20.0			
n-Nonane	283211 249411	245446	269991	245251	Ave		258662.187				6.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 1563

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2011 10:32 Calibration End Date: 04/25/2011 11:01 Calibration ID: 958

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-1563/3	P5042504.D
Level 2	STD2 240-1563/4	P5042505.D
Level 3	STD3 240-1563/5	P5042506.D
Level 4	STD4 240-1563/6	P5042507.D
Level 5	STD5 240-1563/7	P5042508.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel	Ave	25388034	38982467	106857343	180852891	367687061	100	200	500	1000	2000
n-Nonane	Ave	2832113	4908911	13499563	24525133	49882299	10.0	20.0	50.0	100	200

Curve Type Legend:
Ave = Average

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-1563/13 Calibration Date: 04/25/2011 12:58

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5042509.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	212671		518	500	3.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-1563/13 Calibration Date: 04/25/2011 12:58

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5042509.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	9.06	4.84	13.29

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCVRT 240-4029/33 Date Analyzed: 06/09/2011 03:00

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P5060833.D Heated Purge: (Y/N) N

Calibration ID: 958

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9 RT #
CONTINUING CALIBRATION SURROGATE				3.34
UPPER LIMIT				3.44
LOWER LIMIT				3.24
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID	
CCVRT 240-4029/33		06/09/2011 03:00	P5060833.D	3.34
240-635-11	G-SP-SB-118-6-8	06/09/2011 03:56	P5060835.D	3.33
240-635-12	G-SP-SB-118-20-22	06/09/2011 04:25	P5060836.D	3.33
240-635-17	G-SP-SB-121-6-8	06/09/2011 05:21	P5060838.D	3.34
240-635-18	G-SP-SB-121-18-20	06/09/2011 05:50	P5060839.D	3.33
240-635-20	G-SP-SB-120-6-8	06/09/2011 06:46	P5060841.D	3.33
240-635-21	G-SP-SB-120-18-20	06/09/2011 07:14	P5060842.D	3.32
240-635-23	G-SP-SB-122-6-8	06/09/2011 08:11	P5060844.D	3.32
LCS 240-3691/2-A		06/09/2011 08:39	P5060845.D	3.33
CCV 240-4029/46		06/09/2011 09:07	P5060846.D	3.35

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVRT 240-4029/33 Calibration Date: 06/09/2011 03:00

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5060833.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	215092		524	500	4.7	20.0
n-Nonane	Ave	258662	315182		60.9	50.0	21.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVRT 240-4029/33 Calibration Date: 06/09/2011 03:00

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5060833.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.87	4.62	13.12
n-Nonane	3.34	3.26	3.40

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4029/46 Calibration Date: 06/09/2011 09:07

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5060846.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	222371		541	500	8.2	20.0
n-Nonane	Ave	258662	324888		62.8	50.0	25.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4029/46 Calibration Date: 06/09/2011 09:07

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5060846.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.87	4.62	13.12
n-Nonane	3.35	3.26	3.40

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCVRT 240-4208/16 Date Analyzed: 06/09/2011 20:29

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P5060916.D Heated Purge: (Y/N) N

Calibration ID: 958

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9 RT #
CONTINUING CALIBRATION SURROGATE				3.36
UPPER LIMIT				3.46
LOWER LIMIT				3.26
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID	
CCVRT 240-4208/16		06/09/2011 20:29	P5060916.D	3.36
CCV 240-4208/21		06/09/2011 22:50	P5060921.D	3.36
240-635-2	G-SP-SB-115-10-12	06/10/2011 00:42	P5060925.D	3.34
240-635-3	G-SP-SB-115-18-20	06/10/2011 01:10	P5060926.D	3.34
240-635-4	G-SP-SB-117-0-2	06/10/2011 01:38	P5060927.D	3.34
240-635-5	G-SP-SB-117-6-8	06/10/2011 02:06	P5060928.D	3.34
240-635-6	G-SP-SB-117-20-22	06/10/2011 02:34	P5060929.D	3.34
240-635-7	G-SP-SB-119-0-2	06/10/2011 03:02	P5060930.D	3.34
240-635-8	G-SP-SB-119-6-8	06/10/2011 03:30	P5060931.D	3.35
240-635-9	G-SP-SB-119-20-22	06/10/2011 03:58	P5060932.D	3.35
MB 240-3691/1-A		06/10/2011 04:26	P5060933.D	3.34
CCV 240-4208/34		06/10/2011 04:53	P5060934.D	3.36
240-635-10	G-SP-SB-118-0-2	06/10/2011 05:21	P5060935.D	3.34
240-635-16	G-SP-SB-121-0-3	06/10/2011 05:49	P5060936.D	3.34
240-635-19	G-SP-SB-120-0-2	06/10/2011 06:17	P5060937.D	3.34
240-635-22	G-SP-SB-122-0-2	06/10/2011 06:44	P5060938.D	3.34
CCV 240-4208/42		06/10/2011 08:35	P5060942.D	3.36

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVRT 240-4208/16 Calibration Date: 06/09/2011 20:29

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5060916.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	219985		535	500	7.1	20.0
n-Nonane	Ave	258662	320490		62.0	50.0	23.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVRT 240-4208/16 Calibration Date: 06/09/2011 20:29

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5060916.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.87	4.63	13.12
n-Nonane	3.36	3.26	3.40

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4208/21 Calibration Date: 06/09/2011 22:50

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5060921.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	230428		561	500	12.2	20.0
n-Nonane	Ave	258662	325473		62.9	50.0	25.8*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4208/21 Calibration Date: 06/09/2011 22:50

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5060921.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.87	4.63	13.12
n-Nonane	3.36	3.26	3.40

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: MB 240-3691/1-A

Matrix: Solid Date Extracted: 06/06/2011 09:56

Lab File ID:(1) P5060933.D Lab File ID:(2)

Date Analyzed:(1) 06/10/2011 04:26 Date Analyzed:(2)

Instrument ID:(1) A2HP5 Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
G-SP-SB-118-6-8	240-635-11	06/09/2011 03:56	
G-SP-SB-118-20-22	240-635-12	06/09/2011 04:25	
G-SP-SB-121-6-8	240-635-17	06/09/2011 05:21	
G-SP-SB-121-18-20	240-635-18	06/09/2011 05:50	
G-SP-SB-120-6-8	240-635-20	06/09/2011 06:46	
G-SP-SB-120-18-20	240-635-21	06/09/2011 07:14	
G-SP-SB-122-6-8	240-635-23	06/09/2011 08:11	
	LCS 240-3691/2-A	06/09/2011 08:39	
G-SP-SB-115-10-12	240-635-2	06/10/2011 00:42	
G-SP-SB-115-18-20	240-635-3	06/10/2011 01:10	
G-SP-SB-117-0-2	240-635-4	06/10/2011 01:38	
G-SP-SB-117-6-8	240-635-5	06/10/2011 02:06	
G-SP-SB-117-20-22	240-635-6	06/10/2011 02:34	
G-SP-SB-119-0-2	240-635-7	06/10/2011 03:02	
G-SP-SB-119-6-8	240-635-8	06/10/2011 03:30	
G-SP-SB-119-20-22	240-635-9	06/10/2011 03:58	
G-SP-SB-118-0-2	240-635-10	06/10/2011 05:21	
G-SP-SB-121-0-3	240-635-16	06/10/2011 05:49	
G-SP-SB-120-0-2	240-635-19	06/10/2011 06:17	
G-SP-SB-122-0-2	240-635-22	06/10/2011 06:44	
G-SP-SB-115-0-2	240-635-1	06/10/2011 18:15	
G-SP-SB-115-0-2 MS	240-635-1 MS	06/10/2011 18:43	
G-SP-SB-115-0-2 MSD	240-635-1 MSD	06/10/2011 19:11	

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-3691/1-A

Matrix: Solid Lab File ID: P5060933.D

Analysis Method: 8015C Date Collected:

Extraction Method: 3540C Date Extracted: 06/06/2011 09:56

Sample wt/vol: 30.00(g) Date Analyzed: 06/10/2011 04:26

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 4208 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	17	U	17	9.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	46		10-110

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4208/34 Calibration Date: 06/10/2011 04:53

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5060934.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	226531		551	500	10.3	20.0
n-Nonane	Ave	258662	322598		62.4	50.0	24.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4208/34 Calibration Date: 06/10/2011 04:53

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5060934.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.87	4.63	13.12
n-Nonane	3.36	3.26	3.40

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4208/42 Calibration Date: 06/10/2011 08:35

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5060942.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	218205		531	500	6.2	20.0
n-Nonane	Ave	258662	282710		54.6	50.0	9.3	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4208/42 Calibration Date: 06/10/2011 08:35

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5060942.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.87	4.63	13.12
n-Nonane	3.36	3.26	3.40

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCVRT 240-4325/16 Date Analyzed: 06/10/2011 17:47

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P5061016.D Heated Purge: (Y/N) N

Calibration ID: 958

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9
				RT #
CONTINUING CALIBRATION SURROGATE				3.36
UPPER LIMIT				3.46
LOWER LIMIT				3.26
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID	
CCVRT 240-4325/16		06/10/2011 17:47	P5061016.D	3.36
240-635-1	G-SP-SB-115-0-2	06/10/2011 18:15	P5061017.D	
240-635-1 MS	G-SP-SB-115-0-2 MS	06/10/2011 18:43	P5061018.D	
240-635-1 MSD	G-SP-SB-115-0-2 MSD	06/10/2011 19:11	P5061019.D	
CCV 240-4325/21		06/10/2011 20:07	P5061021.D	3.37

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVRT 240-4325/16 Calibration Date: 06/10/2011 17:47

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5061016.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	180390		439	500	-12.2	20.0
n-Nonane	Ave	258662	248952		48.1	50.0	-3.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVRT 240-4325/16 Calibration Date: 06/10/2011 17:47

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5061016.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.88	4.63	13.13
n-Nonane	3.36	3.30	3.44

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4325/21 Calibration Date: 06/10/2011 20:07

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5061021.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	206896		504	500	0.7	20.0
n-Nonane	Ave	258662	299714		57.9	50.0	15.9	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4325/21 Calibration Date: 06/10/2011 20:07

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5061021.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.88	4.63	13.13
n-Nonane	3.37	3.30	3.44

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCVRT 240-4654/5 Date Analyzed: 06/14/2011 13:25

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P5061405.D Heated Purge: (Y/N) N

Calibration ID: 958

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				C9 RT #
CONTINUING CALIBRATION SURROGATE				3.39
UPPER LIMIT				3.49
LOWER LIMIT				3.29
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID	
CCVRT 240-4654/5		06/14/2011 13:25	P5061405.D	3.39
240-635-24	G-SP-SB-122-20-22	06/14/2011 14:05	P5061406.D	3.38
240-635-25	G-SP-SB-129-0-2	06/14/2011 14:46	P5061407.D	3.38
240-635-26	G-SP-SB-129-6-8	06/14/2011 15:26	P5061408.D	3.38
240-635-27	G-SP-SB-129-20-22	06/14/2011 16:07	P5061409.D	3.38
MB 240-3872/23-A		06/14/2011 22:10	P5061418.D	3.39
CCV 240-4654/19		06/14/2011 22:50	P5061419.D	3.40
LCS 240-3872/24-A		06/15/2011 07:35	P5061432.D	3.40
CCV 240-4654/33		06/15/2011 08:15	P5061433.D	3.42

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVRT 240-4654/5 Calibration Date: 06/14/2011 13:25

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5061405.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	194725		474	500	-5.2	20.0
n-Nonane	Ave	258662	280953		54.3	50.0	8.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVRT 240-4654/5 Calibration Date: 06/14/2011 13:25

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5061405.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.89	4.65	13.13
n-Nonane	3.39	3.32	3.46

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: MB 240-3872/23-A

Matrix: Solid Date Extracted: 06/07/2011 11:55

Lab File ID:(1) P5061418.D Lab File ID:(2)

Date Analyzed:(1) 06/14/2011 22:10 Date Analyzed:(2)

Instrument ID:(1) A2HP5 Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
G-SP-SB-122-20-22	240-635-24	06/14/2011 14:05	
G-SP-SB-129-0-2	240-635-25	06/14/2011 14:46	
G-SP-SB-129-6-8	240-635-26	06/14/2011 15:26	
G-SP-SB-129-20-22	240-635-27	06/14/2011 16:07	
	LCS 240-3872/24-A	06/15/2011 07:35	

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-3872/23-A

Matrix: Solid | Lab File ID: P5061418.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3540C | Date Extracted: 06/07/2011 11:55

Sample wt/vol: 30.00(g) | Date Analyzed: 06/14/2011 22:10

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4654 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	10.7	J	17	9.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	45		10-110

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4654/19 Calibration Date: 06/14/2011 22:50

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5061419.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	177475		432	500	-13.6	20.0
n-Nonane	Ave	258662	259167		50.1	50.0	0.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4654/19 Calibration Date: 06/14/2011 22:50

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5061419.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.89	4.65	13.13
n-Nonane	3.40	3.33	3.47

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4654/33 Calibration Date: 06/15/2011 08:15

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5061433.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	229626		559	500	11.8	20.0
n-Nonane	Ave	258662	331142		64.0	50.0	28.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-4654/33 Calibration Date: 06/15/2011 08:15

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5061433.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.89	4.65	13.13
n-Nonane	3.42	3.33	3.47

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 2244

SDG No.:

Instrument ID: A2HP14R GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/20/2011 10:36 Calibration End Date: 05/20/2011 12:14 Calibration ID: 1160

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2244/4	P14R0000004.D
Level 2	STD2 240-2244/5	P14R0000005.D
Level 3	STD3 240-2244/6	P14R0000006.D
Level 4	STD4 240-2244/7	P14R0000007.D
Level 5	STD5 240-2244/8	P14R0000008.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT WINDOW	AVG RT
Diesel	7.981	7.981	7.981	7.981	7.981	3.444 - 12.518	7.981
n-Nonane	1.648	1.655	1.655	1.650	1.654	1.598 - 1.698	1.652

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 2244

SDG No.:

Instrument ID: A2HP14R GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/20/2011 10:36 Calibration End Date: 05/20/2011 12:14 Calibration ID: 1160

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2244/4	P14R0000004.D
Level 2	STD2 240-2244/5	P14R0000005.D
Level 3	STD3 240-2244/6	P14R0000006.D
Level 4	STD4 240-2244/7	P14R0000007.D
Level 5	STD5 240-2244/8	P14R0000008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	518177 318916	451156	397198	325887	Lin	29987279.0	303797.731							0.9980		0.9900
n-Nonane	394703 372405	416236	431560	372988	Ave		397578.393				6.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 2244

SDG No.:

Instrument ID: A2HP14R GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/20/2011 10:36 Calibration End Date: 05/20/2011 12:14 Calibration ID: 1160

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2244/4	P14R0000004.D
Level 2	STD2 240-2244/5	P14R0000005.D
Level 3	STD3 240-2244/6	P14R0000006.D
Level 4	STD4 240-2244/7	P14R0000007.D
Level 5	STD5 240-2244/8	P14R0000008.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel	Lin	51817709	90231242	198599122	325887346	637832355	100	200	500	1000	2000
n-Nonane	Ave	3947026	8324727	21577976	37298836	74481027	10.0	20.0	50.0	100	200

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-2244/9 Calibration Date: 05/20/2011 12:38

Instrument ID: A2HP14R Calib Start Date: 05/20/2011 10:36

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/20/2011 12:14

Lab File ID: P14R0000009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		379373		526	500	5.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICV 240-2244/9 Calibration Date: 05/20/2011 12:38

Instrument ID: A2HP14R Calib Start Date: 05/20/2011 10:36

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/20/2011 12:14

Lab File ID: P14R0000009.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	7.98	3.44	12.52

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Sample No.: CCVRT 240-5349/14 Date Analyzed: 06/20/2011 17:35

Instrument ID: A2HP14R GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): P14R0000014.D Heated Purge: (Y/N) N

Calibration ID: 1160

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

					C9 RT #
CONTINUING CALIBRATION SURROGATE					1.64
UPPER LIMIT					1.74
LOWER LIMIT					1.54
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED		LAB FILE ID	
CCVRT 240-5349/14		06/20/2011	17:35	P14R0000014.D	1.64
240-635-9 RE	G-SP-SB-119-20-22 RE	06/20/2011	18:24	P14R0000016.D	1.64
MB 240-5171/14-A		06/20/2011	23:17	P14R0000028.D	1.64
LCS 240-5171/15-A		06/20/2011	23:41	P14R0000029.D	1.64
CCV 240-5349/30		06/21/2011	00:06	P14R0000030.D	1.64

C9 = n-Nonane

C9 RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8015C

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVRT 240-5349/14 Calibration Date: 06/20/2011 17:35

Instrument ID: A2HP14R Calib Start Date: 05/20/2011 10:36

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/20/2011 12:14

Lab File ID: P14R0000014.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		391011		545	500	9.0	20.0
n-Nonane	Ave	397578	440149		55.4	50.0	10.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCVRT 240-5349/14 Calibration Date: 06/20/2011 17:35

Instrument ID: A2HP14R Calib Start Date: 05/20/2011 10:36

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/20/2011 12:14

Lab File ID: P14R0000014.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	7.97	3.43	12.50
n-Nonane	1.64	1.59	1.69

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: MB 240-5171/14-A

Matrix: Solid Date Extracted: 06/17/2011 11:12

Lab File ID:(1) P14R0000028.D Lab File ID:(2)

Date Analyzed:(1) 06/20/2011 23:17 Date Analyzed:(2)

Instrument ID:(1) A2HP14R Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
G-SP-SB-119-20-22 RE	240-635-9 RE	06/20/2011 18:24	
	LCS 240-5171/15-A	06/20/2011 23:41	

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-5171/14-A

Matrix: Solid Lab File ID: P14R0000028.D

Analysis Method: 8015C Date Collected:

Extraction Method: 3540C Date Extracted: 06/17/2011 11:12

Sample wt/vol: 30.00(g) Date Analyzed: 06/20/2011 23:17

Con. Extract Vol.: 5.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 5349 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	17	U	17	9.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	31		10-110

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-5349/30 Calibration Date: 06/21/2011 00:06

Instrument ID: A2HP14R Calib Start Date: 05/20/2011 10:36

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/20/2011 12:14

Lab File ID: P14R0000030.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		386192		537	500	7.4	20.0
n-Nonane	Ave	397578	425502		53.5	50.0	7.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: CCV 240-5349/30 Calibration Date: 06/21/2011 00:06

Instrument ID: A2HP14R Calib Start Date: 05/20/2011 10:36

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/20/2011 12:14

Lab File ID: P14R0000030.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	7.97	3.43	12.50
n-Nonane	1.64	1.59	1.69

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	C91	#
G-SP-SB-115-0-2	240-635-1	0	X
G-SP-SB-115-10-12	240-635-2	47	
G-SP-SB-115-18-20	240-635-3	38	
G-SP-SB-117-0-2	240-635-4	47	
G-SP-SB-117-6-8	240-635-5	47	
G-SP-SB-117-20-22	240-635-6	36	
G-SP-SB-119-0-2	240-635-7	42	
G-SP-SB-119-6-8	240-635-8	42	
G-SP-SB-119-20-22	240-635-9	4	X
G-SP-SB-119-20-22 RE	240-635-9 RE	42	
G-SP-SB-118-0-2	240-635-10	35	
G-SP-SB-118-6-8	240-635-11	42	
G-SP-SB-118-20-22	240-635-12	47	
G-SP-SB-121-0-3	240-635-16	40	
G-SP-SB-121-6-8	240-635-17	36	
G-SP-SB-121-18-20	240-635-18	42	
G-SP-SB-120-0-2	240-635-19	44	
G-SP-SB-120-6-8	240-635-20	15	
G-SP-SB-120-18-20	240-635-21	48	
G-SP-SB-122-0-2	240-635-22	45	
G-SP-SB-122-6-8	240-635-23	49	
G-SP-SB-122-20-22	240-635-24	46	
G-SP-SB-129-0-2	240-635-25	36	
G-SP-SB-129-6-8	240-635-26	40	
G-SP-SB-129-20-22	240-635-27	40	
	MB 240-3691/1-A	46	
	MB 240-3872/23-A	45	
	MB 240-5171/14-A	31	
	LCS 240-3691/2-A	42	
	LCS 240-3872/24-A	45	
	LCS 240-5171/15-A	48	
G-SP-SB-115-0-2 MS	240-635-1 MS	0	X
G-SP-SB-115-0-2 MSD	240-635-1 MSD	0	X

C9 = n-Nonane

QC LIMITS
10-110

Column to be used to flag recovery values

FORM II 8015C

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P5060845.D

Lab ID: LCS 240-3691/2-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
Diesel	83.3	65.8	79	47-138	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P5061432.D

Lab ID: LCS 240-3872/24-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
Diesel	83.3	71.7	86	47-138	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P14R0000029.D

Lab ID: LCS 240-5171/15-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
Diesel	83.3	76.0	91	47-138	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P5061018.D

Lab ID: 240-635-1 MS Client ID: G-SP-SB-115-0-2 MS

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
Diesel	103	520	1300	758	10-199	4

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P5061019.D

Lab ID: 240-635-1 MSD Client ID: G-SP-SB-115-0-2 MSD

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Diesel	104	394 J	-121	107	30	10-199	4 F

Column to be used to flag recovery and RPD values

FORM III 8015C

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE 1 OF 2

CLIENT	JOB NUMBER		
Greater Strawberry Point	SDG - 240-635-1		
SUBJECT: Sample Calculations			
BASED ON	DRAWING NUMBER		
BY: Ann Cognetti	CHECKED BY	APPROVED BY	DATE: August 22, 2011

I. VOC; Sample GSP-SB-115-18-20; Trichloroethene

$$\frac{225301}{1524780} * \frac{50\ ug/L}{0.2582} * \frac{5\ mL}{5.403\ g} * \frac{1}{0823} = 32.2\ ug/kg$$

II. SVOC; Sample GSP-SB-115-0-2; Phenanthrene

$$\frac{2981856}{845169} * 2 * \frac{2\ mL}{29.92} * \frac{4\ ng/uL}{1.1002} * \frac{1}{0.807} * 1000 = 2125\ ug/kg$$

III. PCB; Sample GSP-SB-119-6-8; Aroclor 1260

$$\frac{172993511}{244111963} * 10 * \frac{10mL}{30g} * \frac{1}{0.888} * 1000 = 2660.2$$

$$\frac{407501258}{527110717} * 10 * \frac{10mL}{30g} * \frac{1}{0.888} * 1000 = 2902.0$$

$$\frac{350549700}{466356170} * 10 * \frac{10mL}{30g} * \frac{1}{0.888} * 1000 = 2821.6$$

$$\frac{518\ 432459}{806305909} * 10 * \frac{10mL}{30g} * \frac{1}{0.888} * 1000 = 2413.6$$

$$\frac{234801308}{327827711} * 10 * \frac{10mL}{30g} * \frac{1}{0.888} * 1000 = 2688.6$$

$$\frac{2660.2 + 2902.0 + 2821.6 + 2413.6 + 2688.6}{5} = 2697.2\ ug/kg$$

CLIENT	JOB NUMBER		
Greater Strawberry Point	SDG 240-635-1		
SUBJECT: Sample Calculations			
BASED ON	DRAWING NUMBER		
BY: Lynn Cognetta	CHECKED BY	APPROVED BY	DATE: August 22, 2011

IV. DRO; GSP-SB-115-02

$$\frac{34815858}{205440.756} * 20 * \frac{5\,mL}{29.93} * \frac{1}{0.807} = 701.6\ mg/kg$$

Sample Calculation

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-18-20 | Lab Sample ID: 240-635-3

Matrix: Solid | Lab File ID: 148888.D

Analysis Method: 8260B | Date Collected: 05/31/2011 15:15

Sample wt/vol: 5.403(g) | Date Analyzed: 06/11/2011 14:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.7 | Level: (low/med) Low

Analysis Batch No.: 4426 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.6	U	5.6	0.62
75-00-3	Chloroethane	5.6	U *	5.6	0.97
67-66-3	Chloroform	5.6	U	5.6	0.33
74-87-3	Chloromethane	5.6	U	5.6	0.46
156-59-2	cis-1,2-Dichloroethene	2.0	J	5.6	0.40
10061-01-5	cis-1,3-Dichloropropene	5.6	U	5.6	0.38
74-95-3	Dibromomethane	5.6	U	5.6	0.71
74-97-5	Bromochloromethane	5.6	U	5.6	0.80
75-71-8	Dichlorodifluoromethane	5.6	U	5.6	0.56
75-27-4	Bromodichloromethane	5.6	U	5.6	0.31
75-65-0	tert-Butyl alcohol	220	U	220	8.5
100-41-4	Ethylbenzene	5.6	U	5.6	0.29
87-68-3	Hexachlorobutadiene	5.6	U	5.6	1.3
108-20-3	Diisopropyl ether	11	U	11	1.7
98-82-8	Isopropylbenzene	5.6	U	5.6	0.18
1634-04-4	Methyl tert-butyl ether	22	U	22	0.48
75-09-2	Methylene Chloride	2.5	J B	5.6	0.75
179601-23-1	m-Xylene & p-Xylene	11	U	11	1.3
91-20-3	Naphthalene	5.6	U	5.6	0.21
104-51-8	n-Butylbenzene	5.6	U	5.6	0.26
103-65-1	n-Propylbenzene	5.6	U	5.6	0.45
95-47-6	o-Xylene	5.6	U	5.6	0.39
135-98-8	sec-Butylbenzene	5.6	U	5.6	0.20
100-42-5	Styrene	5.6	U	5.6	0.17
994-05-8	Tert-amyl-methyl ether (TAME)	5.6	U	5.6	0.42
637-92-3	Ethyl-t-butyl ether (ETBE)	5.6	U	5.6	0.25
127-18-4	Tetrachloroethene	5.6	U	5.6	0.58
108-88-3	Toluene	5.6	U	5.6	0.30
156-60-5	trans-1,2-Dichloroethene	5.6	U	5.6	0.46
10061-02-6	trans-1,3-Dichloropropene	5.6	U	5.6	0.61
79-01-6	Trichloroethene	32		5.6	0.47
75-69-4	Trichlorofluoromethane	5.6	U	5.6	0.38
108-05-4	Vinyl acetate	11	U	11	0.28
75-01-4	Vinyl chloride	0.45	J	5.6	0.44
1330-20-7	Xylenes, Total	11	U	11	0.75

Sample Calculation

Report Date: 15-Jun-2011 14:49:01 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\NCChrom\ChromData\A3UX14\20110611-1025.b\148888.D
Lims ID: 240-635-B-3-A Client ID: G-SP-SB-115-18-20
Inject. Date: 11-Jun-2011 14:51:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 240-635-b-3-a
Misc. Info.: 240-0001025-013 =240-0001025-013
Operator: 2807 Instrument ID: A3UX14
Vol. Injected: 1.0000 ALS Bottle#: 11
Lims Batch ID: 4426 Lims Sample ID: 13
Detector: MS SCAN

Method: \\NCChrom\ChromData\A3UX14\20110611-1025.b\8260_14.m
Last Update: 15-Jun-2011 14:48:51 Calib Date: 13-May-2011 16:27:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCChrom\ChromData\A3UX14\20110513-528.b\148171.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Process Host: CORP-CTX-18

First Level Reviewer: macenczaks Date: 12-Jun-2011 08:42:23

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
* 1 Fluorobenzene									
96	6.896	6.896	0.000	100	1524780	50.0			
* 2 Chlorobenzene-d5									
117	9.606	9.606	0.000	90	983277	50.0	80.0- 120.0	100.0	
82	9.606	9.606	0.000		471094		27.5- 67.5	47.9	
* 3 1,4-Dichlorobenzene-d4									
152	11.570	11.570	0.000	98	371799	50.0	80.0- 120.0	100.0	
150	11.570	11.570	0.000		584232		138.6- 178.6	157.1	
$ 5 Dibromofluoromethane (Surr)									
113	6.222	6.222	0.000	59	323973	43.4	80.0- 120.0	100.0	
111	6.222	6.222	0.000		329885		83.5- 123.5	101.8	
$ 6 1,2-Dichloroethane-d4 (Surr)									
65	6.553	6.553	0.000	93	421313	50.8	80.0- 120.0	100.0	
63	6.553	6.553	0.000		36837		0.0- 28.8	8.7	
$ 7 Toluene-d8 (Surr)									
98	8.364	8.364	0.000	94	1294762	56.2	80.0- 120.0	100.0	
100	8.364	8.364	0.000		868273		48.4- 88.4	67.1	
$ 131 4-Bromofluorobenzene (Surr)									
95	10.600	10.600	0.000	91	361500	56.9	70.0- 130.0	100.0	
174	10.600	10.600	0.000		316765		56.4- 116.4	87.6	
176	10.600	10.600	0.000		302033		54.4- 114.4	83.5	
12 Dichlorodifluoromethane									
85		1.442							
87		1.442							
13 Chloromethane									
50		1.619							
52		1.619							

Sample Calculation

Report Date: 15-Jun-2011 14:49:01 Chrom Revision: 1.2 03-Jun-2011 08:44:02
Data File: \\NCChrom\ChromData\A3UX14\20110611-1025.b\148888.D

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
43 2,2-Dichloropropane									
77		5.654							
97		5.654							
42 cis-1,2-Dichloroethene									
96	5.666	5.666	0.000	60	13516	1.80	80.0- 120.0	100.0	
61	5.666	5.666	0.000		21119		137.8- 177.8	156.3	
41 2-Butanone (MEK)									
43		5.713							
72		5.713							
47 Chlorobromomethane									
128		5.938							
49		5.938							
49 Chloroform									
83		6.045							
85		6.045							
50 1,1,1-Trichloroethane									
97		6.222							
99		6.222							
53 Carbon tetrachloride									
117		6.400							
119		6.400							
52 1,1-Dichloropropene									
75		6.400							
110		6.400							
55 Benzene									
78		6.613							
52		6.613							
56 1,2-Dichloroethane									
62		6.636							
64		6.636							
57 Tert-amyl methyl ether									
73		6.754							
55		6.754							
60 Trichloroethene									
130	7.251	7.252	-0.001	90	225301	28.6	80.0- 120.0	100.0	
95	7.251	7.252	-0.001		194337		65.7- 105.7	86.3	
62 1,2-Dichloropropane									
63		7.465							
62		7.465							
65 Dibromomethane									
93		7.571							
174		7.571							
67 Dichlorobromomethane									
83		7.725							
85		7.725							
69 2-Chloroethyl vinyl ether									
63		7.997							
65		7.997							

Sample Calculation

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
tert-Butyl alcohol	0.0220	0.0203	0.0215	0.0212	0.0224	Ave		0.0217				6.6		15.0			
	0.0192	0.0230	0.0236														
Acrylonitrile	0.1161	0.1061	0.1061	0.1047	0.1060	Ave		0.1046				5.5		15.0			
	0.0979	0.1004	0.0993														
trans-1,2-Dichloroethene	0.2375	0.2083	0.2518	0.2275	0.2254	Ave		0.2275				5.7		15.0			
	0.2281	0.2212	0.2204														
Methyl tert-butyl ether	0.5833	0.5341	0.5924	0.5609	0.5714	Ave		0.5685				3.2		15.0			
	0.5556	0.5732	0.5770														
Hexane	0.0388	0.0386	0.0568	0.0546	0.0515	Ave		0.0501				14.0		15.0			
	0.0532	0.0532	0.0541														
1,1-Dichloroethane	0.3859	0.3709	0.4539	0.4277	0.4229	Ave		0.4178			0.1000	6.4		15.0			
	0.4303	0.4229	0.4280														
Vinyl acetate	0.0354	0.0292	0.0259	0.0286	0.0307	Ave		0.0316				12.0		15.0			
	0.0308	0.0356	0.0367														
2,2-Dichloropropane	0.1247	0.1337	0.1588	0.1527	0.1561	Ave		0.1535				11.0		15.0			
	0.1678	0.1684	0.1656														
cis-1,2-Dichloroethene	0.2399	0.2284	0.2726	0.2462	0.2467	Ave		0.2456				5.2		15.0			
	0.2500	0.2408	0.2399														
2-Butanone	0.1370	0.1203	0.1136	0.1204	0.1187	Ave		0.1203				6.5		15.0			
	0.1102	0.1204	0.1218														
Bromochloromethane	0.1367	0.1233	0.1399	0.1309	0.1300	Ave		0.1307				4.1		15.0			
	0.1293	0.1279	0.1275														
Tetrahydrofuran	+++++	0.0761	0.0931	0.0811	0.0776	Ave		0.0799				8.3		15.0			
	0.0717	0.0791	0.0806														
Chloroform	0.3577	0.3286	0.3971	0.3589	0.3673	Ave		0.3650				5.2		15.0			
	0.3701	0.3691	0.3712														
1,1,1-Trichloroethane	0.2243	0.2320	0.2950	0.2924	0.2941	Ave		0.2857				13.0		15.0			
	0.3146	0.3171	0.3165														
Cyclohexane	0.3955	0.3242	0.5235	0.4931	0.4835	Ave		0.4625				15.0		15.0			
	0.5007	0.4878	0.4917														
Carbon tetrachloride	+++++	+++++	0.2718	0.2675	0.2786	Ave		0.2938				8.2		15.0			
	0.3061	0.3162	0.3225														
1,1-Dichloropropene	0.2512	0.2451	0.3099	0.2800	0.2821	Ave		0.2791				7.6		15.0			
	0.2939	0.2837	0.2865														
Benzene	0.9367	0.8077	0.9426	0.8592	0.8405	Ave		0.8703				5.3		15.0			
	0.8594	0.8486	0.8677														
1,2-Dichloroethane	0.3610	0.3234	0.3750	0.3268	0.3387	Ave		0.3410				5.2		15.0			
	0.3297	0.3352	0.3387														
Trichloroethene	0.2480	0.2251	0.2912	0.2569	0.2553	Ave		0.2582				7.2		15.0			
	0.2692	0.2589	0.2607														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Sample Calculation

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Batch Number: 4241 Batch Start Date: 06/09/11 16:08 Batch Analyst: Mancine, Louis

Batch Method: 5035 Batch End Date: 06/09/11 21:03

Lab Sample ID	Client Sample ID	Method Chain	Basis	TareWeight	Vial&SampleWt	InitialAmount	FinalAmount	AnalysisComment
240-635-B-1	G-SP-SB-115-0-2	5035, 8260B	T	+031.062 g	37.02 g	5.958 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-B-2	G-SP-SB-115-10-12	5035, 8260B	T	+030.845 g	37.74 g	6.895 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-B-3	G-SP-SB-115-18-20	5035, 8260B	T	+031.087 g	36.49 g	5.403 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-B-4	G-SP-SB-117-0-2	5035, 8260B	T	+031.320 g	36.69 g	5.37 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-B-5	G-SP-SB-117-6-8	5035, 8260B	T	+031.194 g	38.02 g	6.826 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-B-6	G-SP-SB-117-20-22	5035, 8260B	T	+031.229 g	38.72 g	7.491 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-B-7	G-SP-SB-119-0-2	5035, 8260B	T	+031.073 g	37.22 g	6.147 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-B-8	G-SP-SB-119-6-8	5035, 8260B	T	+031.031 g	37.32 g	6.289 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-B-9	G-SP-SB-119-20-22	5035, 8260B	T	+031.115 g	37.87 g	6.755 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-B-13	G-SP-SB-118-0-2	5035, 8260B	T	+031.146 g	37.53 g	6.384 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-C-14	G-SP-SB-118-6-8	5035, 8260B	T	+031.000 g	38.38 g	7.38 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-C-15	G-SP-SB-118-20-22	5035, 8260B	T	+031.091 g	38.10 g	7.009 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-C-16	G-SP-SB-121-0-3	5035, 8260B	T	+031.028 g	36.84 g	5.812 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-B-18	G-SP-SB-121-18-20	5035, 8260B	T	+031.096 g	41.71 g	10.614 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm
240-635-B-19	G-SP-SB-120-0-2	5035, 8260B	T	+031.145 g	37.05 g	5.905 g	5 mL	SAMPLE.PRESERVED.ON.6/01/2011 @12:00pm

Sample Calculation

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 | Lab Sample ID: 240-635-1

Matrix: Solid | Lab File ID: 635F1A.D

Analysis Method: 8270D | Date Collected: 05/31/2011 15:05

Extract. Method: 3540C | Date Extracted: 06/06/2011 09:52

Sample wt/vol: 29.92(g) | Date Analyzed: 06/29/2011 00:02

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 2

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	250	U	250	55
111-44-4	Bis(2-chloroethyl)ether	250	U	250	5.0
117-81-7	Bis(2-ethylhexyl) phthalate	59	J B	120	47
85-68-7	Butyl benzyl phthalate	120	U	120	25
105-60-2	Caprolactam	820	U *	820	92
86-74-8	Carbazole	120	U	120	67
218-01-9	Chrysene	790		17	2.7
84-74-2	Di-n-butyl phthalate	120	U	120	37
117-84-0	Di-n-octyl phthalate	120	U	120	67
53-70-3	Dibenzo(a,h)anthracene	140		17	8.2
132-64-9	Dibenzofuran	73	J	120	8.2
84-66-2	Diethyl phthalate	120	U	120	40
131-11-3	Dimethyl phthalate	120	U	120	42
206-44-0	Fluoranthene	1300		17	8.2
86-73-7	Fluorene	500		17	8.2
118-74-1	Hexachlorobenzene	17	U	17	5.2
87-68-3	Hexachlorobutadiene	120	U	120	67
77-47-4	Hexachlorocyclopentadiene	820	U	820	67
67-72-1	Hexachloroethane	120	U	120	22
193-39-5	Indeno[1,2,3-cd]pyrene	310		17	8.2
78-59-1	Isophorone	120	U	120	32
621-64-7	N-Nitrosodi-n-propylamine	120	U	120	67
62-75-9	N-Nitrosodimethylamine	250	U	250	40
86-30-6	N-Nitrosodiphenylamine	120	U	120	52
91-20-3	Naphthalene	450		17	8.2
98-95-3	Nitrobenzene	250	U	250	5.5
87-86-5	Pentachlorophenol	370	U	370	200
85-01-8	Phenanthrene	2100		17	8.2
108-95-2	Phenol	120	U	120	67
129-00-0	Pyrene	1700		17	8.2
108-60-1	2,2'-oxybis[1-chloropropane]	250	U	250	24
606-20-2	2,6-Dinitrotoluene	500	U	500	52
100-02-7	4-Nitrophenol	820	U	820	200

Sample Calculation

Report Date: 01-Jul-2011 09:21:54 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A4HP9\20110629-1496.b\635F1A.D		
Lims ID:	240-635-F-1-A	Client ID:	G-SP-SB-115-0-2
Inject. Date:	29-Jun-2011 00:02:30	Dil. Factor:	2.0000
Sample Type:	Client		
Sample ID:	635f1a,10628a.b,8270c-625,1-827042d.sub		
Misc. Info.:			
Operator:	001574	Instrument ID:	A4HP9
Vol. Injected:	1.0000	ALS Bottle#:	25
Lims Batch ID:	6612	Lims Sample ID:	25
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A4HP9\20110629-1496.b\8270 _9.m		
Last Update:	01-Jul-2011 09:21:18	Calib Date:	25-Jun-2011 16:48:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A4HP9\20110626-1388.b\9AHHH625.D		
Limit Group:	MSS 8270D ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-15		
First Level Reviewer: ulmanm		Date:	01-Jul-2011 08:34:45

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.840	3.837	0.003	95	166556	4.00	
* 2 Naphthalene-d8	136	4.807	4.793	0.014	94	716303	4.00	
* 3 Acenaphthene-d10	164	6.100	6.091	0.009	83	456988	4.00	
* 4 Phenanthrene-d10	188	7.190	7.176	0.014	96	845169	4.00	
* 5 Chrysene-d12	240	9.155	9.136	0.019	79	792282	4.00	
* 6 Perylene-d12	264	10.560	10.509	0.051	92	629189	4.00	
$ 7 2-Fluorophenol	112	2.852	2.843	0.009	91	287646	4.42	
$ 8 Phenol-d5	99	3.546	3.533	0.013	0	412753	4.53	
$ 9 Nitrobenzene-d5	82	4.257	4.248	0.009	82	284546	2.57	
$ 10 2-Fluorobiphenyl (Surr)	172	5.587	5.579	0.008	98	478020	3.16	
$ 11 2,4,6-Tribromophenol	330	6.687	6.663	0.024	78	67967	4.19	
$ 12 Terphenyl-d14	244	8.327	8.308	0.019	97	552894	3.85	
19 Octachlorostyrene	1		0.000					
18 Bis(4-hydroxyphenyl)methane	1		0.000					
13 Octachlorocyclopentene	1		0.000					
20 Dimethylformamide	1		0.000					
22 Bis(2-hydroxyphenyl)methane	1		0.000					
17 4-Chlorophenol	1		0.000					
231 2,3,7,8-TCDD	1		0.000					
15 3-Methylcatechol	1		0.000					
24 Catechol	1		0.000					
14 4-Methylcatechol	1		0.000					
16 2,3-Dichlorophenol	1		0.000					
23 2,5-Dichlorophenol	1		0.000					
25 1,4-Dioxane	88		1.727					
26 N-Nitrosodimethylamine	74		1.919					
27 Pyridine	79		1.951					
28 Ethyl methacrylate	69		2.192					
29 3-Chloropropionitrile	54		2.389					
31 2-Picoline	93		2.432					
32 N-Nitrosomethylethylamine	88		2.496					

Sample Calculation

Report Date: 01-Jul-2011 09:21:54 Chrom Revision: 1.2 03-Jun-2011 08:44:02
Data File: \\Ncchrom\ChromData\A4HP9\20110629-1496.b\635F1A.D

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
135 1,3,5-Trinitrobenzene	213		6.732					
228 Diallate Peak 1	86		6.748					
136 Diallate	86		6.748					
137 Phenacetin	108		6.759					
138 Phorate	121		6.759					
230 Diallate Peak 2	86		6.818					
139 4-Bromophenyl phenyl ether	248		6.823					
140 Dimethoate	87		6.882					
141 Hexachlorobenzene	284		6.898					
142 Atrazine	200		6.919					
129 4-Aminobiphenyl	169		7.016					
143 Pentachlorophenol	266		7.033					
144 Pronamide	173		7.037					
145 Pentachloronitrobenzene	237		7.042					
153 Diphenylsulfone	125		7.068					
146 Disulfoton	88		7.133					
147 Dinoseb	211		7.144					
148 Phenanthrene	178	7.211	7.192	0.019	98	2981856	12.8	
149 Anthracene	178	7.248	7.229	0.019	98	801630	3.44	
151 Carbazole	167	7.355	7.336	0.019	73	75163	0.3277	
152 Methyl parathion	109		7.411					
154 Di-n-butyl phthalate	149		7.539					
155 Ethyl Parathion	97		7.689					
156 4-Nitroquinoline-1-oxide	190		7.742					
157 Methapyrilene	58		7.774					
158 Isodrin	66		7.956					
159 Fluoranthene	202	8.082	8.063	0.019	99	2029134	8.09	
160 Benzidine	184		8.133					
161 Pyrene	202	8.258	8.234	0.024	92	2605905	10.4	
166 4,4'-DDE	246		8.267					
226 Aramite Peak 1	185		8.292					
162 Aramite, Total	185		8.330					
229 Aramite Peak 2	185		8.330					
163 p-Dimethylamino azobenzene	225		8.426					
164 Chlorobenzilate	139		8.447					
165 4,4'-DDD	235		8.592					
167 Famphur	218		8.634					
168 Butyl benzyl phthalate	149		8.645					
176 Hexabromobenzene	232		8.655					
169 3,3'-Dimethylbenzidine	212		8.682					
170 4,4'-DDT	235		8.748					
171 2-Acetylaminofluorene	181		8.880					
179 6-Methylchrysene	242		9.018					
172 3,3'-Dimethoxybenzidine	244		9.046					
173 Bis(2-ethylhexyl) phthalate	149	9.054	9.056	-0.002	90	57085	0.3571	
174 4,4'-Methylene bis(2-chloroaniline)	231		9.078					
175 3,3'-Dichlorobenzidine	252		9.083					
177 Benzo[a]anthracene	228	9.145	9.131	0.014	98	1088533	4.49	
178 Chrysene	228	9.172	9.158	0.014	92	1074946	4.76	
180 Di-n-octyl phthalate	149		9.569					
182 Benzo[b]fluoranthene	252	10.128	10.087	0.041	92	911838	4.31	M
181 7,12-Dimethylbenz(a)anthracene	256		10.098					

Sample Calculation

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,4-Dinitrophenol	0.2362	0.1066 0.2307	0.1316 0.2327	0.1769 0.2310	0.2042	Qua	-0.231	0.2450	0		0.0100				1.0000		0.9900
Acenaphthene	1.4518 1.1276	1.2539 1.0849	1.2030 1.0633	1.2200 1.0895	1.1521	Ave		1.1829			0.9000	10.0		20.0			
4-Nitrophenol	0.2704	0.1967 0.2636	0.1979 0.2618	0.2457 0.2633	0.2591	Ave		0.2448				12.0		20.0			
2,4-Dinitrotoluene	0.3751	0.3482 0.3788	0.3694 0.3804	0.3878 0.3950	0.3702	Ave		0.3756			0.2000	3.7		20.0			
2,3,5,6-Tetrachlorophenol	0.3096	0.2914 0.3073	0.2908 0.3101	0.3038 0.3179	0.2993	Ave		0.3038				3.1		20.0			
Diethyl phthalate	1.3434	1.3963 1.3354	1.3467 1.3254	1.3687 1.3679	1.3146	Ave		1.3498			0.0100	2.0		20.0			
4-Chlorophenyl phenyl ether	0.6007	0.6270 0.6027	0.6327 0.5921	0.6368 0.6120	0.5964	Ave		0.6125			0.4000	2.8		20.0			
4-Nitroaniline	0.3667	0.3473 0.3547	0.3607 0.3504	0.3962 0.3570	0.3685	Ave		0.3627			0.0100	4.2		20.0			
Fluorene	1.4172 1.2254	1.2884 1.1979	1.3031 1.1893	1.2750 1.2269	1.2205	Ave		1.2604			0.9000	5.6		20.0			
4,6-Dinitro-2-methylphenol	0.1481	0.0833 0.1458	0.1071 0.1470	0.1229 0.1505	0.1379	Ave		0.1303			0.0100	19.0		20.0			
N-Nitrosodiphenylamine	0.5715	0.5871 0.5712	0.5968 0.5696	0.5983 0.5929	0.5716	Ave		0.5824			0.0100	2.2		20.0			
Azobenzene	1.3876	1.3751 1.3441	1.3937 1.2908	1.4201 1.1558	1.3575	Ave		1.3406				6.3		20.0			
4-Bromophenyl phenyl ether	0.1905	0.1956 0.1859	0.1986 0.1860	0.1965 0.1919	0.1846	Ave		0.1912			0.1000	2.8		20.0			
Hexachlorobenzene	0.2122 0.1781	0.1866 0.1774	0.1862 0.1750	0.1889 0.1873	0.1742	Ave		0.1851			0.1000	6.3		20.0			
Atrazine	0.1875	0.1859 0.1824	0.1980 0.1753	0.2070 0.1604	0.1963	Ave		0.1866			0.0100	7.8		20.0			
Pentachlorophenol	0.1400	0.1163 0.1406	0.1092 0.1396	0.1228 0.1523	0.1331	Ave		0.1317			0.0500	11.0		20.0			
Phenanthrene	1.2968 1.0580	1.1263 1.0629	1.0701 1.0501	1.1269 1.0507	1.0601	Ave		1.1002			0.7000	7.2		20.0			
Anthracene	1.1594 1.1002	1.1377 1.0850	1.1090 1.0751	1.1348 1.0387	1.0788	Ave		1.1021			0.7000	3.4		20.0			
Carbazole	1.0966	1.0692 1.0706	1.0952 1.0681	1.1385 1.0723	1.0743	Ave		1.0856			0.0100	2.2		20.0			
Di-n-butyl phthalate	1.3672	1.3187 1.3324	1.2973 1.3072	1.3899 1.1254	1.3279	Ave		1.3082			0.0100	6.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

Sample Calculation

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Batch Number: 3689 Batch Start Date: 06/06/11 14:15 Batch Analyst: Coast, Chris

Batch Method: 3540C Batch End Date: 06/07/11 06:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXBNALCS1 00003	EXBNASURRW 00002	EXRESTEKSPKW 00002
MB 240-3689/1		3540C, 8270D		30.00 g	2.00 mL		1 mL	
LCS 240-3689/2		3540C, 8270D		30.00 g	2.00 mL	1 mL	1 mL	1 mL
240-635-F-1	G-SP-SB-115-0-2	3540C, 8270D	T	29.92 g	2.00 mL		1 mL	
240-635-F-1 MS	G-SP-SB-115-0-2	3540C, 8270D	T	29.81 g	2.00 mL	1 mL	1 mL	1 mL
240-635-F-1 MSD	G-SP-SB-115-0-2	3540C, 8270D	T	29.83 g	2.00 mL	1 mL	1 mL	1 mL
240-635-G-2	G-SP-SB-115-10-12	3540C, 8270D	T	30.20 g	2.00 mL		1 mL	
240-635-F-3	G-SP-SB-115-18-20	3540C, 8270D	T	29.80 g	2.00 mL		1 mL	
240-635-G-4	G-SP-SB-117-0-2	3540C, 8270D	T	29.99 g	2.00 mL		1 mL	
240-635-F-5	G-SP-SB-117-6-8	3540C, 8270D	T	30.02 g	2.00 mL		1 mL	
240-635-F-6	G-SP-SB-117-20-22	3540C, 8270D	T	29.94 g	2.00 mL		1 mL	
240-635-F-7	G-SP-SB-119-0-2	3540C, 8270D	T	29.94 g	2.00 mL		1 mL	
240-635-G-8	G-SP-SB-119-6-8	3540C, 8270D	T	29.81 g	2.00 mL		1 mL	
240-635-F-9	G-SP-SB-119-20-22	3540C, 8270D	T	30.08 g	2.00 mL		1 mL	
240-635-C-10	G-SP-SB-118-0-2	3540C, 8270D	T	29.87 g	2.00 mL		1 mL	
240-635-D-11	G-SP-SB-118-6-8	3540C, 8270D	T	30.17 g	2.00 mL		1 mL	
240-635-C-12	G-SP-SB-118-20-22	3540C, 8270D	T	30.05 g	2.00 mL		1 mL	
240-635-F-16	G-SP-SB-121-0-3	3540C, 8270D	T	29.94 g	2.00 mL		1 mL	
240-635-G-17	G-SP-SB-121-6-8	3540C, 8270D	T	29.96 g	2.00 mL		1 mL	
240-635-F-18	G-SP-SB-121-18-20	3540C, 8270D	T	30.07 g	2.00 mL		1 mL	
240-635-G-19	G-SP-SB-120-0-2	3540C, 8270D	T	29.86 g	2.00 mL		1 mL	
240-635-F-20	G-SP-SB-120-6-8	3540C, 8270D	T	29.83 g	2.00 mL		1 mL	
240-635-F-21	G-SP-SB-120-18-20	3540C, 8270D	T	30.13 g	2.00 mL		1 mL	
240-635-F-22	G-SP-SB-122-0-2	3540C, 8270D	T	29.84 g	2.00 mL		1 mL	

Sample Calculation

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-119-6-8 | Lab Sample ID: 240-635-8

Matrix: Solid | Lab File ID: P1361418.D

Analysis Method: 8082A | Date Collected: 05/31/2011 16:20

Extraction Method: 3540C | Date Extracted: 06/07/2011 10:06

Sample wt/vol: 30.00(g) | Date Analyzed: 06/14/2011 16:20

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4680 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	370	U	370	240
11104-28-2	Aroclor-1221	370	U	370	180
11141-16-5	Aroclor-1232	370	U	370	160
53469-21-9	Aroclor-1242	370	U	370	150
12672-29-6	Aroclor-1248	370	U	370	190
11097-69-1	Aroclor-1254	370	U	370	190
11096-82-5	Aroclor-1260	2700		370	190

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	0	X	29-151
2051-24-3	Decachlorobiphenyl	0	X	14-163

Sample Calculation

Report Date: 15-Jun-2011 09:09:15 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\NCChrom\ChromData\A2HP13\20110614-1088.b\P1361418.D		
Lims ID:	240-635-F-8-B	Client ID:	G-SP-SB-119-6-8
Inject. Date:	14-Jun-2011 16:20:35	Dil. Factor:	10.0000
Sample Type:	Client		
Sample ID:	240-0001088-018		
Misc. Info.:			
Operator:		Instrument ID:	A2HP13
Vol. Injected:	1.0000	ALS Bottle#:	18
Lims Batch ID:	4680	Lims Sample ID:	18
Detector 1 :	GC ECD1A		
Detector 2 :	GC ecd2b		
Method:	\\NCChrom\ChromData\A2HP13\20110614-1088.b\PCB13.m		
Last Update:	15-Jun-2011 08:57:13	Calib Date:	10-Jun-2011 23:46:47
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCChrom\ChromData\A2HP13\20110610-1010.b\P1361042.D		
Limit Group:	GC 8082A ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-17		

First Level Reviewer: hassl Date: 15-Jun-2011 09:09:15

Det	Sig	RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Ratio Range	Ratio	Flags
$ 2 Tetrachloro-m-xylene									
1	44		1.195						
2	2		1.625						
3 PCB-1221									
1	2		1.336						
1	3		1.448						
1	4		1.480						
2	4		1.918						
2	5		2.054						
2	6		2.114						
4 PCB-1232									
1	100		1.478						
1	2		1.776						
1	3		2.191						
1	4		2.319						
1	5		2.723						
2	6		2.111						
2	7		2.530						
2	8		3.010						
2	9		3.155						
2	10		3.669						

Sample Calculation

Report Date: 15-Jun-2011 09:09:15 Chrom Revision: 1.2 03-Jun-2011 08:44:02
Data File: \\NCChrom\ChromData\A2HP13\20110614-1088.b\P1361418.D

Det	Sig	RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Ratio Range	Ratio	Flags
10 PCB-1260									
1	100	3.999	4.000	-0.001	172993511	0.7087		100.0	
1	2	4.306	4.307	-0.001	407501258	0.7731	196.3- 246.3	235.6	
1	3	4.598	4.599	-0.001	350549700	0.7517	169.7- 219.7	202.6	
1	4	5.343	5.342	0.001	518432459	0.6430	317.4- 367.4	299.7	
1	5	5.639	5.640	-0.001	234801308	0.7162	113.6- 163.6	135.7	
			Average of Peak Amounts =			0.7185			
2	6	5.083	5.082	0.001	101479704	0.7585		100.0	
2	7	5.330	5.331	-0.001	125489954	0.8270	83.9- 143.9	123.7	
2	8	5.827	5.826	0.001	75645478	0.6178	60.9- 120.9	74.5	
2	9	6.443	6.442	0.001	199211055	0.6714	196.7- 256.7	196.3	
2	10	6.840	6.840	0.000	136889800	0.6571	127.7- 187.7	134.9	
			Average of Peak Amounts =			0.7064			
						RPD = 1.71			
$ 12 DCB Decachlorobiphenyl									
1	100		6.859						
2	2		8.142						

Sample Calculation

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1402

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4		B	M1	M2								
	LVL 5	LVL 6														
PCB-1016 Peak 1	123865700	143125620	105190645	98128022	Ave		113350337				15.0		20.0			
	109003675	100788360														
PCB-1016 Peak 2	203037680	207103590	184231645	174964920	Ave		181448143				12.0		20.0			
	166841704	152509321														
PCB-1016 Peak 3	412721820	416895930	406321625	394149700	Ave		395538572				5.3		20.0			
	382063780	361078574														
PCB-1016 Peak 4	176680100	179466070	169997380	167788626	Ave		168953212				5.1		20.0			
	163974588	155812510														
PCB-1016 Peak 5	110990360	116880940	109901730	110894724	Ave		111394350				2.6		20.0			
	111219546	108478801														
PCB-1260 Peak 1	247565860	254582430	241516135	244687554	Ave		244111963				2.7		20.0			
	241476724	234843074														
PCB-1260 Peak 2	543237360	545553950	534557260	526537158	Ave		527110717				3.4		20.0			
	514522341	498256235														
PCB-1260 Peak 3	468491380	472777320	470243350	467123934	Ave		466356170				1.3		20.0			
	463573470	455927567														
PCB-1260 Peak 4	808900780	817771090	826860880	798828018	Ave		806305909				1.8		20.0			
	799995243	785479441														
PCB-1260 Peak 5	327204280	327392490	334765085	319290038	Ave		327827711				1.6		20.0			
	327637302	330677068														
Tetrachloro-m-xylene	6962918000	6640790800	6059870700	5586536080	Ave		5961253188				12.0		20.0			
	5507406000	5009997550														
Decachlorobiphenyl	5685028400	5402986800	5633498800	5000657320	Ave		5392536235				4.6		20.0			
	5283917780	5349128310														

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

Sample Calculation

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Client Sample ID: G-SP-SB-115-0-2 | Lab Sample ID: 240-635-1

Matrix: Solid | Lab File ID: P5061017.D

Analysis Method: 8015C | Date Collected: 05/31/2011 15:05

Extraction Method: 3540C | Date Extracted: 06/06/2011 09:56

Sample wt/vol: 29.93(g) | Date Analyzed: 06/10/2011 18:15

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 19.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4325 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	700		410	230

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	0	X	10-110

Sample Calculation

Report Date: 13-Jun-2011 14:58:45 Chrom Revision: 1.2 03-Jun-2011 08:44:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP5\20110610-1002.b\P5061017.D		
Lims ID:	240-635-F-1-D	Client ID:	G-SP-SB-115-0-2
Inject. Date:	10-Jun-2011 18:15:17	Dil. Factor:	20.0000
Sample Type:	Client		
Sample ID:	240-0001002-017		
Misc. Info.:			
Operator:	2398	Instrument ID:	A2HP5
Vol. Injected:	1.0000	ALS Bottle#:	17
Lims Batch ID:	4325	Lims Sample ID:	17
Detector:	GC FID1A		
Method:	\\Ncchrom\ChromData\A2HP5\20110610-1002.b\TPH5.m		
Last Update:	13-Jun-2011 14:58:42	Calib Date:	25-Apr-2011 15:26:36
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A2HP5\20110502-442.b\P5042514.D		
Limit Group:	GC 8015C TPH ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-17		

RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Flags
A 15 Diesel					
8.880	4.632 - 13.128		25797097	125.6	
A 17 C10-C32					
9.456	4.632 - 14.281		34815858	169.5	

Sample Calculations

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-635-1 Analy Batch No.: 1563

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2011 10:32 Calibration End Date: 04/25/2011 11:01 Calibration ID: 958

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-1563/3	P5042504.D
Level 2	STD2 240-1563/4	P5042505.D
Level 3	STD3 240-1563/5	P5042506.D
Level 4	STD4 240-1563/6	P5042507.D
Level 5	STD5 240-1563/7	P5042508.D

ANALYTE	CF				CURVE TYPE	B	COEFFICIENT		#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4			M1	M2								
Diesel	253880 183844	194912	213715	180853	Ave		205440.756				15.0		20.0			
n-Nonane	283211 249411	245446	269991	245251	Ave		258662.187				6.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

Sample Calculation

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Batch Number: 3691 Batch Start Date: 06/06/11 14:15 Batch Analyst: Coast, Chris

Batch Method: 3540C Batch End Date: 06/07/11 06:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXDIESELSPKW 00004	EXTPHSURR 00003
MB 240-3691/1		3540C, 8015C		30.00 g	5.00 mL		1 mL
LCS 240-3691/2		3540C, 8015C		30.00 g	5.00 mL	1 mL	1 mL
240-635-F-1	G-SP-SB-115-0-2	3540C, 8015C	T	29.93 g	5.00 mL		1 mL
240-635-F-1 MS	G-SP-SB-115-0-2	3540C, 8015C	T	29.97 g	5.00 mL	1 mL	1 mL
240-635-F-1 MSD	G-SP-SB-115-0-2	3540C, 8015C	T	29.91 g	5.00 mL	1 mL	1 mL
240-635-G-2	G-SP-SB-115-10-12	3540C, 8015C	T	29.95 g	5.00 mL		1 mL
240-635-F-3	G-SP-SB-115-18-20	3540C, 8015C	T	29.87 g	5.00 mL		1 mL
240-635-G-4	G-SP-SB-117-0-2	3540C, 8015C	T	29.84 g	5.00 mL		1 mL
240-635-F-5	G-SP-SB-117-6-8	3540C, 8015C	T	29.80 g	5.00 mL		1 mL
240-635-F-6	G-SP-SB-117-20-22	3540C, 8015C	T	29.81 g	5.00 mL		1 mL
240-635-F-7	G-SP-SB-119-0-2	3540C, 8015C	T	30.07 g	5.00 mL		1 mL
240-635-G-8	G-SP-SB-119-6-8	3540C, 8015C	T	30.16 g	5.00 mL		1 mL
240-635-F-9	G-SP-SB-119-20-22	3540C, 8015C	T	30.18 g	5.00 mL		1 mL
240-635-C-10	G-SP-SB-118-0-2	3540C, 8015C	T	29.94 g	5.00 mL		1 mL
240-635-D-11	G-SP-SB-118-6-8	3540C, 8015C	T	29.90 g	5.00 mL		1 mL
240-635-C-12	G-SP-SB-118-20-22	3540C, 8015C	T	30.04 g	5.00 mL		1 mL
240-635-F-16	G-SP-SB-121-0-3	3540C, 8015C	T	29.91 g	5.00 mL		1 mL
240-635-G-17	G-SP-SB-121-6-8	3540C, 8015C	T	30.08 g	5.00 mL		1 mL
240-635-F-18	G-SP-SB-121-18-20	3540C, 8015C	T	30.12 g	5.00 mL		1 mL
240-635-G-19	G-SP-SB-120-0-2	3540C, 8015C	T	30.11 g	5.00 mL		1 mL
240-635-F-20	G-SP-SB-120-6-8	3540C, 8015C	T	29.83 g	5.00 mL		1 mL
240-635-F-21	G-SP-SB-120-18-20	3540C, 8015C	T	29.93 g	5.00 mL		1 mL
240-635-F-22	G-SP-SB-122-0-2	3540C, 8015C	T	29.93 g	5.00 mL		1 mL
240-635-F-23	G-SP-SB-122-6-8	3540C, 8015C	T	29.90 g	5.00 mL		1 mL

Tetra Tech NUS

INTERNAL CORRESPONDENCE

TO: A. APANAVAGE

DATE: AUGUST 9, 2011

FROM: TERRI L. SOLOMON

COPIES: DV FILE

SUBJECT: INORGANIC DATA VALIDATION – SELECT METALS
MARTIN STATE AIRPORT – GREATER STRAWBERRY POINT
SAMPLE DELIVERY GROUP (SDG) – 240-635-1

SAMPLES: 16/Soil/

GSP-SB-115-0-2	GSP-SB-115-10-12	GSP-SB-117-0-2
GSP-SB-117-6-8	GSP-SB-118-0-2	GSP-SB-118-6-8
GSP-SB-119-0-2	GSP-SB-119-6-8	GSP-SB-120-0-2
GSP-SB-120-6-8	GSP-SB-121-0-3	GSP-SB-121-6-8
GSP-SB-122-0-2	GSP-SB-122-6-8	GSP-SB-129-0-2
GSP-SB-129-6-8		

Overview

The sample set for Martin State Airport – Greater Strawberry Point, SDG 240-635-1, consists of sixteen (16) soil environmental samples. No field duplicate pairs were included within this SDG.

All samples were analyzed for select metals including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium and zinc. The samples were collected by Tetra Tech on May 31, 2011 and analyzed by TestAmerica. Metals analyses were conducted using SW-846 method 6010C. Mercury analyses were conducted using SW-846 method 7471B.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike/matrix spike duplicate recoveries, ICP serial dilution results, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems

None.

Minor Problems

- The contract required detection limit (CRDL) percent recoveries for lead and zinc were > 110% quality control limit affecting all samples. The positive results < 2X CRDL for lead and zinc were qualified as biased high, "K".

- The following contaminants were detected in the laboratory method/preparation blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Molybdenum	17.6 ug/L	8.8 mg/kg
Vanadium	0.678 ug/L	0.339 mg/kg
Barium[(1)]	0.0786 mg/kg	0.393 mg/kg
Zinc[(1)]	1.07 mg/kg	5.35 mg/kg

[(1)] Maximum concentration present in a preparation blank affecting all samples.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot, percent solids and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The positive results less than the blank action level reported for molybdenum and zinc were qualified "B" as a result of laboratory blank contamination.

- The matrix spike / matrix spike duplicate percent recoveries for antimony were < 75% quality control limit. The nondetected results reported for antimony were qualified as biased low, "UL' and the positive results reported for antimony were qualified as estimated, "J", as a result of conflicting noncompliances.

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) were qualified as estimated, "J".

Notes

Nondetected results are reported to the method detection limits.

Executive Summary

Laboratory Performance: Several CRDL percent recoveries were outside the 90-110 % quality control limits. Several contaminants were present in the laboratory method / preparation blanks.

Other Factors Affecting Data Quality: Positive results reported below the RL but above the MDL were qualified as estimated. The matrix spike / matrix spike duplicate percent recoveries for antimony were < 75% quality control limit.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993.

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Terri L. Solomon
Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A
QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS-GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O - Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DOT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279 SDG: 240-635-1 FRACTION: M MEDIA: SOIL	NSAMPLE	GSP-SB-115-0-2			GSP-SB-115-10-12			GSP-SB-117-0-2			GSP-SB-117-6-8		
	LAB_ID	240-635-1			240-635-2			240-635-4			240-635-5		
	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	80.7			85.9			90.6			87.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.43	UL	D	0.43	UL	D	0.41	J	DP	0.43	UL	D
ARSENIC		3.4			2.9			3.4			0.46	J	P
BARIUM		23			10	J	P	21			13	J	P
BERYLLIUM		0.11	J	P	0.047	U		0.12	J	P	0.047	U	
CADMIUM		0.039	U		0.04	U		0.037	U		0.04	U	
CHROMIUM		11			17			14			5.2		
COBALT		2.4			0.69	J	P	3.8			0.54	J	P
COPPER		7.1			19			9.9			3.2		
LEAD		6.4			3.7			6.5			3.4		
MERCURY		0.04	J	P	0.017	U		0.053	J	P	0.017	U	
MOLYBDENUM		0.66	B	A	0.64	B	A	0.31	B	A	0.3	U	
NICKEL		4.3	J	P	0.85	J	P	6.2			0.36	J	P
SELENIUM		0.49	U		0.49	U		0.46	U		0.49	U	
SILVER		0.11	U		0.11	U		0.1	U		0.11	U	
THALLIUM		0.6	U		0.67	J	P	0.56	U		0.6	U	
VANADIUM		20			19			27			9.5		
ZINC		16			2.5	B	A	20			2.2	B	A

PROJ_NO: 03279	NSAMPLE	GSP-SB-118-0-2			GSP-SB-118-6-8			GSP-SB-119-0-2			GSP-SB-119-6-8		
SDG: 240-635-1	LAB_ID	240-635-10			240-635-11			240-635-7			240-635-8		
FRACTION: M	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	87.1			84.4			88.8			88.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.71	J	DP	0.46	UL	D	0.41	J	DP	0.71	J	DP
ARSENIC		2.8			1	J	P	4.2			2.1		
BARIUM		33			39			31			37		
BERYLLIUM		0.28	J	P	0.16	J	P	0.37	J	P	0.19	J	P
CADMIUM		0.04	U		0.043	U		0.033	U		0.038	U	
CHROMIUM		13			21			19			13		
COBALT		3.4			2.5			4.4			2.6		
COPPER		12			68			14			11		
LEAD		19			6.7			15			11		
MERCURY		0.15			0.048	J	P	0.13			0.035	J	P
MOLYBDENUM		0.5	B	A	0.32	U		0.3	B	A	0.49	B	A
NICKEL		6.8			4.6	J	P	7.8			4.6		
SELENIUM		0.5	U		0.53	U		0.51	J	P	0.48	U	
SILVER		0.11	U		0.12	U		0.25	J	P	0.11	U	
THALLIUM		0.61	U		0.65	U		0.5	U		0.64	J	P
VANADIUM		22			11			33			18		
ZINC		39			28			31			28		

PROJ_NO: 03279	NSAMPLE	GSP-SB-120-0-2			GSP-SB-120-6-8			GSP-SB-121-0-3			GSP-SB-121-6-8		
SDG: 240-635-1	LAB_ID	240-635-19			240-635-20			240-635-16			240-635-17		
FRACTION: M	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	86.9			91.8			86.5			86.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.69	J	DP	0.37	UL	D	1.2	J	DP	0.45	UL	D
ARSENIC		3.6			1.7			4.1			2.8		
BARIUM		44			27			42			57		
BERYLLIUM		0.33	J	P	0.09	J	P	0.32	J	P	0.049	U	
CADMIUM		0.23	J	P	0.034	U		0.057	J	P	0.14	J	P
CHROMIUM		19			8.2			18			13		
COBALT		4.1			1.4			3.7			2.7		
COPPER		17			5.4			26			11		
LEAD		23			8.8			27			19		
MERCURY		0.095	J	P	0.028	J	P	0.052	J	P	0.044	J	P
MOLYBDENUM		0.33	B	A	0.33	B	A	0.29	U		0.38	B	A
NICKEL		7.9			2.8	J	P	7.8			5.6		
SELENIUM		0.47	U		0.43	U		0.49	U		0.51	U	
SILVER		0.2	J	P	0.096	U		0.11	U		0.11	U	
THALLIUM		0.92	J	P	0.53	U		0.6	U		0.94	J	P
VANADIUM		22			14			31			15		
ZINC		45			24			51			63		

PROJ_NO: 03279	NSAMPLE	GSP-SB-122-0-2			GSP-SB-122-6-8			GSP-SB-129-0-2			GSP-SB-129-6-8		
SDG: 240-635-1	LAB_ID	240-635-22			240-635-23			240-635-25			240-635-26		
FRACTION: M	SAMP_DATE	5/31/2011			5/31/2011			5/31/2011			5/31/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	93.2			88.4			87.1			84.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.34	UL	D	0.4	UL	D	0.39	UL	D	0.41	UL	D
ARSENIC		3.2			2.6			2.6			1.2	J	P
BARIUM		26			13	J	P	18	J	P	7.1	J	P
BERYLLIUM		0.19	J	P	0.045	U		0.11	J	P	0.045	U	
CADMIUM		0.032	U		0.037	U		0.036	U		0.038	U	
CHROMIUM		12			7.3			10			3.5		
COBALT		3.2			3.1			2.1			0.82	J	P
COPPER		19			5.7			6.6			2.7		
LEAD		14			3.1			9.5			1.6	K	C
MERCURY		0.045	J	P	0.013	U		0.099	J	P	0.016	U	
MOLYBDENUM		0.24	U		0.28	U		0.44	B	A	0.28	U	
NICKEL		5.1			2.7	J	P	3.6	J	P	0.96	J	P
SELENIUM		0.46	J	P	0.47	U		0.45	U		0.47	U	
SILVER		0.088	U		0.1	U		0.1	U		0.1	U	
THALLIUM		0.48	U		0.57	U		0.55	U		0.58	U	
VANADIUM		20			15			15			6.8		
ZINC		29			9.6	K	C	20			4.4	B	A

APPENDIX B
RESULTS AS REPORTED BY THE LABORATORY

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-115-0-2
Lab Sample ID: 240-635-1
Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG ID.:
Matrix: Solid
Date Sampled: 05/31/2011 15:05
Reporting Basis: DRY
Date Received: 06/01/2011 09:50
% Solids: 80.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.2	0.43	mg/Kg	U		1	6010C
7440-38-2	Arsenic	3.4	1.6	0.33	mg/Kg			1	6010C
7440-39-3	Barium	23	22	0.078	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.11	0.55	0.047	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.55	0.55	0.039	mg/Kg	U		1	6010C
7440-47-3	Chromium	11	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	2.4	1.1	0.18	mg/Kg			1	6010C
7440-50-8	Copper	7.1	2.7	0.81	mg/Kg			1	6010C
7439-92-1	Lead	6.4	1.1	0.21	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.66	4.4	0.30	mg/Kg	J	^ B	1	6010C
7440-02-0	Nickel	4.3	4.4	0.30	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.2	2.2	0.49	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.2	2.2	0.60	mg/Kg	U		1	6010C
7440-62-2	Vanadium	20	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	16	5.5	1.1	mg/Kg		B	1	6010C
7439-97-6	Hg	0.040	0.12	0.019	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-115-10-12
Lab Sample ID: 240-635-2
Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG ID.:
Matrix: Solid
Date Sampled: 05/31/2011 15:10
Reporting Basis: DRY
Date Received: 06/01/2011 09:50
% Solids: 85.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.2	0.43	mg/Kg	U		1	6010C
7440-38-2	Arsenic	2.9	1.6	0.33	mg/Kg			1	6010C
7440-39-3	Barium	10	22	0.078	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.55	0.55	0.047	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.55	0.55	0.040	mg/Kg	U		1	6010C
7440-47-3	Chromium	17	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	0.69	1.1	0.18	mg/Kg	J		1	6010C
7440-50-8	Copper	19	2.7	0.81	mg/Kg			1	6010C
7439-92-1	Lead	3.7	1.1	0.21	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.64	4.4	0.30	mg/Kg	J	B ^	1	6010C
7440-02-0	Nickel	0.85	4.4	0.30	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.2	2.2	0.49	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	0.67	2.2	0.60	mg/Kg	J		1	6010C
7440-62-2	Vanadium	19	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	2.5	5.5	1.1	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.11	0.11	0.017	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-117-0-2 Lab Sample ID: 240-635-4

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG ID.:

Matrix: Solid Date Sampled: 05/31/2011 13:15

Reporting Basis: DRY Date Received: 06/01/2011 09:50

% Solids: 90.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.41	2.0	0.40	mg/Kg	J		1	6010C
7440-38-2	Arsenic	3.4	1.5	0.31	mg/Kg			1	6010C
7440-39-3	Barium	21	20	0.073	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.12	0.51	0.044	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.51	0.51	0.037	mg/Kg	U		1	6010C
7440-47-3	Chromium	14	1.0	0.20	mg/Kg			1	6010C
7440-48-4	Cobalt	3.8	1.0	0.16	mg/Kg			1	6010C
7440-50-8	Copper	9.9	2.6	0.76	mg/Kg			1	6010C
7439-92-1	Lead	6.5	1.0	0.19	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.31	4.1	0.28	mg/Kg	J	B ^	1	6010C
7440-02-0	Nickel	6.2	4.1	0.28	mg/Kg			1	6010C
7782-49-2	Selenium	2.0	2.0	0.46	mg/Kg	U		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.0	2.0	0.56	mg/Kg	U		1	6010C
7440-62-2	Vanadium	27	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	20	5.1	1.0	mg/Kg		B	1	6010C
7439-97-6	Hg	0.053	0.097	0.015	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-117-6-8
Lab Sample ID: 240-635-5
Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG ID.:
Matrix: Solid
Date Sampled: 05/31/2011 13:30
Reporting Basis: DRY
Date Received: 06/01/2011 09:50
% Solids: 87.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.2	0.43	mg/Kg	U		1	6010C
7440-38-2	Arsenic	0.46	1.6	0.33	mg/Kg	J		1	6010C
7440-39-3	Barium	13	22	0.078	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.55	0.55	0.047	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.55	0.55	0.040	mg/Kg	U		1	6010C
7440-47-3	Chromium	5.2	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	0.54	1.1	0.18	mg/Kg	J		1	6010C
7440-50-8	Copper	3.2	2.7	0.81	mg/Kg			1	6010C
7439-92-1	Lead	3.4	1.1	0.21	mg/Kg			1	6010C
7439-98-7	Molybdenum	4.4	4.4	0.30	mg/Kg	U		1	6010C
7440-02-0	Nickel	0.36	4.4	0.30	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.2	2.2	0.49	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.2	2.2	0.60	mg/Kg	U		1	6010C
7440-62-2	Vanadium	9.5	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	2.2	5.5	1.1	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.11	0.11	0.017	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-118-0-2
Lab Sample ID: 240-635-10
Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG ID.:
Matrix: Solid
Date Sampled: 05/31/2011 11:30
Reporting Basis: DRY
Date Received: 06/01/2011 09:50
% Solids: 87.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.71	2.2	0.43	mg/Kg	J		1	6010C
7440-38-2	Arsenic	2.8	1.7	0.33	mg/Kg			1	6010C
7440-39-3	Barium	33	22	0.079	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.28	0.56	0.048	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.56	0.56	0.040	mg/Kg	U		1	6010C
7440-47-3	Chromium	13	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	3.4	1.1	0.18	mg/Kg			1	6010C
7440-50-8	Copper	12	2.8	0.82	mg/Kg			1	6010C
7439-92-1	Lead	19	1.1	0.21	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.50	4.5	0.30	mg/Kg	J	B ^	1	6010C
7440-02-0	Nickel	6.8	4.5	0.30	mg/Kg			1	6010C
7782-49-2	Selenium	2.2	2.2	0.50	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.2	2.2	0.61	mg/Kg	U		1	6010C
7440-62-2	Vanadium	22	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	39	5.6	1.1	mg/Kg		B	1	6010C
7439-97-6	Hg	0.15	0.081	0.012	mg/Kg			1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-118-6-8 Lab Sample ID: 240-635-11

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG ID.:

Matrix: Solid Date Sampled: 05/31/2011 11:45

Reporting Basis: DRY Date Received: 06/01/2011 09:50

% Solids: 84.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.4	2.4	0.46	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.0	1.8	0.36	mg/Kg	J		1	6010C
7440-39-3	Barium	39	24	0.084	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.16	0.59	0.051	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.59	0.59	0.043	mg/Kg	U		1	6010C
7440-47-3	Chromium	21	1.2	0.24	mg/Kg			1	6010C
7440-48-4	Cobalt	2.5	1.2	0.19	mg/Kg			1	6010C
7440-50-8	Copper	68	3.0	0.88	mg/Kg			1	6010C
7439-92-1	Lead	6.7	1.2	0.23	mg/Kg			1	6010C
7439-98-7	Molybdenum	4.7	4.7	0.32	mg/Kg	U		1	6010C
7440-02-0	Nickel	4.6	4.7	0.32	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.4	2.4	0.53	mg/Kg	U		1	6010C
7440-22-4	Silver	1.2	1.2	0.12	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.4	2.4	0.65	mg/Kg	U		1	6010C
7440-62-2	Vanadium	11	1.2	0.14	mg/Kg			1	6010C
7440-66-6	Zinc	28	5.9	1.2	mg/Kg		B	1	6010C
7439-97-6	Hg	0.048	0.090	0.013	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-119-0-2
Lab Sample ID: 240-635-7
Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG ID.:
Matrix: Solid
Date Sampled: 05/31/2011 16:10
Reporting Basis: DRY
Date Received: 06/01/2011 09:50
% Solids: 88.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.41	1.8	0.35	mg/Kg	J		1	6010C
7440-38-2	Arsenic	4.2	1.4	0.27	mg/Kg			1	6010C
7440-39-3	Barium	31	18	0.064	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.37	0.45	0.039	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.45	0.45	0.033	mg/Kg	U		1	6010C
7440-47-3	Chromium	19	0.91	0.18	mg/Kg			1	6010C
7440-48-4	Cobalt	4.4	0.91	0.15	mg/Kg			1	6010C
7440-50-8	Copper	14	2.3	0.67	mg/Kg			1	6010C
7439-92-1	Lead	15	0.91	0.17	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.30	3.6	0.25	mg/Kg	J	B ^	1	6010C
7440-02-0	Nickel	7.8	3.6	0.25	mg/Kg			1	6010C
7782-49-2	Selenium	0.51	1.8	0.41	mg/Kg	J		1	6010C
7440-22-4	Silver	0.25	0.91	0.091	mg/Kg	J		1	6010C
7440-28-0	Thallium	1.8	1.8	0.50	mg/Kg	U		1	6010C
7440-62-2	Vanadium	33	0.91	0.11	mg/Kg			1	6010C
7440-66-6	Zinc	31	4.5	0.91	mg/Kg		B	1	6010C
7439-97-6	Hg	0.13	0.11	0.017	mg/Kg			1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-119-6-8 Lab Sample ID: 240-635-8

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG ID.:

Matrix: Solid Date Sampled: 05/31/2011 16:20

Reporting Basis: DRY Date Received: 06/01/2011 09:50

% Solids: 88.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.71	2.1	0.41	mg/Kg	J		1	6010C
7440-38-2	Arsenic	2.1	1.6	0.32	mg/Kg			1	6010C
7440-39-3	Barium	37	21	0.075	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.19	0.53	0.046	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.53	0.53	0.038	mg/Kg	U		1	6010C
7440-47-3	Chromium	13	1.1	0.21	mg/Kg			1	6010C
7440-48-4	Cobalt	2.6	1.1	0.17	mg/Kg			1	6010C
7440-50-8	Copper	11	2.7	0.79	mg/Kg			1	6010C
7439-92-1	Lead	11	1.1	0.20	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.49	4.2	0.29	mg/Kg	J	B ^	1	6010C
7440-02-0	Nickel	4.6	4.2	0.29	mg/Kg			1	6010C
7782-49-2	Selenium	2.1	2.1	0.48	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	0.64	2.1	0.58	mg/Kg	J		1	6010C
7440-62-2	Vanadium	18	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	28	5.3	1.1	mg/Kg		B	1	6010C
7439-97-6	Hg	0.035	0.11	0.017	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-120-0-2
Lab Sample ID: 240-635-19
Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG ID.:
Matrix: Solid
Date Sampled: 05/31/2011 14:05
Reporting Basis: DRY
Date Received: 06/01/2011 09:50
% Solids: 86.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.69	2.1	0.40	mg/Kg	J		1	6010C
7440-38-2	Arsenic	3.6	1.6	0.31	mg/Kg			1	6010C
7440-39-3	Barium	44	21	0.074	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.33	0.52	0.045	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.23	0.52	0.037	mg/Kg	J		1	6010C
7440-47-3	Chromium	19	1.0	0.21	mg/Kg			1	6010C
7440-48-4	Cobalt	4.1	1.0	0.17	mg/Kg			1	6010C
7440-50-8	Copper	17	2.6	0.77	mg/Kg			1	6010C
7439-92-1	Lead	23	1.0	0.20	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.33	4.1	0.28	mg/Kg	J	B ^	1	6010C
7440-02-0	Nickel	7.9	4.1	0.28	mg/Kg			1	6010C
7782-49-2	Selenium	2.1	2.1	0.47	mg/Kg	U		1	6010C
7440-22-4	Silver	0.20	1.0	0.10	mg/Kg	J		1	6010C
7440-28-0	Thallium	0.92	2.1	0.57	mg/Kg	J		1	6010C
7440-62-2	Vanadium	22	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	45	5.2	1.0	mg/Kg		B	1	6010C
7439-97-6	Hg	0.095	0.12	0.017	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-120-6-8 Lab Sample ID: 240-635-20

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG ID.:

Matrix: Solid Date Sampled: 05/31/2011 14:08

Reporting Basis: DRY Date Received: 06/01/2011 09:50

% Solids: 91.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.9	1.9	0.37	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.7	1.4	0.29	mg/Kg			1	6010C
7440-39-3	Barium	27	19	0.068	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.090	0.48	0.041	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.48	0.48	0.034	mg/Kg	U		1	6010C
7440-47-3	Chromium	8.2	0.96	0.19	mg/Kg			1	6010C
7440-48-4	Cobalt	1.4	0.96	0.15	mg/Kg			1	6010C
7440-50-8	Copper	5.4	2.4	0.71	mg/Kg			1	6010C
7439-92-1	Lead	8.8	0.96	0.18	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.33	3.8	0.26	mg/Kg	J	B ^	1	6010C
7440-02-0	Nickel	2.8	3.8	0.26	mg/Kg	J		1	6010C
7782-49-2	Selenium	1.9	1.9	0.43	mg/Kg	U		1	6010C
7440-22-4	Silver	0.96	0.96	0.096	mg/Kg	U		1	6010C
7440-28-0	Thallium	1.9	1.9	0.53	mg/Kg	U		1	6010C
7440-62-2	Vanadium	14	0.96	0.11	mg/Kg			1	6010C
7440-66-6	Zinc	24	4.8	0.96	mg/Kg		B	1	6010C
7439-97-6	Hg	0.028	0.099	0.015	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-121-0-3
Lab Sample ID: 240-635-16
Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG ID.:
Matrix: Solid
Date Sampled: 05/31/2011 11:32
Reporting Basis: DRY
Date Received: 06/01/2011 09:50
% Solids: 86.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.2	2.2	0.43	mg/Kg	J		1	6010C
7440-38-2	Arsenic	4.1	1.6	0.33	mg/Kg			1	6010C
7440-39-3	Barium	42	22	0.077	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.32	0.55	0.047	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.057	0.55	0.039	mg/Kg	J		1	6010C
7440-47-3	Chromium	18	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	3.7	1.1	0.17	mg/Kg			1	6010C
7440-50-8	Copper	26	2.7	0.81	mg/Kg			1	6010C
7439-92-1	Lead	27	1.1	0.21	mg/Kg			1	6010C
7439-98-7	Molybdenum	4.4	4.4	0.29	mg/Kg	U		1	6010C
7440-02-0	Nickel	7.8	4.4	0.29	mg/Kg			1	6010C
7782-49-2	Selenium	2.2	2.2	0.49	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.2	2.2	0.60	mg/Kg	U		1	6010C
7440-62-2	Vanadium	31	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	51	5.5	1.1	mg/Kg		B	1	6010C
7439-97-6	Hg	0.052	0.10	0.015	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-121-6-8 Lab Sample ID: 240-635-17

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG ID.:

Matrix: Solid Date Sampled: 05/31/2011 11:38

Reporting Basis: DRY Date Received: 06/01/2011 09:50

% Solids: 86.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.3	2.3	0.45	mg/Kg	U		1	6010C
7440-38-2	Arsenic	2.8	1.7	0.34	mg/Kg			1	6010C
7440-39-3	Barium	57	23	0.081	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.57	0.57	0.049	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.14	0.57	0.041	mg/Kg	J		1	6010C
7440-47-3	Chromium	13	1.1	0.23	mg/Kg			1	6010C
7440-48-4	Cobalt	2.7	1.1	0.18	mg/Kg			1	6010C
7440-50-8	Copper	11	2.9	0.85	mg/Kg			1	6010C
7439-92-1	Lead	19	1.1	0.22	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.38	4.6	0.31	mg/Kg	J	B ^	1	6010C
7440-02-0	Nickel	5.6	4.6	0.31	mg/Kg			1	6010C
7782-49-2	Selenium	2.3	2.3	0.51	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	0.94	2.3	0.63	mg/Kg	J		1	6010C
7440-62-2	Vanadium	15	1.1	0.14	mg/Kg			1	6010C
7440-66-6	Zinc	63	5.7	1.1	mg/Kg		B	1	6010C
7439-97-6	Hg	0.044	0.10	0.015	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-122-0-2
Lab Sample ID: 240-635-22
Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG ID.:
Matrix: Solid
Date Sampled: 05/31/2011 15:23
Reporting Basis: DRY
Date Received: 06/01/2011 09:50
% Solids: 93.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.8	1.8	0.34	mg/Kg	U		1	6010C
7440-38-2	Arsenic	3.2	1.3	0.26	mg/Kg			1	6010C
7440-39-3	Barium	26	18	0.062	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.19	0.44	0.038	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.44	0.44	0.032	mg/Kg	U		1	6010C
7440-47-3	Chromium	12	0.88	0.18	mg/Kg			1	6010C
7440-48-4	Cobalt	3.2	0.88	0.14	mg/Kg			1	6010C
7440-50-8	Copper	19	2.2	0.65	mg/Kg			1	6010C
7439-92-1	Lead	14	0.88	0.17	mg/Kg			1	6010C
7439-98-7	Molybdenum	3.5	3.5	0.24	mg/Kg	U		1	6010C
7440-02-0	Nickel	5.1	3.5	0.24	mg/Kg			1	6010C
7782-49-2	Selenium	0.46	1.8	0.40	mg/Kg	J		1	6010C
7440-22-4	Silver	0.88	0.88	0.088	mg/Kg	U		1	6010C
7440-28-0	Thallium	1.8	1.8	0.48	mg/Kg	U		1	6010C
7440-62-2	Vanadium	20	0.88	0.11	mg/Kg			1	6010C
7440-66-6	Zinc	29	4.4	0.88	mg/Kg		B	1	6010C
7439-97-6	Hg	0.045	0.092	0.014	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-122-6-8
Lab Sample ID: 240-635-23
Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG ID.:
Matrix: Solid
Date Sampled: 05/31/2011 15:26
Reporting Basis: DRY
Date Received: 06/01/2011 09:50
% Solids: 88.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.1	2.1	0.40	mg/Kg	U		1	6010C
7440-38-2	Arsenic	2.6	1.6	0.31	mg/Kg			1	6010C
7440-39-3	Barium	13	21	0.074	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.52	0.52	0.045	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.52	0.52	0.037	mg/Kg	U		1	6010C
7440-47-3	Chromium	7.3	1.0	0.21	mg/Kg			1	6010C
7440-48-4	Cobalt	3.1	1.0	0.17	mg/Kg			1	6010C
7440-50-8	Copper	5.7	2.6	0.77	mg/Kg			1	6010C
7439-92-1	Lead	3.1	1.0	0.20	mg/Kg			1	6010C
7439-98-7	Molybdenum	4.2	4.2	0.28	mg/Kg	U		1	6010C
7440-02-0	Nickel	2.7	4.2	0.28	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.1	2.1	0.47	mg/Kg	U		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.1	2.1	0.57	mg/Kg	U		1	6010C
7440-62-2	Vanadium	15	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	9.6	5.2	1.0	mg/Kg		B	1	6010C
7439-97-6	Hg	0.086	0.086	0.013	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-129-0-2
Lab Sample ID: 240-635-25
Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG ID.:
Matrix: Solid
Date Sampled: 05/31/2011 16:24
Reporting Basis: DRY
Date Received: 06/01/2011 09:50
% Solids: 87.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.39	mg/Kg	U		1	6010C
7440-38-2	Arsenic	2.6	1.5	0.30	mg/Kg			1	6010C
7440-39-3	Barium	18	20	0.071	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.11	0.50	0.043	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.50	0.50	0.036	mg/Kg	U		1	6010C
7440-47-3	Chromium	10	1.0	0.20	mg/Kg			1	6010C
7440-48-4	Cobalt	2.1	1.0	0.16	mg/Kg			1	6010C
7440-50-8	Copper	6.6	2.5	0.74	mg/Kg			1	6010C
7439-92-1	Lead	9.5	1.0	0.19	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.44	4.0	0.27	mg/Kg	J	B ^	1	6010C
7440-02-0	Nickel	3.6	4.0	0.27	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.0	2.0	0.45	mg/Kg	U		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.0	2.0	0.55	mg/Kg	U		1	6010C
7440-62-2	Vanadium	15	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	20	5.0	1.0	mg/Kg		B	1	6010C
7439-97-6	Hg	0.099	0.10	0.015	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-SP-SB-129-6-8 Lab Sample ID: 240-635-26

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG ID.:

Matrix: Solid Date Sampled: 05/31/2011 16:30

Reporting Basis: DRY Date Received: 06/01/2011 09:50

% Solids: 84.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.1	2.1	0.41	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.2	1.6	0.31	mg/Kg	J		1	6010C
7440-39-3	Barium	7.1	21	0.074	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.52	0.52	0.045	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.52	0.52	0.038	mg/Kg	U		1	6010C
7440-47-3	Chromium	3.5	1.0	0.21	mg/Kg			1	6010C
7440-48-4	Cobalt	0.82	1.0	0.17	mg/Kg	J		1	6010C
7440-50-8	Copper	2.7	2.6	0.78	mg/Kg			1	6010C
7439-92-1	Lead	1.6	1.0	0.20	mg/Kg			1	6010C
7439-98-7	Molybdenum	4.2	4.2	0.28	mg/Kg	U		1	6010C
7440-02-0	Nickel	0.96	4.2	0.28	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.1	2.1	0.47	mg/Kg	U		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.1	2.1	0.58	mg/Kg	U		1	6010C
7440-62-2	Vanadium	6.8	1.0	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	4.4	5.2	1.0	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.11	0.11	0.016	mg/Kg	U		1	7471B

APPENDIX C
SUPPORT DOCUMENTATION

CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: GSP PHASE II

Report Number: 240-635-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/01/2011; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 1.7 3.0 and 2.2 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-115-18-20 (240-635-3), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-117-20-22 (240-635-6), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-119-20-22 (240-635-9), G-SP-SB-118-0-2 (240-635-13), G-SP-SB-118-6-8 (240-635-14), G-SP-SB-118-20-22 (240-635-15), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-121-18-20 (240-635-18), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-120-18-20 (240-635-21), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-122-20-22 (240-635-24), G-SP-SB-129-0-2 (240-635-25), G-SP-SB-129-6-8 (240-635-26) and G-SP-SB-129-20-22 (240-635-27) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/11/2011 and 06/12/2011.

Methylene Chloride was detected in method blank MB 240-3928/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Naphthalene was detected in method blank MB 240-3928/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Acetone and Methylene Chloride were detected in method blank MB 240-4426/28 at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Acetone and Methylene Chloride were detected in method blank MB 240-4446/6 at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Naphthalene was detected in method blank MB 240-4446/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Dibromofluoromethane (Surr) failed the surrogate recovery criteria low for G-SP-SB-121-6-8 (240-635-17). 1,2-Dichloroethane-d4 (Surr) and Toluene-d8 (Surr) failed the surrogate recovery criteria high for G-SP-SB-120-0-2 (240-635-19).

Methylene Chloride failed the recovery criteria high for LCS 240-3928/2-A. Chloroethane failed the recovery criteria high for LCS

240-4426/6. Chloroethane failed the recovery criteria high for LCS 240-4446/5. Refer to the QC report for details.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

The following sample was diluted due to the abundance of non-target analytes: G-SP-SB-120-6-8 (240-635-20). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the volatiles analyses.

All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-115-18-20 (240-635-3), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-117-20-22 (240-635-6), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-119-20-22 (240-635-9), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-118-20-22 (240-635-12), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-121-18-20 (240-635-18), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-120-18-20 (240-635-21), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-122-20-22 (240-635-24), G-SP-SB-129-0-2 (240-635-25), G-SP-SB-129-6-8 (240-635-26) and G-SP-SB-129-20-22 (240-635-27) were analyzed for Semi volatiles in accordance with 8270D. The samples were analyzed on 06/21/2011, 06/28/2011, 06/29/2011, 07/04/2011, 07/14/2011 and 07/16/2011.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 240-3689/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Di-n-butyl phthalate was detected in method blank MB 240-6980/18-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for G-SP-SB-121-6-8 (240-635-17). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria low for G-SP-SB-120-18-20 (240-635-21). 2,4,6-Tribromophenol (Surr), 2-Fluorobiphenyl (Surr), 2-Fluorophenol (Surr), Nitrobenzene-d5 (Surr), Phenol-d5 (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria low for G-SP-SB-119-0-2 (240-635-7). 2,4,6-Tribromophenol (Surr), 2-Fluorobiphenyl (Surr), 2-Fluorophenol (Surr), Nitrobenzene-d5 (Surr), Phenol-d5 (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria low for G-SP-SB-119-6-8 (240-635-8). Refer to the QC report for details.

3,3'-Dichlorobenzidine and Caprolactam failed the recovery criteria low for LCS 240-3689/2-A. Several analytes failed the recovery criteria low for LCS 240-7865/5-A. Refer to the QC report for details.

Several analytes failed the recovery criteria low for the MS of sample G-SP-SB-115-0-2MS (240-635-1) in batch 240-7057. Several analytes failed the recovery criteria high.

Several analytes failed the recovery criteria low for the MSD of sample G-SP-SB-115-0-2MSD (240-635-1) in batch 240-6612. Several analytes exceeded the rpd limit.

2,4-Dinitrophenol, Caprolactam and Hexachlorocyclopentadiene failed the recovery criteria low for the MS of sample G-SP-SB-119-6-8MS (240-635-8) in batch 240-8694.

Hexachlorocyclopentadiene failed the recovery criteria low for the MSD of sample G-SP-SB-119-6-8MSD (240-635-8) in batch 240-8694. 4,6-Dinitro-2-methylphenol, Caprolactam, Fluoranthene and Pyrene exceeded the rpd limit.

Samples G-SP-SB-115-0-2 (240-635-1)[2X], G-SP-SB-117-0-2 (240-635-4)[3X], G-SP-SB-119-20-22 (240-635-9)[2X], G-SP-SB-118-0-2 (240-635-10)[2X], G-SP-SB-121-0-3 (240-635-16)[2X], G-SP-SB-121-6-8 (240-635-17)[10X], G-SP-SB-120-0-2 (240-635-19)[3X], G-SP-SB-120-6-8 (240-635-20)[3X], G-SP-SB-120-18-20 (240-635-21)[20X] and G-SP-SB-122-6-8 (240-635-23)[3X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Internal standard responses were outside of acceptance limits for the following sample(s): G-SP-SB-121-0-3 (240-635-16). The sample(s) shows evidence of matrix interference.

No other difficulties were encountered during the Semi volatiles analyses.

All other quality control parameters were within the acceptance limits.

GRO

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-115-18-20 (240-635-3), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-117-20-22 (240-635-6), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8

(240-635-8), G-SP-SB-119-20-22 (240-635-9), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-118-20-22 (240-635-12), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-121-18-20 (240-635-18), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-120-18-20 (240-635-21), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-122-20-22 (240-635-24), G-SP-SB-129-0-2 (240-635-25), G-SP-SB-129-6-8 (240-635-26) and G-SP-SB-129-20-22 (240-635-27) were analyzed for GRO in accordance with 8015C. The samples were analyzed on 06/09/2011 and 06/10/2011.

No difficulties were encountered during the GRO analyses.

All quality control parameters were within the acceptance limits.

DRO

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-115-18-20 (240-635-3), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-117-20-22 (240-635-6), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-119-20-22 (240-635-9), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-118-20-22 (240-635-12), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-121-18-20 (240-635-18), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-120-18-20 (240-635-21), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-122-20-22 (240-635-24), G-SP-SB-129-0-2 (240-635-25), G-SP-SB-129-6-8 (240-635-26) and G-SP-SB-129-20-22 (240-635-27) were analyzed for DRO in accordance with 8015C. The samples were analyzed on 06/09/2011, 06/10/2011, 06/14/2011 and 06/20/2011.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-3872/23-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

n-Nonane failed the surrogate recovery criteria low for G-SP-SB-115-0-2 (240-635-1). n-Nonane failed the surrogate recovery criteria low for G-SP-SB-115-0-2MS (240-635-1MS). n-Nonane failed the surrogate recovery criteria low for G-SP-SB-115-0-2MSD (240-635-1MSD). Refer to the QC report for details.

Diesel failed the recovery criteria high for the MS of sample G-SP-SB-115-0-2MS (240-635-1) in batch 240-4325.

Diesel failed the recovery criteria low for the MSD of sample G-SP-SB-115-0-2MSD (240-635-1) in batch 240-4325. Diesel exceeded the rpd limit.

Refer to the QC report for details.

Samples G-SP-SB-115-0-2 (240-635-1)[20X] and G-SP-SB-121-6-8 (240-635-17)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following sample was analyzed outside of analytical holding time due to failing surrogate on original extraction.: G-SP-SB-119-20-22 (240-635-9).

Sample G-SP-SB-122-6-8 (240-635-23) was suspected to be double surrogated. The surrogate volume was adjusted accordingly.

No other difficulties were encountered during the DRO analyses.

All other quality control parameters were within the acceptance limits.

PCBS

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-129-0-2 (240-635-25) and G-SP-SB-129-6-8 (240-635-26) were analyzed for PCBs in accordance with 8082A. The samples were analyzed on 06/14/2011 and 06/15/2011.

Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for G-SP-SB-118-0-2 (240-635-10).
Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for G-SP-SB-121-0-3 (240-635-16).
Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for G-SP-SB-120-0-2 (240-635-19).
Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for G-SP-SB-122-0-2 (240-635-22).
Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for G-SP-SB-119-6-8 (240-635-8). Refer to the QC report for details.

Samples G-SP-SB-119-6-8 (240-635-8)[10X], G-SP-SB-118-0-2 (240-635-10)[10X], G-SP-SB-121-0-3 (240-635-16)[10X], G-SP-SB-120-0-2 (240-635-19)[10X] and G-SP-SB-122-0-2 (240-635-22)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: (240-635-1 MS), (240-635-1 MSD), (LCS 240-3834/2-A), (MB 240-3834/1-A), G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-129-0-2 (240-635-25), G-SP-SB-129-6-8 (240-635-26).

The following sample(s) appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: G-SP-SB-119-0-2 (240-635-7). The sample(s) has been quantified and reported as Aroclor 1260. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result

No other difficulties were encountered during the PCBs analyses.

All other quality control parameters were within the acceptance limits.

METALS (ICP)

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-129-0-2 (240-635-25) and G-SP-SB-129-6-8 (240-635-26) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were analyzed on 07/05/2011.

Barium, Molybdenum and Zinc were detected in method blank MB 240-3490/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Antimony failed the recovery criteria low for the MS of sample G-SP-SB-115-0-2MS (240-635-1) in batch 240-7218.

Antimony failed the recovery criteria low for the MSD of sample G-SP-SB-115-0-2MSD (240-635-1) in batch 240-7218.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

MERCURY

Samples G-SP-SB-115-0-2 (240-635-1), G-SP-SB-115-10-12 (240-635-2), G-SP-SB-117-0-2 (240-635-4), G-SP-SB-117-6-8 (240-635-5), G-SP-SB-119-0-2 (240-635-7), G-SP-SB-119-6-8 (240-635-8), G-SP-SB-118-0-2 (240-635-10), G-SP-SB-118-6-8 (240-635-11), G-SP-SB-121-0-3 (240-635-16), G-SP-SB-121-6-8 (240-635-17), G-SP-SB-120-0-2 (240-635-19), G-SP-SB-120-6-8 (240-635-20), G-SP-SB-122-0-2 (240-635-22), G-SP-SB-122-6-8 (240-635-23), G-SP-SB-129-0-2 (240-635-25) and G-SP-SB-129-6-8 (240-635-26) were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were analyzed on 06/17/2011.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
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Address: 20251 Century Blvd Ste 200	Telephone: (301)528-5552	Telephone: (703) 342-8389	Telephone: (330)497-9396	1 of 3 COCs
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@TetraTech.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only:
Phone: (301)528-5551		TAT if different from below _____		Walk-in client: ☐
Project Name: GSP Phase II	Method of Shipment/Carrier:	☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Lab pickup: ☐
Project Number: 112I03279	Shipping/Tracking No:			Lab sampling: ☐
PO #				Job/SDG No:

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other Acid	Filtered Sample (Y/N)	Composite = C / Grab = G	VOCs	SVOCs	DRO	PCBs	Metals	Mercury	GRO	Sample Specific Notes / Special Instructions:
GSP-SB-115-0-2	5/31/11	1505			X								3	3			X	X	X	X	X	X	X	
GSP-SB-115-10-12		1510											3	3			X	X	X	X	X	X	X	
GSP-SB-115-18-20		1515											2	3			X	X	X				X	
GSP-SB-117-0-2		1315											3	3			X	X	X	X	X	X	X	
GSP-SB-117-6-8		1330											3	3			X	X	X	X	X	X	X	
GSP-SB-117-20-22		1345											2	3			X	X	X				X	
GSP-SB-119-0-2		1610											3	3			X	X	X	X	X	X	X	
GSP-SB-119-6-8		1620											3	3			X	X	X	X	X	X	X	
GSP-SB-119-20-22		1630											2	3			X	X	X				X	
GSP-SB-118-0-2		1130											3					X	X	X	X	X	X	

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company: Tetra Tech	Date/Time: 5/31/11 – 1830	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAL	Date/Time: 6-1-11 0950

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TAL 0018-1 (04/10)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cremen	Lab Contact: Pat O'Meara	COC No: 007047
Address: 20251 Century Blvd Ste 200	Telephone: (301) 528-5552	Telephone: (703) 342-8389	Telephone: (330) 497-9396	2 of 3 COCs
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@TetraTech.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: (301) 528-5552		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: GSP Phase II	Method of Shipment/Carrier:			Job/SDG No.:
Project Number: 112C03279	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: MeOH + VPA	Filtered Sample (Y/N)	Composite = C / Grab = G	VOCs	SVOCs	DRO	PCBs	Metals	Mercury	GRO	Sample Specific Notes / Special Instructions:
GSP-SB-118-6-8	5/31/11	1145			X								3					X	X	X	⊗	⊗	X	
GSP-SB-118-20-22		1200											2					X	X				X	
GSP-SB-118-0-2		1415												3			X							
GSP-SB-118-6-8		1430												3			X							
GSP-SB-118-20-22		1445												3			X							
GSP-SB-121-0-3		1132											3	3			X	X	X	X	⊗	⊗	X	
GSP-SB-121-6-8		1138											3	3			X	X	X	X	⊗	⊗	X	
GSP-SB-121-18-20		1146											2	3			X	X	X				X	
GSP-SB-120-0-2		1405											3	3			X	X	X	X	⊗	⊗	X	
GSP-SB-120-6-8		1408											3	3			X	X	X	X	⊗	⊗	X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
[signature]	Tetra Tech	5/31/11 - 1830			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TAL	Date/Time: 6-1-11 950

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TAL-0018-1 (04/10)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 007048
Address: 20251 Century Blvd Ste 200	Telephone: (301)528-5552	Telephone: (703)342-8389	Telephone: (350) 497-9396	3 of 3 COCs
City/State/Zip: Germantown MD, 20874	Email: Dev.Murali@tetratech.com	Analysis Turnaround Time (in BUS days)		For lab use only
Phone: (301)528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: GSP Phase II	Method of Shipment/Carrier:			
Project Number: 112IC03279	Shipping/Tracking No:			Job/SDG No.:
P O #:				

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: MeOH + VPBW	Filtered Sample (Y/N)	Composite=C / Grab=G	VOCs	SVOCs	DRO	PCBs	Metals	Mercury	GRO	Sample Specific Notes / Special Instructions:
GSP-SB-120-18-20	5/31/11	1410			X								2	3			X	X	X				X	
GSP-SB-122-0-2	↓	1523			↓								3	3			X	X	X	X	X	X	X	
GSP-SB-122-6-8	↓	1526			↓								3	3			X	X	X	X	X	X	X	
GSP-SB-122-20-22	↓	1530			↓								2	3			X	X	X				X	
GSP-SB-129-0-2	↓	1624			↓								3	3			X	X	X	X	X	X	X	
GSP-SB-129-6-8	↓	1630			↓								3	3			X	X	X	X	X	X	X	
GSP-SB-129-20-22	↓	1635			↓								2	3			X	X	X				X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech	5/31/11 - 1830			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TAL	Date/Time: 6/1/11 950

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TAL 0018-1 (04/10)

HOLDTIM

SDG: 240-635-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	G-SP-SB-121-0-3	240-635-16	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-129-6-8	240-635-26	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-129-0-2	240-635-25	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-122-6-8	240-635-23	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-121-6-8	240-635-17	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-120-6-8	240-635-20	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-120-0-2	240-635-19	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-119-6-8	240-635-8	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-115-10-12	240-635-2	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-122-0-2	240-635-22	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-115-0-2	240-635-1	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-119-0-2	240-635-7	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-117-0-2	240-635-4	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-117-6-8	240-635-5	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
HG	MG/KG	G-SP-SB-118-0-2	240-635-10	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	G-SP-SB-118-6-8	240-635-11	NM	05/31/2011	06/16/2011	06/17/2011	16	1	17
M	MG/KG	G-SP-SB-119-6-8	240-635-8	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-121-0-3	240-635-16	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-129-0-2	240-635-25	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-122-6-8	240-635-23	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-121-6-8	240-635-17	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-120-6-8	240-635-20	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-120-0-2	240-635-19	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-129-6-8	240-635-26	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-118-6-8	240-635-11	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-118-0-2	240-635-10	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-117-6-8	240-635-5	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-122-0-2	240-635-22	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-117-0-2	240-635-4	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-115-10-12	240-635-2	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-115-0-2	240-635-1	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
M	MG/KG	G-SP-SB-119-0-2	240-635-7	NM	05/31/2011	06/03/2011	07/05/2011	3	32	35
OS	UG/KG	G-SP-SB-122-6-8	240-635-23	NM	05/31/2011	06/08/2011	06/21/2011	8	13	21

METHOD SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-635-1

Description	Lab Location	Method	Preparation Method
Matrix Solid			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Closed System Purge and Trap			SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Soxhlet Extraction			SW846 3540C
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL NC	SW846 8015C	
Soxhlet Extraction			SW846 3540C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL NC	SW846 8082A	
Soxhlet Extraction			SW846 3540C
Metals (ICP)	TAL NC	SW846 6010C	
Preparation, Metals			SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL NC	SW846 7471B	
Preparation, Mercury			SW846 7471B
Percent Moisture	TAL NC	EPA Moisture	
Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	TAL CHI	SW846 8015C	
Purge and Trap	TAL CHI		SW846 5030C

Lab References:

TAL CHI = TestAmerica Chicago

TAL NC = TestAmerica North Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

COVER PAGE
METALS

Lab Name: TestAmerica North Canton Job Number: 240-635-1

SDG No.:

Project: GSP PHASE II

Client Sample ID	Lab Sample ID
G-SP-SB-115-0-2	240-635-1
G-SP-SB-115-10-12	240-635-2
G-SP-SB-117-0-2	240-635-4
G-SP-SB-117-6-8	240-635-5
G-SP-SB-119-0-2	240-635-7
G-SP-SB-119-6-8	240-635-8
G-SP-SB-118-0-2	240-635-10
G-SP-SB-118-6-8	240-635-11
G-SP-SB-121-0-3	240-635-16
G-SP-SB-121-6-8	240-635-17
G-SP-SB-120-0-2	240-635-19
G-SP-SB-120-6-8	240-635-20
G-SP-SB-122-0-2	240-635-22
G-SP-SB-122-6-8	240-635-23
G-SP-SB-129-0-2	240-635-25
G-SP-SB-129-6-8	240-635-26

Comments:

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

ICV Source: MTTRICV_00008 Concentration Units: ug/L

CCV Source: MTTRCCV_00007

	ICV 240-7218/5 07/05/2011 07:56				CCV 240-7218/11 07/05/2011 08:34				CCV 240-7218/23 07/05/2011 09:47			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	252		250	101	510		500	102	511		500	102
Arsenic	248		250	99	494		500	99	497		500	99
Barium	997		1000	100	2020		2000	101	2020		2000	101
Beryllium	1040		1000	104	2030		2000	102	2040		2000	102
Cadmium	251		250	100	494		500	99	496		500	99
Chromium	1020		1000	102	2030		2000	102	2040		2000	102
Cobalt	1020		1000	102	2040		2000	102	2050		2000	102
Copper	992		1000	99	1990		2000	100	1990		2000	99
Lead	251		250	101	494		500	99	496		500	99
Molybdenum	1020		1000	102	2000		2000	100	2000		2000	100
Nickel	1020		1000	102	2040		2000	102	2040		2000	102
Selenium	247		250	99	491		500	98	489		500	98
Silver	503		500	101	1010		1000	101	1020		1000	102
Vanadium	1000		1000	100	2010		2000	101	2020		2000	101
Zinc	1050		1000	105	2090		2000	105	2100		2000	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

ICV Source: MTTRICV_00008 Concentration Units: ug/L

CCV Source: MTTRCCV_00007

	CCV 240-7218/35 07/05/2011 11:00				CCV 240-7218/47 07/05/2011 12:13							
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	513		500	103	521		500	104				
Arsenic	497		500	99	507		500	101				
Barium	2020		2000	101	2050		2000	102				
Beryllium	2040		2000	102	2080		2000	104				
Cadmium	496		500	99	504		500	101				
Chromium	2040		2000	102	2080		2000	104				
Cobalt	2040		2000	102	2080		2000	104				
Copper	2000		2000	100	2040		2000	102				
Lead	495		500	99	502		500	100				
Molybdenum	2000		2000	100	2050		2000	103				
Nickel	2040		2000	102	2070		2000	103				
Selenium	494		500	99	503		500	101				
Silver	1020		1000	102	1040		1000	104				
Vanadium	2020		2000	101	2060		2000	103				
Zinc	2090		2000	105	2130		2000	107				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

ICV Source: MTTRTLICV_00001 Concentration Units: ug/L

CCV Source: MTTRCCV_00007

	ICV 240-7218/6 07/05/2011 08:03				CCV 240-7218/11 07/05/2011 08:34				CCV 240-7218/23 07/05/2011 09:47			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Thallium	537		500	107	986		1000	99	982		1000	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

ICV Source: MTTRTLICV_00001 Concentration Units: ug/L

CCV Source: MTTRCCV_00007

	CCV 240-7218/35 07/05/2011 11:00				CCV 240-7218/47 07/05/2011 12:13							
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Thallium	986		1000	99	1010		1000	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

ICV Source: MTHGICVW_00052 Concentration Units: ug/L

CCV Source: MTHGCALW_00032

	ICV 240-5141/7-A 06/17/2011 09:39				CCV 240-5141/10-A 06/17/2011 09:42				CCV 240-5141/10-A 06/17/2011 09:58			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Hg	2.50		2.50	100	5.22		5.00	104	5.23		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

ICV Source: MTHGICVW_00052 Concentration Units: ug/L

CCV Source: MTHGCALW_00032

CCV 240-5141/10-A
06/17/2011 10:13

Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Hg	5.24		5.00	105								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Method: 6010C Instrument ID: I6

Lab Sample ID: CRI 240-7218/8 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00001

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	20.0	20.9		105	70-130
Arsenic	15.0	13.9	J	93	70-130
Barium	200	201		101	70-130
Beryllium	5.00	5.03		101	70-130
Cadmium	5.00	5.20		104	70-130
Chromium	10.0	10.8		108	70-130
Cobalt	10.0	10.1		101	70-130
Copper	20.0	20.2	J	101	70-130
Lead	10.0	11.4		114	70-130
Molybdenum	40.0	43.4		108	70-130
Nickel	40.0	40.8		102	70-130
Selenium	20.0	19.9	J	99	70-130
Silver	10.0	10.0		100	70-130
Thallium	20.0	19.5	J	97	70-130
Vanadium	10.0	10.2		102	70-130
Zinc	50.0	53.1		106	70-130

Lab Sample ID: CRI 240-7218/39 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00001

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	20.0	20.5		102	70-130
Arsenic	15.0	15.5		104	70-130
Barium	200	205		102	70-130
Beryllium	5.00	5.17		103	70-130
Cadmium	5.00	5.36		107	70-130
Chromium	10.0	10.9		109	70-130
Cobalt	10.0	10.4		104	70-130
Copper	20.0	20.6	J	103	70-130
Lead	10.0	10.9		109	70-130
Molybdenum	40.0	43.9		110	70-130
Nickel	40.0	41.4		104	70-130
Selenium	20.0	19.8	J	99	70-130
Silver	10.0	10.2		102	70-130
Thallium	20.0	21.9		109	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Method: 6010C Instrument ID: I6

Lab Sample ID: CRI 240-7218/39 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00001

Analyte	CRQL Check Standard True	Found	Qualifiers	%R(1)	Limits
Vanadium	10.0	10.6		106	70-130
Zinc	50.0	55.6		111	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Method: 7471B Instrument ID: H1

Lab Sample ID: CRA 240-5141/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00032

	CRQL Check Standard				
Analyte	True	Found	Qualifiers	%R(1)	Limits
Hg	0.200	0.163	J	82	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Concentration Units: ug/L

		ICBIS 240-7218/7 07/05/2011 08:09		CCB 240-7218/12 07/05/2011 08:40		CCB 240-7218/24 07/05/2011 09:53		CCB 240-7218/36 07/05/2011 11:06	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Antimony	20	20	U	20	U	20	U	20	U
Arsenic	15	15	U	15	U	15	U	15	U
Barium	200	200	U	200	U	200	U	200	U
Beryllium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Cadmium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Chromium	10	10	U	10	U	10	U	10	U
Cobalt	10	10	U	10	U	10	U	10	U
Copper	25	25	U	25	U	25	U	25	U
Lead	10	10	U	10	U	10	U	10	U
Molybdenum	40	40	U	17.3	J	17.6	J	15.1	J
Nickel	40	40	U	40	U	40	U	40	U
Selenium	20	20	U	20	U	20	U	20	U
Silver	10	10	U	10	U	10	U	10	U
Thallium	20	20	U	20	U	20	U	20	U
Vanadium	10	10	U	10	U	0.678	J	10	U
Zinc	50	50	U	50	U	50	U	50	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Concentration Units: ug/L

		CCB 240-7218/48 07/05/2011 12:19							
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Antimony	20	20	U						
Arsenic	15	15	U						
Barium	200	200	U						
Beryllium	5.0	5.0	U						
Cadmium	5.0	5.0	U						
Chromium	10	10	U						
Cobalt	10	10	U						
Copper	25	25	U						
Lead	10	10	U						
Molybdenum	40	17.1	J						
Nickel	40	40	U						
Selenium	20	20	U						
Silver	10	10	U						
Thallium	20	20	U						
Vanadium	10	10	U						
Zinc	50	50	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Concentration Units: ug/L

		ICB 240-5141/8-A 06/17/2011 09:40		CCB 240-5141/11-A 06/17/2011 09:44		CCB 240-5141/11-A 06/17/2011 09:59		CCB 240-5141/11-A 06/17/2011 10:15	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Hg	0.60	0.60	U	0.60	U	0.60	U	0.60	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-3490/1-A

Instrument Code: I6 Batch No.: 7218

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6010C
7440-38-2	Arsenic	1.5	U		6010C
7440-39-3	Barium	0.0786	J		6010C
7440-41-7	Beryllium	0.50	U		6010C
7440-43-9	Cadmium	0.50	U		6010C
7440-47-3	Chromium	1.0	U		6010C
7440-48-4	Cobalt	1.0	U		6010C
7440-50-8	Copper	2.5	U		6010C
7439-92-1	Lead	1.0	U		6010C
7439-98-7	Molybdenum	0.342	J		6010C
7440-02-0	Nickel	4.0	U		6010C
7782-49-2	Selenium	2.0	U		6010C
7440-22-4	Silver	1.0	U		6010C
7440-28-0	Thallium	2.0	U		6010C
7440-62-2	Vanadium	1.0	U		6010C
7440-66-6	Zinc	1.07	J		6010C

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-4974/1-A

Instrument Code: H1 Batch No.: 5282

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Hg	0.10	U		7471B

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICSA 240-7218/9 Instrument ID: I6

Lab File ID: I60705A ICS Source: MTTRICSAW_00005

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**-1.53**	
Arsenic		**6.15**	
Barium		**2.13**	
Beryllium		**0.0882**	
Cadmium		**-2.03**	
Chromium		**0.786**	
Cobalt		**3.45**	
Copper		**2.19**	
Lead		**-0.956**	
Molybdenum		**-2.87**	
Nickel		**0.746**	
Selenium		**2.59**	
Silver		**-0.0806**	
Thallium		**-4.90**	
Vanadium		**1.08**	
Zinc		**-6.63**	
Aluminum	*500000*	*428653*	*86*
Boron		*-10.8*	
Calcium	*500000*	*449527*	*90*
Iron	*200000*	*188659*	*94*
Magnesium	*500000*	*479968*	*96*
Manganese		*3.84*	
Potassium		*129*	
Sodium		*-178*	
Tin		*0.933*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Lab Sample ID: ICSAB 240-7218/10 Instrument ID: I6

Lab File ID: I60705A ICS Source: MTTRICSABW_00004

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**1000**	**971**	**97**
Arsenic	**1000**	**957**	**96**
Barium	**500**	**508**	**102**
Beryllium	**500**	**487**	**97**
Cadmium	**1000**	**912**	**91**
Chromium	**500**	**472**	**94**
Cobalt	**500**	**475**	**95**
Copper	**500**	**518**	**104**
Lead	**1000**	**913**	**91**
Molybdenum	**1000**	**953**	**95**
Nickel	**1000**	**942**	**94**
Selenium	**1000**	**946**	**95**
Silver	**1000**	**1016**	**102**
Thallium	**1000**	**878**	**88**
Vanadium	**500**	**478**	**96**
Zinc	**1000**	**1016**	**102**
Aluminum	*500000*	*427834*	*86*
Boron	*1000*	*995*	*100*
Calcium	*500000*	*450032*	*90*
Iron	*200000*	*189246*	*95*
Magnesium	*500000*	*481046*	*96*
Manganese	*500*	*485*	*97*
Potassium	*10000*	*10186*	*102*
Sodium	*10000*	*11213*	*112*
Tin	*1000*	*988*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: G-SP-SB-115-0-2 MS | Lab ID: 240-635-1 MS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 80.7

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	34.5		2.2	U	60.7	57	75-125	F	6010C
Arsenic	233		3.4		243	94	75-125		6010C
Barium	267		23		243	100	75-125		6010C
Beryllium	6.18		0.11	J	6.07	100	75-125		6010C
Cadmium	5.63		0.55	U	6.07	93	75-125		6010C
Chromium	38.8		11		24.3	113	75-125		6010C
Cobalt	63.2		2.4		60.7	100	75-125		6010C
Copper	37.6		7.1		30.4	100	75-125		6010C
Lead	64.6		6.4		60.7	96	75-125		6010C
Molybdenum	117		0.66	J	121	96	75-125		6010C
Nickel	64.8		4.3	J	60.7	100	75-125		6010C
Selenium	225		2.2	U	243	93	75-125		6010C
Silver	5.92		1.1	U	6.07	97	75-125		6010C
Thallium	226		2.2	U	243	93	75-125		6010C
Vanadium	82.3		20		60.7	103	75-125		6010C
Zinc	78.7		16		60.7	104	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: G-SP-SB-115-0-2 MSD
Lab ID: 240-635-1 MSD
Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 80.7

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	33.0	60.7	54	75-125	4	20	F	6010C
Arsenic	230	243	93	75-125	1	20		6010C
Barium	260	243	98	75-125	3	20		6010C
Beryllium	5.94	6.07	96	75-125	4	20		6010C
Cadmium	5.65	6.07	93	75-125	0	20		6010C
Chromium	34.0	24.3	93	75-125	13	20		6010C
Cobalt	62.3	60.7	99	75-125	1	20		6010C
Copper	35.6	30.4	94	75-125	5	20		6010C
Lead	64.0	60.7	95	75-125	1	20		6010C
Molybdenum	115	121	94	75-125	2	20		6010C
Nickel	62.4	60.7	96	75-125	4	20		6010C
Selenium	221	243	91	75-125	2	20		6010C
Silver	5.71	6.07	94	75-125	4	20		6010C
Thallium	225	243	93	75-125	1	20		6010C
Vanadium	77.3	60.7	95	75-125	6	20		6010C
Zinc	75.7	60.7	99	75-125	4	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: G-SP-SB-119-6-8 MS
Lab ID: 240-635-8 MS
Lab Name: TestAmerica North Canton
Job No.: 240-635-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 88.8

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Hg	0.206		0.035	J	0.182	94	11-192		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: G-SP-SB-119-6-8 MSD | Lab ID: 240-635-8 MSD

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 88.8

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Hg	0.242	0.182	114	11-192	16	20		7471B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: G-SP-SB-115-0-2 PDS | Lab ID: 240-635-1 PDS

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	50.3		2.2	U	54.8	92	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-3490/2-A

Lab Name: TestAmerica North Canton

Job No.: 240-635-1

Sample Matrix: Solid

LCS Source: MTICP1_00005

Solid(mg/Kg)

Analyte	True	Found	C	%R	Limits		Q	Method
Antimony	50.0	47.7		95	80	120		6010C
Arsenic	200	192		96	80	120		6010C
Barium	200	200		100	80	120		6010C
Beryllium	5.00	5.03		101	80	120		6010C
Cadmium	5.00	5.00		100	80	120		6010C
Chromium	20.0	20.5		102	80	120		6010C
Cobalt	50.0	50.4		101	80	120		6010C
Copper	25.0	24.7		99	80	120		6010C
Lead	50.0	49.0		98	80	120		6010C
Molybdenum	100	99.7		100	80	120		6010C
Nickel	50.0	50.2		100	80	120		6010C
Selenium	200	189		95	80	120		6010C
Silver	5.00	4.91		98	80	120		6010C
Thallium	200	193		96	80	120		6010C
Vanadium	50.0	50.2		100	80	120		6010C
Zinc	50.0	54.4		109	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-4974/2-A

Lab Name: TestAmerica North Canton | Job No.: 240-635-1

Sample Matrix: Solid | LCS Source: MTHGICVW_00051

Solid(mg/Kg)

Analyte	True	Found	C	%R	Limits		Q	Method
Hg	0.833	0.822		99	73	121		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 240-635-1

SDG No:

Lab Name: TestAmerica North Canton Job No: 240-635-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	2.2	U	11	U	NC		6010C
Arsenic	3.4		3.63	J	NC		6010C
Barium	23		23.2	J	2.0		6010C
Beryllium	0.11	J	2.7	U	NC		6010C
Cadmium	0.55	U	2.7	U	NC		6010C
Chromium	11		11.9		4.4		6010C
Cobalt	2.4		2.55	J	NC		6010C
Copper	7.1		6.62	J	NC		6010C
Lead	6.4		6.82		NC		6010C
Molybdenum	0.66	J	22	U	NC		6010C
Nickel	4.3	J	4.10	J	NC		6010C
Selenium	2.2	U	11	U	NC		6010C
Silver	1.1	U	5.5	U	NC		6010C
Thallium	2.2	U	11	U	NC		6010C
Vanadium	20		20.3		3.1		6010C
Zinc	16		15.2	J	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica North Canton Job Number: 240-635-1

SDG Number:

Matrix: Solid Instrument ID: I6

Method: 6010C MDL Date: 03/01/2011 14:59

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Antimony	206.838	2	0.39
Arsenic	189.042	1.5	0.3
Barium	493.409	20	0.071
Beryllium	313.042	0.5	0.043
Cadmium	226.502	0.5	0.036
Chromium	267.716	1	0.2
Cobalt	228.616	1	0.16
Copper	324.753	2.5	0.74
Lead	220.353	1	0.19
Molybdenum	202.030	4	0.27
Nickel	231.604	4	0.27
Selenium	196.026	2	0.45
Silver	328.068	1	0.1
Thallium	190.864	2	0.55
Vanadium	292.402	1	0.12
Zinc	213.856	5	1

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica North Canton Job Number: 240-635-1

SDG Number:

Matrix: Solid Instrument ID: H1

Method: 7471B MDL Date: 02/16/2010 09:48

Prep Method: 7471B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Hg	253.7	0.1	0.015

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-3490/1-A	06/03/2011 09:47	3490	1.00		100
LCS 240-3490/2-A	06/03/2011 09:47	3490	1.00		100
240-635-1	06/03/2011 09:47	3490	1.13		100
240-635-1 MS	06/03/2011 09:47	3490	1.02		100
240-635-1 MSD	06/03/2011 09:47	3490	1.02		100
240-635-2	06/03/2011 09:47	3490	1.06		100
240-635-4	06/03/2011 09:47	3490	1.08		100
240-635-5	06/03/2011 09:47	3490	1.04		100
240-635-7	06/03/2011 09:47	3490	1.24		100
240-635-8	06/03/2011 09:47	3490	1.06		100
240-635-10	06/03/2011 09:47	3490	1.03		100
240-635-11	06/03/2011 09:47	3490	1.00		100
240-635-16	06/03/2011 09:47	3490	1.06		100
240-635-17	06/03/2011 09:47	3490	1.01		100
240-635-19	06/03/2011 09:47	3490	1.11		100
240-635-20	06/03/2011 09:47	3490	1.14		100
240-635-22	06/03/2011 09:47	3490	1.22		100
240-635-23	06/03/2011 09:47	3490	1.09		100
240-635-25	06/03/2011 09:47	3490	1.15		100
240-635-26	06/03/2011 09:47	3490	1.13		100

FORM XII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Prep Method: 7471B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-4974/1-A	06/16/2011 14:00	4974	0.60		100
LCS 240-4974/2-A	06/16/2011 14:00	4974	0.60		100
240-635-8	06/16/2011 14:00	4974	0.60		100
240-635-8 MS	06/16/2011 14:00	4974	0.62		100
240-635-8 MSD	06/16/2011 14:00	4974	0.62		100
240-635-19	06/16/2011 14:00	4974	0.60		100
240-635-1	06/16/2011 14:00	4974	0.60		100
240-635-23	06/16/2011 14:00	4974	0.79		100
240-635-22	06/16/2011 14:00	4974	0.70		100
240-635-11	06/16/2011 14:00	4974	0.79		100
240-635-20	06/16/2011 14:00	4974	0.66		100
240-635-17	06/16/2011 14:00	4974	0.67		100
240-635-10	06/16/2011 14:00	4974	0.85		100
240-635-7	06/16/2011 14:00	4974	0.61		100
240-635-4	06/16/2011 14:00	4974	0.68		100
240-635-25	06/16/2011 14:00	4974	0.68		100
240-635-2	06/16/2011 14:00	4974	0.61		100
240-635-5	06/16/2011 14:00	4974	0.62		100
240-635-16	06/16/2011 14:00	4974	0.69		100
240-635-26	06/16/2011 14:00	4974	0.67		100

FORM XII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 07/05/2011 07:34 End Date: 07/05/2011 17:03

Lab Sample ID	D/F	Type	Time	Analytes																
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn
STD 240-7218/1 IC			07:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALSTD 240-7218/2 IC			07:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALSTD 240-7218/3 IC			07:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALSTD 240-7218/4 IC			07:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 240-7218/5	1		07:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
ICV 240-7218/6	1		08:03														X			
ICBIS 240-7218/7	1		08:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI 240-7218/8	1		08:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSA 240-7218/9	1		08:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 240-7218/10	1		08:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-7218/11	1		08:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7218/12	1		08:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MB 240-3490/1-A	1	T	08:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 240-3490/2-A	1	T	08:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-1	1	T	08:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-1 SD	5	T	09:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-1 PDS	1	T	09:10												X					
240-635-1 MS	1	T	09:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-1 MSD	1	T	09:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-2	1	T	09:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-4	1	T	09:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-5	1	T	09:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-7218/23	1		09:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7218/24	1		09:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-7	1	T	09:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-8	1	T	10:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-10	1	T	10:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-11	1	T	10:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-16	1	T	10:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-17	1	T	10:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-19	1	T	10:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-20	1	T	10:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-22	1	T	10:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-23	1	T	10:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-7218/35	1		11:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7218/36	1		11:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-25	1	T	11:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-635-26	1	T	11:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI 240-7218/39	1		11:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			11:31																	
ZZZZZZ			11:37																	
ZZZZZZ			11:43																	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 07/05/2011 07:34 End Date: 07/05/2011 17:03

Lab Sample ID	D/F	Type	Time	Analytes															
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn
ZZZZZZ			11:49																
ZZZZZZ			11:55																
ZZZZZZ			12:01																
ZZZZZZ			12:07																
CCV 240-7218/47	1		12:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7218/48	1		12:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			12:25																
ZZZZZZ			12:34																
ZZZZZZ			12:40																
ZZZZZZ			12:47																
ZZZZZZ			12:53																
ZZZZZZ			12:59																
ZZZZZZ			13:05																
ZZZZZZ			13:11																
ZZZZZZ			13:17																
ZZZZZZ			13:23																
CCV 240-7218/59			13:29																
CCB 240-7218/60			13:35																
ZZZZZZ			13:41																
ZZZZZZ			13:48																
ZZZZZZ			13:54																
ZZZZZZ			14:00																
ZZZZZZ			14:06																
ZZZZZZ			14:12																
ZZZZZZ			14:18																
ZZZZZZ			14:24																
CRI 240-7218/69			14:30																
CCV 240-7218/70			14:36																
CCB 240-7218/71			14:42																
ZZZZZZ			14:49																
ZZZZZZ			14:55																
ZZZZZZ			15:01																
ZZZZZZ			15:07																
ZZZZZZ			15:13																
ZZZZZZ			15:19																
ZZZZZZ			15:25																
ZZZZZZ			15:31																
ZZZZZZ			15:37																
ZZZZZZ			15:43																
CCV 240-7218/82			15:50																
CCB 240-7218/83			15:56																
ZZZZZZ			16:02																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 07/05/2011 07:34 End Date: 07/05/2011 17:03

Lab Sample ID	D/F	Type	Time	Analytes
ZZZZZZ			16:08	
ZZZZZZ			16:14	
ZZZZZZ			16:20	
ZZZZZZ			16:26	
ZZZZZZ			16:32	
ZZZZZZ			16:38	
ZZZZZZ			16:45	
CRI 240-7218/92			16:51	
CCV 240-7218/93			16:57	
CCB 240-7218/94			17:03	

Analytes: Ag As Ba Be Cd Co Cr Cu Mo Ni Pb Sb Se Tl V Zn

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
IC 240-5141/1-A			09:31	X
IC 240-5141/2-A			09:32	X
IC 240-5141/3-A			09:33	X
IC 240-5141/4-A			09:34	X
IC 240-5141/5-A			09:36	X
IC 240-5141/6-A			09:37	X
ICV 240-5141/7-A	1		09:39	X
ICB 240-5141/8-A	1		09:40	X
CRA 240-5141/9-A	1		09:41	X
CCV 240-5141/10-A	1		09:42	X
CCB 240-5141/11-A	1		09:44	X
MB 240-4974/1-A	1	T	09:45	X
LCS 240-4974/2-A	1	T	09:46	X
240-635-8	1	T	09:47	X
240-635-8 MS	1	T	09:49	X
240-635-8 MSD	1	T	09:50	X
240-635-19	1	T	09:51	X
240-635-1	1	T	09:53	X
240-635-23	1	T	09:54	X
240-635-22	1	T	09:55	X
240-635-11	1	T	09:57	X
CCV 240-5141/10-A	1		09:58	X
CCB 240-5141/11-A	1		09:59	X
240-635-20	1	T	10:00	X
240-635-17	1	T	10:02	X
240-635-10	1	T	10:03	X
240-635-7	1	T	10:04	X
240-635-4	1	T	10:06	X
240-635-25	1	T	10:07	X
240-635-2	1	T	10:08	X
240-635-5	1	T	10:09	X
240-635-16	1	T	10:11	X
240-635-26	1	T	10:12	X
CCV 240-5141/10-A	1		10:13	X
CCB 240-5141/11-A	1		10:15	X
ZZZZZZ			10:16	
ZZZZZZ			10:17	
ZZZZZZ			10:19	
ZZZZZZ			10:20	
ZZZZZZ			10:21	
ZZZZZZ			10:22	
ZZZZZZ			10:24	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
ZZZZZZ			10:25	
ZZZZZZ			10:26	
ZZZZZZ			10:28	
CCV 240-5141/10-A			10:29	
CCB 240-5141/11-A			10:30	
ZZZZZZ			10:31	
ZZZZZZ			10:33	
ZZZZZZ			10:34	
ZZZZZZ			10:36	
ZZZZZZ			10:37	
ZZZZZZ			10:38	
ZZZZZZ			10:40	
ZZZZZZ			10:41	
ZZZZZZ			10:42	
ZZZZZZ			10:43	
CCV 240-5141/10-A			10:45	
CCB 240-5141/11-A			10:46	
ZZZZZZ			10:47	
ZZZZZZ			10:48	
ZZZZZZ			10:50	
ZZZZZZ			10:51	
ZZZZZZ			10:53	
ZZZZZZ			10:54	
ZZZZZZ			10:55	
ZZZZZZ			10:57	
ZZZZZZ			10:58	
ZZZZZZ			10:59	
CCV 240-5141/10-A			11:01	
CCB 240-5141/11-A			11:02	
ZZZZZZ			11:03	
ZZZZZZ			11:04	
ZZZZZZ			11:06	
ZZZZZZ			11:07	
ZZZZZZ			11:08	
ZZZZZZ			11:10	
ZZZZZZ			11:11	
ZZZZZZ			11:12	
ZZZZZZ			11:14	
ZZZZZZ			11:15	
CCV 240-5141/10-A			11:16	
CCB 240-5141/11-A			11:18	
ZZZZZZ			11:19	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

			Analytes
Lab Sample ID	D/F	Type	Time	Hg
ZZZZZZ			11:20	
ZZZZZZ			11:22	
ZZZZZZ			11:23	
ZZZZZZ			11:25	
ZZZZZZ			11:26	
ZZZZZZ			11:27	
ZZZZZZ			11:29	
ZZZZZZ			11:30	
ZZZZZZ			11:31	
CCV 240-5141/10-A			11:32	
CCB 240-5141/11-A			11:34	
ZZZZZZ			11:35	
ZZZZZZ			11:36	
ZZZZZZ			11:38	
ZZZZZZ			11:39	
ZZZZZZ			11:40	
ZZZZZZ			11:42	
ZZZZZZ			11:43	
ZZZZZZ			11:44	
ZZZZZZ			11:46	
ZZZZZZ			11:47	
CCV 240-5141/10-A			11:48	
CCB 240-5141/11-A			11:50	
ZZZZZZ			11:51	
ZZZZZZ			11:52	
ZZZZZZ			11:54	
ZZZZZZ			11:55	
ZZZZZZ			11:56	
ZZZZZZ			11:57	
ZZZZZZ			11:59	
CCV 240-5141/10-A			12:00	
CCB 240-5141/11-A			12:01	
CCV 240-5141/10-A			14:01	
CCB 240-5141/11-A			14:02	
ZZZZZZ			14:04	
ZZZZZZ			14:05	
ZZZZZZ			14:06	
ZZZZZZ			14:08	
ZZZZZZ			14:09	
ZZZZZZ			14:10	
ZZZZZZ			14:11	
ZZZZZZ			14:13	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
ZZZZZZ			14:14	
ZZZZZZ			14:15	
CCV 240-5141/10-A			14:16	
CCB 240-5141/11-A			14:18	
ZZZZZZ			14:19	
ZZZZZZ			14:20	
ZZZZZZ			14:22	
ZZZZZZ			14:23	
ZZZZZZ			14:25	
ZZZZZZ			14:26	
ZZZZZZ			14:27	
ZZZZZZ			14:28	
ZZZZZZ			14:30	
ZZZZZZ			14:31	
CCV 240-5141/10-A			14:34	
CCB 240-5141/11-A			14:35	
ZZZZZZ			14:36	
ZZZZZZ			14:37	
ZZZZZZ			14:39	
ZZZZZZ			14:40	
ZZZZZZ			14:41	
ZZZZZZ			14:42	
ZZZZZZ			14:44	
ZZZZZZ			14:45	
ZZZZZZ			14:46	
ZZZZZZ			14:48	
CCV 240-5141/10-A			14:49	
CCB 240-5141/11-A			14:50	
ZZZZZZ			14:52	
ZZZZZZ			14:53	
ZZZZZZ			14:54	
ZZZZZZ			14:56	
ZZZZZZ			14:57	
ZZZZZZ			14:58	
ZZZZZZ			15:00	
ZZZZZZ			15:01	
ZZZZZZ			15:02	
ZZZZZZ			15:04	
CCV 240-5141/10-A			15:05	
CCB 240-5141/11-A			15:06	
ZZZZZZ			15:07	
ZZZZZZ			15:09	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

			Analytes
Lab Sample ID	D / F	Type	Time	Hg
ZZZZZZ			15:11	
ZZZZZZ			15:12	
ZZZZZZ			15:13	
ZZZZZZ			15:15	
ZZZZZZ			15:16	
ZZZZZZ			15:17	
ZZZZZZ			15:19	
ZZZZZZ			15:20	
CCV 240-5141/10-A			15:21	
CCB 240-5141/11-A			15:22	
ZZZZZZ			15:24	
ZZZZZZ			15:25	
ZZZZZZ			15:27	
ZZZZZZ			15:28	
ZZZZZZ			15:29	
ZZZZZZ			15:31	
ZZZZZZ			15:32	
ZZZZZZ			15:33	
ZZZZZZ			15:35	
ZZZZZZ			15:36	
CCV 240-5141/10-A			15:37	
CCB 240-5141/11-A			15:38	
ZZZZZZ			15:40	
ZZZZZZ			15:41	
ZZZZZZ			15:42	
ZZZZZZ			15:43	
ZZZZZZ			15:45	
ZZZZZZ			15:46	
ZZZZZZ			15:47	
ZZZZZZ			15:49	
ZZZZZZ			15:50	
ZZZZZZ			15:51	
CCV 240-5141/10-A			15:53	
CCB 240-5141/11-A			15:54	
ZZZZZZ			15:55	
ZZZZZZ			15:57	
ZZZZZZ			15:58	
ZZZZZZ			15:59	
ZZZZZZ			16:01	
ZZZZZZ			16:02	
ZZZZZZ			16:03	
ZZZZZZ			16:05	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-635-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
ZZZZZZ			16:06	
ZZZZZZ			16:07	
CCV 240-5141/10-A			16:08	
CCB 240-5141/11-A			16:10	

Prep Types

T = Total/NA

Method: TOTAL Sample Name: 240-635-f-17-a Operator:
Run Time: 07/05/11 10:30 Filename: I60705A
Mode: CONC Type: S Corr. Factor: 1.00000
Lab ID.: N.CANTON Cust. Smpl. ID.: Cust. ID.:

Elems	Ag	Al	As	B	Ba	Be
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	.3529	59680.	24.40	66.67	495.7	-.8398
SDev	.5304	70.31	1.153	.5095	.0077	.0198
%RSD	150.3	.1178	4.728	.7642	.0016	2.359

Elems	Ca	Cd	Co	Cr	Cu	Fe
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	H507900.	1.266	24.03	113.3	94.36	57960.
SDev	2067	.1542	.3037	.3735	.1411	141.8
%RSD	.4069	12.18	1.264	.3298	.1495	.2446

Elems	K	Mg	Mn	Mo	Na3302	Ni
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	5481.	70460.	2592.	3.311	1787.	49.11
SDev	10.94	191.3	6.329	.4399	27.28	.0195
%RSD	.1997	.2715	.2442	13.29	1.526	.0397

Elems	Pb	Se	Sb	Sn	Tl	V
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	162.4	2.573	3.778	4.162	8.202	129.2
SDev	.1687	.9841	.1077	.4467	.6515	.3746
%RSD	.1039	38.25	2.85	10.73	7.943	.2901

Elems	Zn	2203/1	2203/2	2068/2	2068/1	1960/1
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	552.5	151.4	167.8	2.268	4.532	.2393
SDev	1.439	.0938	.2061	1.29	.4827	.6952
%RSD	.2605	.0619	.1228	56.88	10.65	290.5

Elems	1960/2	*Y
Units	PPB	
Avge	3.738	10683.8
SDev	1.128	21.5667
%RSD	30.19	.20186

Sample G-SP-SB-121-6-8

Lead rep reset 19 mg/kg

$$\left(\frac{162.4\ \mu g}{L}\right)\left(\frac{0.100\ L}{1.01\ g}\right)\left(\frac{1\ mg}{1000\ \mu g}\right)\left(\frac{1000\ g}{1\ Kg}\right)\left(\frac{1}{.867}\right) =$$

18.54 mg/kg

Sample G-SP-SB-118-0-2
mercury rep result 0.15 mg/kg

$$\left(\frac{1.086\,\mu g}{L}\right)\left(\frac{0.100\,L}{0.85\,g}\right)\left(\frac{1\,mg}{1000\,\mu g}\right)\left(\frac{1000\,g}{1\,kg}\right)\left(\frac{1}{.871}\right) = 0.147\ mg/kg$$

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 00058213 Seq: 18 09:54:18 17 Jun 2011 HG
240-635-f-23-d
Hg .0577 ppb .0000 % .0577

*** Sample ID: 00058214 Seq: 19 09:55:37 17 Jun 2011 HG
240-635-g-22-b
Hg .2910 ppb .0000 % .2910

*** Sample ID: 00058215 Seq: 20 09:57:04 17 Jun 2011 HG
240-635-d-11-d
Hg .3232 ppb .0000 % .3232

*** Check Standard: 2 Ck2CCV Seq: 21 09:58:22 17 Jun 2011 HG

Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		104.7	5.233	5.000	ppb	.0000 %

*** Check Standard: 1 Ck1CCB Seq: 22 09:59:41 17 Jun 2011 HG

Line	Flag	Found	Range(+/-)	Units	SD/RSD
Hg		-.0590	.2000	ppb	.0000 %

*** Sample ID: 00058218 Seq: 23 10:00:57 17 Jun 2011 HG
240-635-f-20-e
Hg .1726 ppb .0000 % .1726

*** Sample ID: 00058220 Seq: 24 10:02:13 17 Jun 2011 HG
240-635-g-17-d
Hg .2536 ppb .0000 % .2536

*** Sample ID: 00058222 Seq: 25 10:03:27 17 Jun 2011 HG
240-635-d-10-c
Hg 1.086 ppb .0000 % 1.086

*** Sample ID: 00058223 Seq: 26 10:04:42 17 Jun 2011 HG
240-635-g-7-c
Hg .6978 ppb .0000 % .6978

*** Sample ID: 00058224 Seq: 27 10:06:00 17 Jun 2011 HG
240-635-f-4-c
Hg .3281 ppb .0000 % .3281

*** Sample ID: 00058225 Seq: 28 10:07:24 17 Jun 2011 HG
240-635-g-25-c
Hg .5874 ppb .0000 % .5874

*** Sample ID: 00058226 Seq: 29 10:08:41 17 Jun 2011 HG
240-635-f-2-c
Hg -.0555 ppb .0000 % .0555

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**T. APANAVAGE**	**DATE:**	**September 1, 2011**
FROM:	**MEGAN CARSON**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION-SELECT METALS**
MARTIN STATE AIRPORT-GREATER STRAWBERRY POINT
SDG 240-681-1

SAMPLES: 24/Soil/

GSP-SB-104-0-2	GSP-SB-104-6-8
GSP-SB-106-0-2	GSP-SB-106-6-8
GSP-SB-113-0-2	GSP-SB-113-6-8
GSP-SB-114-0-2	GSP-SB-114-6-8
GSP-SB-91-0-2	GSP-SB-91-8-10
GSP-SB-92-0-2	GSP-SB-92-6-8
GSP-SB-93-0-2	GSP-SB-93-12-14
GSP-SB-94-0-2	GSP-SB-94-6-8
GSP-SB-95-0-2	GSP-SB-95-6-8
GSP-SB-96-0-2	GSP-SB-96-6-8
GSP-SB-97-0-2	GSP-SB-97-6-8
GSP-SB-98-0-2	GSP-SB-98-6-8

Overview

The sample set for Martin State Airport-Greater Strawberry Point, SDG 240-681-1, consists of twenty four (24) soil environmental samples. This SDG contained no field duplicate pairs.

All samples were analyzed for select metals: antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc. The samples were collected by Tetra Tech NUS on June 1st, 2011 and analyzed by TestAmerica. Metals analyses were conducted using SW-846 method 6010C. Mercury analyses were conducted using SW-846 method 7471B.

The findings offered in this report are based upon a general review of all available data. The data review was based on data completeness, holding times, initial and continuing calibration verification results, laboratory method / preparation blank results, ICP interference results, laboratory control sample recoveries, matrix spike recoveries, laboratory duplicate results, detection limits and analyte quantitation.

Areas of concern with respect to data quality are listed below.

Major Problems – None.

Minor Problems-

- The following contaminants were detected in preparation and calibration blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Barium [1]	0.0916 mg/kg	0.458 mg/kg
Zinc [1]	1.04 mg/kg	5.2 mg/kg
Barium [2]	0.11 mg/kg	0.55 mg/kg
Molybdenum [2]	0.35 mg/kg	1.75 mg/kg
Barium [3]	0.113 mg/kg	0.565 mg/kg
Molybdenum [3]	0.33 mg/kg	1.65 mg/kg
Lead [3]	0.25 mg/kg	1.25 mg/kg
Zinc [3]	1.48 mg/kg	7.4 mg/kg
Molybdenum [4]	17.1 ug/L	8.5 mg/kg
Antimony [4]	1.95 ug/L	0.97 mg/kg
Vanadium [4]	0.79 ug/L	0.39 mg/kg
Thallium [4]	5.07 ug/L	2.5 mg/kg
Molybdenum [5]	21.7 ug/L	10.85 mg/kg

[1] The following maximum concentration found in a preparation blank affecting samples in preparation batch 240-5004.
[2] The following maximum concentration found in a preparation blank affecting samples in preparation batch 240-5038.
[3] The following maximum concentration found in a preparation blank affecting samples in preparation batch 240-5161.
[4] The following maximum concentration found in a calibration blank affecting samples analyzed on 7/5/11.
[5] The following maximum concentration found in a calibration blank affecting samples analyzed on 7/8/11.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Sample aliquot, percent solids, and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results less than the blank action level were qualified as non-detected due to blank contamination.

- The CRDL standards analyzed on 7/5/11 had percent recoveries> 110% for lead, zinc, chromium, thallium, copper, and molybdenum. All samples analyzed on 7/5/11 were affected. Positive results< 2X CRDL were qualified as either biased high (K) or estimated (J) due to conflicting to directional bias.

- The CRDL standard analyzed on 7/8/11 had percent recoveries > 110% for lead, zinc, and thallium. Sample GSP-SB-97-0-2 was affected. The positive lead result was qualified as biased high. Non-detected zinc and thallium results were not qualified.

- The matrix spike and matrix spike duplicate with a percent recovery less than the lower quality control limit for antimony. Samples in preparation batch 240-5004 were affected. Non-detected results were qualified as biased low (UL).

- The matrix spike and matrix spike duplicate with a percent recovery less than the lower quality control limit for antimony. Samples in preparation batch 240-5038 were affected. Non-detected results were qualified as biased low (UL).

- Positive results greater than the method detection limit but less than the reporting limit were qualified as estimated (J).

Notes

Non-detected sample results were reported on the Form 1s at the RL. The validator changed the non-detected results to be reported at the MDL to meet project requirements.

Executive Summary

Laboratory Performance: Preparation and calibration blank contamination resulted in the qualification of sample results. The CRDL standard non-compliances resulted in the qualification of sample results.

Other Factors Affecting Data Quality: Matrix spike and matrix spike duplicate non-compliances for vanadium resulted in the qualification of sample results. Positive results greater than the MDL but less than the RL were qualified as estimated.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation", April 1993. The text of this report has been formulated to address only those problem areas affecting data quality.

Megan Carson

Tetra Tech NUS
Megan Carson
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	GFAA PDS - GFAA MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (e.g. base-line drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	% Difference between columns/detectors >25% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279	NSAMPLE	GSP-SB-104-0-2			GSP-SB-104-6-8			GSP-SB-106-0-2			GSP-SB-106-6-8		
SDG: 240-681-1	LAB_ID	240-681-4			240-681-5			240-681-22			240-681-23		
FRACTION: M	SAMP_DATE	6/1/2011			6/1/2011			6/1/2011			6/1/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	87.6			78.6			91.1			82.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.4	UL	D	0.45	UL	D	0.43	UL	D	0.42	UL	D
ARSENIC		3.3			2.5			3.1			4.1		
BARIUM		25			6.5	J	P	25			8.9	J	P
BERYLLIUM		0.21	J	P	0.049	U		0.15	J	P	0.084	J	P
CADMIUM		0.037	U		0.041	U		0.04	U		0.039	U	
CHROMIUM		11			6.7			12			11		
COBALT		3.2			0.81	J	P	2.9			2.7		
COPPER		7.3			4	K	C	9.6			7.5		
LEAD		9.7			1.9	K	C	7.8			2.6		
MERCURY		0.037	J	P	0.014	U		0.06	J	P	0.018	U	
MOLYBDENUM		0.49	B	A	0.31	U		0.61	B	A	0.56	B	A
NICKEL		5.2			1.3	J	P	4.7			1.5	J	P
SELENIUM		0.62	J	P	0.52	U		0.56	J	P	0.49	U	
SILVER		0.1	U		0.11	U		0.11	U		0.11	U	
THALLIUM		0.57	U		0.63	U		0.6	U		0.6	U	
VANADIUM		19			17			19			26		
ZINC		22			5.2	B	A	20			6.5	K	C

PROJ_NO: 03279	NSAMPLE	GSP-SB-113-0-2			GSP-SB-113-6-8			GSP-SB-114-0-2			GSP-SB-114-6-8		
SDG: 240-681-1	LAB_ID	240-681-13			240-681-14			240-681-1			240-681-2		
FRACTION: M	SAMP_DATE	6/1/2011			6/1/2011			6/1/2011			6/1/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	88.8			89.7			89.4			86.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.41	B	A	0.37	UL	D	0.41	UL	D	0.42	UL	D
ARSENIC		4			1.6			3.3			1.4	J	P
BARIUM		43			11	J	P	32			21	J	P
BERYLLIUM		0.44	J	P	0.041	U		0.36	J	P	0.047	U	
CADMIUM		0.037	U		0.034	U		0.038	U		0.039	U	
CHROMIUM		18			5.1			15			5.3		
COBALT		5			0.61	J	P	3.6			0.94	J	P
COPPER		18			4.8	K	C	11			6.4		
LEAD		21			4			9.8			12		
MERCURY		0.3			0.016	U		0.1	J	P	0.035	J	P
MOLYBDENUM		0.3	B	A	0.26	U		0.62	B	A	0.29	U	
NICKEL		9.6			1.2	J	P	6.2			1.9	J	P
SELENIUM		0.51	J	P	0.43	U		0.48	U		0.61	J	P
SILVER		0.44	J	P	0.095	U		0.11	J	P	0.11	U	
THALLIUM		0.56	U		0.52	U		0.58	U		0.6	U	
VANADIUM		29			8.3			25			9.6		
ZINC		43			7.7	K	C	23			14		

PROJ_NO: 03279	NSAMPLE	GSP-SB-91-0-2			GSP-SB-91-8-10			GSP-SB-92-0-2			GSP-SB-92-6-8		
SDG: 240-681-1	LAB_ID	240-681-10			240-681-11			240-681-30			240-681-31		
FRACTION: M	SAMP_DATE	6/1/2011			6/1/2011			6/1/2011			6/1/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	91.0			84.8			96.5			86.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.4	UL	D	0.46	UL	D	0.37	UL	D	0.39	UL	D
ARSENIC		2.3			6.8			1.6			1	J	P
BARIUM		11	J	P	3.7	J	P	8.3	J	P	5.6	J	P
BERYLLIUM		0.045	J	P	0.05	U		0.041	U		0.043	U	
CADMIUM		0.037	U		0.042	U		0.034	U		0.036	U	
CHROMIUM		7.1			39			3.6			4.6		
COBALT		1			0.47	J	P	0.79	J	P	0.45	J	P
COPPER		4.4	K	C	3.6	K	C	6.6			1.9	J	CP
LEAD		6.4			4.5			3.9			1.4	K	C
MERCURY		0.086	J	P	0.016	U		0.015	U		0.016	U	
MOLYBDENUM		0.28	U		0.53	B	A	1	B	A	0.34	B	A
NICKEL		2	J	P	0.33	J	P	2.5	J	P	0.51	J	P
SELENIUM		0.46	U		0.53	U		0.43	U		0.45	U	
SILVER		0.1	U		0.12	U		0.095	U		0.1	U	
THALLIUM		0.57	U		0.64	U		0.52	U		0.56	U	
VANADIUM		13			93			5.9			6.7		
ZINC		11			2.4	B	A	10			2.4	J	CP

PROJ_NO: 03279	NSAMPLE	GSP-SB-93-0-2			GSP-SB-93-12-14			GSP-SB-94-0-2			GSP-SB-94-6-8		
SDG: 240-681-1	LAB_ID	240-681-27			240-681-28			240-681-16			240-681-17		
FRACTION: M	SAMP_DATE	6/1/2011			6/1/2011			6/1/2011			6/1/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	90.3			84.1			90.2			81.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.36	UL	D	0.38	UL	D	0.42	UL	D	0.44	UL	D
ARSENIC		2.8			0.85	J	P	2.1			0.34	U	
BARIUM		11	J	P	1.1	J	P	22			1.7	J	P
BERYLLIUM		0.077	J	P	0.042	U		0.046	J	P	0.048	U	
CADMIUM		0.033	U		0.035	U		0.039	U		0.04	U	
CHROMIUM		7.2			5.9			7.2			1.4	K	C
COBALT		1.2			0.15	U		2			0.23	J	P
COPPER		6			0.73	J	CP	38			0.83	U	
LEAD		5.9			1.2	K	C	12			0.47	J	CP
MERCURY		0.06	J	P	0.011	U		0.063	J	P	0.018	U	
MOLYBDENUM		0.39	B	A	0.28	B	A	0.54	B	A	0.3	U	
NICKEL		1.9	J	P	0.26	U		4	J	P	0.3	U	
SELENIUM		0.42	U		0.43	U		0.49	J	P	0.5	U	
SILVER		0.093	U		0.097	U		0.11	U		0.11	U	
THALLIUM		0.51	U		0.53	U		0.59	U		0.62	U	
VANADIUM		14			6.6			17			1.3		
ZINC		13			0.97	U		41			1.5	B	A

PROJ_NO: 03279	NSAMPLE	GSP-SB-95-0-2			GSP-SB-95-6-8			GSP-SB-96-0-2			GSP-SB-96-6-8		
SDG: 240-681-1	LAB_ID	240-681-7			240-681-8			240-681-19			240-681-20		
FRACTION: M	SAMP_DATE	6/1/2011			6/1/2011			6/1/2011			6/1/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	91.4			86.9			88.6			91.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.35	UL	D	0.44	UL	D	0.38	UL	D	0.4	UL	D
ARSENIC		1.2	J	P	6.4			1.6			1	J	P
BARIUM		6.9	J	P	4.5	J	P	41			3.5	J	P
BERYLLIUM		0.038	U		0.048	U		0.52			0.044	U	
CADMIUM		0.032	U		0.041	U		0.035	U		0.037	U	
CHROMIUM		3.3			18			5.3			2	K	C
COBALT		0.69	J	P	0.37	J	P	1.4			0.19	J	P
COPPER		2.3	K	C	4.3	K	C	15			0.76	J	CP
LEAD		2.5			1.7	K	C	16			1.1	K	C
MERCURY		0.037	J	P	0.011	J	P	0.017	U		0.015	U	
MOLYBDENUM		0.29	B	A	0.88	B	A	0.42	B	A	0.28	U	
NICKEL		0.82	J	P	0.42	J	P	2.6	J	P	0.28	U	
SELENIUM		0.4	U		0.51	U		0.46	J	P	0.46	U	
SILVER		0.089	U		0.11	U		0.098	U		0.1	U	
THALLIUM		0.49	U		0.62	U		0.54	U		0.56	U	
VANADIUM		5.9			25			8.6			4.3		
ZINC		5	B	A	2.8	B	A	22			1.5	B	A

PROJ_NO: 03279	NSAMPLE	GSP-SB-97-0-2			GSP-SB-97-6-8			GSP-SB-98-0-2			GSP-SB-98-6-8		
SDG: 240-681-1	LAB_ID	240-681-25			240-681-26			240-681-33			240-681-34		
FRACTION: M	SAMP_DATE	6/1/2011			6/1/2011			6/1/2011			6/1/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	92.0			86.6			90.1			86.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.42	U		0.39	UL	D	0.32	UL	D	0.43	UL	D
ARSENIC		1.8			3			2			1.7		
BARIUM		5.1	J	P	6.3	J	P	30			5.8	J	P
BERYLLIUM		0.046	U		0.043	U		0.047	J	P	0.048	U	
CADMIUM		0.039	U		0.036	U		0.03	U		0.04	U	
CHROMIUM		3.1			5.1			8.1			5		
COBALT		0.59	J	P	0.43	J	P	1.7			0.29	J	P
COPPER		2.2	J	P	6.3			4	K	C	2.8	K	C
LEAD		1.9	K	C	1.7	K	C	4.7			1.3	K	C
MERCURY		0.015	U		0.014	U		0.013	J	P	0.017	U	
MOLYBDENUM		0.45	B	A	0.34	B	A	0.22	B	A	0.3	U	
NICKEL		0.89	J	P	1.2	J	P	3.8			0.47	J	P
SELENIUM		0.48	U		0.45	U		0.37	U		0.5	U	
SILVER		0.11	U		0.1	U		0.083	U		0.11	U	
THALLIUM		0.59	U		0.55	U		0.46	U		0.61	U	
VANADIUM		5.8			8.9			14			9.5		
ZINC		4.6	B	A	3.2	B	A	12			1.8	J	CP

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-104-0-2
Lab Sample ID: 240-681-4
Lab Name: TestAmerica North Canton
Job No.: 240-681-1
SDG ID.:
Matrix: Solid
Date Sampled: 06/01/2011 10:00
Reporting Basis: DRY
Date Received: 06/02/2011 09:15
% Solids: 87.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.1	2.1	0.40	mg/Kg	U		1	6010C
7440-38-2	Arsenic	3.3	1.5	0.31	mg/Kg			1	6010C
7440-39-3	Barium	25	21	0.073	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.21	0.51	0.044	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.51	0.51	0.037	mg/Kg	U		1	6010C
7440-47-3	Chromium	11	1.0	0.21	mg/Kg			1	6010C
7440-48-4	Cobalt	3.2	1.0	0.16	mg/Kg			1	6010C
7440-50-8	Copper	7.3	2.6	0.76	mg/Kg			1	6010C
7439-92-1	Lead	9.7	1.0	0.20	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.49	4.1	0.28	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	5.2	4.1	0.28	mg/Kg			1	6010C
7782-49-2	Selenium	0.62	2.1	0.46	mg/Kg	J		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.1	2.1	0.57	mg/Kg	U		1	6010C
7440-62-2	Vanadium	19	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	22	5.1	1.0	mg/Kg		B	1	6010C
7439-97-6	Hg	0.037	0.091	0.014	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-104-6-8 | Lab Sample ID: 240-681-5

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG ID.:

Matrix: Solid | Date Sampled: 06/01/2011 10:15

Reporting Basis: DRY | Date Received: 06/02/2011 09:15

% Solids: 78.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.3	2.3	0.45	mg/Kg	U		1	6010C
7440-38-2	Arsenic	2.5	1.7	0.34	mg/Kg			1	6010C
7440-39-3	Barium	6.5	23	0.081	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.57	0.57	0.049	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.57	0.57	0.041	mg/Kg	U		1	6010C
7440-47-3	Chromium	6.7	1.1	0.23	mg/Kg			1	6010C
7440-48-4	Cobalt	0.81	1.1	0.18	mg/Kg	J		1	6010C
7440-50-8	Copper	4.0	2.9	0.85	mg/Kg			1	6010C
7439-92-1	Lead	1.9	1.1	0.22	mg/Kg			1	6010C
7439-98-7	Molybdenum	4.6	4.6	0.31	mg/Kg	U		1	6010C
7440-02-0	Nickel	1.3	4.6	0.31	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.3	2.3	0.52	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.3	2.3	0.63	mg/Kg	U		1	6010C
7440-62-2	Vanadium	17	1.1	0.14	mg/Kg			1	6010C
7440-66-6	Zinc	5.2	5.7	1.1	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.095	0.095	0.014	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-106-0-2 | Lab Sample ID: 240-681-22

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG ID.:

Matrix: Solid | Date Sampled: 06/01/2011 10:10

Reporting Basis: DRY | Date Received: 06/02/2011 09:15

% Solids: 91.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.2	0.43	mg/Kg	U		1	6010C
7440-38-2	Arsenic	3.1	1.6	0.33	mg/Kg			1	6010C
7440-39-3	Barium	25	22	0.078	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.15	0.55	0.047	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.55	0.55	0.040	mg/Kg	U		1	6010C
7440-47-3	Chromium	12	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	2.9	1.1	0.18	mg/Kg			1	6010C
7440-50-8	Copper	9.6	2.7	0.81	mg/Kg			1	6010C
7439-92-1	Lead	7.8	1.1	0.21	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.61	4.4	0.30	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	4.7	4.4	0.30	mg/Kg			1	6010C
7782-49-2	Selenium	0.56	2.2	0.49	mg/Kg	J		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.2	2.2	0.60	mg/Kg	U		1	6010C
7440-62-2	Vanadium	19	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	20	5.5	1.1	mg/Kg		B	1	6010C
7439-97-6	Hg	0.060	0.10	0.015	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-106-6-8
Lab Sample ID: 240-681-23
Lab Name: TestAmerica North Canton
Job No.: 240-681-1
SDG ID.:
Matrix: Solid
Date Sampled: 06/01/2011 10:15
Reporting Basis: DRY
Date Received: 06/02/2011 09:15
% Solids: 82.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.2	0.42	mg/Kg	U		1	6010C
7440-38-2	Arsenic	4.1	1.6	0.33	mg/Kg			1	6010C
7440-39-3	Barium	8.9	22	0.077	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.084	0.54	0.047	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.54	0.54	0.039	mg/Kg	U		1	6010C
7440-47-3	Chromium	11	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	2.7	1.1	0.17	mg/Kg			1	6010C
7440-50-8	Copper	7.5	2.7	0.80	mg/Kg			1	6010C
7439-92-1	Lead	2.6	1.1	0.21	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.56	4.3	0.29	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	1.5	4.3	0.29	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.2	2.2	0.49	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.2	2.2	0.60	mg/Kg	U		1	6010C
7440-62-2	Vanadium	26	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	6.5	5.4	1.1	mg/Kg		B	1	6010C
7439-97-6	Hg	0.12	0.12	0.018	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-113-0-2 Lab Sample ID: 240-681-13

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG ID.:

Matrix: Solid Date Sampled: 06/01/2011 08:59

Reporting Basis: DRY Date Received: 06/02/2011 09:15

% Solids: 88.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.41	2.0	0.40	mg/Kg	J		1	6010C
7440-38-2	Arsenic	4.0	1.5	0.31	mg/Kg			1	6010C
7440-39-3	Barium	43	20	0.073	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.44	0.51	0.044	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.51	0.51	0.037	mg/Kg	U		1	6010C
7440-47-3	Chromium	18	1.0	0.20	mg/Kg			1	6010C
7440-48-4	Cobalt	5.0	1.0	0.16	mg/Kg			1	6010C
7440-50-8	Copper	18	2.6	0.76	mg/Kg			1	6010C
7439-92-1	Lead	21	1.0	0.19	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.30	4.1	0.28	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	9.6	4.1	0.28	mg/Kg			1	6010C
7782-49-2	Selenium	0.51	2.0	0.46	mg/Kg	J		1	6010C
7440-22-4	Silver	0.44	1.0	0.10	mg/Kg	J		1	6010C
7440-28-0	Thallium	2.0	2.0	0.56	mg/Kg	U		1	6010C
7440-62-2	Vanadium	29	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	43	5.1	1.0	mg/Kg		B	1	6010C
7439-97-6	Hg	0.30	0.091	0.014	mg/Kg			1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-113-6-8 Lab Sample ID: 240-681-14

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG ID.:

Matrix: Solid Date Sampled: 06/01/2011 09:05

Reporting Basis: DRY Date Received: 06/02/2011 09:15

% Solids: 89.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.9	1.9	0.37	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.6	1.4	0.29	mg/Kg			1	6010C
7440-39-3	Barium	11	19	0.068	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.48	0.48	0.041	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.48	0.48	0.034	mg/Kg	U		1	6010C
7440-47-3	Chromium	5.1	0.95	0.19	mg/Kg			1	6010C
7440-48-4	Cobalt	0.61	0.95	0.15	mg/Kg	J		1	6010C
7440-50-8	Copper	4.8	2.4	0.71	mg/Kg			1	6010C
7439-92-1	Lead	4.0	0.95	0.18	mg/Kg			1	6010C
7439-98-7	Molybdenum	3.8	3.8	0.26	mg/Kg	U		1	6010C
7440-02-0	Nickel	1.2	3.8	0.26	mg/Kg	J		1	6010C
7782-49-2	Selenium	1.9	1.9	0.43	mg/Kg	U		1	6010C
7440-22-4	Silver	0.95	0.95	0.095	mg/Kg	U		1	6010C
7440-28-0	Thallium	1.9	1.9	0.52	mg/Kg	U		1	6010C
7440-62-2	Vanadium	8.3	0.95	0.11	mg/Kg			1	6010C
7440-66-6	Zinc	7.7	4.8	0.95	mg/Kg		B	1	6010C
7439-97-6	Hg	0.11	0.11	0.016	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-114-0-2
Lab Sample ID: 240-681-1
Lab Name: TestAmerica North Canton
Job No.: 240-681-1
SDG ID.:
Matrix: Solid
Date Sampled: 06/01/2011 09:20
Reporting Basis: DRY
Date Received: 06/02/2011 09:15
% Solids: 89.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.1	2.1	0.41	mg/Kg	U		1	6010C
7440-38-2	Arsenic	3.3	1.6	0.32	mg/Kg			1	6010C
7440-39-3	Barium	32	21	0.075	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.36	0.53	0.045	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.53	0.53	0.038	mg/Kg	U		1	6010C
7440-47-3	Chromium	15	1.1	0.21	mg/Kg			1	6010C
7440-48-4	Cobalt	3.6	1.1	0.17	mg/Kg			1	6010C
7440-50-8	Copper	11	2.6	0.78	mg/Kg			1	6010C
7439-92-1	Lead	9.8	1.1	0.20	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.62	4.2	0.29	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	6.2	4.2	0.29	mg/Kg			1	6010C
7782-49-2	Selenium	2.1	2.1	0.48	mg/Kg	U		1	6010C
7440-22-4	Silver	0.11	1.1	0.11	mg/Kg	J		1	6010C
7440-28-0	Thallium	2.1	2.1	0.58	mg/Kg	U		1	6010C
7440-62-2	Vanadium	25	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	23	5.3	1.1	mg/Kg		B	1	6010C
7439-97-6	Hg	0.10	0.11	0.016	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-114-6-8
Lab Sample ID: 240-681-2
Lab Name: TestAmerica North Canton
Job No.: 240-681-1
SDG ID.:
Matrix: Solid
Date Sampled: 06/01/2011 09:30
Reporting Basis: DRY
Date Received: 06/02/2011 09:15
% Solids: 86.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.2	0.42	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.4	1.6	0.33	mg/Kg	J		1	6010C
7440-39-3	Barium	21	22	0.077	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.54	0.54	0.047	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.54	0.54	0.039	mg/Kg	U		1	6010C
7440-47-3	Chromium	5.3	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	0.94	1.1	0.17	mg/Kg	J		1	6010C
7440-50-8	Copper	6.4	2.7	0.81	mg/Kg			1	6010C
7439-92-1	Lead	12	1.1	0.21	mg/Kg			1	6010C
7439-98-7	Molybdenum	4.4	4.4	0.29	mg/Kg	U		1	6010C
7440-02-0	Nickel	1.9	4.4	0.29	mg/Kg	J		1	6010C
7782-49-2	Selenium	0.61	2.2	0.49	mg/Kg	J		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.2	2.2	0.60	mg/Kg	U		1	6010C
7440-62-2	Vanadium	9.6	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	14	5.4	1.1	mg/Kg		B	1	6010C
7439-97-6	Hg	0.035	0.088	0.013	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-91-0-2 Lab Sample ID: 240-681-10

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG ID.:

Matrix: Solid Date Sampled: 06/01/2011 12:15

Reporting Basis: DRY Date Received: 06/02/2011 09:15

% Solids: 91.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.1	2.1	0.40	mg/Kg	U		1	6010C
7440-38-2	Arsenic	2.3	1.5	0.31	mg/Kg			1	6010C
7440-39-3	Barium	11	21	0.073	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.045	0.51	0.044	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.51	0.51	0.037	mg/Kg	U		1	6010C
7440-47-3	Chromium	7.1	1.0	0.21	mg/Kg			1	6010C
7440-48-4	Cobalt	1.0	1.0	0.16	mg/Kg			1	6010C
7440-50-8	Copper	4.4	2.6	0.76	mg/Kg			1	6010C
7439-92-1	Lead	6.4	1.0	0.20	mg/Kg			1	6010C
7439-98-7	Molybdenum	4.1	4.1	0.28	mg/Kg	U		1	6010C
7440-02-0	Nickel	2.0	4.1	0.28	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.1	2.1	0.46	mg/Kg	U		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.1	2.1	0.57	mg/Kg	U		1	6010C
7440-62-2	Vanadium	13	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	11	5.1	1.0	mg/Kg		B	1	6010C
7439-97-6	Hg	0.086	0.11	0.016	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-91-8-10 Lab Sample ID: 240-681-11

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG ID.:

Matrix: Solid Date Sampled: 06/01/2011 12:30

Reporting Basis: DRY Date Received: 06/02/2011 09:15

% Solids: 84.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.3	2.3	0.46	mg/Kg	U		1	6010C
7440-38-2	Arsenic	6.8	1.8	0.35	mg/Kg			1	6010C
7440-39-3	Barium	3.7	23	0.083	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.58	0.58	0.050	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.58	0.58	0.042	mg/Kg	U		1	6010C
7440-47-3	Chromium	39	1.2	0.23	mg/Kg			1	6010C
7440-48-4	Cobalt	0.47	1.2	0.19	mg/Kg	J		1	6010C
7440-50-8	Copper	3.6	2.9	0.86	mg/Kg			1	6010C
7439-92-1	Lead	4.5	1.2	0.22	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.53	4.7	0.32	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	0.33	4.7	0.32	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.3	2.3	0.53	mg/Kg	U		1	6010C
7440-22-4	Silver	1.2	1.2	0.12	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.3	2.3	0.64	mg/Kg	U		1	6010C
7440-62-2	Vanadium	93	1.2	0.14	mg/Kg			1	6010C
7440-66-6	Zinc	2.4	5.8	1.2	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.11	0.11	0.016	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-92-0-2 Lab Sample ID: 240-681-30

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG ID.:

Matrix: Solid Date Sampled: 06/01/2011 14:14

Reporting Basis: DRY Date Received: 06/02/2011 09:15

% Solids: 96.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.9	1.9	0.37	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.6	1.4	0.29	mg/Kg			1	6010C
7440-39-3	Barium	8.3	19	0.068	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.48	0.48	0.041	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.48	0.48	0.034	mg/Kg	U		1	6010C
7440-47-3	Chromium	3.6	0.95	0.19	mg/Kg			1	6010C
7440-48-4	Cobalt	0.79	0.95	0.15	mg/Kg	J		1	6010C
7440-50-8	Copper	6.6	2.4	0.70	mg/Kg			1	6010C
7439-92-1	Lead	3.9	0.95	0.18	mg/Kg			1	6010C
7439-98-7	Molybdenum	1.0	3.8	0.26	mg/Kg	J	B ^	1	6010C
7440-02-0	Nickel	2.5	3.8	0.26	mg/Kg	J		1	6010C
7782-49-2	Selenium	1.9	1.9	0.43	mg/Kg	U		1	6010C
7440-22-4	Silver	0.95	0.95	0.095	mg/Kg	U		1	6010C
7440-28-0	Thallium	1.9	1.9	0.52	mg/Kg	U		1	6010C
7440-62-2	Vanadium	5.9	0.95	0.11	mg/Kg			1	6010C
7440-66-6	Zinc	10	4.8	0.95	mg/Kg			1	6010C
7439-97-6	Hg	0.10	0.10	0.015	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-92-6-8
Lab Sample ID: 240-681-31
Lab Name: TestAmerica North Canton
Job No.: 240-681-1
SDG ID.:
Matrix: Solid
Date Sampled: 06/01/2011 14:15
Reporting Basis: DRY
Date Received: 06/02/2011 09:15
% Solids: 86.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.39	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.0	1.5	0.30	mg/Kg	J		1	6010C
7440-39-3	Barium	5.6	20	0.072	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.51	0.51	0.043	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.51	0.51	0.036	mg/Kg	U		1	6010C
7440-47-3	Chromium	4.6	1.0	0.20	mg/Kg			1	6010C
7440-48-4	Cobalt	0.45	1.0	0.16	mg/Kg	J		1	6010C
7440-50-8	Copper	1.9	2.5	0.75	mg/Kg	J		1	6010C
7439-92-1	Lead	1.4	1.0	0.19	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.34	4.0	0.27	mg/Kg	J	B ^	1	6010C
7440-02-0	Nickel	0.51	4.0	0.27	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.0	2.0	0.45	mg/Kg	U		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.0	2.0	0.56	mg/Kg	U		1	6010C
7440-62-2	Vanadium	6.7	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	2.4	5.1	1.0	mg/Kg	J		1	6010C
7439-97-6	Hg	0.11	0.11	0.016	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-93-0-2
Lab Sample ID: 240-681-27
Lab Name: TestAmerica North Canton
Job No.: 240-681-1
SDG ID.:
Matrix: Solid
Date Sampled: 06/01/2011 12:21
Reporting Basis: DRY
Date Received: 06/02/2011 09:15
% Solids: 90.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.9	1.9	0.36	mg/Kg	U		1	6010C
7440-38-2	Arsenic	2.8	1.4	0.28	mg/Kg			1	6010C
7440-39-3	Barium	11	19	0.066	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.077	0.47	0.040	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.47	0.47	0.033	mg/Kg	U		1	6010C
7440-47-3	Chromium	7.2	0.93	0.19	mg/Kg			1	6010C
7440-48-4	Cobalt	1.2	0.93	0.15	mg/Kg			1	6010C
7440-50-8	Copper	6.0	2.3	0.69	mg/Kg			1	6010C
7439-92-1	Lead	5.9	0.93	0.18	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.39	3.7	0.25	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	1.9	3.7	0.25	mg/Kg	J		1	6010C
7782-49-2	Selenium	1.9	1.9	0.42	mg/Kg	U		1	6010C
7440-22-4	Silver	0.93	0.93	0.093	mg/Kg	U		1	6010C
7440-28-0	Thallium	1.9	1.9	0.51	mg/Kg	U		1	6010C
7440-62-2	Vanadium	14	0.93	0.11	mg/Kg			1	6010C
7440-66-6	Zinc	13	4.7	0.93	mg/Kg		B	1	6010C
7439-97-6	Hg	0.060	0.11	0.016	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-93-12-14 Lab Sample ID: 240-681-28

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG ID.:

Matrix: Solid Date Sampled: 06/01/2011 12:25

Reporting Basis: DRY Date Received: 06/02/2011 09:15

% Solids: 84.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.9	1.9	0.38	mg/Kg	U		1	6010C
7440-38-2	Arsenic	0.85	1.4	0.29	mg/Kg	J		1	6010C
7440-39-3	Barium	1.1	19	0.069	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.48	0.48	0.042	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.48	0.48	0.035	mg/Kg	U		1	6010C
7440-47-3	Chromium	5.9	0.97	0.19	mg/Kg			1	6010C
7440-48-4	Cobalt	0.97	0.97	0.15	mg/Kg	U		1	6010C
7440-50-8	Copper	0.73	2.4	0.71	mg/Kg	J		1	6010C
7439-92-1	Lead	1.2	0.97	0.18	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.28	3.9	0.26	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	3.9	3.9	0.26	mg/Kg	U		1	6010C
7782-49-2	Selenium	1.9	1.9	0.43	mg/Kg	U		1	6010C
7440-22-4	Silver	0.97	0.97	0.097	mg/Kg	U		1	6010C
7440-28-0	Thallium	1.9	1.9	0.53	mg/Kg	U		1	6010C
7440-62-2	Vanadium	6.6	0.97	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	4.8	4.8	0.97	mg/Kg	U		1	6010C
7439-97-6	Hg	0.074	0.074	0.011	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-94-0-2 Lab Sample ID: 240-681-16

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG ID.:

Matrix: Solid Date Sampled: 06/01/2011 14:20

Reporting Basis: DRY Date Received: 06/02/2011 09:15

% Solids: 90.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.2	0.42	mg/Kg	U		1	6010C
7440-38-2	Arsenic	2.1	1.6	0.32	mg/Kg			1	6010C
7440-39-3	Barium	22	22	0.076	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.046	0.54	0.046	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.54	0.54	0.039	mg/Kg	U		1	6010C
7440-47-3	Chromium	7.2	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	2.0	1.1	0.17	mg/Kg			1	6010C
7440-50-8	Copper	38	2.7	0.80	mg/Kg			1	6010C
7439-92-1	Lead	12	1.1	0.20	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.54	4.3	0.29	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	4.0	4.3	0.29	mg/Kg	J		1	6010C
7782-49-2	Selenium	0.49	2.2	0.48	mg/Kg	J		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.2	2.2	0.59	mg/Kg	U		1	6010C
7440-62-2	Vanadium	17	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	41	5.4	1.1	mg/Kg		B	1	6010C
7439-97-6	Hg	0.063	0.10	0.015	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-94-6-8 Lab Sample ID: 240-681-17

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG ID.:

Matrix: Solid Date Sampled: 06/01/2011 14:30

Reporting Basis: DRY Date Received: 06/02/2011 09:15

% Solids: 81.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.2	0.44	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.7	1.7	0.34	mg/Kg	U		1	6010C
7440-39-3	Barium	1.7	22	0.079	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.56	0.56	0.048	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.56	0.56	0.040	mg/Kg	U		1	6010C
7440-47-3	Chromium	1.4	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	0.23	1.1	0.18	mg/Kg	J		1	6010C
7440-50-8	Copper	2.8	2.8	0.83	mg/Kg	U		1	6010C
7439-92-1	Lead	0.47	1.1	0.21	mg/Kg	J		1	6010C
7439-98-7	Molybdenum	4.5	4.5	0.30	mg/Kg	U		1	6010C
7440-02-0	Nickel	4.5	4.5	0.30	mg/Kg	U		1	6010C
7782-49-2	Selenium	2.2	2.2	0.50	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.2	2.2	0.62	mg/Kg	U		1	6010C
7440-62-2	Vanadium	1.3	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	1.5	5.6	1.1	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.12	0.12	0.018	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-95-0-2
Lab Sample ID: 240-681-7
Lab Name: TestAmerica North Canton
Job No.: 240-681-1
SDG ID.:
Matrix: Solid
Date Sampled: 06/01/2011 11:05
Reporting Basis: DRY
Date Received: 06/02/2011 09:15
% Solids: 91.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.8	1.8	0.35	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.2	1.3	0.27	mg/Kg	J		1	6010C
7440-39-3	Barium	6.9	18	0.063	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.44	0.44	0.038	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.44	0.44	0.032	mg/Kg	U		1	6010C
7440-47-3	Chromium	3.3	0.89	0.18	mg/Kg			1	6010C
7440-48-4	Cobalt	0.69	0.89	0.14	mg/Kg	J		1	6010C
7440-50-8	Copper	2.3	2.2	0.66	mg/Kg			1	6010C
7439-92-1	Lead	2.5	0.89	0.17	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.29	3.6	0.24	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	0.82	3.6	0.24	mg/Kg	J		1	6010C
7782-49-2	Selenium	1.8	1.8	0.40	mg/Kg	U		1	6010C
7440-22-4	Silver	0.89	0.89	0.089	mg/Kg	U		1	6010C
7440-28-0	Thallium	1.8	1.8	0.49	mg/Kg	U		1	6010C
7440-62-2	Vanadium	5.9	0.89	0.11	mg/Kg			1	6010C
7440-66-6	Zinc	5.0	4.4	0.89	mg/Kg		B	1	6010C
7439-97-6	Hg	0.037	0.11	0.016	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-95-6-8 Lab Sample ID: 240-681-8

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG ID.:

Matrix: Solid Date Sampled: 06/01/2011 11:15

Reporting Basis: DRY Date Received: 06/02/2011 09:15

% Solids: 86.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.3	2.3	0.44	mg/Kg	U		1	6010C
7440-38-2	Arsenic	6.4	1.7	0.34	mg/Kg			1	6010C
7440-39-3	Barium	4.5	23	0.080	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.56	0.56	0.048	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.56	0.56	0.041	mg/Kg	U		1	6010C
7440-47-3	Chromium	18	1.1	0.23	mg/Kg			1	6010C
7440-48-4	Cobalt	0.37	1.1	0.18	mg/Kg	J		1	6010C
7440-50-8	Copper	4.3	2.8	0.83	mg/Kg			1	6010C
7439-92-1	Lead	1.7	1.1	0.21	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.88	4.5	0.30	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	0.42	4.5	0.30	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.3	2.3	0.51	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.3	2.3	0.62	mg/Kg	U		1	6010C
7440-62-2	Vanadium	25	1.1	0.14	mg/Kg			1	6010C
7440-66-6	Zinc	2.8	5.6	1.1	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.011	0.073	0.011	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-96-0-2 | Lab Sample ID: 240-681-19

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG ID.:

Matrix: Solid | Date Sampled: 06/01/2011 15:15

Reporting Basis: DRY | Date Received: 06/02/2011 09:15

% Solids: 88.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.38	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.6	1.5	0.29	mg/Kg			1	6010C
7440-39-3	Barium	41	20	0.070	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.52	0.49	0.042	mg/Kg			1	6010C
7440-43-9	Cadmium	0.49	0.49	0.035	mg/Kg	U		1	6010C
7440-47-3	Chromium	5.3	0.98	0.20	mg/Kg			1	6010C
7440-48-4	Cobalt	1.4	0.98	0.16	mg/Kg			1	6010C
7440-50-8	Copper	15	2.5	0.73	mg/Kg			1	6010C
7439-92-1	Lead	16	0.98	0.19	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.42	3.9	0.26	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	2.6	3.9	0.26	mg/Kg	J		1	6010C
7782-49-2	Selenium	0.46	2.0	0.44	mg/Kg	J		1	6010C
7440-22-4	Silver	0.98	0.98	0.098	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.0	2.0	0.54	mg/Kg	U		1	6010C
7440-62-2	Vanadium	8.6	0.98	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	22	4.9	0.98	mg/Kg		B	1	6010C
7439-97-6	Hg	0.11	0.11	0.017	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-96-6-8 | Lab Sample ID: 240-681-20

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG ID.:

Matrix: Solid | Date Sampled: 06/01/2011 15:30

Reporting Basis: DRY | Date Received: 06/02/2011 09:15

% Solids: 91.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.40	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.0	1.5	0.31	mg/Kg	J		1	6010C
7440-39-3	Barium	3.5	20	0.072	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.51	0.51	0.044	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.51	0.51	0.037	mg/Kg	U		1	6010C
7440-47-3	Chromium	2.0	1.0	0.20	mg/Kg			1	6010C
7440-48-4	Cobalt	0.19	1.0	0.16	mg/Kg	J		1	6010C
7440-50-8	Copper	0.76	2.5	0.75	mg/Kg	J		1	6010C
7439-92-1	Lead	1.1	1.0	0.19	mg/Kg			1	6010C
7439-98-7	Molybdenum	4.1	4.1	0.28	mg/Kg	U		1	6010C
7440-02-0	Nickel	4.1	4.1	0.28	mg/Kg	U		1	6010C
7782-49-2	Selenium	2.0	2.0	0.46	mg/Kg	U		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.0	2.0	0.56	mg/Kg	U		1	6010C
7440-62-2	Vanadium	4.3	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	1.5	5.1	1.0	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.10	0.10	0.015	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-97-0-2
Lab Sample ID: 240-681-25
Lab Name: TestAmerica North Canton
Job No.: 240-681-1
SDG ID.:
Matrix: Solid
Date Sampled: 06/01/2011 11:17
Reporting Basis: DRY
Date Received: 06/02/2011 09:15
% Solids: 92.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.2	0.42	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.8	1.6	0.32	mg/Kg			1	6010C
7440-39-3	Barium	5.1	22	0.076	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.54	0.54	0.046	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.54	0.54	0.039	mg/Kg	U		1	6010C
7440-47-3	Chromium	3.1	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	0.59	1.1	0.17	mg/Kg	J		1	6010C
7440-50-8	Copper	2.2	2.7	0.80	mg/Kg	J		1	6010C
7439-92-1	Lead	1.9	1.1	0.20	mg/Kg		B	1	6010C
7439-98-7	Molybdenum	0.45	4.3	0.29	mg/Kg	J	B	1	6010C
7440-02-0	Nickel	0.89	4.3	0.29	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.2	2.2	0.48	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.2	2.2	0.59	mg/Kg	U		1	6010C
7440-62-2	Vanadium	5.8	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	4.6	5.4	1.1	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.097	0.097	0.015	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-97-6-8 | Lab Sample ID: 240-681-26

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG ID.:

Matrix: Solid | Date Sampled: 06/01/2011 11:20

Reporting Basis: DRY | Date Received: 06/02/2011 09:15

% Solids: 86.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.39	mg/Kg	U		1	6010C
7440-38-2	Arsenic	3.0	1.5	0.30	mg/Kg			1	6010C
7440-39-3	Barium	6.3	20	0.071	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.50	0.50	0.043	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.50	0.50	0.036	mg/Kg	U		1	6010C
7440-47-3	Chromium	5.1	1.0	0.20	mg/Kg			1	6010C
7440-48-4	Cobalt	0.43	1.0	0.16	mg/Kg	J		1	6010C
7440-50-8	Copper	6.3	2.5	0.74	mg/Kg			1	6010C
7439-92-1	Lead	1.7	1.0	0.19	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.34	4.0	0.27	mg/Kg	J	^	1	6010C
7440-02-0	Nickel	1.2	4.0	0.27	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.0	2.0	0.45	mg/Kg	U		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.0	2.0	0.55	mg/Kg	U		1	6010C
7440-62-2	Vanadium	8.9	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	3.2	5.0	1.0	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.090	0.090	0.014	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-98-0-2 Lab Sample ID: 240-681-33

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG ID.:

Matrix: Solid Date Sampled: 06/01/2011 15:19

Reporting Basis: DRY Date Received: 06/02/2011 09:15

% Solids: 90.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.7	1.7	0.32	mg/Kg	U		1	6010C
7440-38-2	Arsenic	2.0	1.2	0.25	mg/Kg			1	6010C
7440-39-3	Barium	30	17	0.059	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.047	0.41	0.036	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.41	0.41	0.030	mg/Kg	U		1	6010C
7440-47-3	Chromium	8.1	0.83	0.17	mg/Kg			1	6010C
7440-48-4	Cobalt	1.7	0.83	0.13	mg/Kg			1	6010C
7440-50-8	Copper	4.0	2.1	0.61	mg/Kg			1	6010C
7439-92-1	Lead	4.7	0.83	0.16	mg/Kg			1	6010C
7439-98-7	Molybdenum	0.22	3.3	0.22	mg/Kg	J	B ^	1	6010C
7440-02-0	Nickel	3.8	3.3	0.22	mg/Kg			1	6010C
7782-49-2	Selenium	1.7	1.7	0.37	mg/Kg	U		1	6010C
7440-22-4	Silver	0.83	0.83	0.083	mg/Kg	U		1	6010C
7440-28-0	Thallium	1.7	1.7	0.46	mg/Kg	U		1	6010C
7440-62-2	Vanadium	14	0.83	0.099	mg/Kg			1	6010C
7440-66-6	Zinc	12	4.1	0.83	mg/Kg			1	6010C
7439-97-6	Hg	0.013	0.087	0.013	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-98-6-8 Lab Sample ID: 240-681-34

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG ID.:

Matrix: Solid Date Sampled: 06/01/2011 15:25

Reporting Basis: DRY Date Received: 06/02/2011 09:15

% Solids: 86.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.2	0.43	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.7	1.7	0.33	mg/Kg			1	6010C
7440-39-3	Barium	5.8	22	0.079	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.55	0.55	0.048	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.55	0.55	0.040	mg/Kg	U		1	6010C
7440-47-3	Chromium	5.0	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	0.29	1.1	0.18	mg/Kg	J		1	6010C
7440-50-8	Copper	2.8	2.8	0.82	mg/Kg			1	6010C
7439-92-1	Lead	1.3	1.1	0.21	mg/Kg			1	6010C
7439-98-7	Molybdenum	4.4	4.4	0.30	mg/Kg	U		1	6010C
7440-02-0	Nickel	0.47	4.4	0.30	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.2	2.2	0.50	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.2	2.2	0.61	mg/Kg	U		1	6010C
7440-62-2	Vanadium	9.5	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	1.8	5.5	1.1	mg/Kg	J		1	6010C
7439-97-6	Hg	0.11	0.11	0.017	mg/Kg	U		1	7471B

APPENDIX C

SUPPORT DOCUMENTATION

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager:	Site Contact:	Lab Contact:	COC No:
Company Name: Tetra Tech	Dev Murali	Stu Cameron	Pat O'Meara	007036
Address: 20251 Century Blvd Ste 200	Telephone: (301) 528-5552	Telephone: (703) 347-8389	Telephone: (330) 497-9396	1 of 4 COCs
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@TetraTech.com	Analysis Turnaround Time (In BUS days)	Analyses	For lab use only
Phone: (301) 528-5552		TAT if different from below _____		Walk-in client:
Project Name: GSP Phase II	Method of Shipment/Carrier:	☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Lab pickup:
Project Number: 112IC03279	Shipping/Tracking No:			Lab sampling:
PO#				Job/SDG No:

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other: MeOH	VPAH	Filtered Sample (Y/N)	Composite=C / Grab=G	VOCs	SVOCs	Metals	Mercury	GRO	DRO	PCBs	Sample Specific Notes / Special Instructions:
GSP-SB-114-0-2	6-1-11	0920			X								3	3			G	X	X	X	X	X	X	X	
GSP-SB-114-6-8		0930											3	3				X	X	X	X	X	X	X	
GSP-SB-114-22-24		0923											2	3				X	X			X	X		
GSP-SB-104-0-2		1000											W	W				X	X	X	X	X	X	X	
GSP-SB-104-6-8		1015											W	W				X	X	X	X	X	X	X	
GSP-SB-104-22-24		1030											2	W				X	X			X	X		
GSP-SB-95-0-2		1105											W	W				X	X	X	X	X	X	X	
GSP-SB-95-6-8		1115											W	W				X	X	X	X	X	X	X	
GSP-SB-95-20-22		1130											2	W				X	X			X	X		
GSP-SB-91-0-2	↓	1215			↓								3	3			↓	X	X	X	X	X	X	X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received:	Company:	Date/Time:
[signature]	TT GEO	6/1/11 @1600	[signature]	TestAmerica	6-1-11 1618
Relinquished by: [signature]	Company: TestAmerica	Date/Time: 6-1-11 1750	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA	Date/Time: 6/2/11 915

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TAL 0018- 1 (04/10)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 007037
Address: 20251 Century Blvd Ste 200	Telephone: (301)528-5552	Telephone: (703)342-8389	Telephone: (330)497-9396	2 of 4 COCs
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@tetratech.com	Analysis Turnaround Time (in BUS days)		For lab use only
Phone: (301)528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No.
Project Name: GSP Phase II	Method of Shipment/Carrier:			
Project Number: 112IC03279-04	Shipping/Tracking No:			
PO#				

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: MeOH	UPBW	Filtered Sample (Y/N)	Composite-C / Grab-G	VOCs	SVOCs	Metals	Mercury	GRO	DRO	PCBs				Sample Specific Notes / Special Instructions:
GSP-SB-91-8-10	6/1/11	1230			X								3	3			G	X	X	X	X	X	X	X				
GSP-SB-91-22-24		1245											3	3				X	X			X	X					
GSP-SB-113-0-2		0859											3	3				X	X	X	X	X	X	X				
GSP-SB-113-6-8		0905											3	3				X	X	X	X	X	X	X				
GSP-SB-113-22-24		0907											2	3				X	X			X	X					
GSP-SB-94-0-2		1420											3	3				X	X	X	X	X	X	X				
GSP-SB-94-6-8		1430											3	3				X	X	X	X	X	X	X				
GSP-SB-94-20-22		1445											3	3				X	X			X	X					
GSP-SB-96-0-2		1515											3	3				X	X	X	X	X	X	X				
GSP-SB-96-6-8		1530											3	3				X	X	X	X	X	X	X				

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TT GEO	6/1/11 @ 1600	[signature]	TestAmerica	6/1/11 @ 1618
Maurice Hocker	TestAmerica	6-1-11 1750			
			Received in Laboratory by: [signature]	TA	6/2/11 915

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TAL 0018-1 (04/10)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location:
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 007038
Address: 20251 Century Blvd Ste 200	Telephone: (301) 528-5552	Telephone: (703) 347-8389	Telephone: (330) 497-9396	3 of 4 COCs
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@tetratech.com	Analysis Turnaround Time (in BUS days)		For lab use only: Walk-in Client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No.:
Phone: (301) 528-5551		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: GSP Phase II	Method of Shipment/Carrier:			
Project Number: 1R1C03279 -04	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other (specify)	Filtered Sample (Y/N)	Composite C / Grab G	Analyses: VOC	SVOC	Metals	Mercury	GRO	DRO	PCBs	Sample Specific Notes / Special Instructions:
GSP-SB-96-22-24	6/1/11	1545			X								3	3			X	X			X	X		
GSP-SB-106-0-2	↓	1010			↓								3	3			↓	↓	X	X	X	X	X	
GSP-SB-106-6-8		1015											3	3					X	X	X	X	X	
GSP-SB-106-20-22		1020											2	3							X	X		
GSP-SB-97-0-2		1117											3	3					X	X	X	X	X	
GSP-SB-97-6-8		1120											3	3					X	X	X	X	X	
GSP-SB-93-0-2		1221											3	3					X	X	X	X	X	
GSP-SB-93-12-14		1225											3	3					X	X	X	X	X	
GSP-SB-93-22-24		1230											2	3							X	X		
GSP-SB-92-0-2	↓	1414			↓								3	3			↓	↓	X	X	X	X	X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company: TetraTech GEO	Date/Time: 6/1/11 @ 1600	Received by:	Company: TestAmerica	Date/Time: 6/1/11 @ 1615
Relinquished by:	Company: TestAmerica	Date/Time: 6-1-11 / 1750	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA	Date/Time: 6/2/11 9AM

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TAL 0018- 1 (04/10)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Dawn Markiewicz	Lab Contact: Pat O'Meara	COC No: 007039
Address: 20251 Century Blvd.	Telephone: (301) 528-5552	Telephone: (724) 244-2701	Telephone: (330) 497-9396	4 of 4 COCs
City/State/Zip: Germantown, MD 20874	Email: Dev.Murali@TetraTech.com	Analysis Turnaround Time (in BUS days)		For lab use only
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: GSP	Method of Shipment/Carrier:			
Project Number: 112IC03279	Shipping/Tracking No:			Job/SDG No.
PO #				

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: Meoh UPBK	Filtered Sample (Y/N)	Composite-C/Grab-G	VOC	SVOC	GRO/DRO	Metals + Hg	PCB	Sample Specific Notes / Special Instructions:
GSP-SB-92-6-8	6/1/11	1415				X							3	3						X	X	
GSP-SB-92-22-25	↓	1420				X							2	3								
GSP-SB-98-0-2	↓	1519				X							3	3						X	X	
GSP-SB-98-6-8	↓	1525				X							3	3			↓	↓	↓	X	X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Tetra Tech GEO	6/1/11 @ 1600	[signature]	TestAmerica	6-1-11 1618
[signature]	TestAmerica	6-1-11 1750			
			Received in Laboratory by: [signature]	TA	6/2/11 915

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TAL 0018-1 (04/10)

CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: MSA Greater Strawberry Point PH. II 2011

Report Number: 240-681-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/02/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.4, 4.7, 5.4, and 5.9 C.

Analysis for the following sample(s) were cancelled by the client on 06/02/11: SVOCs only on GSP-SB-91-22-24, GSP-SB-92-22-25, GSP-SB-93-22-24, GSP-SB-94-20-22, GSP-SB-95-20-22, and GSP-SB-96-22-24; and all tests on GSP-SB-104-22-24 and GSP-SB-106-20-22.

All other samples were received in good condition within temperature requirements.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-SB-114-0-2 (240-681-1), GSP-SB-114-6-8 (240-681-2), GSP-SB-114-22-24 (240-681-3), GSP-SB-104-0-2 (240-681-4), GSP-SB-104-6-8 (240-681-5), GSP-SB-95-0-2 (240-681-7), GSP-SB-95-6-8 (240-681-8), GSP-SB-95-20-22 (240-681-9), GSP-SB-91-0-2 (240-681-10), GSP-SB-91-8-10 (240-681-11), GSP-SB-91-22-24 (240-681-12), GSP-SB-113-0-2 (240-681-13), GSP-SB-113-6-8 (240-681-14), GSP-SB-113-22-24 (240-681-15), GSP-SB-94-0-2 (240-681-16), GSP-SB-94-6-8 (240-681-17), GSP-SB-94-20-22 (240-681-18), GSP-SB-96-0-2 (240-681-19), GSP-SB-96-6-8 (240-681-20), GSP-SB-96-22-24 (240-681-21), GSP-SB-106-0-2 (240-681-22), GSP-SB-106-6-8 (240-681-23), GSP-SB-97-0-2 (240-681-25), GSP-SB-97-6-8 (240-681-26), GSP-SB-93-0-2 (240-681-27), GSP-SB-93-12-14 (240-681-28), GSP-SB-93-22-24 (240-681-29), GSP-SB-92-0-2 (240-681-30), GSP-SB-92-6-8 (240-681-31), GSP-SB-92-22-25 (240-681-32), GSP-SB-98-0-2 (240-681-33) and GSP-SB-98-6-8 (240-681-34) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/11/2011, 06/12/2011, 06/13/2011 and 06/14/2011.

o Methylene Chloride was detected in method blank MB 240-3932/1-A at a level exceeding the reporting limit.
o Naphthalene was detected in method blank MB 240-3932/1-A at a level that was above the method detection limit but below the reporting limit.
o 1,2,4-Trichlorobenzene, 4-Methyl-2-pentanone and Naphthalene were detected in method blank MB 240-4449/6 at levels that were above the method detection limit but below the reporting limit.
o Methylene Chloride was detected in method blank MB 240-4514/6 at a level exceeding the reporting limit.
o Acetone and Naphthalene were detected in method blank MB 240-4514/6 at levels that were above the method detection limit but below the reporting limit.

o Methylene Chloride was detected in method blank MB 240-4663/6 at a level exceeding the reporting limit.
o Acetone and Naphthalene were detected in method blank MB 240-4663/6 at levels that were above the method detection limit but below the reporting limit.

In each of these cases, the values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

o Chloroethane failed the recovery criteria high for LCS 240-3932/2-A.
o Chloroethane and Chloromethane failed the recovery criteria high for LCS 240-4514/5.
o Chloroethane and Chloromethane failed the recovery criteria high for LCS 240-4663/5.
Refer to the QC report for details.

The continuing calibration verification (CCV) for analytical batch 240-4663 recovered above the upper control limit for Chloroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample (LCS) for batch 240-4663 exceeded control limits for the following analytes: Chloroethane, Chloromethane and Cyclohexane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The method blanks associated with batches 240-4663 and 240-4514 contained Methylene Chloride greater than the reporting limit (RL). As Methylene Chloride is an identified common laboratory contaminant and the detection in the MB was less than 5X the RL, the data have been qualified and reported.

The continuing calibration verification (CCV) for analytical batch 240-4514 recovered above the upper control limit for Chloroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample (LCS) for batch 240-4514 exceeded control limits for the following analytes: Chloroethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

The laboratory control sample (LCS) for batch 3932 recovered outside acceptance limits for carbon disulfide, 1,2-dibromo-3-chloropropane, cis-1,3-dichloropropene, styrene, dichlorobromomethane, chloroethane, trans-1,3-dichloropropene, chlorodibromomethane, methylene chloride, and 1,1,1,2-tetrachloroethane. There was insufficient sample to perform a re-extraction or re-analysis; therefore, the data have been reported.

The method blank for preparation batch 3932 contained methylene chloride above the reporting limit (RL). There was insufficient sample to perform a re-extraction and/or re-analysis; therefore, the data have been reported.

There were no client requested matrix spike/matrix spike duplicate (MS/MSD) samples for batches 3932, 4449 and 4514.

All other samples were received in good condition within temperature requirements.

No other analytical or quality issues were noted.

All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples GSP-SB-114-0-2 (240-681-1), GSP-SB-114-6-8 (240-681-2), GSP-SB-114-22-24 (240-681-3), GSP-SB-104-0-2 (240-681-4), GSP-SB-104-6-8 (240-681-5), GSP-SB-95-0-2 (240-681-7), GSP-SB-95-6-8 (240-681-8), GSP-SB-91-0-2 (240-681-10), GSP-SB-91-8-10 (240-681-11), GSP-SB-113-0-2 (240-681-13), GSP-SB-113-6-8 (240-681-14), GSP-SB-113-22-24 (240-681-15), GSP-SB-94-0-2 (240-681-16), GSP-SB-94-6-8 (240-681-17), GSP-SB-96-0-2 (240-681-19), GSP-SB-96-6-8 (240-681-20), GSP-SB-106-0-2 (240-681-22), GSP-SB-106-6-8 (240-681-23), GSP-SB-97-0-2 (240-681-25), GSP-SB-97-6-8 (240-681-26), GSP-SB-93-0-2 (240-681-27), GSP-SB-93-12-14 (240-681-28), GSP-SB-92-0-2 (240-681-30), GSP-SB-92-6-8 (240-681-31), GSP-SB-98-0-2 (240-681-33) and GSP-SB-98-6-8 (240-681-34) were analyzed for Semi volatiles in accordance with 8270D. The samples were analyzed on 06/23/2011 and 06/24/2011.

Bis(2-ethylhexyl) phthalate was detected in method blanks MB 240-4146/1-A and 240-4323/23A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

o 2-Fluorobiphenyl (Surr) failed the surrogate recovery criteria low for GSP-SB-104-6-8 (240-681-5), GSP-SB-95-6-8 (240-681-8), GSP-SB-113-22-24 (240-681-15) and GSP-SB-106-6-8 (240-681-23).
o 3,3'-Dichlorobenzidine failed the recovery criteria low for LCS 240-4323/24-A. Refer to the QC report for details.
o 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and Hexachlorocyclopentadiene failed the recovery criteria low for the MS of sample GSP-SB-106-6-8MS (240-681-23) in batch 240-5756.
o Several analytes failed the recovery criteria low for the MSD of sample GSP-SB-106-6-8MSD (240-681-23) in batch 240-5756. Caprolactam and Hexachlorocyclopentadiene exceeded the rpd limit.

Refer to the QC report for details.

The following sample(s) contained one acid and/or one base surrogate outside acceptance limits: GSP-SB-104-6-8 (240-681-5), GSP-SB-106-6-8 (240-681-23), GSP-SB-113-22-24 (240-681-15), GSP-SB-95-6-8 (240-681-8). The laboratory's SOP allows one acid surrogate and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

The continuing calibration verification (CCV5756) for Bis(2-chloroethyl)ether, Benzaldehyde, and 4-Nitrophenol recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

3,3'-Dichlorobenzidine is out of control for LCS 4323. However no correction is necessary due to this compound not being a control analyte.

The following compounds were outside control limits in the continuing calibration verification (CCV) associated with batch 4146: 2-Methylphenol, 4-Nitrophenol, Benzaldehyde and bis(2-ethylhexyl)phthalate. These compounds are not classified as Calibration Check Compounds (CCCs) in the reference method, and the laboratory defaults to in-house and/or project-specific criteria for evaluation. Due to the large number of analytes contained in the CCV, the laboratory's SOP allows for 12 analytes to be outside limits; therefore, the data have been reported.

No other analytical or quality issues were noted.

All other quality control parameters were within the acceptance limits.

GRO

Samples GSP-SB-114-0-2 (240-681-1), GSP-SB-114-6-8 (240-681-2), GSP-SB-114-22-24 (240-681-3), GSP-SB-104-0-2 (240-681-4), GSP-SB-104-6-8 (240-681-5), GSP-SB-95-0-2 (240-681-7), GSP-SB-95-6-8 (240-681-8), GSP-SB-95-20-22 (240-681-9), GSP-SB-91-0-2 (240-681-10), GSP-SB-91-8-10 (240-681-11), GSP-SB-91-22-24 (240-681-12), GSP-SB-113-0-2 (240-681-13), GSP-SB-113-6-8 (240-681-14), GSP-SB-113-22-24 (240-681-15), GSP-SB-94-0-2 (240-681-16), GSP-SB-94-6-8 (240-681-17), GSP-SB-94-20-22 (240-681-18), GSP-SB-96-0-2 (240-681-19), GSP-SB-96-6-8 (240-681-20), GSP-SB-96-22-24 (240-681-21), GSP-SB-106-0-2 (240-681-22), GSP-SB-106-6-8 (240-681-23), GSP-SB-97-0-2 (240-681-25), GSP-SB-97-6-8 (240-681-26), GSP-SB-93-0-2 (240-681-27), GSP-SB-93-12-14 (240-681-28), GSP-SB-93-22-24 (240-681-29), GSP-SB-92-0-2 (240-681-30), GSP-SB-92-6-8 (240-681-31), GSP-SB-92-22-25 (240-681-32), GSP-SB-98-0-2 (240-681-33) and GSP-SB-98-6-8 (240-681-34) were analyzed for GRO in accordance with 8015C. The samples were analyzed on 06/10/2011, 06/12/2011 and 06/13/2011.

No difficulties were encountered during the GRO analyses.

All quality control parameters were within the acceptance limits.

DRO

Samples GSP-SB-114-0-2 (240-681-1), GSP-SB-114-6-8 (240-681-2), GSP-SB-114-22-24 (240-681-3), GSP-SB-104-0-2 (240-681-4), GSP-SB-104-6-8 (240-681-5), GSP-SB-95-0-2 (240-681-7), GSP-SB-95-6-8 (240-681-8), GSP-SB-95-20-22 (240-681-9), GSP-SB-91-0-2 (240-681-10), GSP-SB-91-8-10 (240-681-11), GSP-SB-91-22-24 (240-681-12), GSP-SB-113-0-2 (240-681-13), GSP-SB-113-6-8 (240-681-14), GSP-SB-113-22-24 (240-681-15), GSP-SB-94-0-2 (240-681-16), GSP-SB-94-6-8 (240-681-17), GSP-SB-94-20-22 (240-681-18), GSP-SB-96-0-2 (240-681-19), GSP-SB-96-6-8 (240-681-20), GSP-SB-96-22-24 (240-681-21), GSP-SB-106-0-2 (240-681-22), GSP-SB-106-6-8 (240-681-23), GSP-SB-97-0-2 (240-681-25), GSP-SB-97-6-8 (240-681-26), GSP-SB-93-0-2 (240-681-27), GSP-SB-93-12-14 (240-681-28), GSP-SB-93-22-24 (240-681-29), GSP-SB-92-0-2 (240-681-30), GSP-SB-92-6-8 (240-681-31), GSP-SB-92-22-25 (240-681-32), GSP-SB-98-0-2 (240-681-33) and GSP-SB-98-6-8 (240-681-34) were analyzed for DRO in accordance with 8015C. The samples were analyzed on 06/15/2011, 06/16/2011 and 06/21/2011.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-3872/23-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Sample GSP-SB-106-0-2 (240-681-22)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the DRO analyses.

All other quality control parameters were within the acceptance limits.

PCBS

Samples GSP-SB-114-0-2 (240-681-1), GSP-SB-114-6-8 (240-681-2), GSP-SB-104-0-2 (240-681-4), GSP-SB-104-6-8 (240-681-5), GSP-SB-95-0-2 (240-681-7), GSP-SB-95-6-8 (240-681-8), GSP-SB-91-0-2 (240-681-10), GSP-SB-91-8-10 (240-681-11), GSP-SB-113-0-2 (240-681-13), GSP-SB-113-6-8 (240-681-14), GSP-SB-94-0-2 (240-681-16), GSP-SB-94-6-8 (240-681-17), GSP-SB-96-0-2 (240-681-19), GSP-SB-96-6-8 (240-681-20), GSP-SB-106-0-2 (240-681-22), GSP-SB-106-6-8 (240-681-23),

GSP-SB-97-0-2 (240-681-25), GSP-SB-97-6-8 (240-681-26), GSP-SB-93-0-2 (240-681-27), GSP-SB-93-12-14 (240-681-28), GSP-SB-92-0-2 (240-681-30), GSP-SB-92-6-8 (240-681-31), GSP-SB-98-0-2 (240-681-33) and GSP-SB-98-6-8 (240-681-34) were analyzed for PCBs in accordance with 8082A. The samples were analyzed on 06/13/2011, 06/15/2011 and 06/22/2011.

Tetrachloro-m-xylene failed the surrogate recovery criteria low for GSP-SB-98-6-8 (240-681-34). Refer to the QC report for details.

The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: GSP-SB-114-0-2 (240-681-1), GSP-SB-114-6-8 (240-681-2), GSP-SB-104-0-2 (240-681-4), GSP-SB-104-6-8 (240-681-5), GSP-SB-95-0-2 (240-681-7), GSP-SB-95-6-8 (240-681-8), GSP-SB-91-0-2 (240-681-10), GSP-SB-91-8-10 (240-681-11), GSP-SB-113-0-2 (240-681-13), GSP-SB-94-0-2 (240-681-16), GSP-SB-94-6-8 (240-681-17), GSP-SB-96-0-2 (240-681-19), GSP-SB-106-0-2 (240-681-22), GSP-SB-106-6-8 (240-681-23), GSP-SB-97-0-2 (240-681-25), GSP-SB-97-6-8 (240-681-26), SB-93-0-2 (240-681-27), GSP-SB-93-12-14 (240-681-28), GSP-SB-92-0-2 (240-681-30), GSP-SB-92-6-8 (240-681-31), GSP-GSP-SB-98-0-2 (240-681-33), GSP-SB-98-6-8 (240-681-34).

The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: GSP-SB-96-0-2 (240-681-19). The sample(s) has been quantified and reported as Aroclor 1260. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Two surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: GSP-SB-98-6-8 (240-681-34). These results have been reported and qualified.

Surrogate recovery for the following sample was outside control limits: GSP-SB-106-6-8 (240-681-23). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results.

No other analytical or quality issues were noted.

All other quality control parameters were within the acceptance limits.

METALS (ICP)

Samples GSP-SB-114-0-2 (240-681-1), GSP-SB-114-6-8 (240-681-2), GSP-SB-104-0-2 (240-681-4), GSP-SB-104-6-8 (240-681-5), GSP-SB-95-0-2 (240-681-7), GSP-SB-95-6-8 (240-681-8), GSP-SB-91-0-2 (240-681-10), GSP-SB-91-8-10 (240-681-11), GSP-SB-113-0-2 (240-681-13), GSP-SB-113-6-8 (240-681-14), GSP-SB-94-0-2 (240-681-16), GSP-SB-94-6-8 (240-681-17), GSP-SB-96-0-2 (240-681-19), GSP-SB-96-6-8 (240-681-20), GSP-SB-106-0-2 (240-681-22), GSP-SB-106-6-8 (240-681-23), GSP-SB-97-0-2 (240-681-25), GSP-SB-97-6-8 (240-681-26), GSP-SB-93-0-2 (240-681-27), GSP-SB-93-12-14 (240-681-28), GSP-SB-92-0-2 (240-681-30), GSP-SB-92-6-8 (240-681-31), GSP-SB-98-0-2 (240-681-33) and GSP-SB-98-6-8 (240-681-34) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were analyzed on 07/05/2011 and 07/08/2011.

o Barium and Zinc were detected in method blank MB 240-5004/1-A at levels that were above the method detection limit but below the reporting limit.
o Barium and Molybdenum were detected in method blank MB 240-5038/1-A at levels that were above the method detection limit but below the reporting limit.
o Several analytes were detected in method blank MB 240-5161/1-A at levels that were above the method detection limit but below the reporting limit.

In each of these cases, the values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details

Antimony failed the recovery criteria low for the MS & MSD of sample GSP-SB-106-6-8MS (240-681-23) in batch 240-7218, and for the MS & MSD for sample GSP-SB-92-0-2MS and MSD of sample (240-681-30) in batch 240-7218. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

MERCURY

Samples GSP-SB-114-0-2 (240-681-1), GSP-SB-114-6-8 (240-681-2), GSP-SB-104-0-2 (240-681-4), GSP-SB-104-6-8 (240-681-5), GSP-SB-95-0-2 (240-681-7), GSP-SB-95-6-8 (240-681-8), GSP-SB-91-0-2 (240-681-10), GSP-SB-91-8-10 (240-681-11), GSP-SB-113-0-2 (240-681-13), GSP-SB-113-6-8 (240-681-14), GSP-SB-94-0-2 (240-681-16), GSP-SB-94-6-8 (240-681-17), GSP-SB-96-0-2 (240-681-19), GSP-SB-96-6-8 (240-681-20), GSP-SB-106-0-2 (240-681-22), GSP-SB-106-6-8 (240-681-23), GSP-SB-97-0-2 (240-681-25), GSP-SB-97-6-8 (240-681-26), GSP-SB-93-0-2 (240-681-27), GSP-SB-93-12-14 (240-681-28), GSP-SB-92-0-2 (240-681-30), GSP-SB-92-6-8 (240-681-31), GSP-SB-98-0-2 (240-681-33) and GSP-SB-98-6-8 (240-681-34) were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were analyzed on 06/17/2011.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples GSP-SB-114-0-2 (240-681-1), GSP-SB-114-6-8 (240-681-2), GSP-SB-114-22-24 (240-681-3), GSP-SB-104-0-2 (240-681-4), GSP-SB-104-6-8 (240-681-5), GSP-SB-95-0-2 (240-681-7), GSP-SB-95-6-8 (240-681-8), GSP-SB-95-20-22 (240-681-9), GSP-SB-91-0-2 (240-681-10), GSP-SB-91-8-10 (240-681-11), GSP-SB-91-22-24 (240-681-12), GSP-SB-113-0-2 (240-681-13), GSP-SB-113-6-8 (240-681-14), GSP-SB-113-22-24 (240-681-15), GSP-SB-94-0-2 (240-681-16), GSP-SB-94-6-8 (240-681-17), GSP-SB-94-20-22 (240-681-18), GSP-SB-96-0-2 (240-681-19), GSP-SB-96-6-8 (240-681-20), GSP-SB-96-22-24 (240-681-21), GSP-SB-106-0-2 (240-681-22), GSP-SB-106-6-8 (240-681-23), GSP-SB-97-0-2 (240-681-25), GSP-SB-97-6-8 (240-681-26), GSP-SB-93-0-2 (240-681-27), GSP-SB-93-12-14 (240-681-28), GSP-SB-93-22-24 (240-681-29), GSP-SB-92-0-2 (240-681-30), GSP-SB-92-6-8 (240-681-31), GSP-SB-92-22-25 (240-681-32), GSP-SB-98-0-2 (240-681-33) and GSP-SB-98-6-8 (240-681-34) were analyzed for percent solids in accordance with EPA SW846 3550C. The samples were analyzed on 06/03/2011.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

GSP-SB-918-10

Method: TOTAL Sample Name: 240-681-f-11-a Operator:
Run Time: 07/05/11 14:24 Filename: I60705A
Mode: CONC Type: S Corr. Factor: 1.00000
Lab ID.: N.CANTON Cust. Smpl. ID.: Cust. ID.:

Elems	Ag	Al	As	B	Ba	Be
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	.5552	5942.	58.10	-12.79	31.95	-1.349
SDev	.276	1.992	.1302	.0322	.027	.0225
%RSD	49.72	.0335	.2241	.2515	.0846	1.664

Elems	Ca	Cd	Co	Cr	Cu	Fe
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	904.8	-2.188	4.048	330.0	31.06	72110.
SDev	1.431	.0972	.4319	.9783	.3338	147.6
%RSD	.1581	4.442	10.67	.2965	1.075	.2047

Elems	K	Mg	Mn	Mo	Na3302	Ni
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	1263.	539.8	13.48	4.532	99.25	2.843
SDev	4.75	2.094	.1191	.4874	112.7	.1122
%RSD	.3762	.3878	.8836	10.76	113.6	3.945

Elems	Pb	Se	Sb	Sn	Tl	V
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	38.63	2.553	3.814	12.47	-1.119	800.1
SDev	.4801	1.406	.4026	2.218	.6886	2.459
%RSD	1.243	55.07	10.55	17.78	61.56	.3073

Elems	Zn	2203/1	2203/2	2068/2	2068/1	1960/1
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	20.63	38.12	38.88	5.791	2.827	-11.94
SDev	.0591	2.141	.3492	1.365	.0777	.3489
%RSD	.2868	5.617	.8979	23.56	2.749	2.924

Elems	1960/2	*Y
Units	PPB	
Avge	9.786	10785.5
SDev	1.934	23.3345
%RSD	19.76	.21635

$800.1 \frac{\mu g}{L} \times \frac{0.1 L}{1.01 g} \times \frac{1}{0.848\%S} = 93.4 \frac{mg}{kg}$

report as $93 \frac{mg}{kg}$

METHOD SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-681-1

Description	Lab Location	Method	Preparation Method
Matrix Solid			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Closed System Purge and Trap			SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Soxhlet Extraction			SW846 3540C
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL NC	SW846 8015C	
Soxhlet Extraction			SW846 3540C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL NC	SW846 8082A	
Soxhlet Extraction			SW846 3540C
Metals (ICP)	TAL NC	SW846 6010C	
Preparation, Metals			SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL NC	SW846 7471B	
Preparation, Mercury			SW846 7471B
Percent Moisture	TAL NC	EPA Moisture	
Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	TAL CHI	SW846 8015C	
Purge and Trap	TAL CHI		SW846 5030C

Lab References:

TAL CHI = TestAmerica Chicago

TAL NC = TestAmerica North Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

HOLDTIM

SDG 240-681-1

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	GSP-SB-95-0-2	240-681-7	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-98-6-8	240-681-34	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-98-0-2	240-681-33	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-97-6-8	240-681-26	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-97-0-2	240-681-25	NM	06/01/2011	06/17/2011	06/17/2011	16	0	16
HG	MG/KG	GSP-SB-96-6-8	240-681-20	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-95-6-8	240-681-8	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-94-6-8	240-681-17	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-94-0-2	240-681-16	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-93-12-14	240-681-28	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-93-0-2	240-681-27	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-92-6-8	240-681-31	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-104-6-8	240-681-5	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-96-0-2	240-681-19	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-104-0-2	240-681-4	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
HG	MG/KG	GSP-SB-92-0-2	240-681-30	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-106-0-2	240-681-22	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-106-6-8	240-681-23	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-113-0-2	240-681-13	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-113-6-8	240-681-14	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-114-0-2	240-681-1	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-114-6-8	240-681-2	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-91-0-2	240-681-10	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
HG	MG/KG	GSP-SB-91-8-10	240-681-11	NM	06/01/2011	06/16/2011	06/17/2011	15	1	16
M	MG/KG	GSP-SB-98-0-2	240-681-33	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-94-0-2	240-681-16	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-94-6-8	240-681-17	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-95-0-2	240-681-7	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-95-6-8	240-681-8	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-96-0-2	240-681-19	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-96-6-8	240-681-20	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-98-6-8	240-681-34	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-97-6-8	240-681-26	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	GSP-SB-93-12-14	240-681-28	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-92-0-2	240-681-30	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-97-0-2	240-681-25	NM	06/01/2011	06/17/2011	07/08/2011	16	21	37
M	MG/KG	GSP-SB-104-6-8	240-681-5	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-93-0-2	240-681-27	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-92-6-8	240-681-31	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-104-0-2	240-681-4	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-106-0-2	240-681-22	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-106-6-8	240-681-23	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-113-0-2	240-681-13	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-114-0-2	240-681-1	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-114-6-8	240-681-2	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-91-0-2	240-681-10	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-91-8-10	240-681-11	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
M	MG/KG	GSP-SB-113-6-8	240-681-14	NM	06/01/2011	06/16/2011	07/05/2011	15	19	34
OS	UG/KG	GSP-SB-96-6-8	240-681-20	NM	06/01/2011	06/09/2011	06/23/2011	8	14	22
OS	UG/KG	GSP-SB-92-6-8	240-681-31	NM	06/01/2011	06/10/2011	06/23/2011	9	13	22
OS	UG/KG	GSP-SB-93-0-2	240-681-27	NM	06/01/2011	06/10/2011	06/23/2011	9	13	22

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica North Canton Job Number: 240-681-1

SDG Number:

Matrix: Solid Instrument ID: I6

Method: 6010C MDL Date: 02/08/2010 16:17

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Antimony	206.838	2	0.39
Arsenic	189.042	1.5	0.3
Barium	493.409	20	0.071
Beryllium	313.042	0.5	0.043
Cadmium	226.502	0.5	0.036
Chromium	267.716	1	0.2
Cobalt	228.616	1	0.16
Copper	324.753	2.5	0.74
Lead	220.353	1	0.19
Molybdenum	202.030	4	0.27
Nickel	231.604	4	0.27
Selenium	196.026	2	0.45
Silver	328.068	1	0.1
Thallium	190.864	2	0.55
Vanadium	292.402	1	0.12
Zinc	213.856	5	1

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica North Canton Job Number: 240-681-1

SDG Number:

Matrix: Solid Instrument ID: I6

Method: 6010C XMDL Date: 02/08/2010 16:17

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	206.838	20	1.8
Arsenic	189.042	15	3.2
Barium	493.409	200	0.67
Beryllium	313.042	5	0.46
Cadmium	226.502	5	0.66
Chromium	267.716	10	2.2
Cobalt	228.616	10	1.7
Copper	324.753	25	4.5
Lead	220.353	10	1.9
Molybdenum	202.030	40	1.3
Nickel	231.604	40	3.2
Selenium	196.026	20	4.1
Silver	328.068	10	2.2
Thallium	190.864	20	4.7
Vanadium	292.402	10	0.64
Zinc	213.856	50	5

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica North Canton Job Number: 240-681-1

SDG Number:

Matrix: Solid Instrument ID: H1

Method: 7471B MDL Date: 02/16/2010 09:48

Prep Method: 7471B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Hg	253.7	0.1	0.015

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica North Canton Job Number: 240-681-1

SDG Number:

Matrix: Solid Instrument ID: H1

Method: 7471B XMDL Date: 02/16/2010 09:48

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Hg	253.7	0.6	0.12

FORM IX - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Prep Method: 7471B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-5023/1-A	06/16/2011 14:00	5023	0.60		100
LCS 240-5023/2-A	06/16/2011 14:00	5023	0.60		100
240-681-23	06/16/2011 14:00	5023	0.61		100
240-681-23 MS	06/16/2011 14:00	5023	0.63		100
240-681-23 MSD	06/16/2011 14:00	5023	0.63		100
240-681-22	06/16/2011 14:00	5023	0.66		100
240-681-8	06/16/2011 14:00	5023	0.95		100
240-681-16	06/16/2011 14:00	5023	0.65		100
240-681-17	06/16/2011 14:00	5023	0.62		100
240-681-10	06/16/2011 14:00	5023	0.62		100
240-681-1	06/16/2011 14:00	5023	0.62		100
240-681-26	06/16/2011 14:00	5023	0.77		100
240-681-4	06/16/2011 14:00	5023	0.75		100
240-681-2	06/16/2011 14:00	5023	0.79		100
240-681-5	06/16/2011 14:00	5023	0.80		100
240-681-7	06/16/2011 14:00	5023	0.61		100
240-681-19	06/16/2011 14:00	5023	0.61		100
240-681-27	06/16/2011 14:00	5023	0.63		100
240-681-28	06/16/2011 14:00	5023	0.97		100
240-681-13	06/16/2011 14:00	5023	0.74		100
240-681-20	06/16/2011 14:00	5023	0.64		100
240-681-14	06/16/2011 14:00	5023	0.62		100
240-681-11	06/16/2011 14:00	5023	0.67		100

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-5023/1-A

Instrument Code: H1 Batch No.: 5282

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Hg	0.10	U		7471B

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-5023/2-A

Lab Name: TestAmerica North Canton Job No.: 240-681-1

Sample Matrix: Solid LCS Source: MTHGICVW_00051

Analyte	Solid(mg/Kg)						
	True	Found	C	%R	Limits	Q	Method
Hg	0.833	0.838		101	73 121		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Prep Method: 7471B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-5043/1-A	06/16/2011 14:00	5043	0.60		100
LCS 240-5043/2-A	06/16/2011 14:00	5043	0.60		100
240-681-30	06/16/2011 14:00	5043	0.62		100
240-681-30 MS	06/16/2011 14:00	5043	0.62		100
240-681-30 MSD	06/16/2011 14:00	5043	0.62		100
240-681-31	06/16/2011 14:00	5043	0.63		100
240-681-33	06/16/2011 14:00	5043	0.77		100
240-681-34	06/16/2011 14:00	5043	0.63		100

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-5043/1-A

Instrument Code: H1 Batch No.: 5282

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Hg	0.10	U		7471B

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-5043/2-A

Lab Name: TestAmerica North Canton Job No.: 240-681-1

Sample Matrix: Solid LCS Source: MTHGICVW_00051

Solid(mg/Kg)

Analyte	True	Found	C	%R	Limits		Q	Method
Hg	0.833	0.833		100	73	121		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Prep Method: 7471B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-5165/1-A	06/17/2011 12:25	5165	0.60		100
LCS 240-5165/2-A	06/17/2011 12:25	5165	0.60		100
240-681-25	06/17/2011 12:25	5165	0.67		100
240-681-25 MS	06/17/2011 12:25	5165	0.62		100
240-681-25 MSD	06/17/2011 12:25	5165	0.62		100

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-5165/1-A

Instrument Code: H1 Batch No.: 5282

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Hg	0.10	U		7471B

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-5165/2-A

Lab Name: TestAmerica North Canton Job No.: 240-681-1

Sample Matrix: Solid LCS Source: MTHGICVW_00052

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Hg	0.833	0.806		97	73	121		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-5004/1-A	06/16/2011 10:41	5004	1.00		100
LCS 240-5004/2-A	06/16/2011 10:41	5004	1.00		100
240-681-23	06/16/2011 10:41	5004	1.12		100
240-681-23 MS	06/16/2011 10:41	5004	1.07		100
240-681-23 MSD	06/16/2011 10:41	5004	1.07		100
240-681-22	06/16/2011 10:41	5004	1.00		100
240-681-8	06/16/2011 10:41	5004	1.02		100
240-681-16	06/16/2011 10:41	5004	1.03		100
240-681-17	06/16/2011 10:41	5004	1.10		100
240-681-10	06/16/2011 10:41	5004	1.07		100
240-681-1	06/16/2011 10:41	5004	1.06		100
240-681-26	06/16/2011 10:41	5004	1.16		100
240-681-4	06/16/2011 10:41	5004	1.11		100
240-681-2	06/16/2011 10:41	5004	1.06		100
240-681-5	06/16/2011 10:41	5004	1.11		100
240-681-7	06/16/2011 10:41	5004	1.23		100
240-681-19	06/16/2011 10:41	5004	1.15		100
240-681-27	06/16/2011 10:41	5004	1.19		100
240-681-28	06/16/2011 10:41	5004	1.23		100
240-681-13	06/16/2011 10:41	5004	1.10		100
240-681-20	06/16/2011 10:41	5004	1.07		100
240-681-14	06/16/2011 10:41	5004	1.17		100
240-681-11	06/16/2011 10:41	5004	1.01		100

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-5004/1-A

Instrument Code: I6 Batch No.: 7218

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6010C
7440-38-2	Arsenic	1.5	U		6010C
7440-39-3	Barium	0.0916	J		6010C
7440-41-7	Beryllium	0.50	U		6010C
7440-43-9	Cadmium	0.50	U		6010C
7440-47-3	Chromium	1.0	U		6010C
7440-48-4	Cobalt	1.0	U		6010C
7440-50-8	Copper	2.5	U		6010C
7439-92-1	Lead	1.0	U		6010C
7439-98-7	Molybdenum	4.0	U		6010C
7440-02-0	Nickel	4.0	U		6010C
7782-49-2	Selenium	2.0	U		6010C
7440-22-4	Silver	1.0	U		6010C
7440-28-0	Thallium	2.0	U		6010C
7440-62-2	Vanadium	1.0	U		6010C
7440-66-6	Zinc	1.04	J		6010C

FORM III-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: GSP-SB-106-6-8 MS | Lab ID: 240-681-23 MS

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 82.2

Analyte	SSR	Sample Result (SR) C	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	31.9	2.2	U	56.8	56	75-125	F	6010C
Arsenic	216	4.1		227	93	75-125		6010C
Barium	236	8.9	J	227	100	75-125		6010C
Beryllium	5.71	0.084	J	5.68	99	75-125		6010C
Cadmium	5.44	0.54	U	5.68	96	75-125		6010C
Chromium	33.3	11		22.7	98	75-125		6010C
Cobalt	58.1	2.7		56.8	97	75-125		6010C
Copper	32.4	7.5		28.4	88	75-125		6010C
Lead	57.7	2.6		56.8	97	75-125		6010C
Molybdenum	109	0.56	J	114	95	75-125		6010C
Nickel	57.7	1.5	J	56.8	99	75-125		6010C
Selenium	210	2.2	U	227	93	75-125		6010C
Silver	5.47	1.1	U	5.68	96	75-125		6010C
Thallium	215	2.2	U	227	95	75-125		6010C
Vanadium	75.9	26		56.8	87	75-125		6010C
Zinc	64.8	6.5		56.8	102	75-125		6010C
Hg	0.188	0.12	U	0.193	98	11-192		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: GSP-SB-106-6-8 MSD | Lab ID: 240-681-23 MSD

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 82.2

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	29.8	56.8	52	75-125	7	20	F	6010C
Arsenic	216	227	93	75-125	0	20		6010C
Barium	236	227	100	75-125	0	20		6010C
Beryllium	5.66	5.68	98	75-125	1	20		6010C
Cadmium	5.30	5.68	93	75-125	3	20		6010C
Chromium	36.3	22.7	112	75-125	9	20		6010C
Cobalt	58.2	56.8	98	75-125	0	20		6010C
Copper	34.7	28.4	96	75-125	7	20		6010C
Lead	57.2	56.8	96	75-125	1	20		6010C
Molybdenum	107	114	94	75-125	2	20		6010C
Nickel	57.5	56.8	98	75-125	0	20		6010C
Selenium	208	227	92	75-125	1	20		6010C
Silver	5.42	5.68	95	75-125	1	20		6010C
Thallium	211	227	93	75-125	2	20		6010C
Vanadium	84.4	56.8	102	75-125	11	20		6010C
Zinc	65.3	56.8	103	75-125	1	20		6010C
Hg	0.178	0.193	92	11-192	6	20		7471B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: GSP-SB-106-6-8 PDS | Lab ID: 240-681-23 PDS

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	49.7		2.2	U	54.3	91	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-5004/2-A

Lab Name: TestAmerica North Canton Job No.: 240-681-1

Sample Matrix: Solid LCS Source: MTICP1_00005

Solid(mg/Kg)

Analyte	True	Found	C	%R	Limits		Q	Method
Antimony	50.0	49.8		100	80	120		6010C
Arsenic	200	201		100	80	120		6010C
Barium	200	208		104	80	120		6010C
Beryllium	5.00	5.20		104	80	120		6010C
Cadmium	5.00	5.18		104	80	120		6010C
Chromium	20.0	21.3		106	80	120		6010C
Cobalt	50.0	52.2		104	80	120		6010C
Copper	25.0	25.9		104	80	120		6010C
Lead	50.0	50.8		102	80	120		6010C
Molybdenum	100	103		103	80	120		6010C
Nickel	50.0	52.0		104	80	120		6010C
Selenium	200	198		99	80	120		6010C
Silver	5.00	5.13		103	80	120		6010C
Thallium	200	201		101	80	120		6010C
Vanadium	50.0	52.2		104	80	120		6010C
Zinc	50.0	55.4		111	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 240-681-23

SDG No:

Lab Name: TestAmerica North Canton Job No: 240-681-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	2.2	U	11	U	NC		6010C
Arsenic	4.1		4.11	J	NC		6010C
Barium	8.9	J	9.24	J	4.2		6010C
Beryllium	0.084	J	2.7	U	NC		6010C
Cadmium	0.54	U	2.7	U	NC		6010C
Chromium	11		11.3		NC		6010C
Cobalt	2.7		3.10	J	NC		6010C
Copper	7.5		7.24	J	NC		6010C
Lead	2.6		2.96	J	NC		6010C
Molybdenum	0.56	J	22	U	NC		6010C
Nickel	1.5	J	22	U	NC		6010C
Selenium	2.2	U	11	U	NC		6010C
Silver	1.1	U	5.4	U	NC		6010C
Thallium	2.2	U	11	U	NC		6010C
Vanadium	26		26.9		2.2		6010C
Zinc	6.5		6.00	J	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-5038/1-A	06/16/2011 11:45	5038	1.00		100
LCS 240-5038/2-A	06/16/2011 11:45	5038	1.00		100
240-681-30	06/16/2011 11:45	5038	1.09		100
240-681-30 MS	06/16/2011 11:45	5038	1.08		100
240-681-30 MSD	06/16/2011 11:45	5038	1.08		100
240-681-31	06/16/2011 11:45	5038	1.14		100
240-681-33	06/16/2011 11:45	5038	1.34		100
240-681-34	06/16/2011 11:45	5038	1.05		100

FORM XII-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-5038/1-A

Instrument Code: I6 Batch No.: 7218

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6010C
7440-38-2	Arsenic	1.5	U		6010C
7440-39-3	Barium	0.111	J		6010C
7440-41-7	Beryllium	0.50	U		6010C
7440-43-9	Cadmium	0.50	U		6010C
7440-47-3	Chromium	1.0	U		6010C
7440-48-4	Cobalt	1.0	U		6010C
7440-50-8	Copper	2.5	U		6010C
7439-92-1	Lead	1.0	U		6010C
7439-98-7	Molybdenum	0.350	J		6010C
7440-02-0	Nickel	4.0	U		6010C
7782-49-2	Selenium	2.0	U		6010C
7440-22-4	Silver	1.0	U		6010C
7440-28-0	Thallium	2.0	U		6010C
7440-62-2	Vanadium	1.0	U		6010C
7440-66-6	Zinc	5.0	U		6010C

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: GSP-SB-92-0-2 MS | Lab ID: 240-681-30 MS

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 96.5

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	35.1		1.9	U	48.0	73	75-125	F	6010C
Arsenic	191		1.6		192	99	75-125		6010C
Barium	207		8.3	J	192	103	75-125		6010C
Beryllium	4.87		0.48	U	4.80	101	75-125		6010C
Cadmium	4.77		0.48	U	4.80	99	75-125		6010C
Chromium	24.1		3.6		19.2	107	75-125		6010C
Cobalt	49.4		0.79	J	48.0	101	75-125		6010C
Copper	28.3		6.6		24.0	90	75-125		6010C
Lead	50.2		3.9		48.0	97	75-125		6010C
Molybdenum	96.4		1.0	J	96.0	99	75-125		6010C
Nickel	50.4		2.5	J	48.0	100	75-125		6010C
Selenium	187		1.9	U	192	97	75-125		6010C
Silver	4.88		0.95	U	4.80	102	75-125		6010C
Thallium	186		1.9	U	192	97	75-125		6010C
Vanadium	55.6		5.9		48.0	104	75-125		6010C
Zinc	59.6		10		48.0	102	75-125		6010C
Hg	0.166		0.10	U	0.167	99	11-192		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: GSP-SB-92-0-2 MSD | Lab ID: 240-681-30 MSD

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 96.5

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	35.2	48.0	73	75-125	0	20	F	6010C
Arsenic	189	192	97	75-125	1	20		6010C
Barium	204	192	102	75-125	1	20		6010C
Beryllium	4.81	4.80	100	75-125	1	20		6010C
Cadmium	4.69	4.80	98	75-125	2	20		6010C
Chromium	23.4	19.2	103	75-125	3	20		6010C
Cobalt	48.6	48.0	100	75-125	2	20		6010C
Copper	28.1	24.0	90	75-125	1	20		6010C
Lead	49.8	48.0	96	75-125	1	20		6010C
Molybdenum	94.5	96.0	97	75-125	2	20		6010C
Nickel	49.5	48.0	98	75-125	2	20		6010C
Selenium	184	192	96	75-125	1	20		6010C
Silver	4.81	4.80	100	75-125	2	20		6010C
Thallium	183	192	96	75-125	1	20		6010C
Vanadium	54.4	48.0	101	75-125	2	20		6010C
Zinc	59.2	48.0	102	75-125	1	20		6010C
Hg	0.163	0.167	97	11-192	2	20		7471B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: GSP-SB-92-0-2 PDS | Lab ID: 240-681-30 PDS

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	47.6		1.9	U	47.5	100	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-5038/2-A

Lab Name: TestAmerica North Canton Job No.: 240-681-1

Sample Matrix: Solid LCS Source: MTICP1_00005

Analyte	Solid(mg/Kg) True	Found	C	%R	Limits		Q	Method
Antimony	50.0	49.5		99	80	120		6010C
Arsenic	200	200		100	80	120		6010C
Barium	200	207		104	80	120		6010C
Beryllium	5.00	5.22		104	80	120		6010C
Cadmium	5.00	5.13		103	80	120		6010C
Chromium	20.0	21.1		105	80	120		6010C
Cobalt	50.0	51.4		103	80	120		6010C
Copper	25.0	25.7		103	80	120		6010C
Lead	50.0	50.6		101	80	120		6010C
Molybdenum	100	102		102	80	120		6010C
Nickel	50.0	51.4		103	80	120		6010C
Selenium	200	197		99	80	120		6010C
Silver	5.00	5.02		100	80	120		6010C
Thallium	200	198		99	80	120		6010C
Vanadium	50.0	51.8		104	80	120		6010C
Zinc	50.0	55.0		110	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 240-681-30

SDG No:

Lab Name: TestAmerica North Canton Job No: 240-681-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	1.9	U	9.5	U	NC		6010C
Arsenic	1.6		2.08	J	NC		6010C
Barium	8.3	J	8.32	J	0.86		6010C
Beryllium	0.48	U	2.4	U	NC		6010C
Cadmium	0.48	U	2.4	U	NC		6010C
Chromium	3.6		3.87	J	NC		6010C
Cobalt	0.79	J	0.806	J	NC		6010C
Copper	6.6		6.16	J	NC		6010C
Lead	3.9		3.96	J	NC		6010C
Molybdenum	1.0	J	19	U	NC		6010C
Nickel	2.5	J	2.43	J	NC		6010C
Selenium	1.9	U	9.5	U	NC		6010C
Silver	0.95	U	4.8	U	NC		6010C
Thallium	1.9	U	9.5	U	NC		6010C
Vanadium	5.9		6.10		3.5		6010C
Zinc	10		9.86	J	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-5161/1-A	06/17/2011 09:59	5161	1.00		100
LCS 240-5161/2-A	06/17/2011 09:59	5161	1.00		100
240-681-25	06/17/2011 09:59	5161	1.01		100
240-681-25 MS	06/17/2011 09:59	5161	1.01		100
240-681-25 MSD	06/17/2011 09:59	5161	1.01		100

FORM XII-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-5161/1-A

Instrument Code: I6 Batch No.: 7831

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6010C
7440-38-2	Arsenic	1.5	U		6010C
7440-39-3	Barium	0.113	J		6010C
7440-41-7	Beryllium	0.50	U		6010C
7440-43-9	Cadmium	0.50	U		6010C
7440-47-3	Chromium	1.0	U		6010C
7440-48-4	Cobalt	1.0	U		6010C
7440-50-8	Copper	2.5	U		6010C
7439-92-1	Lead	0.230	J		6010C
7439-98-7	Molybdenum	0.330	J		6010C
7440-02-0	Nickel	4.0	U		6010C
7782-49-2	Selenium	2.0	U		6010C
7440-22-4	Silver	1.0	U		6010C
7440-28-0	Thallium	2.0	U		6010C
7440-62-2	Vanadium	1.0	U		6010C
7440-66-6	Zinc	1.48	J		6010C

FORM III-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: GSP-SB-97-0-2 MS | Lab ID: 240-681-25 MS

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 92.0

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	41.1		2.2	U	53.8	76	75-125		6010C
Arsenic	212		1.8		215	98	75-125		6010C
Barium	229		5.1	J	215	104	75-125		6010C
Beryllium	5.54		0.54	U	5.38	103	75-125		6010C
Cadmium	5.33		0.54	U	5.38	99	75-125		6010C
Chromium	26.2		3.1		21.5	107	75-125		6010C
Cobalt	55.9		0.59	J	53.8	103	75-125		6010C
Copper	30.7		2.2	J	26.9	106	75-125		6010C
Lead	55.0		1.9		53.8	99	75-125		6010C
Molybdenum	111		0.45	J	108	102	75-125		6010C
Nickel	56.1		0.89	J	53.8	102	75-125		6010C
Selenium	205		2.2	U	215	95	75-125		6010C
Silver	5.39		1.1	U	5.38	100	75-125		6010C
Thallium	214		2.2	U	215	99	75-125		6010C
Vanadium	62.3		5.8		53.8	105	75-125		6010C
Zinc	65.3		4.6	J	53.8	113	75-125		6010C
Hg	0.180		0.097	U	0.175	103	11-192		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: GSP-SB-97-0-2 MSD | Lab ID: 240-681-25 MSD

Lab Name: TestAmerica North Canton | Job No.: 240-681-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 92.0

Analyte	(SDR) C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	40.9	53.8	76	75-125	0	20		6010C
Arsenic	216	215	99	75-125	2	20		6010C
Barium	235	215	107	75-125	2	20		6010C
Beryllium	5.65	5.38	105	75-125	2	20		6010C
Cadmium	5.47	5.38	102	75-125	3	20		6010C
Chromium	27.1	21.5	111	75-125	3	20		6010C
Cobalt	57.4	53.8	106	75-125	3	20		6010C
Copper	31.4	26.9	108	75-125	2	20		6010C
Lead	57.0	53.8	102	75-125	4	20		6010C
Molybdenum	112	108	104	75-125	2	20		6010C
Nickel	57.4	53.8	105	75-125	2	20		6010C
Selenium	210	215	98	75-125	2	20		6010C
Silver	5.51	5.38	102	75-125	2	20		6010C
Thallium	216	215	100	75-125	1	20		6010C
Vanadium	63.8	53.8	108	75-125	2	20		6010C
Zinc	67.8	53.8	117	75-125	4	20		6010C
Hg	0.190	0.175	108	11-192	5	20		7471B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-5161/2-A

Lab Name: TestAmerica North Canton Job No.: 240-681-1

Sample Matrix: Solid LCS Source: MTICP1_00005

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	50.0	48.0		96	80	120		6010C
Arsenic	200	194		97	80	120		6010C
Barium	200	204		102	80	120		6010C
Beryllium	5.00	5.10		102	80	120		6010C
Cadmium	5.00	4.99		100	80	120		6010C
Chromium	20.0	20.6		103	80	120		6010C
Cobalt	50.0	50.7		101	80	120		6010C
Copper	25.0	25.8		103	80	120		6010C
Lead	50.0	49.1		98	80	120		6010C
Molybdenum	100	102		102	80	120		6010C
Nickel	50.0	50.2		100	80	120		6010C
Selenium	200	190		95	80	120		6010C
Silver	5.00	5.28		106	80	120		6010C
Thallium	200	197		99	80	120		6010C
Vanadium	50.0	50.7		101	80	120		6010C
Zinc	50.0	55.8		112	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 240-681-25

SDG No:

Lab Name: TestAmerica North Canton Job No: 240-681-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	2.2	U	11	U	NC		6010C
Arsenic	1.8		2.23	J	NC		6010C
Barium	5.1	J	5.10	J	0.63		6010C
Beryllium	0.54	U	2.7	U	NC		6010C
Cadmium	0.54	U	2.7	U	NC		6010C
Chromium	3.1		3.28	J	NC		6010C
Cobalt	0.59	J	5.4	U	NC		6010C
Copper	2.2	J	13	U	NC		6010C
Lead	1.9		1.92	J	NC		6010C
Molybdenum	0.45	J	22	U	NC		6010C
Nickel	0.89	J	22	U	NC		6010C
Selenium	2.2	U	11	U	NC		6010C
Silver	1.1	U	5.4	U	NC		6010C
Thallium	2.2	U	11	U	NC		6010C
Vanadium	5.8		5.82		NC		6010C
Zinc	4.6	J	6.24	J	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
IC 240-5141/1-A			09:31	X
IC 240-5141/2-A			09:32	X
IC 240-5141/3-A			09:33	X
IC 240-5141/4-A			09:34	X
IC 240-5141/5-A			09:36	X
IC 240-5141/6-A			09:37	X
ICV 240-5141/7-A	1		09:39	X
ICB 240-5141/8-A	1		09:40	X
CRA 240-5141/9-A	1		09:41	X
CCV 240-5141/10-A			09:42	
CCB 240-5141/11-A			09:44	
ZZZZZZ			09:45	
ZZZZZZ			09:46	
ZZZZZZ			09:47	
ZZZZZZ			09:49	
ZZZZZZ			09:50	
ZZZZZZ			09:51	
ZZZZZZ			09:53	
ZZZZZZ			09:54	
ZZZZZZ			09:55	
ZZZZZZ			09:57	
CCV 240-5141/10-A			09:58	
CCB 240-5141/11-A			09:59	
ZZZZZZ			10:00	
ZZZZZZ			10:02	
ZZZZZZ			10:03	
ZZZZZZ			10:04	
ZZZZZZ			10:06	
ZZZZZZ			10:07	
ZZZZZZ			10:08	
ZZZZZZ			10:09	
ZZZZZZ			10:11	
ZZZZZZ			10:12	
CCV 240-5141/10-A	1		10:13	X
CCB 240-5141/11-A	1		10:15	X
MB 240-5043/1-A	1	T	10:16	X
LCS 240-5043/2-A	1	T	10:17	X
240-681-30	1	T	10:19	X
240-681-30 MS	1	T	10:20	X
240-681-30 MSD	1	T	10:21	X
ZZZZZZ			10:22	
ZZZZZZ			10:24	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
ZZZZZZ			10:25	
ZZZZZZ			10:26	
ZZZZZZ			10:28	
CCV 240-5141/10-A	1		10:29	X
CCB 240-5141/11-A	1		10:30	X
240-681-31	1	T	10:31	X
240-681-33	1	T	10:33	X
240-681-34	1	T	10:34	X
ZZZZZZ			10:36	
ZZZZZZ			10:37	
ZZZZZZ			10:38	
ZZZZZZ			10:40	
ZZZZZZ			10:41	
ZZZZZZ			10:42	
ZZZZZZ			10:43	
CCV 240-5141/10-A	1		10:45	X
CCB 240-5141/11-A	1		10:46	X
ZZZZZZ			10:47	
ZZZZZZ			10:48	
ZZZZZZ			10:50	
ZZZZZZ			10:51	
ZZZZZZ			10:53	
ZZZZZZ			10:54	
ZZZZZZ			10:55	
ZZZZZZ			10:57	
ZZZZZZ			10:58	
ZZZZZZ			10:59	
CCV 240-5141/10-A	1		11:01	X
CCB 240-5141/11-A	1		11:02	X
ZZZZZZ			11:03	
ZZZZZZ			11:04	
MB 240-5023/1-A	1	T	11:06	X
LCS 240-5023/2-A	1	T	11:07	X
240-681-23	1	T	11:08	X
240-681-23 MS	1	T	11:10	X
240-681-23 MSD	1	T	11:11	X
240-681-22	1	T	11:12	X
240-681-8	1	T	11:14	X
240-681-16	1	T	11:15	X
CCV 240-5141/10-A	1		11:16	X
CCB 240-5141/11-A	1		11:18	X
240-681-17	1	T	11:19	X

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
240-681-10	1	T	11:20	X
240-681-1	1	T	11:22	X
240-681-26	1	T	11:23	X
240-681-4	1	T	11:25	X
240-681-2	1	T	11:26	X
240-681-5	1	T	11:27	X
240-681-7	1	T	11:29	X
240-681-19	1	T	11:30	X
240-681-27	1	T	11:31	X
CCV 240-5141/10-A	1		11:32	X
CCB 240-5141/11-A	1		11:34	X
240-681-28	1	T	11:35	X
240-681-13	1	T	11:36	X
240-681-20	1	T	11:38	X
240-681-14	1	T	11:39	X
240-681-11	1	T	11:40	X
ZZZZZZ			11:42	
ZZZZZZ			11:43	
ZZZZZZ			11:44	
ZZZZZZ			11:46	
ZZZZZZ			11:47	
CCV 240-5141/10-A	1		11:48	X
CCB 240-5141/11-A	1		11:50	X
ZZZZZZ			11:51	
ZZZZZZ			11:52	
ZZZZZZ			11:54	
ZZZZZZ			11:55	
ZZZZZZ			11:56	
ZZZZZZ			11:57	
ZZZZZZ			11:59	
CCV 240-5141/10-A			12:00	
CCB 240-5141/11-A			12:01	
CCV 240-5141/10-A			14:01	
CCB 240-5141/11-A			14:02	
ZZZZZZ			14:04	
ZZZZZZ			14:05	
ZZZZZZ			14:06	
ZZZZZZ			14:08	
ZZZZZZ			14:09	
ZZZZZZ			14:10	
ZZZZZZ			14:11	
ZZZZZZ			14:13	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
ZZZZZZ			14:14	
ZZZZZZ			14:15	
CCV 240-5141/10-A			14:16	
CCB 240-5141/11-A			14:18	
ZZZZZZ			14:19	
ZZZZZZ			14:20	
ZZZZZZ			14:22	
ZZZZZZ			14:23	
ZZZZZZ			14:25	
ZZZZZZ			14:26	
ZZZZZZ			14:27	
ZZZZZZ			14:28	
ZZZZZZ			14:30	
ZZZZZZ			14:31	
CCV 240-5141/10-A			14:34	
CCB 240-5141/11-A			14:35	
ZZZZZZ			14:36	
ZZZZZZ			14:37	
ZZZZZZ			14:39	
ZZZZZZ			14:40	
ZZZZZZ			14:41	
ZZZZZZ			14:42	
ZZZZZZ			14:44	
ZZZZZZ			14:45	
ZZZZZZ			14:46	
ZZZZZZ			14:48	
CCV 240-5141/10-A	1		14:49	X
CCB 240-5141/11-A	1		14:50	X
ZZZZZZ			14:52	
ZZZZZZ			14:53	
ZZZZZZ			14:54	
ZZZZZZ			14:56	
ZZZZZZ			14:57	
ZZZZZZ			14:58	
ZZZZZZ			15:00	
ZZZZZZ			15:01	
MB 240-5165/1-A	1	T	15:02	X
LCS 240-5165/2-A	1	T	15:04	X
CCV 240-5141/10-A	1		15:05	X
CCB 240-5141/11-A	1		15:06	X
240-681-25	1	T	15:07	X
240-681-25 MS	1	T	15:09	X

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
240-681-25 MSD	1	T	15:11	X
ZZZZZZ			15:12	
ZZZZZZ			15:13	
ZZZZZZ			15:15	
ZZZZZZ			15:16	
ZZZZZZ			15:17	
ZZZZZZ			15:19	
ZZZZZZ			15:20	
CCV 240-5141/10-A	1		15:21	X
CCB 240-5141/11-A	1		15:22	X
ZZZZZZ			15:24	
ZZZZZZ			15:25	
ZZZZZZ			15:27	
ZZZZZZ			15:28	
ZZZZZZ			15:29	
ZZZZZZ			15:31	
ZZZZZZ			15:32	
ZZZZZZ			15:33	
ZZZZZZ			15:35	
ZZZZZZ			15:36	
CCV 240-5141/10-A			15:37	
CCB 240-5141/11-A			15:38	
ZZZZZZ			15:40	
ZZZZZZ			15:41	
ZZZZZZ			15:42	
ZZZZZZ			15:43	
ZZZZZZ			15:45	
ZZZZZZ			15:46	
ZZZZZZ			15:47	
ZZZZZZ			15:49	
ZZZZZZ			15:50	
ZZZZZZ			15:51	
CCV 240-5141/10-A			15:53	
CCB 240-5141/11-A			15:54	
ZZZZZZ			15:55	
ZZZZZZ			15:57	
ZZZZZZ			15:58	
ZZZZZZ			15:59	
ZZZZZZ			16:01	
ZZZZZZ			16:02	
ZZZZZZ			16:03	
ZZZZZZ			16:05	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes Hg
ZZZZZZ			16:06	
ZZZZZZ			16:07	
CCV 240-5141/10-A			16:08	
CCB 240-5141/11-A			16:10	

Prep Types

T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

ICV Source: MTHGICVW_00052 Concentration Units: ug/L

CCV Source: MTHGCALW_00032

Analyte	ICV 240-5141/7-A 06/17/2011 09:39				CCV 240-5141/10-A 06/17/2011 10:13				CCV 240-5141/10-A 06/17/2011 10:29			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Hg	2.50		2.50	100	5.24		5.00	105	5.23		5.00	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

ICV Source: MTHGICVW_00052 Concentration Units: ug/L

CCV Source: MTHGCALW_00032

	CCV 240-5141/10-A 06/17/2011 10:45				CCV 240-5141/10-A 06/17/2011 11:01				CCV 240-5141/10-A 06/17/2011 11:16			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Hg	5.20		5.00	104	5.20		5.00	104	5.19		5.00	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

ICV Source: MTHGICVW_00052 Concentration Units: ug/L

CCV Source: MTHGCALW_00032

	CCV 240-5141/10-A 06/17/2011 11:32				CCV 240-5141/10-A 06/17/2011 11:48				CCV 240-5141/10-A 06/17/2011 14:49			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Hg	5.15		5.00	103	5.13		5.00	103	5.17		5.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

ICV Source: MTHGICVW_00052 Concentration Units: ug/L

CCV Source: MTHGCALW_00032

	CCV 240-5141/10-A 06/17/2011 15:05				CCV 240-5141/10-A 06/17/2011 15:21							
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Hg	4.94		5.00	99	5.02		5.00	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Method: 7471B Instrument ID: H1

Lab Sample ID: CRA 240-5141/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00032

	CRQL Check Standard				
Analyte	True	Found	Qualifiers	%R(1)	Limits
Hg	0.200	0.163	J	82	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Concentration Units: ug/L

		ICB 240-5141/8-A 06/17/2011 09:40		CCB 240-5141/11-A 06/17/2011 10:15		CCB 240-5141/11-A 06/17/2011 10:30		CCB 240-5141/11-A 06/17/2011 10:46	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Hg	0.60	0.60	U	0.60	U	0.60	U	0.60	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Concentration Units: ug/L

		CCB 240-5141/11-A 06/17/2011 11:02		CCB 240-5141/11-A 06/17/2011 11:18		CCB 240-5141/11-A 06/17/2011 11:34		CCB 240-5141/11-A 06/17/2011 11:50	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Hg	0.60	0.60	U	0.60	U	0.60	U	0.60	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 240-5141/11-A 06/17/2011 14:50 Found	C	CCB 240-5141/11-A 06/17/2011 15:06 Found	C	CCB 240-5141/11-A 06/17/2011 15:22 Found	C	Found	C
Hg	0.60	0.60	U	0.60	U	0.60	U		

Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 07/05/2011 07:34 End Date: 07/05/2011 17:03

Lab Sample ID	D/F	Type	Time	Analytes															
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn
STD 240-7218/1 IC			07:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALSTD 240-7218/2 IC			07:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALSTD 240-7218/3 IC			07:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALSTD 240-7218/4 IC			07:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 240-7218/5	1		07:56	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
ICV 240-7218/6	1		08:03														X		
ICBIS 240-7218/7	1		08:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI 240-7218/8	1		08:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSA 240-7218/9	1		08:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 240-7218/10	1		08:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-7218/11			08:34																
CCB 240-7218/12			08:40																
ZZZZZZ			08:46																
ZZZZZZ			08:52																
ZZZZZZ			08:58																
ZZZZZZ			09:04																
ZZZZZZ			09:10																
ZZZZZZ			09:16																
ZZZZZZ			09:23																
ZZZZZZ			09:29																
ZZZZZZ			09:35																
ZZZZZZ			09:41																
CCV 240-7218/23			09:47																
CCB 240-7218/24			09:53																
ZZZZZZ			09:59																
ZZZZZZ			10:05																
ZZZZZZ			10:11																
ZZZZZZ			10:17																
ZZZZZZ			10:24																
ZZZZZZ			10:30																
ZZZZZZ			10:36																
ZZZZZZ			10:42																
ZZZZZZ			10:48																
ZZZZZZ			10:54																
CCV 240-7218/35	1		11:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7218/36	1		11:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			11:12																
ZZZZZZ			11:18																
CRI 240-7218/39	1		11:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MB 240-5004/1-A	1	T	11:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 240-5004/2-A	1	T	11:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-23	1	T	11:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 07/05/2011 07:34 End Date: 07/05/2011 17:03

Lab Sample ID	D/F	Type	Time	Analytes																
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn
240-681-23 SD	5	T	11:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-23 PDS	1	T	11:55												X				
240-681-23 MS	1	T	12:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-23 MSD	1	T	12:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-7218/47	1		12:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7218/48	1		12:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-22	1	T	12:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-8	1	T	12:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-16	1	T	12:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-17	1	T	12:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-10	1	T	12:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-1	1	T	12:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-26	1	T	13:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-4	1	T	13:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-2	1	T	13:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-5	1	T	13:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-7218/59	1		13:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7218/60	1		13:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-7	1	T	13:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-19	1	T	13:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-27	1	T	13:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-28	1	T	14:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-13	1	T	14:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-20	1	T	14:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-14	1	T	14:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-11	1	T	14:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI 240-7218/69	1		14:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-7218/70	1		14:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7218/71	1		14:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MB 240-5038/1-A	1	T	14:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 240-5038/2-A	1	T	14:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-30	1	T	15:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-30 SD	5	T	15:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-30 PDS	1	T	15:13												X				
240-681-30 MS	1	T	15:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-30 MSD	1	T	15:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			15:31																
ZZZZZZ			15:37																
ZZZZZZ			15:43																
CCV 240-7218/82	1		15:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7218/83	1		15:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			16:02																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 07/05/2011 07:34 End Date: 07/05/2011 17:03

Lab Sample ID	D/F	Type	Time	Analytes															
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn
ZZZZZZ			16:08																
240-681-31	1	T	16:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-33	1	T	16:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-34	1	T	16:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			16:32																
ZZZZZZ			16:38																
ZZZZZZ			16:45																
CRI 240-7218/92	1		16:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-7218/93	1		16:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7218/94	1		17:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Prep Types

T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

ICV Source: MTTRICV_00008 Concentration Units: ug/L

CCV Source: MTTRCCV_00007

	ICV 240-7218/5 07/05/2011 07:56				CCV 240-7218/35 07/05/2011 11:00				CCV 240-7218/47 07/05/2011 12:13			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	252		250	101	513		500	103	521		500	104
Arsenic	248		250	99	497		500	99	507		500	101
Barium	997		1000	100	2020		2000	101	2050		2000	102
Beryllium	1040		1000	104	2040		2000	102	2080		2000	104
Cadmium	251		250	100	496		500	99	504		500	101
Chromium	1020		1000	102	2040		2000	102	2080		2000	104
Cobalt	1020		1000	102	2040		2000	102	2080		2000	104
Copper	992		1000	99	2000		2000	100	2040		2000	102
Lead	251		250	101	495		500	99	502		500	100
Molybdenum	1020		1000	102	2000		2000	100	2050		2000	103
Nickel	1020		1000	102	2040		2000	102	2070		2000	103
Selenium	247		250	99	494		500	99	503		500	101
Silver	503		500	101	1020		1000	102	1040		1000	104
Vanadium	1000		1000	100	2020		2000	101	2060		2000	103
Zinc	1050		1000	105	2090		2000	105	2130		2000	107

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

ICV Source: MTTRICV_00008 Concentration Units: ug/L

CCV Source: MTTRCCV_00007

	CCV 240-7218/59 07/05/2011 13:29				CCV 240-7218/70 07/05/2011 14:36				CCV 240-7218/82 07/05/2011 15:50			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	520		500	104	516		500	103	517		500	103
Arsenic	504		500	101	502		500	100	505		500	101
Barium	2050		2000	103	2040		2000	102	2040		2000	102
Beryllium	2070		2000	103	2060		2000	103	2060		2000	103
Cadmium	500		500	100	497		500	99	495		500	99
Chromium	2060		2000	103	2050		2000	102	2040		2000	102
Cobalt	2060		2000	103	2040		2000	102	2040		2000	102
Copper	2040		2000	102	2020		2000	101	2030		2000	101
Lead	499		500	100	496		500	99	495		500	99
Molybdenum	2030		2000	101	2010		2000	100	2000		2000	100
Nickel	2060		2000	103	2040		2000	102	2040		2000	102
Selenium	498		500	100	496		500	99	497		500	99
Silver	1030		1000	103	1030		1000	103	1030		1000	103
Vanadium	2050		2000	102	2030		2000	102	2030		2000	101
Zinc	2120		2000	106	2100		2000	105	2100		2000	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-681-1

SDG No.:

ICV Source: MTTRICV_00008 Concentration Units: ug/L

CCV Source: MTTRCCV_00007

CCV 240-7218/93
07/05/2011 16:57

Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	517		500	103								
Arsenic	503		500	101								
Barium	2060		2000	103								
Beryllium	2060		2000	103								
Cadmium	495		500	99								
Chromium	2040		2000	102								
Cobalt	2040		2000	102								
Copper	2040		2000	102								
Lead	497		500	99								
Molybdenum	1990		2000	99								
Nickel	2050		2000	102								
Selenium	497		500	99								
Silver	1030		1000	103								
Vanadium	2030		2000	101								
Zinc	2100		2000	105								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **A. MURALI** **DATE:** **SEPTEMBER 9, 2011**

FROM: **EDWARD SEDLMYER** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION- VOC/SVOC/PCB/GRO/DRO**
LOCKHEED MARTIN – GREATER STRAWBERRY POINT
SDG 240-741-1

SAMPLES: 20/Soil/VOC/SVOC/PCB/GRO/DRO

GSP-SB-100-2-4	GSP-SB-100-6-8	GSP-SB-101-0-2
GSP-SB-101-6-8	GSP-SB-102-0-2	GSP-SB-102-6-8
GSP-SB-103-0-2	GSP-SB-103-6-8	GSP-SB-105-0-2
GSP-SB-105-6-8	GSP-SB-107-0-2	GSP-SB-107-6-8
GSP-SB-108-0-2	GSP-SB-108-6-8	GSP-SB-109-0-2
GSP-SB-109-6-8	GSP-SB-110-0-2	GSP-SB-110-6-8
GSP-SB-99-0-2	GSP-SB-99-6-8	

Overview

The sample set for Lockheed Martin – Greater Strawberry Point, SDG 240-741-1 consists of twenty (20) soil environmental samples. The samples were analyzed for volatile organic compounds (VOC), semivolatile organic compounds (SVOC), polychlorinated biphenyls (PCB), gasoline range organics (GRO), and diesel range organics (DRO).

The samples were collected by Tetra Tech on June 2, 2011 and analyzed by Test America (North Canton) for all analytical fractions except, GRO, which was analyzed by Tast America (Chicago). All analyses were conducted in accordance with SW-846 Methods 8260B, 8270D, 8082A, and 8015C analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major

- The VOC initial calibration and associated continuing calibration relative response factors (RRFs) were less than the 0.05 quality control limit for tert-butyl alcohol and vinyl acetate on instrument A3UX14. Only non-detected results were reported for tert-butyl alcohol and vinyl acetate and these results were rejected (UR).

- The VOC initial calibration and associated continuing calibration relative response factors (RRFs) were less than the 0.05 quality control limit for tert-butyl alcohol, vinyl acetate, and 2-chloroethyl vinyl ether on instrument A3UX8. Only non-detected results were reported for tert-butyl alcohol, vinyl acetate, and 2-chloroethyl vinyl ether. and these results were rejected (UR).

Minor

- The following compounds were detected in the method blanks at the maximum concentration indicated below:

Compound	Concentration	Action Level
Acetone[1]	8.89 ug/kg	89 ug/kg
Methylene chloride[1]	5.55 ug/kg	56 ug/kg
Naphthalene[1]	0.385 ug/kg	1.93 ug/kg
Acetone[2]	13.3 ug/kg	133 ug/kg
Methylene chloride[2]	5.88 ug/kg	59 ug/kg
Naphthalene[2]	0.448 ug/kg	2.24 ug/kg
1,2,4-Trichlorobenzene[3]	0.282 ug/kg	1.41 ug/kg
Naphthalene[3]	0.456 ug/kg	2.28 ug/kg
1,2,4-Trichlorobenzene[4]	0.430 ug/kg	2.15 ug/kg
Naphthalene[4]	0.605 ug/kg	3.0 ug/kg
Diesel Range Organics[5]	14.3 mg/kg	71.5 mg/kg

1 – Found in method blank associated with batch 4867 affecting samples: GSP-SB-99-0-2, GSP-SB-99-6-8, GSP-SB-100-2-4, GSP-SB-109-0-2, GSP-SB-109-6-8, GSP-SB-108-0-2, GSP-SB-108-6-8, GSP-SB-110-0-2, GSP-SB-110-6-8, GSP-SB-102-6-8, and GSP-SB-107-0-2.

2 - Found in method blank associated with batch 5027 affecting samples: GSP-SB-100-6-8, GSP-SB-102-0-2, and GSP-SB-107-6-8.

3 – Found in method blank associated with batch 4766 affecting samples: GSP-SB-103-0-2, GSP-SB-103-6-8, GSP-SB-105-6-8, GSP-SB-101-0-2, and GSP-SB-101-6-8.

4 - Found in method blank associated with batch 4936 affecting sample: GSP-SB-105-0-2.

5 – Found in method blank associated with batch 4516 affecting samples: GSP-SB-103-0-2, GSP-SB-103-6-8, GSP-SB-105-0-2, GSP-SB-105-6-8, GSP-SB-101-0-2, GSP-SB-101-6-8, GSP-SB-99-0-2, GSP-SB-99-6-8, GSP-SB-100-2-4, GSP-SB-100-6-8, GSP-SB-109-0-2, GSP-SB-109-6-8, GSP-SB-108-0-2, GSP-SB-108-6-8, GSP-SB-110-0-2, and GSP-SB-110-6-8.

An action level of 10X for acetone and methylene chloride and 5x the maximum contaminant concentration was established for naphthalene and 1,2,4-trichlorobenzene to evaluate laboratory contamination. Dilution factors and sample aliquots were taken into consideration during the application of all action levels. Positive results for acetone, methylene chloride, and naphthalene less than the action limit have been qualified as (B). Field quality control samples were not qualified for blank contamination. Acetone was detected in all trip blanks no action was taken on this basis.

- The VOC continuing calibration percent difference (%D) was greater than the quality control limit of 20% and greater than 50% for chloroethane for instrument A3UX14 on 06/15/11 @ 12:31. Only nondetected results were reported for chloroethane in the affected samples. The nondetected chloroethane results for samples GSP-SB-99-0-2, GSP-SB-99-6-8, GSP-SB-100-2-4, GSP-SB-109-0-2, GSP-SB-109-6-8, GSP-SB-108-0-2, GSP-SB-108-6-8, GSP-SB-110-0-2, GSP-SB-110-6-8, GSP-SB-102-6-8, and GSP-SB-107-0-2 were qualified as estimated (UJ).

- The VOC continuing calibration percent difference (%D) was greater than the quality control limit of 20% and greater than 50% for chloroethane for instrument A3UX14 on 06/16/11 @ 12:19. Only nondetected results were reported for chloroethane in the affected samples. The nondetected chloroethane results for samples GSP-SB-100-6-8, GSP-SB-102-0-2, and GSP-SB-107-6-8 were qualified as estimated (UJ).

- The VOC internal standard 1,4-dichlorobenzene-d4 was less than 50% recovery for sample GSP-SB-101-0-2. The nondetected results for compounds quantitated using this internal standard have been qualified as estimated (UJ) for sample GSP-SB-101-0-2.

- The SVOC internal standard 1,4-dichlorobenzene-d4 was less than the 50% recovery for sample GSP-SB-110-6-8. The nondetected results for compounds quantitiated using this internal standard have been qualified as estimated (UJ) for sample GSP-SB-110-6-8.

- Positive results less than the reporting limit (RL) were qualified as estimated, (J), due to uncertainty near the detection limit.

Notes

The VOC continuing calibration percent difference (%D) was greater than the quality control limit of 20% and less than 50% for dichlorodifluoromethane, chloromethane, bromomethane, trichlorofluoromethane, bromoform, and 1,2-dibromo-3-chloropropane for instrument A3UX14 on 06/14/11 @ 12:31. All associated sample results were non-detects for the aforementioned compounds and no data qualification was necessary.

The VOC continuing calibration percent difference (%D) was greater than the quality control limit of 20% and less than 50% for carbon disulfide, bromoform, and 1,2-dibromo-3-chloropropane for instrument A3UX14 on 06/14/11 @ 12:31. All associated sample results were non-detects for the aforementioned compounds and no data qualification was necessary.

The VOC continuing calibration percent difference (%D) was greater than the quality control limit of 20% and less than 50% for dichlorofluoromethane for instrument A3UX8 on 06/14/11 @ 20:22. All associated sample results were non-detects for the aforementioned compounds and no data qualification was necessary.

The VOC continuing calibration percent difference (%D) was greater than the quality control limit of 20% and less than 50% for carbon tetrachloride, dibromochloromethane, bromoform, and 1,2-dibromo-3-chloropropane, dichlorofluoromethane for instrument A3UX8 on 06/14/11 @ 20:22. All associated sample results were non-detects for the aforementioned compounds and no data qualification was necessary.

The laboratory control sample (LCS) associated with batch 4867 had percent recoveries greater than the quality control limit for chloroethane and chloromethane. No action was taken on this basis because only nondetects were reported for these compounds.

The laboratory control sample (LCS) associated with batch 4936 had a percent recovery greater than the quality control limit for bromodichloromethane. No action was taken on this basis because only a nondetect was reported for bromodichloromethane.

The LCS and matrix spike / matrix spike duplicate (MS/MSD) associated with batch 5027 had percent recoveries greater than the quality control limit for chloroethane. No action was taken on this basis because only nondetects were reported for chloroethane.

The VOC laboratory matrix spikes associated with batch 4766 and 4936 had percent recovery less than the quality control limit for tetrachloroethene in the MS and vinyl acetate in the MSD. No action was taken on this basis because the samples were not Tetra Tech samples.

The following samples required a dilution due to concentrations greater than the linear calibration range:

Sample Number	Dilution Factor	Compound
GSP-SB-101-0-2	5	Several PAHs
GSP-SB-102-6-8	5	Several PAHs
GSP-SB-105-0-2	5	Several PAHs

GSP-SB-109-0-2	10	Several PAHs
GSP-SB-110-6-8	10	Several PAHs
GSP-SB-109-6-8	25	Several PAHs
GSP-SB-109-6-8	2	DRO

The laboratory only submitted one run for the aforementioned samples so this accounts for the elevated detection limits for the nondetected compounds.

Napthalene and hexachlorobutadiene were reported in both the VOC and SVOC analytical fractions. No validation action was taken on this basis.

Executive Summary

Laboratory Performance: Three VOC compounds had RRF noncompliances resulting in the rejection of data. Chloroethane was qualified as estimated in several samples due to a percent difference calibration noncompliance. Blank contamination for the VOC and DRO fraction resulted in the qualification of data. Internal standard recovery noncompliances resulted in the qualification of data for VOC and SVOC fractions.

Other Factors Affecting Data Quality: Positive results less than the reporting limit (RL) were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Edward Sedlmyer
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279	NSAMPLE	GSP-SB-100-2-4			GSP-SB-100-6-8			GSP-SB-101-0-2			GSP-SB-101-6-8		
SDG: 240-741-1	LAB_ID	240-741-9			240-741-10			240-741-5			240-741-6		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.8			89.8			94.7			85.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.54	U		0.54	U		0.6	U		0.59	U	
1,1,1-TRICHLOROETHANE		0.49	U		0.48	U		0.54	U		0.53	U	
1,1,2,2-TETRACHLOROETHANE		0.3	U		0.29	U		0.33	UJ	N	0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.1	U		1.1	U		1.3	U		1.2	U	
1,1-DICHLOROETHANE		0.32	U		0.31	U		0.35	U		0.34	U	
1,1-DICHLOROETHENE		0.46	U		0.45	U		0.5	U		0.49	U	
1,1-DICHLOROPROPENE		0.26	U		0.26	U		0.29	U		0.28	U	
1,2,3-TRICHLOROBENZENE		0.33	U		0.33	U		0.37	U		0.36	U	
1,2,3-TRICHLOROPROPANE		0.79	U		0.78	U		0.87	UJ	N	0.85	U	
1,2,3-TRIMETHYLBENZENE		0.15	U		0.15	U		0.16	UJ	N	0.16	U	
1,2,4-TRICHLOROBENZENE		0.24	U		0.23	U		0.26	UJ	N	0.26	U	
1,2,4-TRIMETHYLBENZENE		0.57	U		0.56	U		0.63	UJ	N	0.62	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.1	U		1.1	U		1.3	UJ	N	1.2	U	
1,2-DIBROMOETHANE		0.44	U		0.43	U		0.49	U		0.47	U	
1,2-DICHLOROBENZENE		0.32	U		0.31	U		0.35	UJ	N	0.34	U	
1,2-DICHLOROETHANE		0.3	U		0.29	U		0.33	U		0.32	U	
1,2-DICHLOROPROPANE		0.6	U		0.6	U		0.67	U		0.65	U	
1,3-DICHLOROBENZENE		0.31	U		0.3	U		0.34	UJ	N	0.33	U	
1,3-DICHLOROPROPANE		0.3	U		0.29	U		0.33	U		0.32	U	
1,4-DICHLOROBENZENE		0.58	U		0.57	U		0.64	UJ	N	0.63	U	
2,2-DICHLOROPROPANE		0.82	U		0.81	U		0.91	U		0.89	U	
2-BUTANONE		1.2	U		1.2	U		1.8	J	P	1.3	U	
2-CHLOROETHYL VINYL ETHER		1.2	U		1.2	U		1.4	UR	C	1.3	UR	C
2-CHLOROTOLUENE		0.35	U		0.35	U		0.39	U		0.38	U	
2-HEXANONE		0.55	U		0.54	U		0.61	U		0.6	U	
4-CHLOROTOLUENE		0.36	U		0.35	U		0.4	U		0.39	U	
4-ISOPROPYLTOLUENE		0.18	U		0.18	U		0.2	UJ	N	0.2	U	
4-METHYL-2-PENTANONE		0.47	U		0.47	U		0.52	U		0.51	U	
ACETONE		19	B	A	21	B	A	6.1	U		6	U	
BENZENE		0.2	U		0.2	U		0.22	U		0.22	U	
BROMOBENZENE		0.29	U		0.28	U		0.32	UJ	N	0.31	U	
BROMOCHLOROMETHANE		0.62	U		0.61	U		0.69	U		0.67	U	
BROMODICHLOROMETHANE		0.25	U		0.24	U		0.27	U		0.27	U	
BROMOFORM		0.29	U		0.28	U		0.32	U		0.31	U	
BROMOMETHANE		0.47	U		0.47	U		0.52	U		0.51	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-102-0-2			GSP-SB-102-6-8			GSP-SB-103-0-2			GSP-SB-103-6-8		
SDG: 240-741-1	LAB_ID	240-742-7			240-742-8			240-741-1			240-741-2		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.8			92.8			84.9			90.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.75	U		0.58	U		0.47	U		0.58	U	
1,1,1-TRICHLOROETHANE		0.67	U		0.53	U		0.43	U		0.52	U	
1,1,2,2-TETRACHLOROETHANE		0.41	U		0.32	U		0.26	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.6	U		1.2	U		0.99	U		1.2	U	
1,1-DICHLOROETHANE		0.43	U		0.34	U		0.27	U		0.34	U	
1,1-DICHLOROETHENE		0.63	U		0.49	U		0.39	U		0.49	U	
1,1-DICHLOROPROPENE		0.36	U		0.28	U		0.23	U		0.28	U	
1,2,3-TRICHLOROBENZENE		0.46	U		0.36	U		0.29	U		0.36	U	
1,2,3-TRICHLOROPROPANE		1.1	U		0.84	U		0.68	U		0.84	U	
1,2,3-TRIMETHYLBENZENE		0.2	U		0.16	U		0.13	U		0.16	U	
1,2,4-TRICHLOROBENZENE		0.32	U		0.25	U		0.2	U		0.25	U	
1,2,4-TRIMETHYLBENZENE		0.78	U		0.61	U		0.49	U		0.61	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.6	U		1.2	U		0.99	U		1.2	U	
1,2-DIBROMOETHANE		0.6	U		0.47	U		0.38	U		0.47	U	
1,2-DICHLOROBENZENE		0.43	U		0.34	U		0.27	U		0.34	U	
1,2-DICHLOROETHANE		0.41	U		0.32	U		0.26	U		0.32	U	
1,2-DICHLOROPROPANE		0.83	U		0.65	U		0.52	U		0.65	U	
1,3-DICHLOROBENZENE		0.42	U		0.33	U		0.27	U		0.33	U	
1,3-DICHLOROPROPANE		0.41	U		0.32	U		0.26	U		0.32	U	
1,4-DICHLOROBENZENE		0.79	U		0.62	U		0.5	U		0.62	U	
2,2-DICHLOROPROPANE		1.1	U		0.88	U		0.71	U		0.88	U	
2-BUTANONE		1.7	U		1.3	U		1.1	U		1.3	U	
2-CHLOROETHYL VINYL ETHER		1.7	U		1.3	U		1.1	UR	C	1.3	UR	C
2-CHLOROTOLUENE		0.48	U		0.38	U		0.3	U		0.37	U	
2-HEXANONE		0.76	U		0.59	U		0.48	U		0.59	U	
4-CHLOROTOLUENE		0.49	U		0.38	U		0.31	U		0.38	U	
4-ISOPROPYLTOLUENE		0.25	U		0.2	U		0.16	U		0.2	U	
4-METHYL-2-PENTANONE		0.65	U		0.51	U		0.41	U		0.51	U	
ACETONE		7.6	U		14	B	A	4.8	U		5.9	U	
BENZENE		0.28	U		0.22	U		0.17	U		0.22	U	
BROMOBENZENE		0.4	U		0.31	U		0.25	U		0.31	U	
BROMOCHLOROMETHANE		0.85	U		0.67	U		0.54	U		0.67	U	
BROMODICHLOROMETHANE		0.34	U		0.26	U		0.21	U		0.26	U	
BROMOFORM		0.4	U		0.31	U		0.25	U		0.31	U	
BROMOMETHANE		0.65	U		0.51	U		0.41	U		0.51	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-105-0-2			GSP-SB-105-6-8			GSP-SB-107-0-2			GSP-SB-107-6-8		
SDG: 240-741-1	LAB_ID	240-741-3			240-741-4			240-742-9			240-742-10		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.2			87.8			80.9			83.7		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE	0.6	U		0.52	U		0.67	U		0.59	U	
1,1,1-TRICHLOROETHANE	0.54	U		0.47	U		0.61	U		0.53	U	
1,1,2,2-TETRACHLOROETHANE	0.33	U		0.29	U		0.37	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	1.3	U		1.1	U		1.4	U		1.2	U	
1,1-DICHLOROETHANE	0.35	U		0.3	U		0.39	U		0.34	U	
1,1-DICHLOROETHENE	0.5	U		0.44	U		0.57	U		0.49	U	
1,1-DICHLOROPROPENE	0.29	U		0.25	U		0.33	U		0.28	U	
1,2,3-TRICHLOROBENZENE	0.37	U		0.32	U		0.41	U		0.36	U	
1,2,3-TRICHLOROPROPANE	0.87	U		0.76	U		0.98	U		0.85	U	
1,2,3-TRIMETHYLBENZENE	0.16	U		0.14	U		0.19	U		0.16	U	
1,2,4-TRICHLOROBENZENE	0.26	U		0.23	U		0.29	U		0.25	U	
1,2,4-TRIMETHYLBENZENE	0.63	U		0.55	U		0.71	U		0.61	U	
1,2-DIBROMO-3-CHLOROPROPANE	1.3	U		1.1	U		1.4	U		1.2	U	
1,2-DIBROMOETHANE	0.48	U		0.42	U		0.54	U		0.47	U	
1,2-DICHLOROBENZENE	0.35	U		0.3	U		0.39	U		0.34	U	
1,2-DICHLOROETHANE	0.33	U		0.29	U		0.37	U		0.32	U	
1,2-DICHLOROPROPANE	0.66	U		0.58	U		0.75	U		0.65	U	
1,3-DICHLOROBENZENE	0.34	U		0.3	U		0.38	U		0.33	U	
1,3-DICHLOROPROPANE	0.33	U		0.29	U		0.37	U		0.32	U	
1,4-DICHLOROBENZENE	0.64	U		0.56	U		0.72	U		0.62	U	
2,2-DICHLOROPROPANE	0.9	U		0.79	U		1	U		0.89	U	
2-BUTANONE	9.8	J	P	1.2	U		2.6	J	P	3.9	J	P
2-CHLOROETHYL VINYL ETHER	1.3	UR	C	1.2	UR	C	1.5	U		1.3	U	
2-CHLOROTOLUENE	0.38	U		0.34	U		0.44	U		0.38	U	
2-HEXANONE	0.61	U		0.53	U		0.69	U		0.59	U	
4-CHLOROTOLUENE	0.39	U		0.35	U		0.45	U		0.39	U	
4-ISOPROPYLTOLUENE	0.2	U		0.18	U		0.23	U		0.2	U	
4-METHYL-2-PENTANONE	0.52	U		0.46	U		0.59	U		0.51	U	
ACETONE	64			5.3	U		34	B	A	21	B	A
BENZENE	0.22	U		0.19	U		0.25	U		0.22	U	
BROMOBENZENE	0.32	U		0.28	U		0.36	U		0.31	U	
BROMOCHLOROMETHANE	0.68	U		0.6	U		0.77	U		0.67	U	
BROMODICHLOROMETHANE	0.27	U *		0.24	U		0.3	U		0.26	U	
BROMOFORM	0.32	U		0.28	U		0.36	U		0.31	U	
BROMOMETHANE	0.52	U		0.46	U		0.59	U		0.51	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-108-0-2			GSP-SB-108-6-8			GSP-SB-109-0-2			GSP-SB-109-6-8		
SDG: 240-741-1	LAB_ID	240-742-3			240-742-4			240-742-1			240-742-2		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.1			84.1			95.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.52	U		0.52	U		0.57	U		0.59	U	
1,1,1-TRICHLOROETHANE		0.47	U		0.47	U		0.51	U		0.53	U	
1,1,2,2-TETRACHLOROETHANE		0.29	U		0.28	U		0.31	U		0.32	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.1	U		1.1	U		1.2	U		1.2	U	
1,1-DICHLOROETHANE		0.3	U		0.3	U		0.33	U		0.34	U	
1,1-DICHLOROETHENE		0.44	U		0.44	U		0.48	U		0.49	U	
1,1-DICHLOROPROPENE		0.25	U		0.25	U		0.28	U		0.28	U	
1,2,3-TRICHLOROBENZENE		0.32	U		0.32	U		0.35	U		0.36	U	
1,2,3-TRICHLOROPROPANE		0.76	U		0.75	U		0.83	U		0.85	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.14	U		0.16	U		0.16	U	
1,2,4-TRICHLOROBENZENE		0.23	U		0.23	U		0.25	U		0.25	U	
1,2,4-TRIMETHYLBENZENE		0.55	U		0.54	U		0.6	U		0.61	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.1	U		1.1	U		1.2	U		1.2	U	
1,2-DIBROMOETHANE		0.42	U		0.42	U		0.46	U		0.47	U	
1,2-DICHLOROBENZENE		0.3	U		0.3	U		0.33	U		0.34	U	
1,2-DICHLOROETHANE		0.29	U		0.28	U		0.31	U		0.32	U	
1,2-DICHLOROPROPANE		0.58	U		0.58	U		0.63	U		0.65	U	
1,3-DICHLOROBENZENE		0.29	U		0.29	U		0.32	U		0.33	U	
1,3-DICHLOROPROPANE		0.29	U		0.28	U		0.31	U		0.32	U	
1,4-DICHLOROBENZENE		0.55	U		0.55	U		0.61	U		0.62	U	
2,2-DICHLOROPROPANE		0.79	U		0.79	U		0.86	U		0.89	U	
2-BUTANONE		1.2	U		1.2	U		1.7	J	P	1.9	J	P
2-CHLOROETHYL VINYL ETHER		1.2	U		1.2	U		1.3	U		1.3	U	
2-CHLOROTOLUENE		0.34	U		0.34	U		0.37	U		0.38	U	
2-HEXANONE		0.53	U		0.53	U		0.58	U		0.59	U	
4-CHLOROTOLUENE		0.34	U		0.34	U		0.38	U		0.39	U	
4-ISOPROPYLTOLUENE		0.18	U		0.18	U		0.19	U		0.2	U	
4-METHYL-2-PENTANONE		0.45	U		0.45	U		0.5	U		0.51	U	
ACETONE		5.9	B	A	23	B	A	12	B	A	25	B	A
BENZENE		0.19	U		0.19	U		0.21	U		0.22	U	
BROMOBENZENE		0.28	U		0.28	U		0.3	U		0.31	U	
BROMOCHLOROMETHANE		0.6	U		0.6	U		0.65	U		0.67	U	
BROMODICHLOROMETHANE		0.23	U		0.23	U		0.26	U		0.26	U	
BROMOFORM		0.28	U		0.28	U		0.3	U		0.31	U	
BROMOMETHANE		0.45	U		0.45	U		0.5	U		0.51	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-110-0-2			GSP-SB-110-6-8			GSP-SB-99-0-2			GSP-SB-99-6-8		
SDG: 240-741-1	LAB_ID	240-742-5			240-742-6			240-741-7			240-741-8		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.8			92.8			86.9			80.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.53	U		0.77	U		0.6	U		0.6	U	
1,1,1-TRICHLOROETHANE		0.48	U		0.7	U		0.54	U		0.55	U	
1,1,2,2-TETRACHLOROETHANE		0.29	U		0.42	U		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.1	U		1.6	U		1.3	U		1.3	U	
1,1-DICHLOROETHANE		0.31	U		0.45	U		0.35	U		0.35	U	
1,1-DICHLOROETHENE		0.44	U		0.65	U		0.5	U		0.51	U	
1,1-DICHLOROPROPENE		0.26	U		0.37	U		0.29	U		0.29	U	
1,2,3-TRICHLOROBENZENE		0.32	U		0.47	U		0.37	U		0.37	U	
1,2,3-TRICHLOROPROPANE		0.77	U		1.1	U		0.87	U		0.88	U	
1,2,3-TRIMETHYLBENZENE		0.14	U		0.21	U		0.16	U		0.17	U	
1,2,4-TRICHLOROBENZENE		0.23	U		0.34	U		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.55	U		0.81	U		0.63	U		0.63	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.1	U		1.6	U		1.3	U		1.3	U	
1,2-DIBROMOETHANE		0.43	U		0.62	U		0.48	U		0.49	U	
1,2-DICHLOROBENZENE		0.31	U		0.45	U		0.35	U		0.35	U	
1,2-DICHLOROETHANE		0.29	U		0.42	U		0.33	U		0.33	U	
1,2-DICHLOROPROPANE		0.59	U		0.86	U		0.67	U		0.67	U	
1,3-DICHLOROBENZENE		0.3	U		0.44	U		0.34	U		0.34	U	
1,3-DICHLOROPROPANE		0.29	U		0.42	U		0.33	U		0.33	U	
1,4-DICHLOROBENZENE		0.56	U		0.82	U		0.64	U		0.64	U	
2,2-DICHLOROPROPANE		0.8	U		1.2	U		0.91	U		0.92	U	
2-BUTANONE		1.2	U		1.7	U		1.3	U		1.4	U	
2-CHLOROETHYL VINYL ETHER		1.2	U		1.7	U		1.3	U		1.4	U	
2-CHLOROTOLUENE		0.34	U		0.5	U		0.39	U		0.39	U	
2-HEXANONE		0.54	U		0.79	U		0.61	U		0.61	U	
4-CHLOROTOLUENE		0.35	U		0.51	U		0.4	U		0.4	U	
4-ISOPROPYLTOLUENE		0.18	U		0.26	U		0.2	U		0.2	U	
4-METHYL-2-PENTANONE		0.46	U		0.67	U		0.52	U		0.53	U	
ACETONE		16	B	A	7.9	U		9.5	B	A	7.6	B	A
BENZENE		0.2	U		0.29	U		0.22	U		0.22	U	
BROMOBENZENE		0.28	U		0.41	U		0.32	U		0.32	U	
BROMOCHLOROMETHANE		0.6	U		0.89	U		0.68	U		0.69	U	
BROMODICHLOROMETHANE		0.24	U		0.35	U		0.27	U		0.27	U	
BROMOFORM		0.28	U		0.41	U		0.32	U		0.32	U	
BROMOMETHANE		0.46	U		0.67	U		0.52	U		0.53	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-100-2-4			GSP-SB-100-6-8			GSP-SB-101-0-2			GSP-SB-101-6-8		
SDG: 240-741-1	LAB_ID	240-741-9			240-741-10			240-741-5			240-741-6		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.8			89.8			94.7			85.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.39	U		0.38	U		3	J	P	0.42	U	
CARBON TETRACHLORIDE		0.32	U		0.32	U		0.36	U		0.35	U	
CHLOROBENZENE		0.29	U		0.28	U		0.32	U		0.31	U	
CHLORODIBROMOMETHANE		0.48	U		0.47	U		0.53	U		0.52	U	
CHLOROETHANE		0.75	UJ	C	0.74	UJ	C	0.83	U		0.81	U	
CHLOROFORM		0.25	U		0.25	U		0.28	U		0.27	U	
CHLOROMETHANE		0.36	U *		0.35	U		0.4	U		0.39	U	
CIS-1,2-DICHLOROETHENE		0.32	U		0.31	U		0.35	U		0.34	U	
CIS-1,3-DICHLOROPROPENE		0.3	U		0.29	U		0.33	U		0.32	U	
DIBROMOMETHANE		0.55	U		0.54	U		0.61	U		0.6	U	
DICHLORODIFLUOROMETHANE		0.44	U		0.43	U		0.49	U		0.47	U	
DIISOPROPYL ETHER		1.3	U		1.3	U		1.5	U		1.4	U	
ETHYL TERT-BUTYL ETHER		0.19	U		0.19	U		0.21	U		0.21	U	
ETHYLBENZENE		0.23	U		0.22	U		0.25	U		0.25	U	
HEXACHLOROBUTADIENE		1.1	U		1	U		1.2	UJ	N	1.1	U	
ISOPROPYLBENZENE		0.14	U		0.14	U		0.16	U		0.15	U	
M+P-XYLENES		1.1	U		1	U		1.2	U		1.1	U	
METHYL TERT-BUTYL ETHER		0.38	U		0.37	U		0.42	U		0.41	U	
METHYLENE CHLORIDE		2.5	B	A	3.5	B	A	0.65	U		0.63	U	
NAPHTHALENE		0.17	U		0.36	B	A	0.18	UJ	N	0.18	U	
N-BUTYLBENZENE		0.2	U		0.2	U		0.22	UJ	N	0.22	U	
N-PROPYLBENZENE		0.35	U		0.35	U		0.39	UJ	N	0.38	U	
O-XYLENE		0.31	U		0.3	U		0.34	U		0.33	U	
SEC-BUTYLBENZENE		0.16	U		0.16	U		0.17	UJ	N	0.17	U	
STYRENE		0.13	U		0.13	U		0.15	U		0.14	U	
TERT-AMYL METHYL ETHER		0.32	U		0.32	U		0.36	U		0.35	U	
TERT-BUTYLBENZENE		0.25	U		0.25	U		0.28	UJ	N	0.27	U	
TERTIARY-BUTYL ALCOHOL		6.7	UR	C	6.6	UR	C	7.4	UR	C	7.2	UR	C
TETRACHLOROETHENE		0.46	U		0.45	U		0.5	U		0.49	U	
TOLUENE		0.28	J	P	0.26	J	P	0.26	U		0.26	U	
TOTAL XYLENES		0.59	U		0.58	U		0.65	U		0.63	U	
TRANS-1,2-DICHLOROETHENE		0.36	U		0.35	U		0.4	U		0.39	U	
TRANS-1,3-DICHLOROPROPENE		0.47	U		0.47	U		0.52	U		0.51	U	
TRICHLOROETHENE		0.37	U		0.36	U		0.41	U		0.4	U	
TRICHLOROFLUOROMETHANE		0.3	U		0.29	U		0.33	U		0.32	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-102-0-2			GSP-SB-102-6-8			GSP-SB-103-0-2			GSP-SB-103-6-8		
SDG: 240-741-1	LAB_ID	240-742-7			240-742-8			240-741-1			240-741-2		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.8			92.8			84.9			90.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.53	U		0.41	U		0.33	U		0.41	U	
CARBON TETRACHLORIDE		0.45	U		0.35	U		0.28	U		0.35	U	
CHLOROBENZENE		0.4	U		0.31	U		0.25	U		0.31	U	
CHLORODIBROMOMETHANE		0.66	U		0.52	U		0.42	U		0.52	U	
CHLOROETHANE		1	UJ	C	0.81	UJ	C	0.65	U		0.81	U	
CHLOROFORM		0.35	U		0.27	U		0.22	U		0.27	U	
CHLOROMETHANE		0.49	U		0.38	U *		0.31	U		0.38	U	
CIS-1,2-DICHLOROETHENE		0.43	U		0.34	U		0.27	U		0.34	U	
CIS-1,3-DICHLOROPROPENE		0.41	U		0.32	U		0.26	U		0.32	U	
DIBROMOMETHANE		0.76	U		0.59	U		0.48	U		0.59	U	
DICHLORODIFLUOROMETHANE		0.6	U		0.47	U		0.38	U		0.47	U	
DIISOPROPYL ETHER		1.8	U		1.4	U		1.1	U		1.4	U	
ETHYL TERT-BUTYL ETHER		0.26	U		0.21	U		0.17	U		0.21	U	
ETHYLBENZENE		0.31	U		0.24	U		0.2	U		0.24	U	
HEXACHLOROBUTADIENE		1.4	U		1.1	U		0.91	U		1.1	U	
ISOPROPYLBENZENE		0.19	U		0.15	U		0.12	U		0.15	U	
M+P-XYLENES		1.4	U		1.1	U		0.91	U		1.1	U	
METHYL TERT-BUTYL ETHER		0.52	U		0.4	U		0.33	U		0.4	U	
METHYLENE CHLORIDE		3.7	B	A	3.2	B	A	0.51	U		0.63	U	
NAPHTHALENE		4	J	P	0.26	B	A	0.14	U		0.18	U	
N-BUTYLBENZENE		0.28	U		0.22	U		0.17	U		0.22	U	
N-PROPYLBENZENE		0.48	U		0.38	U		0.3	U		0.37	U	
O-XYLENE		0.42	U		0.33	U		0.27	U		0.33	U	
SEC-BUTYLBENZENE		0.22	U		0.17	U		0.14	U		0.17	U	
STYRENE		0.18	U		0.14	U		0.11	U		0.14	U	
TERT-AMYL METHYL ETHER		0.45	U		0.35	U		0.28	U		0.35	U	
TERT-BUTYLBENZENE		0.35	U		0.27	U		0.22	U		0.27	U	
TERTIARY-BUTYL ALCOHOL		9.1	UR	C	7.1	UR	C	5.8	UR	C	7.1	UR	C
TETRACHLOROETHENE		0.63	U		0.49	U		0.39	U		0.49	U	
TOLUENE		0.59	J	P	0.29	J	P	0.2	U		0.25	U	
TOTAL XYLENES		0.81	U		0.63	U		0.51	U		0.63	U	
TRANS-1,2-DICHLOROETHENE		0.49	U		0.38	U		0.31	U		0.38	U	
TRANS-1,3-DICHLOROPROPENE		0.65	U		0.51	U		0.41	U		0.51	U	
TRICHLOROETHENE		0.51	U		0.39	U		0.32	U		0.39	U	
TRICHLOROFLUOROMETHANE		0.41	U		0.32	U		0.26	U		0.32	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-105-0-2			GSP-SB-105-6-8			GSP-SB-107-0-2			GSP-SB-107-6-8		
SDG: 240-741-1	LAB_ID	240-741-3			240-741-4			240-742-9			240-742-10		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.2			87.8			80.9			83.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.42	U		0.37	U		0.48	U		0.42	U	
CARBON TETRACHLORIDE		0.36	U		0.31	U		0.4	U		0.35	U	
CHLOROBENZENE		0.32	U		0.28	U		0.36	U		0.31	U	
CHLORODIBROMOMETHANE		0.53	U		0.47	U		0.6	U		0.52	U	
CHLOROETHANE		0.83	U		0.73	U		0.94	UJ	C	0.81	UJ	C
CHLOROFORM		0.28	U		0.25	U		0.32	U		0.27	U	
CHLOROMETHANE		0.39	U		0.35	U		0.45	U *		0.39	U	
CIS-1,2-DICHLOROETHENE		0.35	U		0.3	U		0.39	U		0.34	U	
CIS-1,3-DICHLOROPROPENE		0.33	U		0.29	U		0.37	U		0.32	U	
DIBROMOMETHANE		0.61	U		0.53	U		0.69	U		0.59	U	
DICHLORODIFLUOROMETHANE		0.48	U		0.42	U		0.54	U		0.47	U	
DIISOPROPYL ETHER		1.4	U		1.3	U		1.6	U		1.4	U	
ETHYL TERT-BUTYL ETHER		0.21	U		0.19	U		0.24	U		0.21	U	
ETHYLBENZENE		0.25	U		0.22	U		0.28	U		0.25	U	
HEXACHLOROBUTADIENE		1.2	U		1	U		1.3	U		1.1	U	
ISOPROPYLBENZENE		0.15	U		0.14	U		0.17	U		0.15	U	
M+P-XYLENES		1.2	U		1	U		1.3	U		1.1	U	
METHYL TERT-BUTYL ETHER		0.41	U		0.36	U		0.47	U		0.41	U	
METHYLENE CHLORIDE		0.64	U		0.57	U		4	B	A	3.9	B	A
NAPHTHALENE		0.18	U		0.16	U		0.21	U		0.18	U	
N-BUTYLBENZENE		0.22	U		0.19	U		0.25	U		0.22	U	
N-PROPYLBENZENE		0.38	U		0.34	U		0.44	U		0.38	U	
O-XYLENE		0.34	U		0.3	U		0.38	U		0.33	U	
SEC-BUTYLBENZENE		0.17	U		0.15	U		0.2	U		0.17	U	
STYRENE		0.14	U		0.13	U		0.16	U		0.14	U	
TERT-AMYL METHYL ETHER		0.36	U		0.31	U		0.4	U		0.35	U	
TERT-BUTYLBENZENE		0.28	U		0.25	U		0.32	U		0.27	U	
TERTIARY-BUTYL ALCOHOL		7.3	UR	C	6.4	UR	C	8.3	UR	C	7.2	UR	C
TETRACHLOROETHENE		0.5	U		0.44	U		0.57	U		0.49	U	
TOLUENE		0.26	U		0.23	U		0.29	J	P	0.25	U	
TOTAL XYLENES		0.64	U		0.57	U		0.73	U		0.63	U	
TRANS-1,2-DICHLOROETHENE		0.39	U		0.35	U		0.45	U		0.39	U	
TRANS-1,3-DICHLOROPROPENE		0.52	U		0.46	U		0.59	U		0.51	U	
TRICHLOROETHENE		0.4	U		0.36	U		0.46	U		0.4	U	
TRICHLOROFLUOROMETHANE		0.33	U		0.29	U		0.37	U		0.32	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-108-0-2			GSP-SB-108-6-8			GSP-SB-109-0-2			GSP-SB-109-6-8		
SDG: 240-741-1	LAB_ID	240-742-3			240-742-4			240-742-1			240-742-2		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.1			84.1			95.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.37	U		0.37	U		0.4	U		0.42	U	
CARBON TETRACHLORIDE		0.31	U		0.31	U		0.34	U		0.35	U	
CHLOROBENZENE		0.28	U		0.28	U		0.3	U		0.31	U	
CHLORODIBROMOMETHANE		0.46	U		0.46	U		0.5	U		0.52	U	
CHLOROETHANE		0.72	UJ	C	0.72	UJ	C	0.79	UJ	C	0.81	UJ	C
CHLOROFORM		0.24	U		0.24	U		0.27	U		0.27	U	
CHLOROMETHANE		0.34	U *		0.34	U *		0.38	U *		0.39	U *	
CIS-1,2-DICHLOROETHENE		0.3	U		0.3	U		0.33	U		0.34	U	
CIS-1,3-DICHLOROPROPENE		0.29	U		0.28	U		0.31	U		0.32	U	
DIBROMOMETHANE		0.53	U		0.53	U		0.58	U		0.59	U	
DICHLORODIFLUOROMETHANE		0.42	U		0.42	U		0.46	U		0.47	U	
DIISOPROPYL ETHER		1.3	U		1.3	U		1.4	U		1.4	U	
ETHYL TERT-BUTYL ETHER		0.18	U		0.18	U		0.2	U		0.21	U	
ETHYLBENZENE		0.22	U		0.22	U		0.24	U		0.25	U	
HEXACHLOROBUTADIENE		1	U		1	U		1.1	U		1.1	U	
ISOPROPYLBENZENE		0.13	U		0.13	U		0.15	U		0.15	U	
M+P-XYLENES		1	U		1	U		1.1	U		1.1	U	
METHYL TERT-BUTYL ETHER		0.36	U		0.36	U		0.39	U		0.41	U	
METHYLENE CHLORIDE		2.3	B	A	2.4	B	A	2.3	B	A	3	B	A
NAPHTHALENE		0.16	U		0.16	U		0.55	B	A	0.18	U	
N-BUTYLBENZENE		0.19	U		0.19	U		0.21	U		0.22	U	
N-PROPYLBENZENE		0.34	U		0.34	U		0.37	U		0.38	U	
O-XYLENE		0.29	U		0.29	U		0.32	U		0.33	U	
SEC-BUTYLBENZENE		0.15	U		0.15	U		0.17	U		0.17	U	
STYRENE		0.13	U		0.13	U		0.14	U		0.14	U	
TERT-AMYL METHYL ETHER		0.31	U		0.31	U		0.34	U		0.35	U	
TERT-BUTYLBENZENE		0.24	U		0.24	U		0.27	U		0.27	U	
TERTIARY-BUTYL ALCOHOL		6.4	UR	C	6.4	UR	C	7	UR	C	7.2	UR	C
TETRACHLOROETHENE		0.44	U		0.44	U		0.48	U		0.49	U	
TOLUENE		0.27	J	P	0.33	J	P	0.42	J	P	0.25	U	
TOTAL XYLENES		0.56	U		0.56	U		0.61	U		0.63	U	
TRANS-1,2-DICHLOROETHENE		0.34	U		0.34	U		0.38	U		0.39	U	
TRANS-1,3-DICHLOROPROPENE		0.45	U		0.45	U		0.5	U		0.51	U	
TRICHLOROETHENE		0.35	U		0.35	U		0.39	U		0.4	U	
TRICHLOROFLUOROMETHANE		0.29	U		0.28	U		0.31	U		0.32	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-110-0-2			GSP-SB-110-6-8			GSP-SB-99-0-2			GSP-SB-99-6-8		
SDG: 240-741-1	LAB_ID	240-742-5			240-742-6			240-741-7			240-741-8		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.8			92.8			86.9			80.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.37	U		0.55	U		0.42	U		0.43	U	
CARBON TETRACHLORIDE		0.31	U		0.46	U		0.36	U		0.36	U	
CHLOROBENZENE		0.28	U		0.41	U		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.47	U		0.69	U		0.53	U		0.54	U	
CHLOROETHANE		0.73	UJ	C	1.1	UJ	C	0.83	UJ	C	0.84	UJ	C
CHLOROFORM		0.25	U		0.36	U		0.28	U		0.28	U	
CHLOROMETHANE		0.35	U *		0.51	U *		0.4	U *		0.4	U *	
CIS-1,2-DICHLOROETHENE		0.31	U		0.45	U		0.35	U		0.35	U	
CIS-1,3-DICHLOROPROPENE		0.29	U		0.42	U		0.33	U		0.33	U	
DIBROMOMETHANE		0.54	U		0.79	U		0.61	U		0.61	U	
DICHLORODIFLUOROMETHANE		0.43	U		0.62	U		0.48	U		0.49	U	
DIISOPROPYL ETHER		1.3	U		1.9	U		1.4	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.19	U		0.27	U		0.21	U		0.21	U	
ETHYLBENZENE		0.22	U		0.32	U		0.25	U		0.25	U	
HEXACHLOROBUTADIENE		1	U		1.5	U		1.2	U		1.2	U	
ISOPROPYLBENZENE		0.14	U		0.2	U		0.15	U		0.16	U	
M+P-XYLENES		1	U		1.5	U		1.2	U		1.2	U	
METHYL TERT-BUTYL ETHER		0.37	U		0.54	U		0.41	U		0.42	U	
METHYLENE CHLORIDE		3	B	A	5	B	A	3	B	A	3.1	B	A
NAPHTHALENE		0.16	U		0.25	B	A	0.18	U		0.19	U	
N-BUTYLBENZENE		0.2	U		0.29	U		0.22	U		0.22	U	
N-PROPYLBENZENE		0.34	U		0.5	U		0.39	U		0.39	U	
O-XYLENE		0.52	J	P	0.44	U		0.34	U		0.34	U	
SEC-BUTYLBENZENE		0.15	U		0.22	U		0.17	U		0.18	U	
STYRENE		0.13	U		0.19	U		0.14	U		0.15	U	
TERT-AMYL METHYL ETHER		0.31	U		0.46	U		0.36	U		0.36	U	
TERT-BUTYLBENZENE		0.25	U		0.36	U		0.28	U		0.28	U	
TERTIARY-BUTYL ALCOHOL		6.5	UR	C	9.5	UR	C	7.3	UR	C	7.4	UR	C
TETRACHLOROETHENE		0.44	U		0.65	U		0.5	U		0.51	U	
TOLUENE		0.66	J	P	0.39	J	P	0.26	U		0.26	U	
TOTAL XYLENES		0.57	U		0.84	U		0.65	U		0.65	U	
TRANS-1,2-DICHLOROETHENE		0.35	U		0.51	U		0.4	U		0.4	U	
TRANS-1,3-DICHLOROPROPENE		0.46	U		0.67	U		0.52	U		0.53	U	
TRICHLOROETHENE		0.36	U		0.52	U		0.4	U		0.41	U	
TRICHLOROFLUOROMETHANE		0.29	U		0.42	U		0.33	U		0.33	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-100-2-4			GSP-SB-100-6-8			GSP-SB-101-0-2			GSP-SB-101-6-8		
SDG: 240-741-1	LAB_ID	240-741-9			240-741-10			240-741-5			240-741-6		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.8			89.8			94.7			85.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.22	UR	C	0.22	UR	C	0.24	UR	C	0.24	UR	C
VINYL CHLORIDE		0.34	U		0.34	U		0.38	U		0.37	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-102-0-2			GSP-SB-102-6-8			GSP-SB-103-0-2			GSP-SB-103-6-8		
SDG: 240-741-1	LAB_ID	240-742-7			240-742-8			240-741-1			240-741-2		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.8			92.8			84.9			90.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.3	UR	C	0.23	UR	C	0.19	UR	C	0.23	UR	C
VINYL CHLORIDE		0.47	U		0.37	U		0.3	U		0.37	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-105-0-2			GSP-SB-105-6-8			GSP-SB-107-0-2			GSP-SB-107-6-8		
SDG: 240-741-1	LAB_ID	240-741-3			240-741-4			240-742-9			240-742-10		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.2			87.8			80.9			83.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.24	UR	C	0.21	UR	C	0.27	UR	C	0.24	UR	C
VINYL CHLORIDE		0.38	U		0.33	U		0.42	U		0.37	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-108-0-2			GSP-SB-108-6-8			GSP-SB-109-0-2			GSP-SB-109-6-8		
SDG: 240-741-1	LAB_ID	240-742-3			240-742-4			240-742-1			240-742-2		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.1			84.1			95.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.21	UR	C	0.21	UR	C	0.23	UR	C	0.24	UR	C
VINYL CHLORIDE		0.33	U		0.33	U		0.36	U		0.37	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-110-0-2			GSP-SB-110-6-8			GSP-SB-99-0-2			GSP-SB-99-6-8		
SDG: 240-741-1	LAB_ID	240-742-5			240-742-6			240-741-7			240-741-8		
FRACTION: OV	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.8			92.8			86.9			80.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.21	UR	C	0.31	UR	C	0.24	UR	C	0.24	UR	C
VINYL CHLORIDE		0.33	U		0.49	U		0.38	U		0.38	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-100-2-4			GSP-SB-100-6-8			GSP-SB-101-0-2			GSP-SB-101-6-8		
SDG: 240-741-1	LAB_ID	240-741-9			240-741-10			240-741-5			240-741-6		
FRACTION: OS	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.8			89.8			94.7			85.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		31	U		30	U		140	U		31	U	
1,4-DIOXANE		25	U		24	U		120	U		26	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		11	U		11	U		50	U		11	U	
2,4,5-TRICHLOROPHENOL		28	U		28	U		130	U		29	U	
2,4,6-TRICHLOROPHENOL		91	U		89	U		420	U		93	U	
2,4-DICHLOROPHENOL		23	U		22	U		110	U		23	U	
2,4-DIMETHYLPHENOL		23	U		22	U		110	U		23	U	
2,4-DINITROPHENOL		91	U		89	U		420	U		93	U	
2,4-DINITROTOLUENE		31	U		30	U		140	U		31	U	
2,6-DINITROTOLUENE		24	U		23	U		110	U		24	U	
2-CHLORONAPHTHALENE		3.8	U		3.7	U		17	U		3.8	U	
2-CHLOROPHENOL		31	U		30	U		140	U		31	U	
2-METHYLNAPHTHALENE		3.8	U		3.7	U		17	U		3.8	U	
2-METHYLPHENOL		91	U		89	U		420	U		93	U	
2-NITROANILINE		10	U		10	U		48	U		11	U	
2-NITROPHENOL		31	U		30	U		140	U		31	U	
3&4-METHYLPHENOL		23	U		22	U		110	U		23	U	
3,3'-DICHLOROBENZIDINE		20	U		20	U		95	U		21	U	
3-NITROANILINE		18	U		18	U		85	U		19	U	
4,6-DINITRO-2-METHYLPHENOL		91	U		89	U		420	U		93	U	
4-BROMOPHENYL PHENYL ETHER		15	U		14	U		69	U		15	U	
4-CHLORO-3-METHYLPHENOL		24	U		23	U		110	U		24	U	
4-CHLOROANILINE		19	U		19	U		90	U		20	U	
4-CHLOROPHENYL PHENYL ETHER		15	U		14	U		69	U		15	U	
4-NITROANILINE		30	U		29	U		140	U		30	U	
4-NITROPHENOL		91	U		89	U		420	U		93	U	
ACENAPHTHENE		3.8	U		3.7	U		17	U		3.8	U	
ACENAPHTHYLENE		3.8	U		3.7	U		17	U		3.8	U	
ACETOPHENONE		10	U		10	U		49	U		11	U	
ANTHRACENE		3.8	U		3.7	U		44			3.8	U	
ATRAZINE		10	U		10	U		48	U		11	U	
BENZALDEHYDE		14	U		13	U		63	U		14	U	
BENZO(A)ANTHRACENE		3.8	U		3.7	U		120			3.8	U	
BENZO(A)PYRENE		3.8	U		3.7	U		160			3.8	U	
BENZO(B)FLUORANTHENE		3.8	U		3.7	U		190			3.8	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-102-0-2			GSP-SB-102-6-8			GSP-SB-103-0-2			GSP-SB-103-6-8		
SDG: 240-741-1	LAB_ID	240-742-7			240-742-8			240-741-1			240-741-2		
FRACTION: OS	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.8			92.8			84.9			90.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		28	U		150	U		32	U		30	U	
1,4-DIOXANE		23	U		120	U		26	U		24	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		9.9	U		51	U		11	U		11	U	
2,4,5-TRICHLOROPHENOL		26	U		130	U		29	U		28	U	
2,4,6-TRICHLOROPHENOL		83	U		430	U		94	U		89	U	
2,4-DICHLOROPHENOL		21	U		110	U		24	U		22	U	
2,4-DIMETHYLPHENOL		21	U		110	U		24	U		22	U	
2,4-DINITROPHENOL		83	U		430	U		94	U		89	U	
2,4-DINITROTOLUENE		28	U		150	U		32	U		30	U	
2,6-DINITROTOLUENE		22	U		110	U		25	U		23	U	
2-CHLORONAPHTHALENE		3.4	U		18	U		3.9	U		3.7	U	
2-CHLOROPHENOL		28	U		150	U		32	U		30	U	
2-METHYLNAPHTHALENE		71			770			3.9	U		3.7	U	
2-METHYLPHENOL		83	U		430	U		94	U		89	U	
2-NITROANILINE		9.4	U		49	U		11	U		10	U	
2-NITROPHENOL		28	U		150	U		32	U		30	U	
3&4-METHYLPHENOL		21	U		110	U		24	U		22	U	
3,3'-DICHLOROBENZIDINE		19	U		97	U		21	U		20	U	
3-NITROANILINE		17	U		86	U		19	U		18	U	
4,6-DINITRO-2-METHYLPHENOL		83	U		430	U		94	U		89	U	
4-BROMOPHENYL PHENYL ETHER		13	U		70	U		15	U		14	U	
4-CHLORO-3-METHYLPHENOL		22	U		110	U		25	U		23	U	
4-CHLOROANILINE		18	U		92	U		20	U		19	U	
4-CHLOROPHENYL PHENYL ETHER		13	U		70	U		15	U		14	U	
4-NITROANILINE		27	U		140	U		31	U		29	U	
4-NITROPHENOL		83	U		430	U		94	U		89	U	
ACENAPHTHENE		17			300			3.9	U		3.7	U	
ACENAPHTHYLENE		45			370			3.9	U		3.7	U	
ACETOPHENONE		9.6	U		50	U		11	U		10	U	
ANTHRACENE		98			1200			3.9	U		3.7	U	
ATRAZINE		9.4	U		49	U		11	U		10	U	
BENZALDEHYDE		12	U		65	U		14	U		13	U	
BENZO(A)ANTHRACENE		140			1600			11			3.7	U	
BENZO(A)PYRENE		200			2400			11			3.7	U	
BENZO(B)FLUORANTHENE		140			1900			14			3.7	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-105-0-2			GSP-SB-105-6-8			GSP-SB-107-0-2			GSP-SB-107-6-8		
SDG: 240-741-1	LAB_ID	240-741-3			240-741-4			240-742-9			240-742-10		
FRACTION: OS	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.2			87.8			80.9			83.7		
	DUP_OF												

PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL	160	U		31	U		33	U		32	U	
1,4-DIOXANE	130	U		25	U		27	U		26	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	55	U		11	U		12	U		11	U	
2,4,5-TRICHLOROPHENOL	140	U		28	U		31	U		30	U	
2,4,6-TRICHLOROPHENOL	460	U		91	U		98	U		96	U	
2,4-DICHLOROPHENOL	120	U		23	U		25	U		24	U	
2,4-DIMETHYLPHENOL	120	U		23	U		25	U		24	U	
2,4-DINITROPHENOL	460	U		91	U		98	U		96	U	
2,4-DINITROTOLUENE	160	U		31	U		33	U		32	U	
2,6-DINITROTOLUENE	120	U		24	U		26	U		25	U	
2-CHLORONAPHTHALENE	19	U		3.7	U		4.1	U		3.9	U	
2-CHLOROPHENOL	160	U		31	U		33	U		32	U	
2-METHYLNAPHTHALENE	19	U		3.7	U		4.1	U		3.9	U	
2-METHYLPHENOL	460	U		91	U		98	U		96	U	
2-NITROANILINE	53	U		10	U		11	U		11	U	
2-NITROPHENOL	160	U		31	U		33	U		32	U	
3&4-METHYLPHENOL	120	U		23	U		25	U		24	U	
3,3'-DICHLOROBENZIDINE	100	U		20	U		22	U		22	U	
3-NITROANILINE	93	U		18	U		20	U		19	U	
4,6-DINITRO-2-METHYLPHENOL	460	U		91	U		98	U		96	U	
4-BROMOPHENYL PHENYL ETHER	75	U		15	U		16	U		16	U	
4-CHLORO-3-METHYLPHENOL	120	U		24	U		26	U		25	U	
4-CHLOROANILINE	98	U		19	U		21	U		20	U	
4-CHLOROPHENYL PHENYL ETHER	75	U		15	U		16	U		16	U	
4-NITROANILINE	150	U		29	U		32	U		31	U	
4-NITROPHENOL	460	U		91	U		98	U		96	U	
ACENAPHTHENE	19	U		3.7	U		4.1	U		3.9	U	
ACENAPHTHYLENE	19	U		3.7	U		4.1	U		3.9	U	
ACETOPHENONE	53	U		10	U		11	U		11	U	
ANTHRACENE	19	U		3.7	U		4.1	U		3.9	U	
ATRAZINE	53	U		10	U		11	U		11	U	
BENZALDEHYDE	69	U		14	U		15	U		14	U	
BENZO(A)ANTHRACENE	86			3.7	U		12			3.9	U	
BENZO(A)PYRENE	110			7.6			15			3.9	U	
BENZO(B)FLUORANTHENE	120			3.7	U		19			3.9	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-108-0-2			GSP-SB-108-6-8			GSP-SB-109-0-2			GSP-SB-109-6-8		
SDG: 240-741-1	LAB_ID	240-742-3			240-742-4			240-742-1			240-742-2		
FRACTION: OS	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.1			84.1			95.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		31	U		32	U		280	U		760	U	
1,4-DIOXANE		26	U		26	U		230	U		620	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		11	U		11	U		99	U		270	U	
2,4,5-TRICHLOROPHENOL		29	U		30	U		260	U		710	U	
2,4,6-TRICHLOROPHENOL		93	U		95	U		840	U		2300	U	
2,4-DICHLOROPHENOL		23	U		24	U		210	U		570	U	
2,4-DIMETHYLPHENOL		23	U		24	U		210	U		570	U	
2,4-DINITROPHENOL		93	U		95	U		840	U		2300	U	
2,4-DINITROTOLUENE		31	U		32	U		280	U		760	U	
2,6-DINITROTOLUENE		24	U		25	U		220	U		590	U	
2-CHLORONAPHTHALENE		3.8	U		3.9	U		35	U		93	U	
2-CHLOROPHENOL		31	U		32	U		280	U		760	U	
2-METHYLNAPHTHALENE		3.8	U		3.9	U		35	U		1200		
2-METHYLPHENOL		93	U		95	U		840	U		2300	U	
2-NITROANILINE		11	U		11	U		95	U		260	U	
2-NITROPHENOL		31	U		32	U		280	U		760	U	
3&4-METHYLPHENOL		23	U		24	U		210	U		570	U	
3,3'-DICHLOROBENZIDINE		21	U		21	U		190	U		510	U	
3-NITROANILINE		19	U		19	U		170	U		450	U	
4,6-DINITRO-2-METHYLPHENOL		93	U		95	U		840	U		2300	U	
4-BROMOPHENYL PHENYL ETHER		15	U		15	U		140	U		370	U	
4-CHLORO-3-METHYLPHENOL		24	U		25	U		220	U		590	U	
4-CHLOROANILINE		20	U		20	U		180	U		480	U	
4-CHLOROPHENYL PHENYL ETHER		15	U		15	U		140	U		370	U	
4-NITROANILINE		30	U		31	U		270	U		730	U	
4-NITROPHENOL		93	U		95	U		840	U		2300	U	
ACENAPHTHENE		3.8	U		3.9	U		35	U		1100		
ACENAPHTHYLENE		3.8	U		3.9	U		35	U		1900		
ACETOPHENONE		11	U		11	U		96	U		260	U	
ANTHRACENE		3.8	U		3.9	U		150			4000		
ATRAZINE		11	U		11	U		95	U		260	U	
BENZALDEHYDE		14	U		14	U		130	U		340	U	
BENZO(A)ANTHRACENE		3.8	U		14			290			13000		
BENZO(A)PYRENE		3.8	U		20			460			14000		
BENZO(B)FLUORANTHENE		3.8	U		26			380			12000		

PROJ_NO: 03279	NSAMPLE	GSP-SB-110-0-2			GSP-SB-110-6-8			GSP-SB-99-0-2			GSP-SB-99-6-8		
SDG: 240-741-1	LAB_ID	240-742-5			240-742-6			240-741-7			240-741-8		
FRACTION: OS	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.8			92.8			86.9			80.3		
	DUP_OF												
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL	31	U		290	U		31	U		34	U	
1,4-DIOXANE	25	U		240	UJ	N	25	U		27	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	11	U		100	UJ	N	11	U		12	U	
2,4,5-TRICHLOROPHENOL	28	U		270	U		29	U		31	U	
2,4,6-TRICHLOROPHENOL	91	U		860	U		92	U		100	U	
2,4-DICHLOROPHENOL	23	U		220	U		23	U		25	U	
2,4-DIMETHYLPHENOL	23	U		220	U		23	U		25	U	
2,4-DINITROPHENOL	91	U		860	U		92	U		100	U	
2,4-DINITROTOLUENE	31	U		290	U		31	U		34	U	
2,6-DINITROTOLUENE	24	U		230	U		24	U		26	U	
2-CHLORONAPHTHALENE	3.7	U		36	U		3.8	U		4.1	U	
2-CHLOROPHENOL	31	U		290	UJ	N	31	U		34	U	
2-METHYLNAPHTHALENE	21			36	U		3.8	U		4.1	U	
2-METHYLPHENOL	91	U		860	UJ	N	92	U		100	U	
2-NITROANILINE	10	U		98	U		10	U		11	U	
2-NITROPHENOL	31	U		290	U		31	U		34	U	
3&4-METHYLPHENOL	23	U		220	UJ	N	23	U		25	U	
3,3'-DICHLOROBENZIDINE	20	U		190	U		21	U		22	U	
3-NITROANILINE	18	U		170	U		18	U		20	U	
4,6-DINITRO-2-METHYLPHENOL	91	U		860	U		92	U		100	U	
4-BROMOPHENYL PHENYL ETHER	15	U		140	U		15	U		16	U	
4-CHLORO-3-METHYLPHENOL	24	U		230	U		24	U		26	U	
4-CHLOROANILINE	19	U		180	U		19	U		21	U	
4-CHLOROPHENYL PHENYL ETHER	15	U		140	U		15	U		16	U	
4-NITROANILINE	29	U		280	U		30	U		32	U	
4-NITROPHENOL	91	U		860	U		92	U		100	U	
ACENAPHTHENE	3.7	U		36	U		17			4.1	U	
ACENAPHTHYLENE	16			36	U		3.8	U		4.1	U	
ACETOPHENONE	10	U		99	UJ	N	11	U		11	U	
ANTHRACENE	27			130			35			4.1	U	
ATRAZINE	10	U		98	U		10	U		11	U	
BENZALDEHYDE	14	U		130	UJ	N	14	U		15	U	
BENZO(A)ANTHRACENE	32			280			83			4.1	U	
BENZO(A)PYRENE	49			390			85			4.1	U	
BENZO(B)FLUORANTHENE	40			340			110			4.1	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-100-2-4			GSP-SB-100-6-8			GSP-SB-101-0-2			GSP-SB-101-6-8		
SDG: 240-741-1	LAB_ID	240-741-9			240-741-10			240-741-5			240-741-6		
FRACTION: OS	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.8			89.8			94.7			85.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		3.8	U		3.7	U		130			3.8	U	
BENZO(K)FLUORANTHENE		3.8	U		3.7	U		90			3.8	U	
BIS(2-CHLOROETHOXY)METHANE		25	U		24	U		120	U		26	U	
BIS(2-CHLOROETHYL)ETHER		2.3	U		2.2	U		11	U		2.3	U	
BIS(2-ETHYLHEXYL)PHTHALATE		34	J	P	27	J	P	100	U		22	U	
BUTYL BENZYL PHTHALATE		11	U		11	U		53	U		12	U	
CAPROLACTAM		42	U		41	U		200	U		43	U	
CARBAZOLE		31	U		30	U		140	U		31	U	
CHRYSENE		1.3	U		1.2	U		150			1.3	U	
DIBENZO(A,H)ANTHRACENE		3.8	U		3.7	U		17	U		3.8	U	
DIBENZOFURAN		3.8	U		3.7	U		17	U		3.8	U	
DIETHYL PHTHALATE		18	U		18	U		85	U		19	U	
DIMETHYL PHTHALATE		19	U		19	U		90	U		20	U	
DI-N-BUTYL PHTHALATE		17	U		17	U		79	U		17	U	
DI-N-OCTYL PHTHALATE		31	U		30	U		140	U		31	U	
FLUORANTHENE		3.8	U		3.7	U		230			3.8	U	
FLUORENE		3.8	U		3.7	U		17	U		3.8	U	
HEXACHLOROBENZENE		2.4	U		2.3	U		11	U		2.4	U	
HEXACHLOROBUTADIENE		31	U		30	U		140	U		31	U	
HEXACHLOROCYCLOPENTADIENE		31	U		30	U		140	U		31	U	
HEXACHLOROETHANE		10	U		10	U		48	U		10	U	
INDENO(1,2,3-CD)PYRENE		3.8	U		3.7	U		96			3.8	U	
ISOPHORONE		15	U		14	U		69	U		15	U	
NAPHTHALENE		3.8	U		3.7	U		17	U		3.8	U	
NITROBENZENE		2.5	U		2.4	U		12	U		2.6	U	
N-NITROSODIMETHYLAMINE		18	U		18	U		85	U		19	U	
N-NITROSO-DI-N-PROPYLAMINE		31	U		30	U		140	U		31	U	
N-NITROSODIPHENYLAMINE		24	U		23	U		110	U		24	U	
PENTACHLOROPHENOL		91	U		89	U		420	U		93	U	
PHENANTHRENE		3.8	U		3.7	U		73			3.8	U	
PHENOL		31	U		30	U		140	U		31	U	
PYRENE		3.8	U		3.7	U		220			3.8	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-102-0-2			GSP-SB-102-6-8			GSP-SB-103-0-2			GSP-SB-103-6-8		
SDG: 240-741-1	LAB_ID	240-742-7			240-742-8			240-741-1			240-741-2		
FRACTION: OS	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.8			92.8			84.9			90.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		260			1500			7.9			3.7	U	
BENZO(K)FLUORANTHENE		90			750			3.9	U		3.7	U	
BIS(2-CHLOROETHOXY)METHANE		23	U		120	U		26	U		24	U	
BIS(2-CHLOROETHYL)ETHER		2.1	U		11	U		2.4	U		2.2	U	
BIS(2-ETHYLHEXYL)PHTHALATE		20	U		100	U		22	U		21	U	
BUTYL BENZYL PHTHALATE		10	U		54	U		12	U		11	U	
CAPROLACTAM		38	U		200	U		44	U		41	U	
CARBAZOLE		28	U		150	U		32	U		30	U	
CHRYSENE		160			2000			13			1.2	U	
DIBENZO(A,H)ANTHRACENE		32			470			3.9	U		3.7	U	
DIBENZOFURAN		3.4	U		73	J	P	3.9	U		3.7	U	
DIETHYL PHTHALATE		17	U		86	U		19	U		18	U	
DIMETHYL PHTHALATE		18	U		92	U		20	U		19	U	
DI-N-BUTYL PHTHALATE		16	U		81	U		18	U		17	U	
DI-N-OCTYL PHTHALATE		28	U		150	U		32	U		30	U	
FLUORANTHENE		200			2300			21			3.7	U	
FLUORENE		35			640			3.9	U		3.7	U	
HEXACHLOROBENZENE		2.2	U		11	U		2.5	U		2.3	U	
HEXACHLOROBUTADIENE		28	U		150	U		32	U		30	U	
HEXACHLOROCYCLOPENTADIENE		28	U		150	U		32	U		30	U	
HEXACHLOROETHANE		9.3	U		48	U		11	U		10	U	
INDENO(1,2,3-CD)PYRENE		160			1100			3.9	U		3.7	U	
ISOPHORONE		13	U		70	U		15	U		14	U	
NAPHTHALENE		94			890			3.9	U		3.7	U	
NITROBENZENE		2.3	U		12	U		2.6	U		2.4	U	
N-NITROSODIMETHYLAMINE		17	U		86	U		19	U		18	U	
N-NITROSO-DI-N-PROPYLAMINE		28	U		150	U		32	U		30	U	
N-NITROSODIPHENYLAMINE		22	U		110	U		25	U		23	U	
PENTACHLOROPHENOL		83	U		430	U		94	U		89	U	
PHENANTHRENE		210			2700			8.1			3.7	U	
PHENOL		28	U		150	U		32	U		30	U	
PYRENE		250			3200			17			3.7	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-105-0-2			GSP-SB-105-6-8			GSP-SB-107-0-2			GSP-SB-107-6-8		
SDG: 240-741-1	LAB_ID	240-741-3			240-741-4			240-742-9			240-742-10		
FRACTION: OS	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.2			87.8			80.9			83.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		19	U		13			13			3.9	U	
BENZO(K)FLUORANTHENE		92			3.7	U		4.1	U		3.9	U	
BIS(2-CHLOROETHOXY)METHANE		130	U		25	U		27	U		26	U	
BIS(2-CHLOROETHYL)ETHER		12	U		2.3	U		2.5	U		2.4	U	
BIS(2-ETHYLHEXYL)PHTHALATE		110	U		22	J	P	23	U		23	U	
BUTYL BENZYL PHTHALATE		58	U		11	U		12	U		12	U	
CAPROLACTAM		210	U		42	U		46	U		44	U	
CARBAZOLE		160	U		31	U		33	U		32	U	
CHRYSENE		150			1.2	U		15			1.3	U	
DIBENZO(A,H)ANTHRACENE		19	U		3.7	U		4.1	U		3.9	U	
DIBENZOFURAN		19	U		3.7	U		4.1	U		3.9	U	
DIETHYL PHTHALATE		93	U		18	U		20	U		19	U	
DIMETHYL PHTHALATE		98	U		19	U		21	U		20	U	
DI-N-BUTYL PHTHALATE		87	U		17	U		18	U		18	U	
DI-N-OCTYL PHTHALATE		160	U		31	U		33	U		32	U	
FLUORANTHENE		190			3.7	U		22			3.9	U	
FLUORENE		19	U		3.7	U		4.1	U		3.9	U	
HEXACHLOROBENZENE		12	U		2.4	U		2.6	U		2.5	U	
HEXACHLOROBUTADIENE		160	U		31	U		33	U		32	U	
HEXACHLOROCYCLOPENTADIENE		160	U		31	U		33	U		32	U	
HEXACHLOROETHANE		52	U		10	U		11	U		11	U	
INDENO(1,2,3-CD)PYRENE		19	U		3.7	U		11			3.9	U	
ISOPHORONE		75	U		15	U		16	U		16	U	
NAPHTHALENE		19	U		3.7	U		4.1	U		3.9	U	
NITROBENZENE		13	U		2.5	U		2.7	U		2.6	U	
N-NITROSODIMETHYLAMINE		93	U		18	U		20	U		19	U	
N-NITROSO-DI-N-PROPYLAMINE		160	U		31	U		33	U		32	U	
N-NITROSODIPHENYLAMINE		120	U		24	U		26	U		25	U	
PENTACHLOROPHENOL		460	U		91	U		98	U		96	U	
PHENANTHRENE		73			3.7	U		8.3			3.9	U	
PHENOL		160	U		31	U		33	U		32	U	
PYRENE		180			8.4			22			3.9	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-108-0-2			GSP-SB-108-6-8			GSP-SB-109-0-2			GSP-SB-109-6-8		
SDG: 240-741-1	LAB_ID	240-742-3			240-742-4			240-742-1			240-742-2		
FRACTION: OS	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.1			84.1			95.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		3.8	U		19			550			10000		
BENZO(K)FLUORANTHENE		3.8	U		14			200			6300		
BIS(2-CHLOROETHOXY)METHANE		26	U		26	U		230	U		620	U	
BIS(2-CHLOROETHYL)ETHER		2.3	U		2.4	U		21	U		57	U	
BIS(2-ETHYLHEXYL)PHTHALATE		25	J	P	23	U		200	U		540	U	
BUTYL BENZYL PHTHALATE		12	U		12	U		100	U		280	U	
CAPROLACTAM		43	U		44	U		390	U		1000	U	
CARBAZOLE		31	U		32	U		280	U		760	U	
CHRYSENE		1.3	U		20			410			14000		
DIBENZO(A,H)ANTHRACENE		3.8	U		3.9	U		35	U		2700		
DIBENZOFURAN		3.8	U		3.9	U		35	U		290	J	P
DIETHYL PHTHALATE		19	U		19	U		170	U		450	U	
DIMETHYL PHTHALATE		20	U		20	U		180	U		480	U	
DI-N-BUTYL PHTHALATE		17	U		18	U		160	U		420	U	
DI-N-OCTYL PHTHALATE		31	U		32	U		280	U		760	U	
FLUORANTHENE		8.7			28			480			21000		
FLUORENE		3.8	U		3.9	U		35	U		2000		
HEXACHLOROBENZENE		2.4	U		2.5	U		22	U		59	U	
HEXACHLOROBUTADIENE		31	U		32	U		280	U		760	U	
HEXACHLOROCYCLOPENTADIENE		31	U		32	U		280	U		760	U	
HEXACHLOROETHANE		10	U		11	U		94	U		250	U	
INDENO(1,2,3-CD)PYRENE		3.8	U		15			340			7500		
ISOPHORONE		15	U		15	U		140	U		370	U	
NAPHTHALENE		3.8	U		3.9	U		35	U		1100		
NITROBENZENE		2.6	U		2.6	U		23	U		62	U	
N-NITROSODIMETHYLAMINE		19	U		19	U		170	U		450	U	
N-NITROSO-DI-N-PROPYLAMINE		31	U		32	U		280	U		760	U	
N-NITROSODIPHENYLAMINE		24	U		25	U		220	U		590	U	
PENTACHLOROPHENOL		93	U		95	U		840	U		2300	U	
PHENANTHRENE		3.8	U		11			360			13000		
PHENOL		31	U		32	U		280	U		760	U	
PYRENE		7.1	J	P	26			600			32000		

PROJ_NO: 03279	NSAMPLE	GSP-SB-110-0-2			GSP-SB-110-6-8			GSP-SB-99-0-2			GSP-SB-99-6-8		
SDG: 240-741-1	LAB_ID	240-742-5			240-742-6			240-741-7			240-741-8		
FRACTION: OS	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.8			92.8			86.9			80.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		81			430			60			4.1	U	
BENZO(K)FLUORANTHENE		16			210			46			4.1	U	
BIS(2-CHLOROETHOXY)METHANE		25	U		240	U		25	U		27	U	
BIS(2-CHLOROETHYL)ETHER		2.3	U		22	UJ	N	2.3	U		2.5	U	
BIS(2-ETHYLHEXYL)PHTHALATE		22	U		210	U		22	U		24	U	
BUTYL BENZYL PHTHALATE		11	U		110	U		11	U		12	U	
CAPROLACTAM		42	U		400	U		42	U		46	U	
CARBAZOLE		31	U		290	U		31	U		34	U	
CHRYSENE		37			360			90			1.4	U	
DIBENZO(A,H)ANTHRACENE		3.7	U		36	U		13			4.1	U	
DIBENZOFURAN		3.7	U		36	U		9.1	J	P	4.1	U	
DIETHYL PHTHALATE		18	U		170	U		18	U		20	U	
DIMETHYL PHTHALATE		19	U		180	U		19	U		21	U	
DI-N-BUTYL PHTHALATE		17	U		160	U		17	U		19	U	
DI-N-OCTYL PHTHALATE		31	U		290	U		31	U		34	U	
FLUORANTHENE		37			500			210			4.1	U	
FLUORENE		9.4			36	U		15			4.1	U	
HEXACHLOROBENZENE		2.4	U		23	U		2.4	U		2.6	U	
HEXACHLOROBUTADIENE		31	U		290	U		31	U		34	U	
HEXACHLOROCYCLOPENTADIENE		31	U		290	U		31	U		34	U	
HEXACHLOROETHANE		10	U		97	UJ	N	10	U		11	U	
INDENO(1,2,3-CD)PYRENE		44			270			50			4.1	U	
ISOPHORONE		15	U		140	U		15	U		16	U	
NAPHTHALENE		24			36	U		10			4.1	U	
NITROBENZENE		2.5	U		24	U		2.5	U		2.7	U	
N-NITROSODIMETHYLAMINE		18	U		170	UJ	N	18	U		20	U	
N-NITROSO-DI-N-PROPYLAMINE		31	U		290	UJ	N	31	U		34	U	
N-NITROSODIPHENYLAMINE		24	U		230	U		24	U		26	U	
PENTACHLOROPHENOL		91	U		860	U		92	U		100	U	
PHENANTHRENE		46			310			120			4.1	U	
PHENOL		31	U		290	UJ	N	31	U		34	U	
PYRENE		54			490			150			4.1	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-100-2-4			GSP-SB-100-6-8			GSP-SB-101-0-2			GSP-SB-101-6-8		
SDG: 240-741-1	LAB_ID	240-741-9			240-741-10			240-741-5			240-741-6		
FRACTION: PCB	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.8			89.8			94.7			85.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		24	U		23	U		22	U		24	U	
AROCLOR-1221		18	U		18	U		17	U		19	U	
AROCLOR-1232		16	U		16	U		15	U		16	U	
AROCLOR-1242		15	U		14	U		14	U		15	U	
AROCLOR-1248		19	U		19	U		18	U		20	U	
AROCLOR-1254		19	U		19	U		18	U		20	U	
AROCLOR-1260		19	U		19	U		18	U		20	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-102-0-2			GSP-SB-102-6-8			GSP-SB-103-0-2			GSP-SB-103-6-8		
SDG: 240-741-1	LAB_ID	240-742-7			240-742-8			240-741-1			240-741-2		
FRACTION: PCB	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.8			92.8			84.9			90.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		22	U		23	U		25	U		23	U	
AROCLOR-1221		17	U		17	U		19	U		18	U	
AROCLOR-1232		15	U		15	U		17	U		15	U	
AROCLOR-1242		14	U		14	U		15	U		14	U	
AROCLOR-1248		18	U		18	U		20	U		19	U	
AROCLOR-1254		18	U		18	U		20	U		19	U	
AROCLOR-1260		18	U		18	U		20	U		19	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-105-0-2			GSP-SB-105-6-8			GSP-SB-107-0-2			GSP-SB-107-6-8		
SDG: 240-741-1	LAB_ID	240-741-3			240-741-4			240-742-9			240-742-10		
FRACTION: PCB	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.2			87.8			80.9			83.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		24	U		24	U		26	U		25	U	
AROCLOR-1221		18	U		18	U		20	U		19	U	
AROCLOR-1232		16	U		16	U		17	U		17	U	
AROCLOR-1242		15	U		15	U		16	U		16	U	
AROCLOR-1248		20	U		19	U		21	U		20	U	
AROCLOR-1254		20	U		19	U		21	U		20	U	
AROCLOR-1260		20	U		19	U		21	U		20	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-108-0-2			GSP-SB-108-6-8			GSP-SB-109-0-2			GSP-SB-109-6-8		
SDG: 240-741-1	LAB_ID	240-742-3			240-742-4			240-742-1			240-742-2		
FRACTION: PCB	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	86.1			84.1			95.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		24	U		25	U		22	U		24	U	
AROCLOR-1221		19	U		19	U		17	U		18	U	
AROCLOR-1232		16	U		17	U		15	U		16	U	
AROCLOR-1242		15	U		15	U		14	U		15	U	
AROCLOR-1248		20	U		20	U		18	U		19	U	
AROCLOR-1254		20	U		20	U		18	U		19	U	
AROCLOR-1260		20	U		20	U		18	U		64		

PROJ_NO: 03279	NSAMPLE	GSP-SB-110-0-2			GSP-SB-110-6-8			GSP-SB-99-0-2			GSP-SB-99-6-8		
SDG: 240-741-1	LAB_ID	240-742-5			240-742-6			240-741-7			240-741-8		
FRACTION: PCB	SAMP_DATE	6/2/2011			6/2/2011			6/2/2011			6/2/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	87.8			92.8			86.9			80.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		24	U		23	U		24	U		26	U	
AROCLOR-1221		18	U		17	U		18	U		20	U	
AROCLOR-1232		16	U		15	U		16	U		17	U	
AROCLOR-1242		15	U		14	U		15	U		16	U	
AROCLOR-1248		19	U		18	U		20	U		21	U	
AROCLOR-1254		19	U		18	U		20	U		21	U	
AROCLOR-1260		19	U		18	U		20	U		21	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-100-2-4						GSP-SB-100-6-8					
SDG: 240-741-1	LAB_ID	240-741-9						240-741-10					
FRACTION: PET	SAMP_DATE	6/2/2011						6/2/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	87.8			87.8			89.8			89.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		11	U					10	U				
GASOLINE RANGE ORGANICS					28	U					28	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-101-0-2						GSP-SB-101-6-8					
SDG: 240-741-1	LAB_ID	240-741-5						240-741-6					
FRACTION: PET	SAMP_DATE	6/2/2011						6/2/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	94.7			94.7			85.9			85.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		72	B	A				13	B	A			
GASOLINE RANGE ORGANICS					26	U					29	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-102-0-2						GSP-SB-102-6-8					
SDG: 240-741-1	LAB_ID	240-742-7						240-742-8					
FRACTION: PET	SAMP_DATE	6/2/2011						6/2/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	95.8			95.8			92.8			92.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		190						340					
GASOLINE RANGE ORGANICS					26	U					27	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-103-0-2						GSP-SB-103-6-8					
SDG: 240-741-1	LAB_ID	240-741-1						240-741-2					
FRACTION: PET	SAMP_DATE	6/2/2011						6/2/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	84.9			84.9			90.5			90.5		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		11	U					13	B	A			
GASOLINE RANGE ORGANICS					29	U					28	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-105-0-2						GSP-SB-105-6-8					
SDG: 240-741-1	LAB_ID	240-741-3						240-741-4					
FRACTION: PET	SAMP_DATE	6/2/2011						6/2/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	86.2			86.2			87.8			87.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		140						27	B	A			
GASOLINE RANGE ORGANICS					29	U					28	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-107-0-2						GSP-SB-107-6-8					
SDG: 240-741-1	LAB_ID	240-742-9						240-742-10					
FRACTION: PET	SAMP_DATE	6/2/2011						6/2/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	80.9			80.9			83.7			83.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		11	U					11	U				
GASOLINE RANGE ORGANICS					31	U					30	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-108-0-2						GSP-SB-108-6-8					
SDG: 240-741-1	LAB_ID	240-742-3						240-742-4					
FRACTION: PET	SAMP_DATE	6/2/2011						6/2/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	86.1			86.1			84.1			84.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		24	B	A				23	B	A			
GASOLINE RANGE ORGANICS					29	U					30	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-109-0-2						GSP-SB-109-6-8					
SDG: 240-741-1	LAB_ID	240-742-1						240-742-2					
FRACTION: PET	SAMP_DATE	6/2/2011						6/2/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	95.4			95.4			88.0			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		290						410					
GASOLINE RANGE ORGANICS					26	U					28	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-110-0-2						GSP-SB-110-6-8					
SDG: 240-741-1	LAB_ID	240-742-5						240-742-6					
FRACTION: PET	SAMP_DATE	6/2/2011						6/2/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	87.8			87.8			92.8			92.8		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		320						210					
GASOLINE RANGE ORGANICS					28	U					27	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-99-0-2						GSP-SB-99-6-8					
SDG: 240-741-1	LAB_ID	240-741-7						240-741-8					
FRACTION: PET	SAMP_DATE	6/2/2011						6/2/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	86.9			86.9			80.3			80.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		47	B	A				16	B	A			
GASOLINE RANGE ORGANICS					29	U					31	U	

Appendix B

Results as Reported by the Laboratory

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-2-4**

Lab Sample ID: 240-741-9
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 1415
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149022.D
Dilution:	1.0			Initial Weight/Volume:	6.5 g
Analysis Date:	06/15/2011 1702			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.4	U	0.54	4.4
1,1,1-Trichloroethane		4.4	U	0.49	4.4
1,1,2,2-Tetrachloroethane		4.4	U	0.30	4.4
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.4	U	1.1	4.4
1,1-Dichloroethane		4.4	U	0.32	4.4
1,1-Dichloroethene		4.4	U	0.46	4.4
1,1-Dichloropropene		4.4	U	0.26	4.4
1,2,3-Trichlorobenzene		4.4	U	0.33	4.4
1,2,3-Trichloropropane		4.4	U	0.79	4.4
1,2,3-Trimethylbenzene		4.4	U	0.15	4.4
1,2,4-Trichlorobenzene		4.4	U	0.24	4.4
1,2,4-Trimethylbenzene		4.4	U	0.57	4.4
1,2-Dibromo-3-Chloropropane		8.8	U	1.1	8.8
1,2-Dichlorobenzene		4.4	U	0.32	4.4
1,2-Dichloroethane		4.4	U	0.30	4.4
1,2-Dichloropropane		4.4	U	0.60	4.4
1,3-Dichlorobenzene		4.4	U	0.31	4.4
1,3-Dichloropropane		4.4	U	0.30	4.4
1,4-Dichlorobenzene		4.4	U	0.58	4.4
2,2-Dichloropropane		4.4	U	0.82	4.4
2-Butanone		18	U	1.2	18
2-Chloroethyl vinyl ether		44	U	1.2	44
2-Chlorotoluene		4.4	U	0.35	4.4
2-Hexanone		18	U	0.55	18
4-Chlorotoluene		4.4	U	0.36	4.4
p-Isopropyltoluene		4.4	U	0.18	4.4
4-Methyl-2-pentanone		18	U	0.47	18
Acetone		19	B	5.5	18
Benzene		4.4	U	0.20	4.4
Bromobenzene		4.4	U	0.29	4.4
Bromoform		4.4	U	0.29	4.4
Bromomethane		4.4	U	0.47	4.4
Carbon disulfide		4.4	U	0.39	4.4
Carbon tetrachloride		4.4	U	0.32	4.4
Chlorobenzene		4.4	U	0.29	4.4
Dibromochloromethane		4.4	U	0.48	4.4
Chloroethane		4.4	U *	0.75	4.4
Chloroform		4.4	U	0.25	4.4
Chloromethane		4.4	U *	0.36	4.4
cis-1,2-Dichloroethene		4.4	U	0.32	4.4
cis-1,3-Dichloropropene		4.4	U	0.30	4.4
Dibromomethane		4.4	U	0.55	4.4
Bromochloromethane		4.4	U	0.62	4.4
Dichlorodifluoromethane		4.4	U	0.44	4.4
Bromodichloromethane		4.4	U	0.25	4.4
tert-Butyl alcohol		180	U	6.7	180

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-2-4**

Lab Sample ID: 240-741-9
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 1415
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149022.D
Dilution:	1.0			Initial Weight/Volume:	6.5 g
Analysis Date:	06/15/2011 1702			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.4	U	0.23	4.4
Hexachlorobutadiene		4.4	U	1.1	4.4
Diisopropyl ether		8.8	U	1.3	8.8
Isopropylbenzene		4.4	U	0.14	4.4
Methyl tert-butyl ether		18	U	0.38	18
Methylene Chloride		2.5	J B	0.59	4.4
m-Xylene & p-Xylene		8.8	U	1.1	8.8
Naphthalene		4.4	U	0.17	4.4
n-Butylbenzene		4.4	U	0.20	4.4
n-Propylbenzene		4.4	U	0.35	4.4
o-Xylene		4.4	U	0.31	4.4
sec-Butylbenzene		4.4	U	0.16	4.4
Styrene		4.4	U	0.13	4.4
Tert-amyl-methyl ether (TAME)		4.4	U	0.32	4.4
Ethyl-t-butyl ether (ETBE)		4.4	U	0.19	4.4
Tetrachloroethene		4.4	U	0.46	4.4
Toluene		0.28	J	0.24	4.4
trans-1,2-Dichloroethene		4.4	U	0.36	4.4
trans-1,3-Dichloropropene		4.4	U	0.47	4.4
Trichloroethene		4.4	U	0.37	4.4
Trichlorofluoromethane		4.4	U	0.30	4.4
Vinyl acetate		8.8	U	0.22	8.8
Vinyl chloride		4.4	U	0.34	4.4
Xylenes, Total		8.8	U	0.59	8.8
tert-Butylbenzene		4.4	U	0.25	4.4
1,2-Dibromoethane		4.4	U	0.44	4.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	112		67 - 125
Dibromofluoromethane (Surr)	91		37 - 132
4-Bromofluorobenzene (Surr)	100		52 - 136
1,2-Dichloroethane-d4 (Surr)	116		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-2-4**

Lab Sample ID: 240-741-9
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 1415
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149022.D
Dilution:	1.0			Initial Weight/Volume:	6.5 g
Analysis Date:	06/15/2011 1702			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-6-8**

Lab Sample ID: 240-741-10
Client Matrix: Solid

% Moisture: 10.2

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-5027	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149060.D
Dilution:	1.0			Initial Weight/Volume:	6.45 g
Analysis Date:	06/16/2011 1824			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.3	U	0.54	4.3
1,1,1-Trichloroethane		4.3	U	0.48	4.3
1,1,2,2-Tetrachloroethane		4.3	U	0.29	4.3
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.3	U	1.1	4.3
1,1-Dichloroethane		4.3	U	0.31	4.3
1,1-Dichloroethene		4.3	U	0.45	4.3
1,1-Dichloropropene		4.3	U	0.26	4.3
1,2,3-Trichlorobenzene		4.3	U	0.33	4.3
1,2,3-Trichloropropane		4.3	U	0.78	4.3
1,2,3-Trimethylbenzene		4.3	U	0.15	4.3
1,2,4-Trichlorobenzene		4.3	U	0.23	4.3
1,2,4-Trimethylbenzene		4.3	U	0.56	4.3
1,2-Dibromo-3-Chloropropane		8.6	U	1.1	8.6
1,2-Dichlorobenzene		4.3	U	0.31	4.3
1,2-Dichloroethane		4.3	U	0.29	4.3
1,2-Dichloropropane		4.3	U	0.60	4.3
1,3-Dichlorobenzene		4.3	U	0.30	4.3
1,3-Dichloropropane		4.3	U	0.29	4.3
1,4-Dichlorobenzene		4.3	U	0.57	4.3
2,2-Dichloropropane		4.3	U	0.81	4.3
2-Butanone		17	U	1.2	17
2-Chloroethyl vinyl ether		43	U	1.2	43
2-Chlorotoluene		4.3	U	0.35	4.3
2-Hexanone		17	U	0.54	17
4-Chlorotoluene		4.3	U	0.35	4.3
p-Isopropyltoluene		4.3	U	0.18	4.3
4-Methyl-2-pentanone		17	U	0.47	17
Acetone		21	B	5.4	17
Benzene		4.3	U	0.20	4.3
Bromobenzene		4.3	U	0.28	4.3
Bromoform		4.3	U	0.28	4.3
Bromomethane		4.3	U	0.47	4.3
Carbon disulfide		4.3	U	0.38	4.3
Carbon tetrachloride		4.3	U	0.32	4.3
Chlorobenzene		4.3	U	0.28	4.3
Dibromochloromethane		4.3	U	0.47	4.3
Chloroethane		4.3	U *	0.74	4.3
Chloroform		4.3	U	0.25	4.3
Chloromethane		4.3	U	0.35	4.3
cis-1,2-Dichloroethene		4.3	U	0.31	4.3
cis-1,3-Dichloropropene		4.3	U	0.29	4.3
Dibromomethane		4.3	U	0.54	4.3
Bromochloromethane		4.3	U	0.61	4.3
Dichlorodifluoromethane		4.3	U	0.43	4.3
Bromodichloromethane		4.3	U	0.24	4.3
tert-Butyl alcohol		170	U	6.6	170

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-100-6-8

Lab Sample ID: 240-741-10
Client Matrix: Solid

% Moisture: 10.2

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
Prep Method: 5035
Dilution: 1.0
Analysis Date: 06/16/2011 1824
Prep Date: 06/03/2011 2030

Analysis Batch: 240-5027
Prep Batch: 240-4762

Instrument ID: A3UX14
Lab File ID: 149060.D
Initial Weight/Volume: 6.45 g
Final Weight/Volume: 5 mL

Analyte (DryWt Corrected: Y)	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene	4.3	U	0.22	4.3
Hexachlorobutadiene	4.3	U	1.0	4.3
Diisopropyl ether	8.6	U	1.3	8.6
Isopropylbenzene	4.3	U	0.14	4.3
Methyl tert-butyl ether	17	U	0.37	17
Methylene Chloride	3.5	J B	0.58	4.3
m-Xylene & p-Xylene	8.6	U	1.0	8.6
Naphthalene	0.36	J B	0.16	4.3
n-Butylbenzene	4.3	U	0.20	4.3
n-Propylbenzene	4.3	U	0.35	4.3
o-Xylene	4.3	U	0.30	4.3
sec-Butylbenzene	4.3	U	0.16	4.3
Styrene	4.3	U	0.13	4.3
Tert-amyl-methyl ether (TAME)	4.3	U	0.32	4.3
Ethyl-t-butyl ether (ETBE)	4.3	U	0.19	4.3
Tetrachloroethene	4.3	U	0.45	4.3
Toluene	0.26	J	0.23	4.3
trans-1,2-Dichloroethene	4.3	U	0.35	4.3
trans-1,3-Dichloropropene	4.3	U	0.47	4.3
Trichloroethene	4.3	U	0.36	4.3
Trichlorofluoromethane	4.3	U	0.29	4.3
Vinyl acetate	8.6	U	0.22	8.6
Vinyl chloride	4.3	U	0.34	4.3
Xylenes, Total	8.6	U	0.58	8.6
tert-Butylbenzene	4.3	U	0.25	4.3
1,2-Dibromoethane	4.3	U	0.43	4.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	106		67 - 125
Dibromofluoromethane (Surr)	99		37 - 132
4-Bromofluorobenzene (Surr)	93		52 - 136
1,2-Dichloroethane-d4 (Surr)	113		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-6-8**

Lab Sample ID: 240-741-10
Client Matrix: Solid

% Moisture: 10.2

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-5027	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149060.D
Dilution:	1.0			Initial Weight/Volume:	6.45 g
Analysis Date:	06/16/2011 1824			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-101-0-2

Lab Sample ID: 240-741-5
Client Matrix: Solid

% Moisture: 5.3

Date Sampled: 06/02/2011 1051
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
Prep Method: 5035
Dilution: 1.0
Analysis Date: 06/15/2011 0428
Prep Date: 06/03/2011 2030

Analysis Batch: 240-4766
Prep Batch: 240-4762

Instrument ID: A3UX8
Lab File ID: UX82688.D
Initial Weight/Volume: 5.443 g
Final Weight/Volume: 5 mL

Analyte (DryWt Corrected: Y)	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	4.9	U	0.60	4.9
1,1,1-Trichloroethane	4.9	U	0.54	4.9
1,1,2,2-Tetrachloroethane	4.9	U	0.33	4.9
1,1,2-Trichloro-1,2,2-trichfluoroethane	4.9	U	1.3	4.9
1,1-Dichloroethane	4.9	U	0.35	4.9
1,1-Dichloroethene	4.9	U	0.50	4.9
1,1-Dichloropropene	4.9	U	0.29	4.9
1,2,3-Trichlorobenzene	4.9	U	0.37	4.9
1,2,3-Trichloropropane	4.9	U	0.87	4.9
1,2,3-Trimethylbenzene	4.9	U	0.16	4.9
1,2,4-Trichlorobenzene	4.9	U	0.26	4.9
1,2,4-Trimethylbenzene	4.9	U	0.63	4.9
1,2-Dibromo-3-Chloropropane	9.7	U	1.3	9.7
1,2-Dichlorobenzene	4.9	U	0.35	4.9
1,2-Dichloroethane	4.9	U	0.33	4.9
1,2-Dichloropropane	4.9	U	0.67	4.9
1,3-Dichlorobenzene	4.9	U	0.34	4.9
1,3-Dichloropropane	4.9	U	0.33	4.9
1,4-Dichlorobenzene	4.9	U	0.64	4.9
2,2-Dichloropropane	4.9	U	0.91	4.9
2-Butanone	1.8	J	1.4	19
2-Chloroethyl vinyl ether	49	U	1.4	49
2-Chlorotoluene	4.9	U	0.39	4.9
2-Hexanone	19	U	0.61	19
4-Chlorotoluene	4.9	U	0.40	4.9
p-Isopropyltoluene	4.9	U	0.20	4.9
4-Methyl-2-pentanone	19	U	0.52	19
Acetone	19	U	6.1	19
Benzene	4.9	U	0.22	4.9
Bromobenzene	4.9	U	0.32	4.9
Bromoform	4.9	U	0.32	4.9
Bromomethane	4.9	U	0.52	4.9
Carbon disulfide	3.0	J	0.43	4.9
Carbon tetrachloride	4.9	U	0.36	4.9
Chlorobenzene	4.9	U	0.32	4.9
Dibromochloromethane	4.9	U	0.53	4.9
Chloroethane	4.9	U	0.83	4.9
Chloroform	4.9	U	0.28	4.9
Chloromethane	4.9	U	0.40	4.9
cis-1,2-Dichloroethene	4.9	U	0.35	4.9
cis-1,3-Dichloropropene	4.9	U	0.33	4.9
Dibromomethane	4.9	U	0.61	4.9
Bromochloromethane	4.9	U	0.69	4.9
Dichlorodifluoromethane	4.9	U	0.49	4.9
Bromodichloromethane	4.9	U	0.27	4.9
tert-Butyl alcohol	190	U	7.4	190

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-101-0-2

Lab Sample ID: 240-741-5
Client Matrix: Solid

% Moisture: 5.3

Date Sampled: 06/02/2011 1051
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82688.D
Dilution:	1.0			Initial Weight/Volume:	5.443 g
Analysis Date:	06/15/2011 0428			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.9	U	0.25	4.9
Hexachlorobutadiene		4.9	U	1.2	4.9
Diisopropyl ether		9.7	U	1.5	9.7
Isopropylbenzene		4.9	U	0.16	4.9
Methyl tert-butyl ether		19	U	0.42	19
Methylene Chloride		4.9	U	0.65	4.9
m-Xylene & p-Xylene		9.7	U	1.2	9.7
Naphthalene		4.9	U	0.18	4.9
n-Butylbenzene		4.9	U	0.22	4.9
n-Propylbenzene		4.9	U	0.39	4.9
o-Xylene		4.9	U	0.34	4.9
sec-Butylbenzene		4.9	U	0.17	4.9
Styrene		4.9	U	0.15	4.9
Tert-amyl-methyl ether (TAME)		4.9	U	0.36	4.9
Ethyl-t-butyl ether (ETBE)		4.9	U	0.21	4.9
Tetrachloroethene		4.9	U	0.50	4.9
Toluene		4.9	U	0.26	4.9
trans-1,2-Dichloroethene		4.9	U	0.40	4.9
trans-1,3-Dichloropropene		4.9	U	0.52	4.9
Trichloroethene		4.9	U	0.41	4.9
Trichlorofluoromethane		4.9	U	0.33	4.9
Vinyl acetate		9.7	U	0.24	9.7
Vinyl chloride		4.9	U	0.38	4.9
Xylenes, Total		9.7	U	0.65	9.7
tert-Butylbenzene		4.9	U	0.28	4.9
1,2-Dibromoethane		4.9	U	0.49	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	101		67 - 125
Dibromofluoromethane (Surr)	92		37 - 132
4-Bromofluorobenzene (Surr)	74		52 - 136
1,2-Dichloroethane-d4 (Surr)	91		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-101-0-2

Lab Sample ID: 240-741-5
Client Matrix: Solid

% Moisture: 5.3

Date Sampled: 06/02/2011 1051
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82688.D
Dilution:	1.0			Initial Weight/Volume:	5.443 g
Analysis Date:	06/15/2011 0428			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 0

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-101-6-8**

Lab Sample ID: 240-741-6
Client Matrix: Solid

% Moisture: 14.1

Date Sampled: 06/02/2011 1055
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82689.D
Dilution:	1.0			Initial Weight/Volume:	6.145 g
Analysis Date:	06/15/2011 0449			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte (DryWt Corrected: Y)	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	4.7	U	0.59	4.7
1,1,1-Trichloroethane	4.7	U	0.53	4.7
1,1,2,2-Tetrachloroethane	4.7	U	0.32	4.7
1,1,2-Trichloro-1,2,2-trichfluoroethane	4.7	U	1.2	4.7
1,1-Dichloroethane	4.7	U	0.34	4.7
1,1-Dichloroethene	4.7	U	0.49	4.7
1,1-Dichloropropene	4.7	U	0.28	4.7
1,2,3-Trichlorobenzene	4.7	U	0.36	4.7
1,2,3-Trichloropropane	4.7	U	0.85	4.7
1,2,3-Trimethylbenzene	4.7	U	0.16	4.7
1,2,4-Trichlorobenzene	4.7	U	0.26	4.7
1,2,4-Trimethylbenzene	4.7	U	0.62	4.7
1,2-Dibromo-3-Chloropropane	9.5	U	1.2	9.5
1,2-Dichlorobenzene	4.7	U	0.34	4.7
1,2-Dichloroethane	4.7	U	0.32	4.7
1,2-Dichloropropane	4.7	U	0.65	4.7
1,3-Dichlorobenzene	4.7	U	0.33	4.7
1,3-Dichloropropane	4.7	U	0.32	4.7
1,4-Dichlorobenzene	4.7	U	0.63	4.7
2,2-Dichloropropane	4.7	U	0.89	4.7
2-Butanone	19	U	1.3	19
2-Chloroethyl vinyl ether	47	U	1.3	47
2-Chlorotoluene	4.7	U	0.38	4.7
2-Hexanone	19	U	0.60	19
4-Chlorotoluene	4.7	U	0.39	4.7
p-Isopropyltoluene	4.7	U	0.20	4.7
4-Methyl-2-pentanone	19	U	0.51	19
Acetone	19	U	6.0	19
Benzene	4.7	U	0.22	4.7
Bromobenzene	4.7	U	0.31	4.7
Bromoform	4.7	U	0.31	4.7
Bromomethane	4.7	U	0.51	4.7
Carbon disulfide	4.7	U	0.42	4.7
Carbon tetrachloride	4.7	U	0.35	4.7
Chlorobenzene	4.7	U	0.31	4.7
Dibromochloromethane	4.7	U	0.52	4.7
Chloroethane	4.7	U	0.81	4.7
Chloroform	4.7	U	0.27	4.7
Chloromethane	4.7	U	0.39	4.7
cis-1,2-Dichloroethene	4.7	U	0.34	4.7
cis-1,3-Dichloropropene	4.7	U	0.32	4.7
Dibromomethane	4.7	U	0.60	4.7
Bromochloromethane	4.7	U	0.67	4.7
Dichlorodifluoromethane	4.7	U	0.47	4.7
Bromodichloromethane	4.7	U	0.27	4.7
tert-Butyl alcohol	190	U	7.2	190

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-101-6-8**

Lab Sample ID: 240-741-6
Client Matrix: Solid

% Moisture: 14.1

Date Sampled: 06/02/2011 1055
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82689.D
Dilution:	1.0			Initial Weight/Volume:	6.145 g
Analysis Date:	06/15/2011 0449			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.7	U	0.25	4.7
Hexachlorobutadiene		4.7	U	1.1	4.7
Diisopropyl ether		9.5	U	1.4	9.5
Isopropylbenzene		4.7	U	0.15	4.7
Methyl tert-butyl ether		19	U	0.41	19
Methylene Chloride		4.7	U	0.63	4.7
m-Xylene & p-Xylene		9.5	U	1.1	9.5
Naphthalene		4.7	U	0.18	4.7
n-Butylbenzene		4.7	U	0.22	4.7
n-Propylbenzene		4.7	U	0.38	4.7
o-Xylene		4.7	U	0.33	4.7
sec-Butylbenzene		4.7	U	0.17	4.7
Styrene		4.7	U	0.14	4.7
Tert-amyl-methyl ether (TAME)		4.7	U	0.35	4.7
Ethyl-t-butyl ether (ETBE)		4.7	U	0.21	4.7
Tetrachloroethene		4.7	U	0.49	4.7
Toluene		4.7	U	0.26	4.7
trans-1,2-Dichloroethene		4.7	U	0.39	4.7
trans-1,3-Dichloropropene		4.7	U	0.51	4.7
Trichloroethene		4.7	U	0.40	4.7
Trichlorofluoromethane		4.7	U	0.32	4.7
Vinyl acetate		9.5	U	0.24	9.5
Vinyl chloride		4.7	U	0.37	4.7
Xylenes, Total		9.5	U	0.63	9.5
tert-Butylbenzene		4.7	U	0.27	4.7
1,2-Dibromoethane		4.7	U	0.47	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	86		67 - 125
Dibromofluoromethane (Surr)	88		37 - 132
4-Bromofluorobenzene (Surr)	92		52 - 136
1,2-Dichloroethane-d4 (Surr)	84		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-101-6-8**

Lab Sample ID: 240-741-6
Client Matrix: Solid % Moisture: 14.1

Date Sampled: 06/02/2011 1055
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82689.D
Dilution:	1.0			Initial Weight/Volume:	6.145 g
Analysis Date:	06/15/2011 0449			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 0

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-0-2**

Lab Sample ID: 240-742-7
Client Matrix: Solid % Moisture: 4.2

Date Sampled: 06/02/2011 1210
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-5027	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149061.D
Dilution:	1.0			Initial Weight/Volume:	4.34 g
Analysis Date:	06/16/2011 1845			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		6.0	U	0.75	6.0
1,1,1-Trichloroethane		6.0	U	0.67	6.0
1,1,2,2-Tetrachloroethane		6.0	U	0.41	6.0
1,1,2-Trichloro-1,2,2-trichfluoroethane		6.0	U	1.6	6.0
1,1-Dichloroethane		6.0	U	0.43	6.0
1,1-Dichloroethene		6.0	U	0.63	6.0
1,1-Dichloropropene		6.0	U	0.36	6.0
1,2,3-Trichlorobenzene		6.0	U	0.46	6.0
1,2,3-Trichloropropane		6.0	U	1.1	6.0
1,2,3-Trimethylbenzene		6.0	U	0.20	6.0
1,2,4-Trichlorobenzene		6.0	U	0.32	6.0
1,2,4-Trimethylbenzene		6.0	U	0.78	6.0
1,2-Dibromo-3-Chloropropane		12	U	1.6	12
1,2-Dichlorobenzene		6.0	U	0.43	6.0
1,2-Dichloroethane		6.0	U	0.41	6.0
1,2-Dichloropropane		6.0	U	0.83	6.0
1,3-Dichlorobenzene		6.0	U	0.42	6.0
1,3-Dichloropropane		6.0	U	0.41	6.0
1,4-Dichlorobenzene		6.0	U	0.79	6.0
2,2-Dichloropropane		6.0	U	1.1	6.0
2-Butanone		24	U	1.7	24
2-Chloroethyl vinyl ether		60	U	1.7	60
2-Chlorotoluene		6.0	U	0.48	6.0
2-Hexanone		24	U	0.76	24
4-Chlorotoluene		6.0	U	0.49	6.0
p-Isopropyltoluene		6.0	U	0.25	6.0
4-Methyl-2-pentanone		24	U	0.65	24
Acetone		24	U	7.6	24
Benzene		6.0	U	0.28	6.0
Bromobenzene		6.0	U	0.40	6.0
Bromoform		6.0	U	0.40	6.0
Bromomethane		6.0	U	0.65	6.0
Carbon disulfide		6.0	U	0.53	6.0
Carbon tetrachloride		6.0	U	0.45	6.0
Chlorobenzene		6.0	U	0.40	6.0
Dibromochloromethane		6.0	U	0.66	6.0
Chloroethane		6.0	U *	1.0	6.0
Chloroform		6.0	U	0.35	6.0
Chloromethane		6.0	U	0.49	6.0
cis-1,2-Dichloroethene		6.0	U	0.43	6.0
cis-1,3-Dichloropropene		6.0	U	0.41	6.0
Dibromomethane		6.0	U	0.76	6.0
Bromochloromethane		6.0	U	0.85	6.0
Dichlorodifluoromethane		6.0	U	0.60	6.0
Bromodichloromethane		6.0	U	0.34	6.0
tert-Butyl alcohol		240	U	9.1	240

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-0-2**

Lab Sample ID: 240-742-7
Client Matrix: Solid

% Moisture: 4.2

Date Sampled: 06/02/2011 1210
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-5027	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149061.D
Dilution:	1.0			Initial Weight/Volume:	4.34 g
Analysis Date:	06/16/2011 1845			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		6.0	U	0.31	6.0
Hexachlorobutadiene		6.0	U	1.4	6.0
Diisopropyl ether		12	U	1.8	12
Isopropylbenzene		6.0	U	0.19	6.0
Methyl tert-butyl ether		24	U	0.52	24
Methylene Chloride		3.7	J B	0.81	6.0
m-Xylene & p-Xylene		12	U	1.4	12
Naphthalene		4.0	J B	0.23	6.0
n-Butylbenzene		6.0	U	0.28	6.0
n-Propylbenzene		6.0	U	0.48	6.0
o-Xylene		6.0	U	0.42	6.0
sec-Butylbenzene		6.0	U	0.22	6.0
Styrene		6.0	U	0.18	6.0
Tert-amyl-methyl ether (TAME)		6.0	U	0.45	6.0
Ethyl-t-butyl ether (ETBE)		6.0	U	0.26	6.0
Tetrachloroethene		6.0	U	0.63	6.0
Toluene		0.59	J	0.32	6.0
trans-1,2-Dichloroethene		6.0	U	0.49	6.0
trans-1,3-Dichloropropene		6.0	U	0.65	6.0
Trichloroethene		6.0	U	0.51	6.0
Trichlorofluoromethane		6.0	U	0.41	6.0
Vinyl acetate		12	U	0.30	12
Vinyl chloride		6.0	U	0.47	6.0
Xylenes, Total		12	U	0.81	12
tert-Butylbenzene		6.0	U	0.35	6.0
1,2-Dibromoethane		6.0	U	0.60	6.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	107		67 - 125
Dibromofluoromethane (Surr)	86		37 - 132
4-Bromofluorobenzene (Surr)	107		52 - 136
1,2-Dichloroethane-d4 (Surr)	108		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-0-2**

Lab Sample ID: 240-742-7
Client Matrix: Solid % Moisture: 4.2

Date Sampled: 06/02/2011 1210
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-5027	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149061.D
Dilution:	1.0			Initial Weight/Volume:	4.34 g
Analysis Date:	06/16/2011 1845			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 1

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.78	3.3	J

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-6-8**

Lab Sample ID: 240-742-8
Client Matrix: Solid % Moisture: 7.2

Date Sampled: 06/02/2011 1230
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149031.D
Dilution:	1.0			Initial Weight/Volume:	5.74 g
Analysis Date:	06/15/2011 2015			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.7	U	0.58	4.7
1,1,1-Trichloroethane		4.7	U	0.53	4.7
1,1,2,2-Tetrachloroethane		4.7	U	0.32	4.7
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.7	U	1.2	4.7
1,1-Dichloroethane		4.7	U	0.34	4.7
1,1-Dichloroethene		4.7	U	0.49	4.7
1,1-Dichloropropene		4.7	U	0.28	4.7
1,2,3-Trichlorobenzene		4.7	U	0.36	4.7
1,2,3-Trichloropropane		4.7	U	0.84	4.7
1,2,3-Trimethylbenzene		4.7	U	0.16	4.7
1,2,4-Trichlorobenzene		4.7	U	0.25	4.7
1,2,4-Trimethylbenzene		4.7	U	0.61	4.7
1,2-Dibromo-3-Chloropropane		9.4	U	1.2	9.4
1,2-Dichlorobenzene		4.7	U	0.34	4.7
1,2-Dichloroethane		4.7	U	0.32	4.7
1,2-Dichloropropane		4.7	U	0.65	4.7
1,3-Dichlorobenzene		4.7	U	0.33	4.7
1,3-Dichloropropane		4.7	U	0.32	4.7
1,4-Dichlorobenzene		4.7	U	0.62	4.7
2,2-Dichloropropane		4.7	U	0.88	4.7
2-Butanone		19	U	1.3	19
2-Chloroethyl vinyl ether		47	U	1.3	47
2-Chlorotoluene		4.7	U	0.38	4.7
2-Hexanone		19	U	0.59	19
4-Chlorotoluene		4.7	U	0.38	4.7
p-Isopropyltoluene		4.7	U	0.20	4.7
4-Methyl-2-pentanone		19	U	0.51	19
Acetone		14	J B	5.9	19
Benzene		4.7	U	0.22	4.7
Bromobenzene		4.7	U	0.31	4.7
Bromoform		4.7	U	0.31	4.7
Bromomethane		4.7	U	0.51	4.7
Carbon disulfide		4.7	U	0.41	4.7
Carbon tetrachloride		4.7	U	0.35	4.7
Chlorobenzene		4.7	U	0.31	4.7
Dibromochloromethane		4.7	U	0.52	4.7
Chloroethane		4.7	U *	0.81	4.7
Chloroform		4.7	U	0.27	4.7
Chloromethane		4.7	U *	0.38	4.7
cis-1,2-Dichloroethene		4.7	U	0.34	4.7
cis-1,3-Dichloropropene		4.7	U	0.32	4.7
Dibromomethane		4.7	U	0.59	4.7
Bromochloromethane		4.7	U	0.67	4.7
Dichlorodifluoromethane		4.7	U	0.47	4.7
Bromodichloromethane		4.7	U	0.26	4.7
tert-Butyl alcohol		190	U	7.1	190

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-6-8**

Lab Sample ID: 240-742-8
Client Matrix: Solid

% Moisture: 7.2

Date Sampled: 06/02/2011 1230
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149031.D
Dilution:	1.0			Initial Weight/Volume:	5.74 g
Analysis Date:	06/15/2011 2015			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.7	U	0.24	4.7
Hexachlorobutadiene		4.7	U	1.1	4.7
Diisopropyl ether		9.4	U	1.4	9.4
Isopropylbenzene		4.7	U	0.15	4.7
Methyl tert-butyl ether		19	U	0.40	19
Methylene Chloride		3.2	J B	0.63	4.7
m-Xylene & p-Xylene		9.4	U	1.1	9.4
Naphthalene		0.26	J B	0.18	4.7
n-Butylbenzene		4.7	U	0.22	4.7
n-Propylbenzene		4.7	U	0.38	4.7
o-Xylene		4.7	U	0.33	4.7
sec-Butylbenzene		4.7	U	0.17	4.7
Styrene		4.7	U	0.14	4.7
Tert-amyl-methyl ether (TAME)		4.7	U	0.35	4.7
Ethyl-t-butyl ether (ETBE)		4.7	U	0.21	4.7
Tetrachloroethene		4.7	U	0.49	4.7
Toluene		0.29	J	0.25	4.7
trans-1,2-Dichloroethene		4.7	U	0.38	4.7
trans-1,3-Dichloropropene		4.7	U	0.51	4.7
Trichloroethene		4.7	U	0.39	4.7
Trichlorofluoromethane		4.7	U	0.32	4.7
Vinyl acetate		9.4	U	0.23	9.4
Vinyl chloride		4.7	U	0.37	4.7
Xylenes, Total		9.4	U	0.63	9.4
tert-Butylbenzene		4.7	U	0.27	4.7
1,2-Dibromoethane		4.7	U	0.47	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	109		67 - 125
Dibromofluoromethane (Surr)	87		37 - 132
4-Bromofluorobenzene (Surr)	105		52 - 136
1,2-Dichloroethane-d4 (Surr)	110		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-102-6-8

Lab Sample ID: 240-742-8
Client Matrix: Solid

% Moisture: 7.2

Date Sampled: 06/02/2011 1230
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149031.D
Dilution:	1.0			Initial Weight/Volume:	5.74 g
Analysis Date:	06/15/2011 2015			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 1

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.79	2.0	J

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-103-0-2

Lab Sample ID: 240-741-1
Client Matrix: Solid

% Moisture: 15.1

Date Sampled: 06/02/2011 0855
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82684.D
Dilution:	1.0			Initial Weight/Volume:	7.759 g
Analysis Date:	06/15/2011 0303			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		3.8	U	0.47	3.8
1,1,1-Trichloroethane		3.8	U	0.43	3.8
1,1,2,2-Tetrachloroethane		3.8	U	0.26	3.8
1,1,2-Trichloro-1,2,2-trichfluoroethane		3.8	U	0.99	3.8
1,1-Dichloroethane		3.8	U	0.27	3.8
1,1-Dichloroethene		3.8	U	0.39	3.8
1,1-Dichloropropene		3.8	U	0.23	3.8
1,2,3-Trichlorobenzene		3.8	U	0.29	3.8
1,2,3-Trichloropropane		3.8	U	0.68	3.8
1,2,3-Trimethylbenzene		3.8	U	0.13	3.8
1,2,4-Trichlorobenzene		3.8	U	0.20	3.8
1,2,4-Trimethylbenzene		3.8	U	0.49	3.8
1,2-Dibromo-3-Chloropropane		7.6	U	0.99	7.6
1,2-Dichlorobenzene		3.8	U	0.27	3.8
1,2-Dichloroethane		3.8	U	0.26	3.8
1,2-Dichloropropane		3.8	U	0.52	3.8
1,3-Dichlorobenzene		3.8	U	0.27	3.8
1,3-Dichloropropane		3.8	U	0.26	3.8
1,4-Dichlorobenzene		3.8	U	0.50	3.8
2,2-Dichloropropane		3.8	U	0.71	3.8
2-Butanone		15	U	1.1	15
2-Chloroethyl vinyl ether		38	U	1.1	38
2-Chlorotoluene		3.8	U	0.30	3.8
2-Hexanone		15	U	0.48	15
4-Chlorotoluene		3.8	U	0.31	3.8
p-Isopropyltoluene		3.8	U	0.16	3.8
4-Methyl-2-pentanone		15	U	0.41	15
Acetone		15	U	4.8	15
Benzene		3.8	U	0.17	3.8
Bromobenzene		3.8	U	0.25	3.8
Bromoform		3.8	U	0.25	3.8
Bromomethane		3.8	U	0.41	3.8
Carbon disulfide		3.8	U	0.33	3.8
Carbon tetrachloride		3.8	U	0.28	3.8
Chlorobenzene		3.8	U	0.25	3.8
Dibromochloromethane		3.8	U	0.42	3.8
Chloroethane		3.8	U	0.65	3.8
Chloroform		3.8	U	0.22	3.8
Chloromethane		3.8	U	0.31	3.8
cis-1,2-Dichloroethene		3.8	U	0.27	3.8
cis-1,3-Dichloropropene		3.8	U	0.26	3.8
Dibromomethane		3.8	U	0.48	3.8
Bromochloromethane		3.8	U	0.54	3.8
Dichlorodifluoromethane		3.8	U	0.38	3.8
Bromodichloromethane		3.8	U	0.21	3.8
tert-Butyl alcohol		150	U	5.8	150

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-103-0-2

Lab Sample ID: 240-741-1
Client Matrix: Solid

% Moisture: 15.1

Date Sampled: 06/02/2011 0855
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82684.D
Dilution:	1.0			Initial Weight/Volume:	7.759 g
Analysis Date:	06/15/2011 0303			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		3.8	U	0.20	3.8
Hexachlorobutadiene		3.8	U	0.91	3.8
Diisopropyl ether		7.6	U	1.1	7.6
Isopropylbenzene		3.8	U	0.12	3.8
Methyl tert-butyl ether		15	U	0.33	15
Methylene Chloride		3.8	U	0.51	3.8
m-Xylene & p-Xylene		7.6	U	0.91	7.6
Naphthalene		3.8	U	0.14	3.8
n-Butylbenzene		3.8	U	0.17	3.8
n-Propylbenzene		3.8	U	0.30	3.8
o-Xylene		3.8	U	0.27	3.8
sec-Butylbenzene		3.8	U	0.14	3.8
Styrene		3.8	U	0.11	3.8
Tert-amyl-methyl ether (TAME)		3.8	U	0.28	3.8
Ethyl-t-butyl ether (ETBE)		3.8	U	0.17	3.8
Tetrachloroethene		3.8	U	0.39	3.8
Toluene		3.8	U	0.20	3.8
trans-1,2-Dichloroethene		3.8	U	0.31	3.8
trans-1,3-Dichloropropene		3.8	U	0.41	3.8
Trichloroethene		3.8	U	0.32	3.8
Trichlorofluoromethane		3.8	U	0.26	3.8
Vinyl acetate		7.6	U	0.19	7.6
Vinyl chloride		3.8	U	0.30	3.8
Xylenes, Total		7.6	U	0.51	7.6
tert-Butylbenzene		3.8	U	0.22	3.8
1,2-Dibromoethane		3.8	U	0.38	3.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	90		67 - 125
Dibromofluoromethane (Surr)	90		37 - 132
4-Bromofluorobenzene (Surr)	82		52 - 136
1,2-Dichloroethane-d4 (Surr)	84		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-103-0-2**

Lab Sample ID: 240-741-1
Client Matrix: Solid
% Moisture: 15.1
Date Sampled: 06/02/2011 0855
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82684.D
Dilution:	1.0			Initial Weight/Volume:	7.759 g
Analysis Date:	06/15/2011 0303			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 0

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-103-6-8

Lab Sample ID: 240-741-2
Client Matrix: Solid

% Moisture: 9.5

Date Sampled: 06/02/2011 0859
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82685.D
Dilution:	1.0			Initial Weight/Volume:	5.897 g
Analysis Date:	06/15/2011 0324			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.7	U	0.58	4.7
1,1,1-Trichloroethane		4.7	U	0.52	4.7
1,1,2,2-Tetrachloroethane		4.7	U	0.32	4.7
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.7	U	1.2	4.7
1,1-Dichloroethane		4.7	U	0.34	4.7
1,1-Dichloroethene		4.7	U	0.49	4.7
1,1-Dichloropropene		4.7	U	0.28	4.7
1,2,3-Trichlorobenzene		4.7	U	0.36	4.7
1,2,3-Trichloropropane		4.7	U	0.84	4.7
1,2,3-Trimethylbenzene		4.7	U	0.16	4.7
1,2,4-Trichlorobenzene		4.7	U	0.25	4.7
1,2,4-Trimethylbenzene		4.7	U	0.61	4.7
1,2-Dibromo-3-Chloropropane		9.4	U	1.2	9.4
1,2-Dichlorobenzene		4.7	U	0.34	4.7
1,2-Dichloroethane		4.7	U	0.32	4.7
1,2-Dichloropropane		4.7	U	0.65	4.7
1,3-Dichlorobenzene		4.7	U	0.33	4.7
1,3-Dichloropropane		4.7	U	0.32	4.7
1,4-Dichlorobenzene		4.7	U	0.62	4.7
2,2-Dichloropropane		4.7	U	0.88	4.7
2-Butanone		19	U	1.3	19
2-Chloroethyl vinyl ether		47	U	1.3	47
2-Chlorotoluene		4.7	U	0.37	4.7
2-Hexanone		19	U	0.59	19
4-Chlorotoluene		4.7	U	0.38	4.7
p-Isopropyltoluene		4.7	U	0.20	4.7
4-Methyl-2-pentanone		19	U	0.51	19
Acetone		19	U	5.9	19
Benzene		4.7	U	0.22	4.7
Bromobenzene		4.7	U	0.31	4.7
Bromoform		4.7	U	0.31	4.7
Bromomethane		4.7	U	0.51	4.7
Carbon disulfide		4.7	U	0.41	4.7
Carbon tetrachloride		4.7	U	0.35	4.7
Chlorobenzene		4.7	U	0.31	4.7
Dibromochloromethane		4.7	U	0.52	4.7
Chloroethane		4.7	U	0.81	4.7
Chloroform		4.7	U	0.27	4.7
Chloromethane		4.7	U	0.38	4.7
cis-1,2-Dichloroethene		4.7	U	0.34	4.7
cis-1,3-Dichloropropene		4.7	U	0.32	4.7
Dibromomethane		4.7	U	0.59	4.7
Bromochloromethane		4.7	U	0.67	4.7
Dichlorodifluoromethane		4.7	U	0.47	4.7
Bromodichloromethane		4.7	U	0.26	4.7
tert-Butyl alcohol		190	U	7.1	190

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-103-6-8

Lab Sample ID: 240-741-2
Client Matrix: Solid

% Moisture: 9.5

Date Sampled: 06/02/2011 0859
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82685.D
Dilution:	1.0			Initial Weight/Volume:	5.897 g
Analysis Date:	06/15/2011 0324			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.7	U	0.24	4.7
Hexachlorobutadiene		4.7	U	1.1	4.7
Diisopropyl ether		9.4	U	1.4	9.4
Isopropylbenzene		4.7	U	0.15	4.7
Methyl tert-butyl ether		19	U	0.40	19
Methylene Chloride		4.7	U	0.63	4.7
m-Xylene & p-Xylene		9.4	U	1.1	9.4
Naphthalene		4.7	U	0.18	4.7
n-Butylbenzene		4.7	U	0.22	4.7
n-Propylbenzene		4.7	U	0.37	4.7
o-Xylene		4.7	U	0.33	4.7
sec-Butylbenzene		4.7	U	0.17	4.7
Styrene		4.7	U	0.14	4.7
Tert-amyl-methyl ether (TAME)		4.7	U	0.35	4.7
Ethyl-t-butyl ether (ETBE)		4.7	U	0.21	4.7
Tetrachloroethene		4.7	U	0.49	4.7
Toluene		4.7	U	0.25	4.7
trans-1,2-Dichloroethene		4.7	U	0.38	4.7
trans-1,3-Dichloropropene		4.7	U	0.51	4.7
Trichloroethene		4.7	U	0.39	4.7
Trichlorofluoromethane		4.7	U	0.32	4.7
Vinyl acetate		9.4	U	0.23	9.4
Vinyl chloride		4.7	U	0.37	4.7
Xylenes, Total		9.4	U	0.63	9.4
tert-Butylbenzene		4.7	U	0.27	4.7
1,2-Dibromoethane		4.7	U	0.47	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	86		67 - 125
Dibromofluoromethane (Surr)	91		37 - 132
4-Bromofluorobenzene (Surr)	94		52 - 136
1,2-Dichloroethane-d4 (Surr)	90		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-103-6-8

Lab Sample ID: 240-741-2
Client Matrix: Solid
% Moisture: 9.5

Date Sampled: 06/02/2011 0859
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82685.D
Dilution:	1.0			Initial Weight/Volume:	5.897 g
Analysis Date:	06/15/2011 0324			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 0

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-105-0-2

Lab Sample ID: 240-741-3
Client Matrix: Solid

% Moisture: 13.8

Date Sampled: 06/02/2011 0942
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4936	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82702.D
Dilution:	1.0			Initial Weight/Volume:	6.03 g
Analysis Date:	06/16/2011 0100			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.8	U	0.60	4.8
1,1,1-Trichloroethane		4.8	U	0.54	4.8
1,1,2,2-Tetrachloroethane		4.8	U	0.33	4.8
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.8	U	1.3	4.8
1,1-Dichloroethane		4.8	U	0.35	4.8
1,1-Dichloroethene		4.8	U	0.50	4.8
1,1-Dichloropropene		4.8	U	0.29	4.8
1,2,3-Trichlorobenzene		4.8	U	0.37	4.8
1,2,3-Trichloropropane		4.8	U	0.87	4.8
1,2,3-Trimethylbenzene		4.8	U	0.16	4.8
1,2,4-Trichlorobenzene		4.8	U	0.26	4.8
1,2,4-Trimethylbenzene		4.8	U	0.63	4.8
1,2-Dibromo-3-Chloropropane		9.6	U	1.3	9.6
1,2-Dichlorobenzene		4.8	U	0.35	4.8
1,2-Dichloroethane		4.8	U	0.33	4.8
1,2-Dichloropropane		4.8	U	0.66	4.8
1,3-Dichlorobenzene		4.8	U	0.34	4.8
1,3-Dichloropropane		4.8	U	0.33	4.8
1,4-Dichlorobenzene		4.8	U	0.64	4.8
2,2-Dichloropropane		4.8	U	0.90	4.8
2-Butanone		9.8	J	1.3	19
2-Chloroethyl vinyl ether		48	U	1.3	48
2-Chlorotoluene		4.8	U	0.38	4.8
2-Hexanone		19	U	0.61	19
4-Chlorotoluene		4.8	U	0.39	4.8
p-Isopropyltoluene		4.8	U	0.20	4.8
4-Methyl-2-pentanone		19	U	0.52	19
Acetone		64		6.1	19
Benzene		4.8	U	0.22	4.8
Bromobenzene		4.8	U	0.32	4.8
Bromoform		4.8	U	0.32	4.8
Bromomethane		4.8	U	0.52	4.8
Carbon disulfide		4.8	U	0.42	4.8
Carbon tetrachloride		4.8	U	0.36	4.8
Chlorobenzene		4.8	U	0.32	4.8
Dibromochloromethane		4.8	U	0.53	4.8
Chloroethane		4.8	U	0.83	4.8
Chloroform		4.8	U	0.28	4.8
Chloromethane		4.8	U	0.39	4.8
cis-1,2-Dichloroethene		4.8	U	0.35	4.8
cis-1,3-Dichloropropene		4.8	U	0.33	4.8
Dibromomethane		4.8	U	0.61	4.8
Bromochloromethane		4.8	U	0.68	4.8
Dichlorodifluoromethane		4.8	U	0.48	4.8
Bromodichloromethane		4.8	U *	0.27	4.8
tert-Butyl alcohol		190	U	7.3	190

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-105-0-2

Lab Sample ID: 240-741-3
Client Matrix: Solid

% Moisture: 13.8

Date Sampled: 06/02/2011 0942
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4936	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82702.D
Dilution:	1.0			Initial Weight/Volume:	6.03 g
Analysis Date:	06/16/2011 0100			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.8	U	0.25	4.8
Hexachlorobutadiene		4.8	U	1.2	4.8
Diisopropyl ether		9.6	U	1.4	9.6
Isopropylbenzene		4.8	U	0.15	4.8
Methyl tert-butyl ether		19	U	0.41	19
Methylene Chloride		4.8	U	0.64	4.8
m-Xylene & p-Xylene		9.6	U	1.2	9.6
Naphthalene		4.8	U	0.18	4.8
n-Butylbenzene		4.8	U	0.22	4.8
n-Propylbenzene		4.8	U	0.38	4.8
o-Xylene		4.8	U	0.34	4.8
sec-Butylbenzene		4.8	U	0.17	4.8
Styrene		4.8	U	0.14	4.8
Tert-amyl-methyl ether (TAME)		4.8	U	0.36	4.8
Ethyl-t-butyl ether (ETBE)		4.8	U	0.21	4.8
Tetrachloroethene		4.8	U	0.50	4.8
Toluene		4.8	U	0.26	4.8
trans-1,2-Dichloroethene		4.8	U	0.39	4.8
trans-1,3-Dichloropropene		4.8	U	0.52	4.8
Trichloroethene		4.8	U	0.40	4.8
Trichlorofluoromethane		4.8	U	0.33	4.8
Vinyl acetate		9.6	U	0.24	9.6
Vinyl chloride		4.8	U	0.38	4.8
Xylenes, Total		9.6	U	0.64	9.6
tert-Butylbenzene		4.8	U	0.28	4.8
1,2-Dibromoethane		4.8	U	0.48	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	101		67 - 125
Dibromofluoromethane (Surr)	96		37 - 132
4-Bromofluorobenzene (Surr)	80		52 - 136
1,2-Dichloroethane-d4 (Surr)	95		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-105-0-2

Lab Sample ID: 240-741-3
Client Matrix: Solid

% Moisture: 13.8

Date Sampled: 06/02/2011 0942
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4936	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82702.D
Dilution:	1.0			Initial Weight/Volume:	6.03 g
Analysis Date:	06/16/2011 0100			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 0

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-105-6-8**

Lab Sample ID: 240-741-4
Client Matrix: Solid
% Moisture: 12.2

Date Sampled: 06/02/2011 0945
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82687.D
Dilution:	1.0			Initial Weight/Volume:	6.735 g
Analysis Date:	06/15/2011 0406			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.2	U	0.52	4.2
1,1,1-Trichloroethane		4.2	U	0.47	4.2
1,1,2,2-Tetrachloroethane		4.2	U	0.29	4.2
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.2	U	1.1	4.2
1,1-Dichloroethane		4.2	U	0.30	4.2
1,1-Dichloroethene		4.2	U	0.44	4.2
1,1-Dichloropropene		4.2	U	0.25	4.2
1,2,3-Trichlorobenzene		4.2	U	0.32	4.2
1,2,3-Trichloropropane		4.2	U	0.76	4.2
1,2,3-Trimethylbenzene		4.2	U	0.14	4.2
1,2,4-Trichlorobenzene		4.2	U	0.23	4.2
1,2,4-Trimethylbenzene		4.2	U	0.55	4.2
1,2-Dibromo-3-Chloropropane		8.5	U	1.1	8.5
1,2-Dichlorobenzene		4.2	U	0.30	4.2
1,2-Dichloroethane		4.2	U	0.29	4.2
1,2-Dichloropropane		4.2	U	0.58	4.2
1,3-Dichlorobenzene		4.2	U	0.30	4.2
1,3-Dichloropropane		4.2	U	0.29	4.2
1,4-Dichlorobenzene		4.2	U	0.56	4.2
2,2-Dichloropropane		4.2	U	0.79	4.2
2-Butanone		17	U	1.2	17
2-Chloroethyl vinyl ether		42	U	1.2	42
2-Chlorotoluene		4.2	U	0.34	4.2
2-Hexanone		17	U	0.53	17
4-Chlorotoluene		4.2	U	0.35	4.2
p-Isopropyltoluene		4.2	U	0.18	4.2
4-Methyl-2-pentanone		17	U	0.46	17
Acetone		17	U	5.3	17
Benzene		4.2	U	0.19	4.2
Bromobenzene		4.2	U	0.28	4.2
Bromoform		4.2	U	0.28	4.2
Bromomethane		4.2	U	0.46	4.2
Carbon disulfide		4.2	U	0.37	4.2
Carbon tetrachloride		4.2	U	0.31	4.2
Chlorobenzene		4.2	U	0.28	4.2
Dibromochloromethane		4.2	U	0.47	4.2
Chloroethane		4.2	U	0.73	4.2
Chloroform		4.2	U	0.25	4.2
Chloromethane		4.2	U	0.35	4.2
cis-1,2-Dichloroethene		4.2	U	0.30	4.2
cis-1,3-Dichloropropene		4.2	U	0.29	4.2
Dibromomethane		4.2	U	0.53	4.2
Bromochloromethane		4.2	U	0.60	4.2
Dichlorodifluoromethane		4.2	U	0.42	4.2
Bromodichloromethane		4.2	U	0.24	4.2
tert-Butyl alcohol		170	U	6.4	170

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-105-6-8**

Lab Sample ID: 240-741-4
Client Matrix: Solid
% Moisture: 12.2

Date Sampled: 06/02/2011 0945
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82687.D
Dilution:	1.0			Initial Weight/Volume:	6.735 g
Analysis Date:	06/15/2011 0406			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.2	U	0.22	4.2
Hexachlorobutadiene		4.2	U	1.0	4.2
Diisopropyl ether		8.5	U	1.3	8.5
Isopropylbenzene		4.2	U	0.14	4.2
Methyl tert-butyl ether		17	U	0.36	17
Methylene Chloride		4.2	U	0.57	4.2
m-Xylene & p-Xylene		8.5	U	1.0	8.5
Naphthalene		4.2	U	0.16	4.2
n-Butylbenzene		4.2	U	0.19	4.2
n-Propylbenzene		4.2	U	0.34	4.2
o-Xylene		4.2	U	0.30	4.2
sec-Butylbenzene		4.2	U	0.15	4.2
Styrene		4.2	U	0.13	4.2
Tert-amyl-methyl ether (TAME)		4.2	U	0.31	4.2
Ethyl-t-butyl ether (ETBE)		4.2	U	0.19	4.2
Tetrachloroethene		4.2	U	0.44	4.2
Toluene		4.2	U	0.23	4.2
trans-1,2-Dichloroethene		4.2	U	0.35	4.2
trans-1,3-Dichloropropene		4.2	U	0.46	4.2
Trichloroethene		4.2	U	0.36	4.2
Trichlorofluoromethane		4.2	U	0.29	4.2
Vinyl acetate		8.5	U	0.21	8.5
Vinyl chloride		4.2	U	0.33	4.2
Xylenes, Total		8.5	U	0.57	8.5
tert-Butylbenzene		4.2	U	0.25	4.2
1,2-Dibromoethane		4.2	U	0.42	4.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	86		67 - 125
Dibromofluoromethane (Surr)	92		37 - 132
4-Bromofluorobenzene (Surr)	95		52 - 136
1,2-Dichloroethane-d4 (Surr)	94		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-105-6-8**

Lab Sample ID: 240-741-4
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 0945
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	UX82687.D
Dilution:	1.0			Initial Weight/Volume:	6.735 g
Analysis Date:	06/15/2011 0406			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-0-2**

Lab Sample ID: 240-742-9
Client Matrix: Solid

% Moisture: 19.1

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149032.D
Dilution:	1.0			Initial Weight/Volume:	5.68 g
Analysis Date:	06/15/2011 2036			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		5.4	U	0.67	5.4
1,1,1-Trichloroethane		5.4	U	0.61	5.4
1,1,2,2-Tetrachloroethane		5.4	U	0.37	5.4
1,1,2-Trichloro-1,2,2-trichfluoroethane		5.4	U	1.4	5.4
1,1-Dichloroethane		5.4	U	0.39	5.4
1,1-Dichloroethene		5.4	U	0.57	5.4
1,1-Dichloropropene		5.4	U	0.33	5.4
1,2,3-Trichlorobenzene		5.4	U	0.41	5.4
1,2,3-Trichloropropane		5.4	U	0.98	5.4
1,2,3-Trimethylbenzene		5.4	U	0.19	5.4
1,2,4-Trichlorobenzene		5.4	U	0.29	5.4
1,2,4-Trimethylbenzene		5.4	U	0.71	5.4
1,2-Dibromo-3-Chloropropane		11	U	1.4	11
1,2-Dichlorobenzene		5.4	U	0.39	5.4
1,2-Dichloroethane		5.4	U	0.37	5.4
1,2-Dichloropropane		5.4	U	0.75	5.4
1,3-Dichlorobenzene		5.4	U	0.38	5.4
1,3-Dichloropropane		5.4	U	0.37	5.4
1,4-Dichlorobenzene		5.4	U	0.72	5.4
2,2-Dichloropropane		5.4	U	1.0	5.4
2-Butanone		2.6	J	1.5	22
2-Chloroethyl vinyl ether		54	U	1.5	54
2-Chlorotoluene		5.4	U	0.44	5.4
2-Hexanone		22	U	0.69	22
4-Chlorotoluene		5.4	U	0.45	5.4
p-Isopropyltoluene		5.4	U	0.23	5.4
4-Methyl-2-pentanone		22	U	0.59	22
Acetone		34	B	6.9	22
Benzene		5.4	U	0.25	5.4
Bromobenzene		5.4	U	0.36	5.4
Bromoform		5.4	U	0.36	5.4
Bromomethane		5.4	U	0.59	5.4
Carbon disulfide		5.4	U	0.48	5.4
Carbon tetrachloride		5.4	U	0.40	5.4
Chlorobenzene		5.4	U	0.36	5.4
Dibromochloromethane		5.4	U	0.60	5.4
Chloroethane		5.4	U *	0.94	5.4
Chloroform		5.4	U	0.32	5.4
Chloromethane		5.4	U *	0.45	5.4
cis-1,2-Dichloroethene		5.4	U	0.39	5.4
cis-1,3-Dichloropropene		5.4	U	0.37	5.4
Dibromomethane		5.4	U	0.69	5.4
Bromochloromethane		5.4	U	0.77	5.4
Dichlorodifluoromethane		5.4	U	0.54	5.4
Bromodichloromethane		5.4	U	0.30	5.4
tert-Butyl alcohol		220	U	8.3	220

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-0-2**

Lab Sample ID: 240-742-9
Client Matrix: Solid

% Moisture: 19.1

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149032.D
Dilution:	1.0			Initial Weight/Volume:	5.68 g
Analysis Date:	06/15/2011 2036			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		5.4	U	0.28	5.4
Hexachlorobutadiene		5.4	U	1.3	5.4
Diisopropyl ether		11	U	1.6	11
Isopropylbenzene		5.4	U	0.17	5.4
Methyl tert-butyl ether		22	U	0.47	22
Methylene Chloride		4.0	J B	0.73	5.4
m-Xylene & p-Xylene		11	U	1.3	11
Naphthalene		5.4	U	0.21	5.4
n-Butylbenzene		5.4	U	0.25	5.4
n-Propylbenzene		5.4	U	0.44	5.4
o-Xylene		5.4	U	0.38	5.4
sec-Butylbenzene		5.4	U	0.20	5.4
Styrene		5.4	U	0.16	5.4
Tert-amyl-methyl ether (TAME)		5.4	U	0.40	5.4
Ethyl-t-butyl ether (ETBE)		5.4	U	0.24	5.4
Tetrachloroethene		5.4	U	0.57	5.4
Toluene		0.29	J	0.29	5.4
trans-1,2-Dichloroethene		5.4	U	0.45	5.4
trans-1,3-Dichloropropene		5.4	U	0.59	5.4
Trichloroethene		5.4	U	0.46	5.4
Trichlorofluoromethane		5.4	U	0.37	5.4
Vinyl acetate		11	U	0.27	11
Vinyl chloride		5.4	U	0.42	5.4
Xylenes, Total		11	U	0.73	11
tert-Butylbenzene		5.4	U	0.32	5.4
1,2-Dibromoethane		5.4	U	0.54	5.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	105		67 - 125
Dibromofluoromethane (Surr)	88		37 - 132
4-Bromofluorobenzene (Surr)	96		52 - 136
1,2-Dichloroethane-d4 (Surr)	112		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-0-2**

Lab Sample ID: 240-742-9
Client Matrix: Solid

% Moisture: 19.1

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149032.D
Dilution:	1.0			Initial Weight/Volume:	5.68 g
Analysis Date:	06/15/2011 2036			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 1

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.79	1.9	J

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-107-6-8

Lab Sample ID: 240-742-10
Client Matrix: Solid

% Moisture: 16.3

Date Sampled: 06/02/2011 1430
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-5027	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149062.D
Dilution:	1.0			Initial Weight/Volume:	6.33 g
Analysis Date:	06/16/2011 1906			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.7	U	0.59	4.7
1,1,1-Trichloroethane		4.7	U	0.53	4.7
1,1,2,2-Tetrachloroethane		4.7	U	0.32	4.7
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.7	U	1.2	4.7
1,1-Dichloroethane		4.7	U	0.34	4.7
1,1-Dichloroethene		4.7	U	0.49	4.7
1,1-Dichloropropene		4.7	U	0.28	4.7
1,2,3-Trichlorobenzene		4.7	U	0.36	4.7
1,2,3-Trichloropropane		4.7	U	0.85	4.7
1,2,3-Trimethylbenzene		4.7	U	0.16	4.7
1,2,4-Trichlorobenzene		4.7	U	0.25	4.7
1,2,4-Trimethylbenzene		4.7	U	0.61	4.7
1,2-Dibromo-3-Chloropropane		9.4	U	1.2	9.4
1,2-Dichlorobenzene		4.7	U	0.34	4.7
1,2-Dichloroethane		4.7	U	0.32	4.7
1,2-Dichloropropane		4.7	U	0.65	4.7
1,3-Dichlorobenzene		4.7	U	0.33	4.7
1,3-Dichloropropane		4.7	U	0.32	4.7
1,4-Dichlorobenzene		4.7	U	0.62	4.7
2,2-Dichloropropane		4.7	U	0.89	4.7
2-Butanone		3.9	J	1.3	19
2-Chloroethyl vinyl ether		47	U	1.3	47
2-Chlorotoluene		4.7	U	0.38	4.7
2-Hexanone		19	U	0.59	19
4-Chlorotoluene		4.7	U	0.39	4.7
p-Isopropyltoluene		4.7	U	0.20	4.7
4-Methyl-2-pentanone		19	U	0.51	19
Acetone		21	B	5.9	19
Benzene		4.7	U	0.22	4.7
Bromobenzene		4.7	U	0.31	4.7
Bromoform		4.7	U	0.31	4.7
Bromomethane		4.7	U	0.51	4.7
Carbon disulfide		4.7	U	0.42	4.7
Carbon tetrachloride		4.7	U	0.35	4.7
Chlorobenzene		4.7	U	0.31	4.7
Dibromochloromethane		4.7	U	0.52	4.7
Chloroethane		4.7	U *	0.81	4.7
Chloroform		4.7	U	0.27	4.7
Chloromethane		4.7	U	0.39	4.7
cis-1,2-Dichloroethene		4.7	U	0.34	4.7
cis-1,3-Dichloropropene		4.7	U	0.32	4.7
Dibromomethane		4.7	U	0.59	4.7
Bromochloromethane		4.7	U	0.67	4.7
Dichlorodifluoromethane		4.7	U	0.47	4.7
Bromodichloromethane		4.7	U	0.26	4.7
tert-Butyl alcohol		190	U	7.2	190

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-6-8**

Lab Sample ID: 240-742-10
Client Matrix: Solid

% Moisture: 16.3

Date Sampled: 06/02/2011 1430
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-5027	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149062.D
Dilution:	1.0			Initial Weight/Volume:	6.33 g
Analysis Date:	06/16/2011 1906			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.7	U	0.25	4.7
Hexachlorobutadiene		4.7	U	1.1	4.7
Diisopropyl ether		9.4	U	1.4	9.4
Isopropylbenzene		4.7	U	0.15	4.7
Methyl tert-butyl ether		19	U	0.41	19
Methylene Chloride		3.9	J B	0.63	4.7
m-Xylene & p-Xylene		9.4	U	1.1	9.4
Naphthalene		4.7	U	0.18	4.7
n-Butylbenzene		4.7	U	0.22	4.7
n-Propylbenzene		4.7	U	0.38	4.7
o-Xylene		4.7	U	0.33	4.7
sec-Butylbenzene		4.7	U	0.17	4.7
Styrene		4.7	U	0.14	4.7
Tert-amyl-methyl ether (TAME)		4.7	U	0.35	4.7
Ethyl-t-butyl ether (ETBE)		4.7	U	0.21	4.7
Tetrachloroethene		4.7	U	0.49	4.7
Toluene		4.7	U	0.25	4.7
trans-1,2-Dichloroethene		4.7	U	0.39	4.7
trans-1,3-Dichloropropene		4.7	U	0.51	4.7
Trichloroethene		4.7	U	0.40	4.7
Trichlorofluoromethane		4.7	U	0.32	4.7
Vinyl acetate		9.4	U	0.24	9.4
Vinyl chloride		4.7	U	0.37	4.7
Xylenes, Total		9.4	U	0.63	9.4
tert-Butylbenzene		4.7	U	0.27	4.7
1,2-Dibromoethane		4.7	U	0.47	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	102		67 - 125
Dibromofluoromethane (Surr)	88		37 - 132
4-Bromofluorobenzene (Surr)	92		52 - 136
1,2-Dichloroethane-d4 (Surr)	113		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-6-8**

Lab Sample ID: 240-742-10
Client Matrix: Solid

% Moisture: 16.3

Date Sampled: 06/02/2011 1430
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-5027	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149062.D
Dilution:	1.0			Initial Weight/Volume:	6.33 g
Analysis Date:	06/16/2011 1906			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-0-2**

Lab Sample ID: 240-742-3
Client Matrix: Solid

% Moisture: 13.9

Date Sampled: 06/02/2011 1005
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149026.D
Dilution:	1.0			Initial Weight/Volume:	6.92 g
Analysis Date:	06/15/2011 1828			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.2	U	0.52	4.2
1,1,1-Trichloroethane		4.2	U	0.47	4.2
1,1,2,2-Tetrachloroethane		4.2	U	0.29	4.2
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.2	U	1.1	4.2
1,1-Dichloroethane		4.2	U	0.30	4.2
1,1-Dichloroethene		4.2	U	0.44	4.2
1,1-Dichloropropene		4.2	U	0.25	4.2
1,2,3-Trichlorobenzene		4.2	U	0.32	4.2
1,2,3-Trichloropropane		4.2	U	0.76	4.2
1,2,3-Trimethylbenzene		4.2	U	0.14	4.2
1,2,4-Trichlorobenzene		4.2	U	0.23	4.2
1,2,4-Trimethylbenzene		4.2	U	0.55	4.2
1,2-Dibromo-3-Chloropropane		8.4	U	1.1	8.4
1,2-Dichlorobenzene		4.2	U	0.30	4.2
1,2-Dichloroethane		4.2	U	0.29	4.2
1,2-Dichloropropane		4.2	U	0.58	4.2
1,3-Dichlorobenzene		4.2	U	0.29	4.2
1,3-Dichloropropane		4.2	U	0.29	4.2
1,4-Dichlorobenzene		4.2	U	0.55	4.2
2,2-Dichloropropane		4.2	U	0.79	4.2
2-Butanone		17	U	1.2	17
2-Chloroethyl vinyl ether		42	U	1.2	42
2-Chlorotoluene		4.2	U	0.34	4.2
2-Hexanone		17	U	0.53	17
4-Chlorotoluene		4.2	U	0.34	4.2
p-Isopropyltoluene		4.2	U	0.18	4.2
4-Methyl-2-pentanone		17	U	0.45	17
Acetone		5.9	J B	5.3	17
Benzene		4.2	U	0.19	4.2
Bromobenzene		4.2	U	0.28	4.2
Bromoform		4.2	U	0.28	4.2
Bromomethane		4.2	U	0.45	4.2
Carbon disulfide		4.2	U	0.37	4.2
Carbon tetrachloride		4.2	U	0.31	4.2
Chlorobenzene		4.2	U	0.28	4.2
Dibromochloromethane		4.2	U	0.46	4.2
Chloroethane		4.2	U *	0.72	4.2
Chloroform		4.2	U	0.24	4.2
Chloromethane		4.2	U *	0.34	4.2
cis-1,2-Dichloroethene		4.2	U	0.30	4.2
cis-1,3-Dichloropropene		4.2	U	0.29	4.2
Dibromomethane		4.2	U	0.53	4.2
Bromochloromethane		4.2	U	0.60	4.2
Dichlorodifluoromethane		4.2	U	0.42	4.2
Bromodichloromethane		4.2	U	0.23	4.2
tert-Butyl alcohol		170	U	6.4	170

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-0-2**

Lab Sample ID: 240-742-3
Client Matrix: Solid

% Moisture: 13.9

Date Sampled: 06/02/2011 1005
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149026.D
Dilution:	1.0			Initial Weight/Volume:	6.92 g
Analysis Date:	06/15/2011 1828			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.2	U	0.22	4.2
Hexachlorobutadiene		4.2	U	1.0	4.2
Diisopropyl ether		8.4	U	1.3	8.4
Isopropylbenzene		4.2	U	0.13	4.2
Methyl tert-butyl ether		17	U	0.36	17
Methylene Chloride		2.3	J B	0.56	4.2
m-Xylene & p-Xylene		8.4	U	1.0	8.4
Naphthalene		4.2	U	0.16	4.2
n-Butylbenzene		4.2	U	0.19	4.2
n-Propylbenzene		4.2	U	0.34	4.2
o-Xylene		4.2	U	0.29	4.2
sec-Butylbenzene		4.2	U	0.15	4.2
Styrene		4.2	U	0.13	4.2
Tert-amyl-methyl ether (TAME)		4.2	U	0.31	4.2
Ethyl-t-butyl ether (ETBE)		4.2	U	0.18	4.2
Tetrachloroethene		4.2	U	0.44	4.2
Toluene		0.27	J	0.23	4.2
trans-1,2-Dichloroethene		4.2	U	0.34	4.2
trans-1,3-Dichloropropene		4.2	U	0.45	4.2
Trichloroethene		4.2	U	0.35	4.2
Trichlorofluoromethane		4.2	U	0.29	4.2
Vinyl acetate		8.4	U	0.21	8.4
Vinyl chloride		4.2	U	0.33	4.2
Xylenes, Total		8.4	U	0.56	8.4
tert-Butylbenzene		4.2	U	0.24	4.2
1,2-Dibromoethane		4.2	U	0.42	4.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	103		67 - 125
Dibromofluoromethane (Surr)	83		37 - 132
4-Bromofluorobenzene (Surr)	96		52 - 136
1,2-Dichloroethane-d4 (Surr)	113		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-108-0-2

Lab Sample ID: 240-742-3
Client Matrix: Solid
% Moisture: 13.9

Date Sampled: 06/02/2011 1005
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149026.D
Dilution:	1.0			Initial Weight/Volume:	6.92 g
Analysis Date:	06/15/2011 1828			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 0

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-6-8**

Lab Sample ID: 240-742-4
Client Matrix: Solid

% Moisture: 15.9

Date Sampled: 06/02/2011 1015
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149027.D
Dilution:	1.0			Initial Weight/Volume:	7.09 g
Analysis Date:	06/15/2011 1849			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.2	U	0.52	4.2
1,1,1-Trichloroethane		4.2	U	0.47	4.2
1,1,2,2-Tetrachloroethane		4.2	U	0.28	4.2
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.2	U	1.1	4.2
1,1-Dichloroethane		4.2	U	0.30	4.2
1,1-Dichloroethene		4.2	U	0.44	4.2
1,1-Dichloropropene		4.2	U	0.25	4.2
1,2,3-Trichlorobenzene		4.2	U	0.32	4.2
1,2,3-Trichloropropane		4.2	U	0.75	4.2
1,2,3-Trimethylbenzene		4.2	U	0.14	4.2
1,2,4-Trichlorobenzene		4.2	U	0.23	4.2
1,2,4-Trimethylbenzene		4.2	U	0.54	4.2
1,2-Dibromo-3-Chloropropane		8.4	U	1.1	8.4
1,2-Dichlorobenzene		4.2	U	0.30	4.2
1,2-Dichloroethane		4.2	U	0.28	4.2
1,2-Dichloropropane		4.2	U	0.58	4.2
1,3-Dichlorobenzene		4.2	U	0.29	4.2
1,3-Dichloropropane		4.2	U	0.28	4.2
1,4-Dichlorobenzene		4.2	U	0.55	4.2
2,2-Dichloropropane		4.2	U	0.79	4.2
2-Butanone		17	U	1.2	17
2-Chloroethyl vinyl ether		42	U	1.2	42
2-Chlorotoluene		4.2	U	0.34	4.2
2-Hexanone		17	U	0.53	17
4-Chlorotoluene		4.2	U	0.34	4.2
p-Isopropyltoluene		4.2	U	0.18	4.2
4-Methyl-2-pentanone		17	U	0.45	17
Acetone		23	B	5.3	17
Benzene		4.2	U	0.19	4.2
Bromobenzene		4.2	U	0.28	4.2
Bromoform		4.2	U	0.28	4.2
Bromomethane		4.2	U	0.45	4.2
Carbon disulfide		4.2	U	0.37	4.2
Carbon tetrachloride		4.2	U	0.31	4.2
Chlorobenzene		4.2	U	0.28	4.2
Dibromochloromethane		4.2	U	0.46	4.2
Chloroethane		4.2	U *	0.72	4.2
Chloroform		4.2	U	0.24	4.2
Chloromethane		4.2	U *	0.34	4.2
cis-1,2-Dichloroethene		4.2	U	0.30	4.2
cis-1,3-Dichloropropene		4.2	U	0.28	4.2
Dibromomethane		4.2	U	0.53	4.2
Bromochloromethane		4.2	U	0.60	4.2
Dichlorodifluoromethane		4.2	U	0.42	4.2
Bromodichloromethane		4.2	U	0.23	4.2
tert-Butyl alcohol		170	U	6.4	170

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-108-6-8

Lab Sample ID: 240-742-4
Client Matrix: Solid

% Moisture: 15.9

Date Sampled: 06/02/2011 1015
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149027.D
Dilution:	1.0			Initial Weight/Volume:	7.09 g
Analysis Date:	06/15/2011 1849			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.2	U	0.22	4.2
Hexachlorobutadiene		4.2	U	1.0	4.2
Diisopropyl ether		8.4	U	1.3	8.4
Isopropylbenzene		4.2	U	0.13	4.2
Methyl tert-butyl ether		17	U	0.36	17
Methylene Chloride		2.4	J B	0.56	4.2
m-Xylene & p-Xylene		8.4	U	1.0	8.4
Naphthalene		4.2	U	0.16	4.2
n-Butylbenzene		4.2	U	0.19	4.2
n-Propylbenzene		4.2	U	0.34	4.2
o-Xylene		4.2	U	0.29	4.2
sec-Butylbenzene		4.2	U	0.15	4.2
Styrene		4.2	U	0.13	4.2
Tert-amyl-methyl ether (TAME)		4.2	U	0.31	4.2
Ethyl-t-butyl ether (ETBE)		4.2	U	0.18	4.2
Tetrachloroethene		4.2	U	0.44	4.2
Toluene		0.33	J	0.23	4.2
trans-1,2-Dichloroethene		4.2	U	0.34	4.2
trans-1,3-Dichloropropene		4.2	U	0.45	4.2
Trichloroethene		4.2	U	0.35	4.2
Trichlorofluoromethane		4.2	U	0.28	4.2
Vinyl acetate		8.4	U	0.21	8.4
Vinyl chloride		4.2	U	0.33	4.2
Xylenes, Total		8.4	U	0.56	8.4
tert-Butylbenzene		4.2	U	0.24	4.2
1,2-Dibromoethane		4.2	U	0.42	4.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	104		67 - 125
Dibromofluoromethane (Surr)	85		37 - 132
4-Bromofluorobenzene (Surr)	88		52 - 136
1,2-Dichloroethane-d4 (Surr)	113		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-6-8**

Lab Sample ID: 240-742-4
Client Matrix: Solid
% Moisture: 15.9

Date Sampled: 06/02/2011 1015
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149027.D
Dilution:	1.0			Initial Weight/Volume:	7.09 g
Analysis Date:	06/15/2011 1849			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 0

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-109-0-2

Lab Sample ID: 240-742-1
Client Matrix: Solid

% Moisture: 4.6

Date Sampled: 06/02/2011 0915
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149024.D
Dilution:	1.0			Initial Weight/Volume:	5.71 g
Analysis Date:	06/15/2011 1745			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.6	U	0.57	4.6
1,1,1-Trichloroethane		4.6	U	0.51	4.6
1,1,2,2-Tetrachloroethane		4.6	U	0.31	4.6
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.6	U	1.2	4.6
1,1-Dichloroethane		4.6	U	0.33	4.6
1,1-Dichloroethene		4.6	U	0.48	4.6
1,1-Dichloropropene		4.6	U	0.28	4.6
1,2,3-Trichlorobenzene		4.6	U	0.35	4.6
1,2,3-Trichloropropane		4.6	U	0.83	4.6
1,2,3-Trimethylbenzene		4.6	U	0.16	4.6
1,2,4-Trichlorobenzene		4.6	U	0.25	4.6
1,2,4-Trimethylbenzene		4.6	U	0.60	4.6
1,2-Dibromo-3-Chloropropane		9.2	U	1.2	9.2
1,2-Dichlorobenzene		4.6	U	0.33	4.6
1,2-Dichloroethane		4.6	U	0.31	4.6
1,2-Dichloropropane		4.6	U	0.63	4.6
1,3-Dichlorobenzene		4.6	U	0.32	4.6
1,3-Dichloropropane		4.6	U	0.31	4.6
1,4-Dichlorobenzene		4.6	U	0.61	4.6
2,2-Dichloropropane		4.6	U	0.86	4.6
2-Butanone		1.7	J	1.3	18
2-Chloroethyl vinyl ether		46	U	1.3	46
2-Chlorotoluene		4.6	U	0.37	4.6
2-Hexanone		18	U	0.58	18
4-Chlorotoluene		4.6	U	0.38	4.6
p-Isopropyltoluene		4.6	U	0.19	4.6
4-Methyl-2-pentanone		18	U	0.50	18
Acetone		12	J B	5.8	18
Benzene		4.6	U	0.21	4.6
Bromobenzene		4.6	U	0.30	4.6
Bromoform		4.6	U	0.30	4.6
Bromomethane		4.6	U	0.50	4.6
Carbon disulfide		4.6	U	0.40	4.6
Carbon tetrachloride		4.6	U	0.34	4.6
Chlorobenzene		4.6	U	0.30	4.6
Dibromochloromethane		4.6	U	0.50	4.6
Chloroethane		4.6	U *	0.79	4.6
Chloroform		4.6	U	0.27	4.6
Chloromethane		4.6	U *	0.38	4.6
cis-1,2-Dichloroethene		4.6	U	0.33	4.6
cis-1,3-Dichloropropene		4.6	U	0.31	4.6
Dibromomethane		4.6	U	0.58	4.6
Bromochloromethane		4.6	U	0.65	4.6
Dichlorodifluoromethane		4.6	U	0.46	4.6
Bromodichloromethane		4.6	U	0.26	4.6
tert-Butyl alcohol		180	U	7.0	180

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-0-2**

Lab Sample ID: 240-742-1
Client Matrix: Solid

% Moisture: 4.6

Date Sampled: 06/02/2011 0915
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149024.D
Dilution:	1.0			Initial Weight/Volume:	5.71 g
Analysis Date:	06/15/2011 1745			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.6	U	0.24	4.6
Hexachlorobutadiene		4.6	U	1.1	4.6
Diisopropyl ether		9.2	U	1.4	9.2
Isopropylbenzene		4.6	U	0.15	4.6
Methyl tert-butyl ether		18	U	0.39	18
Methylene Chloride		2.3	J B	0.61	4.6
m-Xylene & p-Xylene		9.2	U	1.1	9.2
Naphthalene		0.55	J B	0.17	4.6
n-Butylbenzene		4.6	U	0.21	4.6
n-Propylbenzene		4.6	U	0.37	4.6
o-Xylene		4.6	U	0.32	4.6
sec-Butylbenzene		4.6	U	0.17	4.6
Styrene		4.6	U	0.14	4.6
Tert-amyl-methyl ether (TAME)		4.6	U	0.34	4.6
Ethyl-t-butyl ether (ETBE)		4.6	U	0.20	4.6
Tetrachloroethene		4.6	U	0.48	4.6
Toluene		0.42	J	0.25	4.6
trans-1,2-Dichloroethene		4.6	U	0.38	4.6
trans-1,3-Dichloropropene		4.6	U	0.50	4.6
Trichloroethene		4.6	U	0.39	4.6
Trichlorofluoromethane		4.6	U	0.31	4.6
Vinyl acetate		9.2	U	0.23	9.2
Vinyl chloride		4.6	U	0.36	4.6
Xylenes, Total		9.2	U	0.61	9.2
tert-Butylbenzene		4.6	U	0.27	4.6
1,2-Dibromoethane		4.6	U	0.46	4.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	109		67 - 125
Dibromofluoromethane (Surr)	82		37 - 132
4-Bromofluorobenzene (Surr)	104		52 - 136
1,2-Dichloroethane-d4 (Surr)	110		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-0-2**

Lab Sample ID: 240-742-1
Client Matrix: Solid

% Moisture: 4.6

Date Sampled: 06/02/2011 0915
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149024.D
Dilution:	1.0			Initial Weight/Volume:	5.71 g
Analysis Date:	06/15/2011 1745			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 2

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.78	9.0	J
110-54-3	Hexane	4.76	1.8	J

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-6-8**

Lab Sample ID: 240-742-2
Client Matrix: Solid

% Moisture: 12.0

Date Sampled: 06/02/2011 0930
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149025.D
Dilution:	1.0			Initial Weight/Volume:	6.02 g
Analysis Date:	06/15/2011 1806			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.7	U	0.59	4.7
1,1,1-Trichloroethane		4.7	U	0.53	4.7
1,1,2,2-Tetrachloroethane		4.7	U	0.32	4.7
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.7	U	1.2	4.7
1,1-Dichloroethane		4.7	U	0.34	4.7
1,1-Dichloroethene		4.7	U	0.49	4.7
1,1-Dichloropropene		4.7	U	0.28	4.7
1,2,3-Trichlorobenzene		4.7	U	0.36	4.7
1,2,3-Trichloropropane		4.7	U	0.85	4.7
1,2,3-Trimethylbenzene		4.7	U	0.16	4.7
1,2,4-Trichlorobenzene		4.7	U	0.25	4.7
1,2,4-Trimethylbenzene		4.7	U	0.61	4.7
1,2-Dibromo-3-Chloropropane		9.4	U	1.2	9.4
1,2-Dichlorobenzene		4.7	U	0.34	4.7
1,2-Dichloroethane		4.7	U	0.32	4.7
1,2-Dichloropropane		4.7	U	0.65	4.7
1,3-Dichlorobenzene		4.7	U	0.33	4.7
1,3-Dichloropropane		4.7	U	0.32	4.7
1,4-Dichlorobenzene		4.7	U	0.62	4.7
2,2-Dichloropropane		4.7	U	0.89	4.7
2-Butanone		1.9	J	1.3	19
2-Chloroethyl vinyl ether		47	U	1.3	47
2-Chlorotoluene		4.7	U	0.38	4.7
2-Hexanone		19	U	0.59	19
4-Chlorotoluene		4.7	U	0.39	4.7
p-Isopropyltoluene		4.7	U	0.20	4.7
4-Methyl-2-pentanone		19	U	0.51	19
Acetone		25	B	5.9	19
Benzene		4.7	U	0.22	4.7
Bromobenzene		4.7	U	0.31	4.7
Bromoform		4.7	U	0.31	4.7
Bromomethane		4.7	U	0.51	4.7
Carbon disulfide		4.7	U	0.42	4.7
Carbon tetrachloride		4.7	U	0.35	4.7
Chlorobenzene		4.7	U	0.31	4.7
Dibromochloromethane		4.7	U	0.52	4.7
Chloroethane		4.7	U *	0.81	4.7
Chloroform		4.7	U	0.27	4.7
Chloromethane		4.7	U *	0.39	4.7
cis-1,2-Dichloroethene		4.7	U	0.34	4.7
cis-1,3-Dichloropropene		4.7	U	0.32	4.7
Dibromomethane		4.7	U	0.59	4.7
Bromochloromethane		4.7	U	0.67	4.7
Dichlorodifluoromethane		4.7	U	0.47	4.7
Bromodichloromethane		4.7	U	0.26	4.7
tert-Butyl alcohol		190	U	7.2	190

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-6-8**

Lab Sample ID: 240-742-2
Client Matrix: Solid

% Moisture: 12.0

Date Sampled: 06/02/2011 0930
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149025.D
Dilution:	1.0			Initial Weight/Volume:	6.02 g
Analysis Date:	06/15/2011 1806			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.7	U	0.25	4.7
Hexachlorobutadiene		4.7	U	1.1	4.7
Diisopropyl ether		9.4	U	1.4	9.4
Isopropylbenzene		4.7	U	0.15	4.7
Methyl tert-butyl ether		19	U	0.41	19
Methylene Chloride		3.0	J B	0.63	4.7
m-Xylene & p-Xylene		9.4	U	1.1	9.4
Naphthalene		4.7	U	0.18	4.7
n-Butylbenzene		4.7	U	0.22	4.7
n-Propylbenzene		4.7	U	0.38	4.7
o-Xylene		4.7	U	0.33	4.7
sec-Butylbenzene		4.7	U	0.17	4.7
Styrene		4.7	U	0.14	4.7
Tert-amyl-methyl ether (TAME)		4.7	U	0.35	4.7
Ethyl-t-butyl ether (ETBE)		4.7	U	0.21	4.7
Tetrachloroethene		4.7	U	0.49	4.7
Toluene		4.7	U	0.25	4.7
trans-1,2-Dichloroethene		4.7	U	0.39	4.7
trans-1,3-Dichloropropene		4.7	U	0.51	4.7
Trichloroethene		4.7	U	0.40	4.7
Trichlorofluoromethane		4.7	U	0.32	4.7
Vinyl acetate		9.4	U	0.24	9.4
Vinyl chloride		4.7	U	0.37	4.7
Xylenes, Total		9.4	U	0.63	9.4
tert-Butylbenzene		4.7	U	0.27	4.7
1,2-Dibromoethane		4.7	U	0.47	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	100		67 - 125
Dibromofluoromethane (Surr)	82		37 - 132
4-Bromofluorobenzene (Surr)	92		52 - 136
1,2-Dichloroethane-d4 (Surr)	117		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-6-8**

Lab Sample ID: 240-742-2
Client Matrix: Solid

% Moisture: 12.0

Date Sampled: 06/02/2011 0930
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149025.D
Dilution:	1.0			Initial Weight/Volume:	6.02 g
Analysis Date:	06/15/2011 1806			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-110-0-2

Lab Sample ID: 240-742-5
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 1100
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149028.D
Dilution:	1.0			Initial Weight/Volume:	6.7 g
Analysis Date:	06/15/2011 1911			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.3	U	0.53	4.3
1,1,1-Trichloroethane		4.3	U	0.48	4.3
1,1,2,2-Tetrachloroethane		4.3	U	0.29	4.3
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.3	U	1.1	4.3
1,1-Dichloroethane		4.3	U	0.31	4.3
1,1-Dichloroethene		4.3	U	0.44	4.3
1,1-Dichloropropene		4.3	U	0.26	4.3
1,2,3-Trichlorobenzene		4.3	U	0.32	4.3
1,2,3-Trichloropropane		4.3	U	0.77	4.3
1,2,3-Trimethylbenzene		4.3	U	0.14	4.3
1,2,4-Trichlorobenzene		4.3	U	0.23	4.3
1,2,4-Trimethylbenzene		4.3	U	0.55	4.3
1,2-Dibromo-3-Chloropropane		8.5	U	1.1	8.5
1,2-Dichlorobenzene		4.3	U	0.31	4.3
1,2-Dichloroethane		4.3	U	0.29	4.3
1,2-Dichloropropane		4.3	U	0.59	4.3
1,3-Dichlorobenzene		4.3	U	0.30	4.3
1,3-Dichloropropane		4.3	U	0.29	4.3
1,4-Dichlorobenzene		4.3	U	0.56	4.3
2,2-Dichloropropane		4.3	U	0.80	4.3
2-Butanone		17	U	1.2	17
2-Chloroethyl vinyl ether		43	U	1.2	43
2-Chlorotoluene		4.3	U	0.34	4.3
2-Hexanone		17	U	0.54	17
4-Chlorotoluene		4.3	U	0.35	4.3
p-isopropyltoluene		4.3	U	0.18	4.3
4-Methyl-2-pentanone		17	U	0.46	17
Acetone		16	J B	5.4	17
Benzene		4.3	U	0.20	4.3
Bromobenzene		4.3	U	0.28	4.3
Bromoform		4.3	U	0.28	4.3
Bromomethane		4.3	U	0.46	4.3
Carbon disulfide		4.3	U	0.37	4.3
Carbon tetrachloride		4.3	U	0.31	4.3
Chlorobenzene		4.3	U	0.28	4.3
Dibromochloromethane		4.3	U	0.47	4.3
Chloroethane		4.3	U *	0.73	4.3
Chloroform		4.3	U	0.25	4.3
Chloromethane		4.3	U *	0.35	4.3
cis-1,2-Dichloroethene		4.3	U	0.31	4.3
cis-1,3-Dichloropropene		4.3	U	0.29	4.3
Dibromomethane		4.3	U	0.54	4.3
Bromochloromethane		4.3	U	0.60	4.3
Dichlorodifluoromethane		4.3	U	0.43	4.3
Bromodichloromethane		4.3	U	0.24	4.3
tert-Butyl alcohol		170	U	6.5	170

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-110-0-2

Lab Sample ID: 240-742-5
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 1100
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149028.D
Dilution:	1.0			Initial Weight/Volume:	6.7 g
Analysis Date:	06/15/2011 1911			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.3	U	0.22	4.3
Hexachlorobutadiene		4.3	U	1.0	4.3
Diisopropyl ether		8.5	U	1.3	8.5
Isopropylbenzene		4.3	U	0.14	4.3
Methyl tert-butyl ether		17	U	0.37	17
Methylene Chloride		3.0	J B	0.57	4.3
m-Xylene & p-Xylene		8.5	U	1.0	8.5
Naphthalene		4.3	U	0.16	4.3
n-Butylbenzene		4.3	U	0.20	4.3
n-Propylbenzene		4.3	U	0.34	4.3
o-Xylene		0.52	J	0.30	4.3
sec-Butylbenzene		4.3	U	0.15	4.3
Styrene		4.3	U	0.13	4.3
Tert-amyl-methyl ether (TAME)		4.3	U	0.31	4.3
Ethyl-t-butyl ether (ETBE)		4.3	U	0.19	4.3
Tetrachloroethene		4.3	U	0.44	4.3
Toluene		0.66	J	0.23	4.3
trans-1,2-Dichloroethene		4.3	U	0.35	4.3
trans-1,3-Dichloropropene		4.3	U	0.46	4.3
Trichloroethene		4.3	U	0.36	4.3
Trichlorofluoromethane		4.3	U	0.29	4.3
Vinyl acetate		8.5	U	0.21	8.5
Vinyl chloride		4.3	U	0.33	4.3
Xylenes, Total		8.5	U	0.57	8.5
tert-Butylbenzene		4.3	U	0.25	4.3
1,2-Dibromoethane		4.3	U	0.43	4.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	108		67 - 125
Dibromofluoromethane (Surr)	84		37 - 132
4-Bromofluorobenzene (Surr)	103		52 - 136
1,2-Dichloroethane-d4 (Surr)	112		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-110-0-2**

Lab Sample ID: 240-742-5
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 1100
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149028.D
Dilution:	1.0			Initial Weight/Volume:	6.7 g
Analysis Date:	06/15/2011 1911			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 1

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.78	2.3	J

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-110-6-8**

Lab Sample ID: 240-742-6
Client Matrix: Solid

% Moisture: 7.2

Date Sampled: 06/02/2011 1110
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149029.D
Dilution:	1.0			Initial Weight/Volume:	4.32 g
Analysis Date:	06/15/2011 1932			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		6.2	U	0.77	6.2
1,1,1-Trichloroethane		6.2	U	0.70	6.2
1,1,2,2-Tetrachloroethane		6.2	U	0.42	6.2
1,1,2-Trichloro-1,2,2-trichfluoroethane		6.2	U	1.6	6.2
1,1-Dichloroethane		6.2	U	0.45	6.2
1,1-Dichloroethene		6.2	U	0.65	6.2
1,1-Dichloropropene		6.2	U	0.37	6.2
1,2,3-Trichlorobenzene		6.2	U	0.47	6.2
1,2,3-Trichloropropane		6.2	U	1.1	6.2
1,2,3-Trimethylbenzene		6.2	U	0.21	6.2
1,2,4-Trichlorobenzene		6.2	U	0.34	6.2
1,2,4-Trimethylbenzene		6.2	U	0.81	6.2
1,2-Dibromo-3-Chloropropane		12	U	1.6	12
1,2-Dichlorobenzene		6.2	U	0.45	6.2
1,2-Dichloroethane		6.2	U	0.42	6.2
1,2-Dichloropropane		6.2	U	0.86	6.2
1,3-Dichlorobenzene		6.2	U	0.44	6.2
1,3-Dichloropropane		6.2	U	0.42	6.2
1,4-Dichlorobenzene		6.2	U	0.82	6.2
2,2-Dichloropropane		6.2	U	1.2	6.2
2-Butanone		25	U	1.7	25
2-Chloroethyl vinyl ether		62	U	1.7	62
2-Chlorotoluene		6.2	U	0.50	6.2
2-Hexanone		25	U	0.79	25
4-Chlorotoluene		6.2	U	0.51	6.2
p-Isopropyltoluene		6.2	U	0.26	6.2
4-Methyl-2-pentanone		25	U	0.67	25
Acetone		25	U	7.9	25
Benzene		6.2	U	0.29	6.2
Bromobenzene		6.2	U	0.41	6.2
Bromoform		6.2	U	0.41	6.2
Bromomethane		6.2	U	0.67	6.2
Carbon disulfide		6.2	U	0.55	6.2
Carbon tetrachloride		6.2	U	0.46	6.2
Chlorobenzene		6.2	U	0.41	6.2
Dibromochloromethane		6.2	U	0.69	6.2
Chloroethane		6.2	U *	1.1	6.2
Chloroform		6.2	U	0.36	6.2
Chloromethane		6.2	U *	0.51	6.2
cis-1,2-Dichloroethene		6.2	U	0.45	6.2
cis-1,3-Dichloropropene		6.2	U	0.42	6.2
Dibromomethane		6.2	U	0.79	6.2
Bromochloromethane		6.2	U	0.89	6.2
Dichlorodifluoromethane		6.2	U	0.62	6.2
Bromodichloromethane		6.2	U	0.35	6.2
tert-Butyl alcohol		250	U	9.5	250

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-110-6-8**

Lab Sample ID: 240-742-6
Client Matrix: Solid

% Moisture: 7.2

Date Sampled: 06/02/2011 1110
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149029.D
Dilution:	1.0			Initial Weight/Volume:	4.32 g
Analysis Date:	06/15/2011 1932			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		6.2	U	0.32	6.2
Hexachlorobutadiene		6.2	U	1.5	6.2
Diisopropyl ether		12	U	1.9	12
Isopropylbenzene		6.2	U	0.20	6.2
Methyl tert-butyl ether		25	U	0.54	25
Methylene Chloride		5.0	J B	0.84	6.2
m-Xylene & p-Xylene		12	U	1.5	12
Naphthalene		0.25	J B	0.24	6.2
n-Butylbenzene		6.2	U	0.29	6.2
n-Propylbenzene		6.2	U	0.50	6.2
o-Xylene		6.2	U	0.44	6.2
sec-Butylbenzene		6.2	U	0.22	6.2
Styrene		6.2	U	0.19	6.2
Tert-amyl-methyl ether (TAME)		6.2	U	0.46	6.2
Ethyl-t-butyl ether (ETBE)		6.2	U	0.27	6.2
Tetrachloroethene		6.2	U	0.65	6.2
Toluene		0.39	J	0.34	6.2
trans-1,2-Dichloroethene		6.2	U	0.51	6.2
trans-1,3-Dichloropropene		6.2	U	0.67	6.2
Trichloroethene		6.2	U	0.52	6.2
Trichlorofluoromethane		6.2	U	0.42	6.2
Vinyl acetate		12	U	0.31	12
Vinyl chloride		6.2	U	0.49	6.2
Xylenes, Total		12	U	0.84	12
tert-Butylbenzene		6.2	U	0.36	6.2
1,2-Dibromoethane		6.2	U	0.62	6.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	109		67 - 125
Dibromofluoromethane (Surr)	86		37 - 132
4-Bromofluorobenzene (Surr)	97		52 - 136
1,2-Dichloroethane-d4 (Surr)	114		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-110-6-8

Lab Sample ID: 240-742-6
Client Matrix: Solid
% Moisture: 7.2

Date Sampled: 06/02/2011 1110
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149029.D
Dilution:	1.0			Initial Weight/Volume:	4.32 g
Analysis Date:	06/15/2011 1932			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 1

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.77	24	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-99-0-2**

Lab Sample ID: 240-741-7
Client Matrix: Solid

% Moisture: 13.1

Date Sampled: 06/02/2011 1148
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149020.D
Dilution:	1.0			Initial Weight/Volume:	5.97 g
Analysis Date:	06/15/2011 1619			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.8	U	0.60	4.8
1,1,1-Trichloroethane		4.8	U	0.54	4.8
1,1,2,2-Tetrachloroethane		4.8	U	0.33	4.8
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.8	U	1.3	4.8
1,1-Dichloroethane		4.8	U	0.35	4.8
1,1-Dichloroethene		4.8	U	0.50	4.8
1,1-Dichloropropene		4.8	U	0.29	4.8
1,2,3-Trichlorobenzene		4.8	U	0.37	4.8
1,2,3-Trichloropropane		4.8	U	0.87	4.8
1,2,3-Trimethylbenzene		4.8	U	0.16	4.8
1,2,4-Trichlorobenzene		4.8	U	0.26	4.8
1,2,4-Trimethylbenzene		4.8	U	0.63	4.8
1,2-Dibromo-3-Chloropropane		9.6	U	1.3	9.6
1,2-Dichlorobenzene		4.8	U	0.35	4.8
1,2-Dichloroethane		4.8	U	0.33	4.8
1,2-Dichloropropane		4.8	U	0.67	4.8
1,3-Dichlorobenzene		4.8	U	0.34	4.8
1,3-Dichloropropane		4.8	U	0.33	4.8
1,4-Dichlorobenzene		4.8	U	0.64	4.8
2,2-Dichloropropane		4.8	U	0.91	4.8
2-Butanone		19	U	1.3	19
2-Chloroethyl vinyl ether		48	U	1.3	48
2-Chlorotoluene		4.8	U	0.39	4.8
2-Hexanone		19	U	0.61	19
4-Chlorotoluene		4.8	U	0.40	4.8
p-Isopropyltoluene		4.8	U	0.20	4.8
4-Methyl-2-pentanone		19	U	0.52	19
Acetone		9.5	J B	6.1	19
Benzene		4.8	U	0.22	4.8
Bromobenzene		4.8	U	0.32	4.8
Bromoform		4.8	U	0.32	4.8
Bromomethane		4.8	U	0.52	4.8
Carbon disulfide		4.8	U	0.42	4.8
Carbon tetrachloride		4.8	U	0.36	4.8
Chlorobenzene		4.8	U	0.32	4.8
Dibromochloromethane		4.8	U	0.53	4.8
Chloroethane		4.8	U *	0.83	4.8
Chloroform		4.8	U	0.28	4.8
Chloromethane		4.8	U *	0.40	4.8
cis-1,2-Dichloroethene		4.8	U	0.35	4.8
cis-1,3-Dichloropropene		4.8	U	0.33	4.8
Dibromomethane		4.8	U	0.61	4.8
Bromochloromethane		4.8	U	0.68	4.8
Dichlorodifluoromethane		4.8	U	0.48	4.8
Bromodichloromethane		4.8	U	0.27	4.8
tert-Butyl alcohol		190	U	7.3	190

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-99-0-2**

Lab Sample ID: 240-741-7
Client Matrix: Solid

% Moisture: 13.1

Date Sampled: 06/02/2011 1148
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149020.D
Dilution:	1.0			Initial Weight/Volume:	5.97 g
Analysis Date:	06/15/2011 1619			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.8	U	0.25	4.8
Hexachlorobutadiene		4.8	U	1.2	4.8
Diisopropyl ether		9.6	U	1.4	9.6
Isopropylbenzene		4.8	U	0.15	4.8
Methyl tert-butyl ether		19	U	0.41	19
Methylene Chloride		3.0	J B	0.65	4.8
m-Xylene & p-Xylene		9.6	U	1.2	9.6
Naphthalene		4.8	U	0.18	4.8
n-Butylbenzene		4.8	U	0.22	4.8
n-Propylbenzene		4.8	U	0.39	4.8
o-Xylene		4.8	U	0.34	4.8
sec-Butylbenzene		4.8	U	0.17	4.8
Styrene		4.8	U	0.14	4.8
Tert-amyl-methyl ether (TAME)		4.8	U	0.36	4.8
Ethyl-t-butyl ether (ETBE)		4.8	U	0.21	4.8
Tetrachloroethene		4.8	U	0.50	4.8
Toluene		4.8	U	0.26	4.8
trans-1,2-Dichloroethene		4.8	U	0.40	4.8
trans-1,3-Dichloropropene		4.8	U	0.52	4.8
Trichloroethene		4.8	U	0.40	4.8
Trichlorofluoromethane		4.8	U	0.33	4.8
Vinyl acetate		9.6	U	0.24	9.6
Vinyl chloride		4.8	U	0.38	4.8
Xylenes, Total		9.6	U	0.65	9.6
tert-Butylbenzene		4.8	U	0.28	4.8
1,2-Dibromoethane		4.8	U	0.48	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	118		67 - 125
Dibromofluoromethane (Surr)	91		37 - 132
4-Bromofluorobenzene (Surr)	114		52 - 136
1,2-Dichloroethane-d4 (Surr)	118		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-99-0-2

Lab Sample ID: 240-741-7
Client Matrix: Solid

% Moisture: 13.1

Date Sampled: 06/02/2011 1148
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149020.D
Dilution:	1.0			Initial Weight/Volume:	5.97 g
Analysis Date:	06/15/2011 1619			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 1

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.78	2.2	J

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-99-6-8**

Lab Sample ID: 240-741-8
Client Matrix: Solid

% Moisture: 19.7

Date Sampled: 06/02/2011 1153
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149021.D
Dilution:	1.0			Initial Weight/Volume:	6.389 g
Analysis Date:	06/15/2011 1641			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		4.9	U	0.60	4.9
1,1,1-Trichloroethane		4.9	U	0.55	4.9
1,1,2,2-Tetrachloroethane		4.9	U	0.33	4.9
1,1,2-Trichloro-1,2,2-trichfluoroethane		4.9	U	1.3	4.9
1,1-Dichloroethane		4.9	U	0.35	4.9
1,1-Dichloroethene		4.9	U	0.51	4.9
1,1-Dichloropropene		4.9	U	0.29	4.9
1,2,3-Trichlorobenzene		4.9	U	0.37	4.9
1,2,3-Trichloropropane		4.9	U	0.88	4.9
1,2,3-Trimethylbenzene		4.9	U	0.17	4.9
1,2,4-Trichlorobenzene		4.9	U	0.26	4.9
1,2,4-Trimethylbenzene		4.9	U	0.63	4.9
1,2-Dibromo-3-Chloropropane		9.7	U	1.3	9.7
1,2-Dichlorobenzene		4.9	U	0.35	4.9
1,2-Dichloroethane		4.9	U	0.33	4.9
1,2-Dichloropropane		4.9	U	0.67	4.9
1,3-Dichlorobenzene		4.9	U	0.34	4.9
1,3-Dichloropropane		4.9	U	0.33	4.9
1,4-Dichlorobenzene		4.9	U	0.64	4.9
2,2-Dichloropropane		4.9	U	0.92	4.9
2-Butanone		19	U	1.4	19
2-Chloroethyl vinyl ether		49	U	1.4	49
2-Chlorotoluene		4.9	U	0.39	4.9
2-Hexanone		19	U	0.61	19
4-Chlorotoluene		4.9	U	0.40	4.9
p-Isopropyltoluene		4.9	U	0.20	4.9
4-Methyl-2-pentanone		19	U	0.53	19
Acetone		7.6	J B	6.1	19
Benzene		4.9	U	0.22	4.9
Bromobenzene		4.9	U	0.32	4.9
Bromoform		4.9	U	0.32	4.9
Bromomethane		4.9	U	0.53	4.9
Carbon disulfide		4.9	U	0.43	4.9
Carbon tetrachloride		4.9	U	0.36	4.9
Chlorobenzene		4.9	U	0.32	4.9
Dibromochloromethane		4.9	U	0.54	4.9
Chloroethane		4.9	U *	0.84	4.9
Chloroform		4.9	U	0.28	4.9
Chloromethane		4.9	U *	0.40	4.9
cis-1,2-Dichloroethene		4.9	U	0.35	4.9
cis-1,3-Dichloropropene		4.9	U	0.33	4.9
Dibromomethane		4.9	U	0.61	4.9
Bromochloromethane		4.9	U	0.69	4.9
Dichlorodifluoromethane		4.9	U	0.49	4.9
Bromodichloromethane		4.9	U	0.27	4.9
tert-Butyl alcohol		190	U	7.4	190

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-99-6-8

Lab Sample ID: 240-741-8
Client Matrix: Solid

% Moisture: 19.7

Date Sampled: 06/02/2011 1153
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149021.D
Dilution:	1.0			Initial Weight/Volume:	6.389 g
Analysis Date:	06/15/2011 1641			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Ethylbenzene		4.9	U	0.25	4.9
Hexachlorobutadiene		4.9	U	1.2	4.9
Diisopropyl ether		9.7	U	1.5	9.7
Isopropylbenzene		4.9	U	0.16	4.9
Methyl tert-butyl ether		19	U	0.42	19
Methylene Chloride		3.1	J B	0.65	4.9
m-Xylene & p-Xylene		9.7	U	1.2	9.7
Naphthalene		4.9	U	0.19	4.9
n-Butylbenzene		4.9	U	0.22	4.9
n-Propylbenzene		4.9	U	0.39	4.9
o-Xylene		4.9	U	0.34	4.9
sec-Butylbenzene		4.9	U	0.18	4.9
Styrene		4.9	U	0.15	4.9
Tert-amyl-methyl ether (TAME)		4.9	U	0.36	4.9
Ethyl-t-butyl ether (ETBE)		4.9	U	0.21	4.9
Tetrachloroethene		4.9	U	0.51	4.9
Toluene		4.9	U	0.26	4.9
trans-1,2-Dichloroethene		4.9	U	0.40	4.9
trans-1,3-Dichloropropene		4.9	U	0.53	4.9
Trichloroethene		4.9	U	0.41	4.9
Trichlorofluoromethane		4.9	U	0.33	4.9
Vinyl acetate		9.7	U	0.24	9.7
Vinyl chloride		4.9	U	0.38	4.9
Xylenes, Total		9.7	U	0.65	9.7
tert-Butylbenzene		4.9	U	0.28	4.9
1,2-Dibromoethane		4.9	U	0.49	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	105		67 - 125
Dibromofluoromethane (Surr)	86		37 - 132
4-Bromofluorobenzene (Surr)	93		52 - 136
1,2-Dichloroethane-d4 (Surr)	110		58 - 123

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-99-6-8

Lab Sample ID: 240-741-8
Client Matrix: Solid

% Moisture: 19.7

Date Sampled: 06/02/2011 1153
Date Received: 06/03/2011 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-4762	Lab File ID:	149021.D
Dilution:	1.0			Initial Weight/Volume:	6.389 g
Analysis Date:	06/15/2011 1641			Final Weight/Volume:	5 mL
Prep Date:	06/03/2011 2030				

Tentatively Identified Compounds **Number TIC's Found:** 0

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-100-2-4

Lab Sample ID: 240-741-9
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 1415
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741G9A.D
Dilution:	1.0			Initial Weight/Volume:	30.06 g
Analysis Date:	07/07/2011 1629			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		57	U	31	57
1,4-Dioxane		110	U	25	110
2,4,6-Trichlorophenol		170	U	91	170
2,4,5-Trichlorophenol		170	U	28	170
2,4-Dichlorophenol		170	U	23	170
2,4-Dimethylphenol		170	U	23	170
2,4-Dinitrophenol		380	U	91	380
2,4-Dinitrotoluene		230	U	31	230
2-Chloronaphthalene		57	U	3.8	57
2-Chlorophenol		57	U	31	57
2-Methylnaphthalene		7.6	U	3.8	7.6
2-Methylphenol		230	U	91	230
2-Nitroaniline		230	U	10	230
2-Nitrophenol		57	U	31	57
3 & 4 Methylphenol		450	U	23	450
3,3'-Dichlorobenzidine		110	U	20	110
3-Nitroaniline		230	U	18	230
4,6-Dinitro-2-methylphenol		170	U	91	170
4-Bromophenyl phenyl ether		57	U	15	57
4-Chloro-3-methylphenol		170	U	24	170
4-Chloroaniline		170	U	19	170
4-Chlorophenyl phenyl ether		57	U	15	57
4-Nitroaniline		230	U	30	230
Acenaphthene		7.6	U	3.8	7.6
Acenaphthylene		7.6	U	3.8	7.6
Acetophenone		110	U	10	110
Anthracene		7.6	U	3.8	7.6
Atrazine		230	U	10	230
Benzaldehyde		110	U	14	110
Benzo[a]anthracene		7.6	U	3.8	7.6
Benzo[a]pyrene		7.6	U	3.8	7.6
Benzo[b]fluoranthene		7.6	U	3.8	7.6
Benzo[g,h,i]perylene		7.6	U	3.8	7.6
Benzo[k]fluoranthene		7.6	U	3.8	7.6
Bis(2-chloroethoxy)methane		110	U	25	110
Bis(2-chloroethyl)ether		110	U	2.3	110
Bis(2-ethylhexyl) phthalate		34	J	22	57
Butyl benzyl phthalate		57	U	11	57
Caprolactam		380	U	42	380
Carbazole		57	U	31	57
Chrysene		7.6	U	1.3	7.6
Di-n-butyl phthalate		57	U	17	57
Di-n-octyl phthalate		57	U	31	57
Dibenzo(a,h)anthracene		7.6	U	3.8	7.6
Dibenzofuran		57	U	3.8	57
Diethyl phthalate		57	U	18	57

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-100-2-4

Lab Sample ID: 240-741-9
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 1415
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741G9A.D
Dilution:	1.0			Initial Weight/Volume:	30.06 g
Analysis Date:	07/07/2011 1629			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		57	U	19	57
Fluoranthene		7.6	U	3.8	7.6
Fluorene		7.6	U	3.8	7.6
Hexachlorobenzene		7.6	U	2.4	7.6
Hexachlorobutadiene		57	U	31	57
Hexachlorocyclopentadiene		380	U	31	380
Hexachloroethane		57	U	10	57
Indeno[1,2,3-cd]pyrene		7.6	U	3.8	7.6
Isophorone		57	U	15	57
N-Nitrosodi-n-propylamine		57	U	31	57
N-Nitrosodimethylamine		110	U	18	110
N-Nitrosodiphenylamine		57	U	24	57
Naphthalene		7.6	U	3.8	7.6
Nitrobenzene		110	U	2.5	110
Pentachlorophenol		170	U	91	170
Phenanthrene		7.6	U	3.8	7.6
Phenol		57	U	31	57
Pyrene		7.6	U	3.8	7.6
2,2'-oxybis[1-chloropropane]		110	U	11	110
2,6-Dinitrotoluene		230	U	24	230
4-Nitrophenol		380	U	91	380

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	82		41 - 119
Phenol-d5 (Surr)	53		28 - 110
Nitrobenzene-d5 (Surr)	52		24 - 112
2-Fluorophenol (Surr)	73		26 - 110
2-Fluorobiphenyl (Surr)	67		34 - 110
2,4,6-Tribromophenol (Surr)	51		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-6-8**

Lab Sample ID: 240-741-10
Client Matrix: Solid
% Moisture: 10.2

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741F10B.D
Dilution:	1.0			Initial Weight/Volume:	30.03 g
Analysis Date:	07/07/2011 1648			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		56	U	30	56
1,4-Dioxane		110	U	24	110
2,4,6-Trichlorophenol		170	U	89	170
2,4,5-Trichlorophenol		170	U	28	170
2,4-Dichlorophenol		170	U	22	170
2,4-Dimethylphenol		170	U	22	170
2,4-Dinitrophenol		370	U	89	370
2,4-Dinitrotoluene		220	U	30	220
2-Chloronaphthalene		56	U	3.7	56
2-Chlorophenol		56	U	30	56
2-Methylnaphthalene		7.4	U	3.7	7.4
2-Methylphenol		220	U	89	220
2-Nitroaniline		220	U	10	220
2-Nitrophenol		56	U	30	56
3 & 4 Methylphenol		450	U	22	450
3,3'-Dichlorobenzidine		110	U	20	110
3-Nitroaniline		220	U	18	220
4,6-Dinitro-2-methylphenol		170	U	89	170
4-Bromophenyl phenyl ether		56	U	14	56
4-Chloro-3-methylphenol		170	U	23	170
4-Chloroaniline		170	U	19	170
4-Chlorophenyl phenyl ether		56	U	14	56
4-Nitroaniline		220	U	29	220
Acenaphthene		7.4	U	3.7	7.4
Acenaphthylene		7.4	U	3.7	7.4
Acetophenone		110	U	10	110
Anthracene		7.4	U	3.7	7.4
Atrazine		220	U	10	220
Benzaldehyde		110	U	13	110
Benzo[a]anthracene		7.4	U	3.7	7.4
Benzo[a]pyrene		7.4	U	3.7	7.4
Benzo[b]fluoranthene		7.4	U	3.7	7.4
Benzo[g,h,i]perylene		7.4	U	3.7	7.4
Benzo[k]fluoranthene		7.4	U	3.7	7.4
Bis(2-chloroethoxy)methane		110	U	24	110
Bis(2-chloroethyl)ether		110	U	2.2	110
Bis(2-ethylhexyl) phthalate		27	J	21	56
Butyl benzyl phthalate		56	U	11	56
Caprolactam		370	U	41	370
Carbazole		56	U	30	56
Chrysene		7.4	U	1.2	7.4
Di-n-butyl phthalate		56	U	17	56
Di-n-octyl phthalate		56	U	30	56
Dibenzo(a,h)anthracene		7.4	U	3.7	7.4
Dibenzofuran		56	U	3.7	56
Diethyl phthalate		56	U	18	56

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-6-8**

Lab Sample ID: 240-741-10
Client Matrix: Solid
% Moisture: 10.2

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741F10B.D
Dilution:	1.0			Initial Weight/Volume:	30.03 g
Analysis Date:	07/07/2011 1648			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		56	U	19	56
Fluoranthene		7.4	U	3.7	7.4
Fluorene		7.4	U	3.7	7.4
Hexachlorobenzene		7.4	U	2.3	7.4
Hexachlorobutadiene		56	U	30	56
Hexachlorocyclopentadiene		370	U	30	370
Hexachloroethane		56	U	10	56
Indeno[1,2,3-cd]pyrene		7.4	U	3.7	7.4
Isophorone		56	U	14	56
N-Nitrosodi-n-propylamine		56	U	30	56
N-Nitrosodimethylamine		110	U	18	110
N-Nitrosodiphenylamine		56	U	23	56
Naphthalene		7.4	U	3.7	7.4
Nitrobenzene		110	U	2.4	110
Pentachlorophenol		170	U	89	170
Phenanthrene		7.4	U	3.7	7.4
Phenol		56	U	30	56
Pyrene		7.4	U	3.7	7.4
2,2'-oxybis[1-chloropropane]		110	U	11	110
2,6-Dinitrotoluene		220	U	23	220
4-Nitrophenol		370	U	89	370

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	84		41 - 119
Phenol-d5 (Surr)	57		28 - 110
Nitrobenzene-d5 (Surr)	62		24 - 112
2-Fluorophenol (Surr)	73		26 - 110
2-Fluorobiphenyl (Surr)	71		34 - 110
2,4,6-Tribromophenol (Surr)	49		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-101-0-2**

Lab Sample ID: 240-741-5
Client Matrix: Solid

% Moisture: 5.3

Date Sampled: 06/02/2011 1051
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D
Prep Method: 3540C
Dilution: 5.0
Analysis Date: 07/07/2011 2216
Prep Date: 06/14/2011 1052

Analysis Batch: 240-7724
Prep Batch: 240-4656

Instrument ID: A4HP9
Lab File ID: 741G5B.D
Initial Weight/Volume: 29.97 g
Final Weight/Volume: 2.00 mL
Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		260	U	140	260
1,4-Dioxane		530	U	120	530
2,4,6-Trichlorophenol		790	U	420	790
2,4,5-Trichlorophenol		790	U	130	790
2,4-Dichlorophenol		790	U	110	790
2,4-Dimethylphenol		790	U	110	790
2,4-Dinitrophenol		1700	U	420	1700
2,4-Dinitrotoluene		1100	U	140	1100
2-Chloronaphthalene		260	U	17	260
2-Chlorophenol		260	U	140	260
2-Methylnaphthalene		35	U	17	35
2-Methylphenol		1100	U	420	1100
2-Nitroaniline		1100	U	48	1100
2-Nitrophenol		260	U	140	260
3 & 4 Methylphenol		2100	U	110	2100
3,3'-Dichlorobenzidine		530	U	95	530
3-Nitroaniline		1100	U	85	1100
4,6-Dinitro-2-methylphenol		790	U	420	790
4-Bromophenyl phenyl ether		260	U	69	260
4-Chloro-3-methylphenol		790	U	110	790
4-Chloroaniline		790	U	90	790
4-Chlorophenyl phenyl ether		260	U	69	260
4-Nitroaniline		1100	U	140	1100
Acenaphthene		35	U	17	35
Acenaphthylene		35	U	17	35
Acetophenone		530	U	49	530
Anthracene		44		17	35
Atrazine		1100	U	48	1100
Benzaldehyde		530	U	63	530
Benzo[a]anthracene		120		17	35
Benzo[a]pyrene		160		17	35
Benzo[b]fluoranthene		190		17	35
Benzo[g,h,i]perylene		130		17	35
Benzo[k]fluoranthene		90		17	35
Bis(2-chloroethoxy)methane		530	U	120	530
Bis(2-chloroethyl)ether		530	U	11	530
Bis(2-ethylhexyl) phthalate		260	U	100	260
Butyl benzyl phthalate		260	U	53	260
Caprolactam		1700	U	200	1700
Carbazole		260	U	140	260
Chrysene		150		5.8	35
Di-n-butyl phthalate		260	U	79	260
Di-n-octyl phthalate		260	U	140	260
Dibenzo(a,h)anthracene		35	U	17	35
Dibenzofuran		260	U	17	260
Diethyl phthalate		260	U	85	260

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-101-0-2**

Lab Sample ID: 240-741-5
Client Matrix: Solid % Moisture: 5.3

Date Sampled: 06/02/2011 1051
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741G5B.D
Dilution:	5.0			Initial Weight/Volume:	29.97 g
Analysis Date:	07/07/2011 2216			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		260	U	90	260
Fluoranthene		230		17	35
Fluorene		35	U	17	35
Hexachlorobenzene		35	U	11	35
Hexachlorobutadiene		260	U	140	260
Hexachlorocyclopentadiene		1700	U	140	1700
Hexachloroethane		260	U	48	260
Indeno[1,2,3-cd]pyrene		96		17	35
Isophorone		260	U	69	260
N-Nitrosodi-n-propylamine		260	U	140	260
N-Nitrosodimethylamine		530	U	85	530
N-Nitrosodiphenylamine		260	U	110	260
Naphthalene		35	U	17	35
Nitrobenzene		530	U	12	530
Pentachlorophenol		790	U	420	790
Phenanthrene		73		17	35
Phenol		260	U	140	260
Pyrene		220		17	35
2,2'-oxybis[1-chloropropane]		530	U	50	530
2,6-Dinitrotoluene		1100	U	110	1100
4-Nitrophenol		1700	U	420	1700

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	67		41 - 119
Phenol-d5 (Surr)	71		28 - 110
Nitrobenzene-d5 (Surr)	65		24 - 112
2-Fluorophenol (Surr)	76		26 - 110
2-Fluorobiphenyl (Surr)	63		34 - 110
2,4,6-Tribromophenol (Surr)	66		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-101-6-8**

Lab Sample ID: 240-741-6
Client Matrix: Solid

% Moisture: 14.1

Date Sampled: 06/02/2011 1055
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741G6B.D
Dilution:	1.0			Initial Weight/Volume:	29.95 g
Analysis Date:	07/07/2011 1550			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		58	U	31	58
1,4-Dioxane		120	U	26	120
2,4,6-Trichlorophenol		170	U	93	170
2,4,5-Trichlorophenol		170	U	29	170
2,4-Dichlorophenol		170	U	23	170
2,4-Dimethylphenol		170	U	23	170
2,4-Dinitrophenol		380	U	93	380
2,4-Dinitrotoluene		230	U	31	230
2-Chloronaphthalene		58	U	3.8	58
2-Chlorophenol		58	U	31	58
2-Methylnaphthalene		7.8	U	3.8	7.8
2-Methylphenol		230	U	93	230
2-Nitroaniline		230	U	11	230
2-Nitrophenol		58	U	31	58
3 & 4 Methylphenol		470	U	23	470
3,3'-Dichlorobenzidine		120	U	21	120
3-Nitroaniline		230	U	19	230
4,6-Dinitro-2-methylphenol		170	U	93	170
4-Bromophenyl phenyl ether		58	U	15	58
4-Chloro-3-methylphenol		170	U	24	170
4-Chloroaniline		170	U	20	170
4-Chlorophenyl phenyl ether		58	U	15	58
4-Nitroaniline		230	U	30	230
Acenaphthene		7.8	U	3.8	7.8
Acenaphthylene		7.8	U	3.8	7.8
Acetophenone		120	U	11	120
Anthracene		7.8	U	3.8	7.8
Atrazine		230	U	11	230
Benzaldehyde		120	U	14	120
Benzo[a]anthracene		7.8	U	3.8	7.8
Benzo[a]pyrene		7.8	U	3.8	7.8
Benzo[b]fluoranthene		7.8	U	3.8	7.8
Benzo[g,h,i]perylene		7.8	U	3.8	7.8
Benzo[k]fluoranthene		7.8	U	3.8	7.8
Bis(2-chloroethoxy)methane		120	U	26	120
Bis(2-chloroethyl)ether		120	U	2.3	120
Bis(2-ethylhexyl) phthalate		58	U	22	58
Butyl benzyl phthalate		58	U	12	58
Caprolactam		380	U	43	380
Carbazole		58	U	31	58
Chrysene		7.8	U	1.3	7.8
Di-n-butyl phthalate		58	U	17	58
Di-n-octyl phthalate		58	U	31	58
Dibenzo(a,h)anthracene		7.8	U	3.8	7.8
Dibenzofuran		58	U	3.8	58
Diethyl phthalate		58	U	19	58

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-101-6-8

Lab Sample ID: 240-741-6
Client Matrix: Solid

% Moisture: 14.1

Date Sampled: 06/02/2011 1055
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741G6B.D
Dilution:	1.0			Initial Weight/Volume:	29.95 g
Analysis Date:	07/07/2011 1550			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		58	U	20	58
Fluoranthene		7.8	U	3.8	7.8
Fluorene		7.8	U	3.8	7.8
Hexachlorobenzene		7.8	U	2.4	7.8
Hexachlorobutadiene		58	U	31	58
Hexachlorocyclopentadiene		380	U	31	380
Hexachloroethane		58	U	10	58
Indeno[1,2,3-cd]pyrene		7.8	U	3.8	7.8
Isophorone		58	U	15	58
N-Nitrosodi-n-propylamine		58	U	31	58
N-Nitrosodimethylamine		120	U	19	120
N-Nitrosodiphenylamine		58	U	24	58
Naphthalene		7.8	U	3.8	7.8
Nitrobenzene		120	U	2.6	120
Pentachlorophenol		170	U	93	170
Phenanthrene		7.8	U	3.8	7.8
Phenol		58	U	31	58
Pyrene		7.8	U	3.8	7.8
2,2'-oxybis[1-chloropropane]		120	U	11	120
2,6-Dinitrotoluene		230	U	24	230
4-Nitrophenol		380	U	93	380

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	83		41 - 119
Phenol-d5 (Surr)	59		28 - 110
Nitrobenzene-d5 (Surr)	57		24 - 112
2-Fluorophenol (Surr)	78		26 - 110
2-Fluorobiphenyl (Surr)	73		34 - 110
2,4,6-Tribromophenol (Surr)	39		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-0-2**

Lab Sample ID: 240-742-7
Client Matrix: Solid

% Moisture: 4.2

Date Sampled: 06/02/2011 1210
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G7A.D
Dilution:	1.0			Initial Weight/Volume:	30.17 g
Analysis Date:	07/07/2011 2138			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		52	U	28	52
1,4-Dioxane		100	U	23	100
2,4,6-Trichlorophenol		160	U	83	160
2,4,5-Trichlorophenol		160	U	26	160
2,4-Dichlorophenol		160	U	21	160
2,4-Dimethylphenol		160	U	21	160
2,4-Dinitrophenol		340	U	83	340
2,4-Dinitrotoluene		210	U	28	210
2-Chloronaphthalene		52	U	3.4	52
2-Chlorophenol		52	U	28	52
2-Methylnaphthalene		71		3.4	6.9
2-Methylphenol		210	U	83	210
2-Nitroaniline		210	U	9.4	210
2-Nitrophenol		52	U	28	52
3 & 4 Methylphenol		420	U	21	420
3,3'-Dichlorobenzidine		100	U	19	100
3-Nitroaniline		210	U	17	210
4,6-Dinitro-2-methylphenol		160	U	83	160
4-Bromophenyl phenyl ether		52	U	13	52
4-Chloro-3-methylphenol		160	U	22	160
4-Chloroaniline		160	U	18	160
4-Chlorophenyl phenyl ether		52	U	13	52
4-Nitroaniline		210	U	27	210
Acenaphthene		17		3.4	6.9
Acenaphthylene		45		3.4	6.9
Acetophenone		100	U	9.6	100
Anthracene		98		3.4	6.9
Atrazine		210	U	9.4	210
Benzaldehyde		100	U	12	100
Benzo[a]anthracene		140		3.4	6.9
Benzo[a]pyrene		200		3.4	6.9
Benzo[b]fluoranthene		140		3.4	6.9
Benzo[g,h,i]perylene		260		3.4	6.9
Benzo[k]fluoranthene		90		3.4	6.9
Bis(2-chloroethoxy)methane		100	U	23	100
Bis(2-chloroethyl)ether		100	U	2.1	100
Bis(2-ethylhexyl) phthalate		52	U	20	52
Butyl benzyl phthalate		52	U	10	52
Caprolactam		340	U	38	340
Carbazole		52	U	28	52
Chrysene		160		1.1	6.9
Di-n-butyl phthalate		52	U	16	52
Di-n-octyl phthalate		52	U	28	52
Dibenzo(a,h)anthracene		32		3.4	6.9
Dibenzofuran		52	U	3.4	52
Diethyl phthalate		52	U	17	52

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-0-2**

Lab Sample ID: 240-742-7
Client Matrix: Solid % Moisture: 4.2

Date Sampled: 06/02/2011 1210
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G7A.D
Dilution:	1.0			Initial Weight/Volume:	30.17 g
Analysis Date:	07/07/2011 2138			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		52	U	18	52
Fluoranthene		200		3.4	6.9
Fluorene		35		3.4	6.9
Hexachlorobenzene		6.9	U	2.2	6.9
Hexachlorobutadiene		52	U	28	52
Hexachlorocyclopentadiene		340	U	28	340
Hexachloroethane		52	U	9.3	52
Indeno[1,2,3-cd]pyrene		160		3.4	6.9
Isophorone		52	U	13	52
N-Nitrosodi-n-propylamine		52	U	28	52
N-Nitrosodimethylamine		100	U	17	100
N-Nitrosodiphenylamine		52	U	22	52
Naphthalene		94		3.4	6.9
Nitrobenzene		100	U	2.3	100
Pentachlorophenol		160	U	83	160
Phenanthrene		210		3.4	6.9
Phenol		52	U	28	52
Pyrene		250		3.4	6.9
2,2'-oxybis[1-chloropropane]		100	U	9.9	100
2,6-Dinitrotoluene		210	U	22	210
4-Nitrophenol		340	U	83	340

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	72		41 - 119
Phenol-d5 (Surr)	73		28 - 110
Nitrobenzene-d5 (Surr)	57		24 - 112
2-Fluorophenol (Surr)	72		26 - 110
2-Fluorobiphenyl (Surr)	65		34 - 110
2,4,6-Tribromophenol (Surr)	58		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-6-8**

Lab Sample ID: 240-742-8
Client Matrix: Solid

% Moisture: 7.2

Date Sampled: 06/02/2011 1230
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G8A.D
Dilution:	5.0			Initial Weight/Volume:	30.01 g
Analysis Date:	07/07/2011 2236			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		270	U	150	270
1,4-Dioxane		540	U	120	540
2,4,6-Trichlorophenol		810	U	430	810
2,4,5-Trichlorophenol		810	U	130	810
2,4-Dichlorophenol		810	U	110	810
2,4-Dimethylphenol		810	U	110	810
2,4-Dinitrophenol		1800	U	430	1800
2,4-Dinitrotoluene		1100	U	150	1100
2-Chloronaphthalene		270	U	18	270
2-Chlorophenol		270	U	150	270
2-Methylnaphthalene		770		18	36
2-Methylphenol		1100	U	430	1100
2-Nitroaniline		1100	U	49	1100
2-Nitrophenol		270	U	150	270
3 & 4 Methylphenol		2200	U	110	2200
3,3'-Dichlorobenzidine		540	U	97	540
3-Nitroaniline		1100	U	86	1100
4,6-Dinitro-2-methylphenol		810	U	430	810
4-Bromophenyl phenyl ether		270	U	70	270
4-Chloro-3-methylphenol		810	U	110	810
4-Chloroaniline		810	U	92	810
4-Chlorophenyl phenyl ether		270	U	70	270
4-Nitroaniline		1100	U	140	1100
Acenaphthene		300		18	36
Acenaphthylene		370		18	36
Acetophenone		540	U	50	540
Anthracene		1200		18	36
Atrazine		1100	U	49	1100
Benzaldehyde		540	U	65	540
Benzo[a]anthracene		1600		18	36
Benzo[a]pyrene		2400		18	36
Benzo[b]fluoranthene		1900		18	36
Benzo[g,h,i]perylene		1500		18	36
Benzo[k]fluoranthene		750		18	36
Bis(2-chloroethoxy)methane		540	U	120	540
Bis(2-chloroethyl)ether		540	U	11	540
Bis(2-ethylhexyl) phthalate		270	U	100	270
Butyl benzyl phthalate		270	U	54	270
Caprolactam		1800	U	200	1800
Carbazole		270	U	150	270
Chrysene		2000		5.9	36
Di-n-butyl phthalate		270	U	81	270
Di-n-octyl phthalate		270	U	150	270
Dibenzo(a,h)anthracene		470		18	36
Dibenzofuran		73	J	18	270
Diethyl phthalate		270	U	86	270

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-102-6-8

Lab Sample ID: 240-742-8
Client Matrix: Solid

% Moisture: 7.2

Date Sampled: 06/02/2011 1230
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G8A.D
Dilution:	5.0			Initial Weight/Volume:	30.01 g
Analysis Date:	07/07/2011 2236			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		270	U	92	270
Fluoranthene		2300		18	36
Fluorene		640		18	36
Hexachlorobenzene		36	U	11	36
Hexachlorobutadiene		270	U	150	270
Hexachlorocyclopentadiene		1800	U	150	1800
Hexachloroethane		270	U	48	270
Indeno[1,2,3-cd]pyrene		1100		18	36
Isophorone		270	U	70	270
N-Nitrosodi-n-propylamine		270	U	150	270
N-Nitrosodimethylamine		540	U	86	540
N-Nitrosodiphenylamine		270	U	110	270
Naphthalene		890		18	36
Nitrobenzene		540	U	12	540
Pentachlorophenol		810	U	430	810
Phenanthrene		2700		18	36
Phenol		270	U	150	270
Pyrene		3200		18	36
2,2'-oxybis[1-chloropropane]		540	U	51	540
2,6-Dinitrotoluene		1100	U	110	1100
4-Nitrophenol		1800	U	430	1800

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	80		41 - 119
Phenol-d5 (Surr)	63		28 - 110
Nitrobenzene-d5 (Surr)	71		24 - 112
2-Fluorophenol (Surr)	70		26 - 110
2-Fluorobiphenyl (Surr)	66		34 - 110
2,4,6-Tribromophenol (Surr)	55		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-103-0-2**

Lab Sample ID: 240-741-1
Client Matrix: Solid

% Moisture: 15.1

Date Sampled: 06/02/2011 0855
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741F1A.D
Dilution:	1.0			Initial Weight/Volume:	30.02 g
Analysis Date:	07/07/2011 1806			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		59	U	32	59
1,4-Dioxane		120	U	26	120
2,4,6-Trichlorophenol		180	U	94	180
2,4,5-Trichlorophenol		180	U	29	180
2,4-Dichlorophenol		180	U	24	180
2,4-Dimethylphenol		180	U	24	180
2,4-Dinitrophenol		390	U	94	390
2,4-Dinitrotoluene		240	U	32	240
2-Chloronaphthalene		59	U	3.9	59
2-Chlorophenol		59	U	32	59
2-Methylnaphthalene		7.9	U	3.9	7.9
2-Methylphenol		240	U	94	240
2-Nitroaniline		240	U	11	240
2-Nitrophenol		59	U	32	59
3 & 4 Methylphenol		470	U	24	470
3,3'-Dichlorobenzidine		120	U	21	120
3-Nitroaniline		240	U	19	240
4,6-Dinitro-2-methylphenol		180	U	94	180
4-Bromophenyl phenyl ether		59	U	15	59
4-Chloro-3-methylphenol		180	U	25	180
4-Chloroaniline		180	U	20	180
4-Chlorophenyl phenyl ether		59	U	15	59
4-Nitroaniline		240	U	31	240
Acenaphthene		7.9	U	3.9	7.9
Acenaphthylene		7.9	U	3.9	7.9
Acetophenone		120	U	11	120
Anthracene		7.9	U	3.9	7.9
Atrazine		240	U	11	240
Benzaldehyde		120	U	14	120
Benzo[a]anthracene		11		3.9	7.9
Benzo[a]pyrene		11		3.9	7.9
Benzo[b]fluoranthene		14		3.9	7.9
Benzo[g,h,i]perylene		7.9		3.9	7.9
Benzo[k]fluoranthene		7.9	U	3.9	7.9
Bis(2-chloroethoxy)methane		120	U	26	120
Bis(2-chloroethyl)ether		120	U	2.4	120
Bis(2-ethylhexyl) phthalate		59	U	22	59
Butyl benzyl phthalate		59	U	12	59
Caprolactam		390	U	44	390
Carbazole		59	U	32	59
Chrysene		13		1.3	7.9
Di-n-butyl phthalate		59	U	18	59
Di-n-octyl phthalate		59	U	32	59
Dibenzo(a,h)anthracene		7.9	U	3.9	7.9
Dibenzofuran		59	U	3.9	59
Diethyl phthalate		59	U	19	59

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-103-0-2**

Lab Sample ID: 240-741-1
Client Matrix: Solid

% Moisture: 15.1

Date Sampled: 06/02/2011 0855
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741F1A.D
Dilution:	1.0			Initial Weight/Volume:	30.02 g
Analysis Date:	07/07/2011 1806			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		59	U	20	59
Fluoranthene		21		3.9	7.9
Fluorene		7.9	U	3.9	7.9
Hexachlorobenzene		7.9	U	2.5	7.9
Hexachlorobutadiene		59	U	32	59
Hexachlorocyclopentadiene		390	U	32	390
Hexachloroethane		59	U	11	59
Indeno[1,2,3-cd]pyrene		7.9	U	3.9	7.9
Isophorone		59	U	15	59
N-Nitrosodi-n-propylamine		59	U	32	59
N-Nitrosodimethylamine		120	U	19	120
N-Nitrosodiphenylamine		59	U	25	59
Naphthalene		7.9	U	3.9	7.9
Nitrobenzene		120	U	2.6	120
Pentachlorophenol		180	U	94	180
Phenanthrene		8.1		3.9	7.9
Phenol		59	U	32	59
Pyrene		17		3.9	7.9
2,2'-oxybis[1-chloropropane]		120	U	11	120
2,6-Dinitrotoluene		240	U	25	240
4-Nitrophenol		390	U	94	390

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	82		41 - 119
Phenol-d5 (Surr)	65		28 - 110
Nitrobenzene-d5 (Surr)	65		24 - 112
2-Fluorophenol (Surr)	77		26 - 110
2-Fluorobiphenyl (Surr)	66		34 - 110
2,4,6-Tribromophenol (Surr)	65		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-103-6-8**

Lab Sample ID: 240-741-2
Client Matrix: Solid

% Moisture: 9.5

Date Sampled: 06/02/2011 0859
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741F2B.D
Dilution:	1.0			Initial Weight/Volume:	29.91 g
Analysis Date:	07/07/2011 1531			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		55	U	30	55
1,4-Dioxane		110	U	24	110
2,4,6-Trichlorophenol		170	U	89	170
2,4,5-Trichlorophenol		170	U	28	170
2,4-Dichlorophenol		170	U	22	170
2,4-Dimethylphenol		170	U	22	170
2,4-Dinitrophenol		370	U	89	370
2,4-Dinitrotoluene		220	U	30	220
2-Chloronaphthalene		55	U	3.7	55
2-Chlorophenol		55	U	30	55
2-Methylnaphthalene		7.4	U	3.7	7.4
2-Methylphenol		220	U	89	220
2-Nitroaniline		220	U	10	220
2-Nitrophenol		55	U	30	55
3 & 4 Methylphenol		440	U	22	440
3,3'-Dichlorobenzidine		110	U	20	110
3-Nitroaniline		220	U	18	220
4,6-Dinitro-2-methylphenol		170	U	89	170
4-Bromophenyl phenyl ether		55	U	14	55
4-Chloro-3-methylphenol		170	U	23	170
4-Chloroaniline		170	U	19	170
4-Chlorophenyl phenyl ether		55	U	14	55
4-Nitroaniline		220	U	29	220
Acenaphthene		7.4	U	3.7	7.4
Acenaphthylene		7.4	U	3.7	7.4
Acetophenone		110	U	10	110
Anthracene		7.4	U	3.7	7.4
Atrazine		220	U	10	220
Benzaldehyde		110	U	13	110
Benzo[a]anthracene		7.4	U	3.7	7.4
Benzo[a]pyrene		7.4	U	3.7	7.4
Benzo[b]fluoranthene		7.4	U	3.7	7.4
Benzo[g,h,i]perylene		7.4	U	3.7	7.4
Benzo[k]fluoranthene		7.4	U	3.7	7.4
Bis(2-chloroethoxy)methane		110	U	24	110
Bis(2-chloroethyl)ether		110	U	2.2	110
Bis(2-ethylhexyl) phthalate		55	U	21	55
Butyl benzyl phthalate		55	U	11	55
Caprolactam		370	U	41	370
Carbazole		55	U	30	55
Chrysene		7.4	U	1.2	7.4
Di-n-butyl phthalate		55	U	17	55
Di-n-octyl phthalate		55	U	30	55
Dibenzo(a,h)anthracene		7.4	U	3.7	7.4
Dibenzofuran		55	U	3.7	55
Diethyl phthalate		55	U	18	55

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-103-6-8**

Lab Sample ID: 240-741-2
Client Matrix: Solid
% Moisture: 9.5

Date Sampled: 06/02/2011 0859
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741F2B.D
Dilution:	1.0			Initial Weight/Volume:	29.91 g
Analysis Date:	07/07/2011 1531			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		55	U	19	55
Fluoranthene		7.4	U	3.7	7.4
Fluorene		7.4	U	3.7	7.4
Hexachlorobenzene		7.4	U	2.3	7.4
Hexachlorobutadiene		55	U	30	55
Hexachlorocyclopentadiene		370	U	30	370
Hexachloroethane		55	U	10	55
Indeno[1,2,3-cd]pyrene		7.4	U	3.7	7.4
Isophorone		55	U	14	55
N-Nitrosodi-n-propylamine		55	U	30	55
N-Nitrosodimethylamine		110	U	18	110
N-Nitrosodiphenylamine		55	U	23	55
Naphthalene		7.4	U	3.7	7.4
Nitrobenzene		110	U	2.4	110
Pentachlorophenol		170	U	89	170
Phenanthrene		7.4	U	3.7	7.4
Phenol		55	U	30	55
Pyrene		7.4	U	3.7	7.4
2,2'-oxybis[1-chloropropane]		110	U	11	110
2,6-Dinitrotoluene		220	U	23	220
4-Nitrophenol		370	U	89	370

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	72		41 - 119
Phenol-d5 (Surr)	53		28 - 110
Nitrobenzene-d5 (Surr)	50		24 - 112
2-Fluorophenol (Surr)	71		26 - 110
2-Fluorobiphenyl (Surr)	62		34 - 110
2,4,6-Tribromophenol (Surr)	44		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-105-0-2**

Lab Sample ID: 240-741-3
Client Matrix: Solid

% Moisture: 13.8

Date Sampled: 06/02/2011 0942
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741F3B.D
Dilution:	5.0			Initial Weight/Volume:	30.08 g
Analysis Date:	07/07/2011 2157			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		290	U	160	290
1,4-Dioxane		580	U	130	580
2,4,6-Trichlorophenol		870	U	460	870
2,4,5-Trichlorophenol		870	U	140	870
2,4-Dichlorophenol		870	U	120	870
2,4-Dimethylphenol		870	U	120	870
2,4-Dinitrophenol		1900	U	460	1900
2,4-Dinitrotoluene		1200	U	160	1200
2-Chloronaphthalene		290	U	19	290
2-Chlorophenol		290	U	160	290
2-Methylnaphthalene		39	U	19	39
2-Methylphenol		1200	U	460	1200
2-Nitroaniline		1200	U	53	1200
2-Nitrophenol		290	U	160	290
3 & 4 Methylphenol		2300	U	120	2300
3,3'-Dichlorobenzidine		580	U	100	580
3-Nitroaniline		1200	U	93	1200
4,6-Dinitro-2-methylphenol		870	U	460	870
4-Bromophenyl phenyl ether		290	U	75	290
4-Chloro-3-methylphenol		870	U	120	870
4-Chloroaniline		870	U	98	870
4-Chlorophenyl phenyl ether		290	U	75	290
4-Nitroaniline		1200	U	150	1200
Acenaphthene		39	U	19	39
Acenaphthylene		39	U	19	39
Acetophenone		580	U	53	580
Anthracene		39	U	19	39
Atrazine		1200	U	53	1200
Benzaldehyde		580	U	69	580
Benzo[a]anthracene		86		19	39
Benzo[a]pyrene		110		19	39
Benzo[b]fluoranthene		120		19	39
Benzo[g,h,i]perylene		39	U	19	39
Benzo[k]fluoranthene		92		19	39
Bis(2-chloroethoxy)methane		580	U	130	580
Bis(2-chloroethyl)ether		580	U	12	580
Bis(2-ethylhexyl) phthalate		290	U	110	290
Butyl benzyl phthalate		290	U	58	290
Caprolactam		1900	U	210	1900
Carbazole		290	U	160	290
Chrysene		150		6.4	39
Di-n-butyl phthalate		290	U	87	290
Di-n-octyl phthalate		290	U	160	290
Dibenzo(a,h)anthracene		39	U	19	39
Dibenzofuran		290	U	19	290
Diethyl phthalate		290	U	93	290

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-105-0-2**

Lab Sample ID: 240-741-3
Client Matrix: Solid % Moisture: 13.8

Date Sampled: 06/02/2011 0942
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741F3B.D
Dilution:	5.0			Initial Weight/Volume:	30.08 g
Analysis Date:	07/07/2011 2157			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		290	U	98	290
Fluoranthene		190		19	39
Fluorene		39	U	19	39
Hexachlorobenzene		39	U	12	39
Hexachlorobutadiene		290	U	160	290
Hexachlorocyclopentadiene		1900	U	160	1900
Hexachloroethane		290	U	52	290
Indeno[1,2,3-cd]pyrene		39	U	19	39
Isophorone		290	U	75	290
N-Nitrosodi-n-propylamine		290	U	160	290
N-Nitrosodimethylamine		580	U	93	580
N-Nitrosodiphenylamine		290	U	120	290
Naphthalene		39	U	19	39
Nitrobenzene		580	U	13	580
Pentachlorophenol		870	U	460	870
Phenanthrene		73		19	39
Phenol		290	U	160	290
Pyrene		180		19	39
2,2'-oxybis[1-chloropropane]		580	U	55	580
2,6-Dinitrotoluene		1200	U	120	1200
4-Nitrophenol		1900	U	460	1900

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	71		41 - 119
Phenol-d5 (Surr)	74		28 - 110
Nitrobenzene-d5 (Surr)	66		24 - 112
2-Fluorophenol (Surr)	77		26 - 110
2-Fluorobiphenyl (Surr)	65		34 - 110
2,4,6-Tribromophenol (Surr)	63		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-105-6-8**

Lab Sample ID: 240-741-4
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 0945
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-8069	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741G4B.D
Dilution:	1.0			Initial Weight/Volume:	30.14 g
Analysis Date:	07/12/2011 0137			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		57	U	31	57
1,4-Dioxane		110	U	25	110
2,4,6-Trichlorophenol		170	U	91	170
2,4,5-Trichlorophenol		170	U	28	170
2,4-Dichlorophenol		170	U	23	170
2,4-Dimethylphenol		170	U	23	170
2,4-Dinitrophenol		370	U	91	370
2,4-Dinitrotoluene		230	U	31	230
2-Chloronaphthalene		57	U	3.7	57
2-Chlorophenol		57	U	31	57
2-Methylnaphthalene		7.6	U	3.7	7.6
2-Methylphenol		230	U	91	230
2-Nitroaniline		230	U	10	230
2-Nitrophenol		57	U	31	57
3 & 4 Methylphenol		450	U	23	450
3,3'-Dichlorobenzidine		110	U	20	110
3-Nitroaniline		230	U	18	230
4,6-Dinitro-2-methylphenol		170	U	91	170
4-Bromophenyl phenyl ether		57	U	15	57
4-Chloro-3-methylphenol		170	U	24	170
4-Chloroaniline		170	U	19	170
4-Chlorophenyl phenyl ether		57	U	15	57
4-Nitroaniline		230	U	29	230
Acenaphthene		7.6	U	3.7	7.6
Acenaphthylene		7.6	U	3.7	7.6
Acetophenone		110	U	10	110
Anthracene		7.6	U	3.7	7.6
Atrazine		230	U	10	230
Benzaldehyde		110	U	14	110
Benzo[a]anthracene		7.6	U	3.7	7.6
Benzo[a]pyrene		7.6		3.7	7.6
Benzo[b]fluoranthene		7.6	U	3.7	7.6
Benzo[g,h,i]perylene		13		3.7	7.6
Benzo[k]fluoranthene		7.6	U	3.7	7.6
Bis(2-chloroethoxy)methane		110	U	25	110
Bis(2-chloroethyl)ether		110	U	2.3	110
Bis(2-ethylhexyl) phthalate		22	J	22	57
Butyl benzyl phthalate		57	U	11	57
Caprolactam		370	U	42	370
Carbazole		57	U	31	57
Chrysene		7.6	U	1.2	7.6
Di-n-butyl phthalate		57	U	17	57
Di-n-octyl phthalate		57	U	31	57
Dibenzo(a,h)anthracene		7.6	U	3.7	7.6
Dibenzofuran		57	U	3.7	57
Diethyl phthalate		57	U	18	57

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-105-6-8**

Lab Sample ID: 240-741-4
Client Matrix: Solid
% Moisture: 12.2

Date Sampled: 06/02/2011 0945
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-8069	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741G4B.D
Dilution:	1.0			Initial Weight/Volume:	30.14 g
Analysis Date:	07/12/2011 0137			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		57	U	19	57
Fluoranthene		7.6	U	3.7	7.6
Fluorene		7.6	U	3.7	7.6
Hexachlorobenzene		7.6	U	2.4	7.6
Hexachlorobutadiene		57	U	31	57
Hexachlorocyclopentadiene		370	U	31	370
Hexachloroethane		57	U	10	57
Indeno[1,2,3-cd]pyrene		7.6	U	3.7	7.6
Isophorone		57	U	15	57
N-Nitrosodi-n-propylamine		57	U	31	57
N-Nitrosodimethylamine		110	U	18	110
N-Nitrosodiphenylamine		57	U	24	57
Naphthalene		7.6	U	3.7	7.6
Nitrobenzene		110	U	2.5	110
Pentachlorophenol		170	U	91	170
Phenanthrene		7.6	U	3.7	7.6
Phenol		57	U	31	57
Pyrene		8.4		3.7	7.6
2,2'-oxybis[1-chloropropane]		110	U	11	110
2,6-Dinitrotoluene		230	U	24	230
4-Nitrophenol		370	U	91	370

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	69		41 - 119
Phenol-d5 (Surr)	65		28 - 110
Nitrobenzene-d5 (Surr)	55		24 - 112
2-Fluorophenol (Surr)	68		26 - 110
2-Fluorobiphenyl (Surr)	57		34 - 110
2,4,6-Tribromophenol (Surr)	58		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-107-0-2

Lab Sample ID: 240-742-9
Client Matrix: Solid

% Moisture: 19.1

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D
Prep Method: 3540C
Dilution: 1.0
Analysis Date: 07/07/2011 1746
Prep Date: 06/14/2011 1052

Analysis Batch: 240-7724
Prep Batch: 240-4656

Instrument ID: A4HP9
Lab File ID: 742G9A.D
Initial Weight/Volume: 30.16 g
Final Weight/Volume: 2.00 mL
Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		61	U	33	61
1,4-Dioxane		120	U	27	120
2,4,6-Trichlorophenol		180	U	98	180
2,4,5-Trichlorophenol		180	U	31	180
2,4-Dichlorophenol		180	U	25	180
2,4-Dimethylphenol		180	U	25	180
2,4-Dinitrophenol		410	U	98	410
2,4-Dinitrotoluene		250	U	33	250
2-Chloronaphthalene		61	U	4.1	61
2-Chlorophenol		61	U	33	61
2-Methylnaphthalene		8.2	U	4.1	8.2
2-Methylphenol		250	U	98	250
2-Nitroaniline		250	U	11	250
2-Nitrophenol		61	U	33	61
3 & 4 Methylphenol		490	U	25	490
3,3'-Dichlorobenzidine		120	U	22	120
3-Nitroaniline		250	U	20	250
4,6-Dinitro-2-methylphenol		180	U	98	180
4-Bromophenyl phenyl ether		61	U	16	61
4-Chloro-3-methylphenol		180	U	26	180
4-Chloroaniline		180	U	21	180
4-Chlorophenyl phenyl ether		61	U	16	61
4-Nitroaniline		250	U	32	250
Acenaphthene		8.2	U	4.1	8.2
Acenaphthylene		8.2	U	4.1	8.2
Acetophenone		120	U	11	120
Anthracene		8.2	U	4.1	8.2
Atrazine		250	U	11	250
Benzaldehyde		120	U	15	120
Benzo[a]anthracene		12		4.1	8.2
Benzo[a]pyrene		15		4.1	8.2
Benzo[b]fluoranthene		19		4.1	8.2
Benzo[g,h,i]perylene		13		4.1	8.2
Benzo[k]fluoranthene		8.2	U	4.1	8.2
Bis(2-chloroethoxy)methane		120	U	27	120
Bis(2-chloroethyl)ether		120	U	2.5	120
Bis(2-ethylhexyl) phthalate		61	U	23	61
Butyl benzyl phthalate		61	U	12	61
Caprolactam		410	U	46	410
Carbazole		61	U	33	61
Chrysene		15		1.4	8.2
Di-n-butyl phthalate		61	U	18	61
Di-n-octyl phthalate		61	U	33	61
Dibenzo(a,h)anthracene		8.2	U	4.1	8.2
Dibenzofuran		61	U	4.1	61
Diethyl phthalate		61	U	20	61

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-0-2**

Lab Sample ID: 240-742-9
Client Matrix: Solid

% Moisture: 19.1

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G9A.D
Dilution:	1.0			Initial Weight/Volume:	30.16 g
Analysis Date:	07/07/2011 1746			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		61	U	21	61
Fluoranthene		22		4.1	8.2
Fluorene		8.2	U	4.1	8.2
Hexachlorobenzene		8.2	U	2.6	8.2
Hexachlorobutadiene		61	U	33	61
Hexachlorocyclopentadiene		410	U	33	410
Hexachloroethane		61	U	11	61
Indeno[1,2,3-cd]pyrene		11		4.1	8.2
Isophorone		61	U	16	61
N-Nitrosodi-n-propylamine		61	U	33	61
N-Nitrosodimethylamine		120	U	20	120
N-Nitrosodiphenylamine		61	U	26	61
Naphthalene		8.2	U	4.1	8.2
Nitrobenzene		120	U	2.7	120
Pentachlorophenol		180	U	98	180
Phenanthrene		8.3		4.1	8.2
Phenol		61	U	33	61
Pyrene		22		4.1	8.2
2,2'-oxybis[1-chloropropane]		120	U	12	120
2,6-Dinitrotoluene		250	U	26	250
4-Nitrophenol		410	U	98	410

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	77		41 - 119
Phenol-d5 (Surr)	61		28 - 110
Nitrobenzene-d5 (Surr)	60		24 - 112
2-Fluorophenol (Surr)	70		26 - 110
2-Fluorobiphenyl (Surr)	65		34 - 110
2,4,6-Tribromophenol (Surr)	63		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-6-8**

Lab Sample ID: 240-742-10
Client Matrix: Solid

% Moisture: 16.3

Date Sampled: 06/02/2011 1430
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-6847	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-4642	Lab File ID:	0701010.D
Dilution:	1.0			Initial Weight/Volume:	29.98 g
Analysis Date:	07/01/2011 1230			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1017			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		60	U	32	60
1,4-Dioxane		120	U	26	120
2,4,6-Trichlorophenol		180	U	96	180
2,4,5-Trichlorophenol		180	U	30	180
2,4-Dichlorophenol		180	U	24	180
2,4-Dimethylphenol		180	U	24	180
2,4-Dinitrophenol		390	U	96	390
2,4-Dinitrotoluene		240	U	32	240
2-Chloronaphthalene		60	U	3.9	60
2-Chlorophenol		60	U	32	60
2-Methylnaphthalene		8.0	U	3.9	8.0
2-Methylphenol		240	U	96	240
2-Nitroaniline		240	U	11	240
2-Nitrophenol		60	U	32	60
3 & 4 Methylphenol		480	U	24	480
3,3'-Dichlorobenzidine		120	U	22	120
3-Nitroaniline		240	U	19	240
4,6-Dinitro-2-methylphenol		180	U	96	180
4-Bromophenyl phenyl ether		60	U	16	60
4-Chloro-3-methylphenol		180	U	25	180
4-Chloroaniline		180	U	20	180
4-Chlorophenyl phenyl ether		60	U	16	60
4-Nitroaniline		240	U	31	240
Acenaphthene		8.0	U	3.9	8.0
Acenaphthylene		8.0	U	3.9	8.0
Acetophenone		120	U	11	120
Anthracene		8.0	U	3.9	8.0
Atrazine		240	U	11	240
Benzaldehyde		120	U	14	120
Benzo[a]anthracene		8.0	U	3.9	8.0
Benzo[a]pyrene		8.0	U	3.9	8.0
Benzo[b]fluoranthene		8.0	U	3.9	8.0
Benzo[g,h,i]perylene		8.0	U	3.9	8.0
Benzo[k]fluoranthene		8.0	U	3.9	8.0
Bis(2-chloroethoxy)methane		120	U	26	120
Bis(2-chloroethyl)ether		120	U	2.4	120
Bis(2-ethylhexyl) phthalate		60	U	23	60
Butyl benzyl phthalate		60	U	12	60
Caprolactam		390	U	44	390
Carbazole		60	U	32	60
Chrysene		8.0	U	1.3	8.0
Di-n-butyl phthalate		60	U	18	60
Di-n-octyl phthalate		60	U	32	60
Dibenzo(a,h)anthracene		8.0	U	3.9	8.0
Dibenzofuran		60	U	3.9	60
Diethyl phthalate		60	U	19	60

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-6-8**

Lab Sample ID: 240-742-10
Client Matrix: Solid
% Moisture: 16.3

Date Sampled: 06/02/2011 1430
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-6847	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-4642	Lab File ID:	0701010.D
Dilution:	1.0			Initial Weight/Volume:	29.98 g
Analysis Date:	07/01/2011 1230			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1017			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		60	U	20	60
Fluoranthene		8.0	U	3.9	8.0
Fluorene		8.0	U	3.9	8.0
Hexachlorobenzene		8.0	U	2.5	8.0
Hexachlorobutadiene		60	U	32	60
Hexachlorocyclopentadiene		390	U	32	390
Hexachloroethane		60	U	11	60
Indeno[1,2,3-cd]pyrene		8.0	U	3.9	8.0
Isophorone		60	U	16	60
N-Nitrosodi-n-propylamine		60	U	32	60
N-Nitrosodimethylamine		120	U	19	120
N-Nitrosodiphenylamine		60	U	25	60
Naphthalene		8.0	U	3.9	8.0
Nitrobenzene		120	U	2.6	120
Pentachlorophenol		180	U	96	180
Phenanthrene		8.0	U	3.9	8.0
Phenol		60	U	32	60
Pyrene		8.0	U	3.9	8.0
2,2'-oxybis[1-chloropropane]		120	U	11	120
2,6-Dinitrotoluene		240	U	25	240
4-Nitrophenol		390	U	96	390

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	70		41 - 119
Phenol-d5 (Surr)	59		28 - 110
Nitrobenzene-d5 (Surr)	52		24 - 112
2-Fluorophenol (Surr)	62		26 - 110
2-Fluorobiphenyl (Surr)	56		34 - 110
2,4,6-Tribromophenol (Surr)	44		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-0-2**

Lab Sample ID: 240-742-3
Client Matrix: Solid % Moisture: 13.9

Date Sampled: 06/02/2011 1005
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-8069	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G3C.D
Dilution:	1.0			Initial Weight/Volume:	30.00 g
Analysis Date:	07/12/2011 0059			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		58	U	31	58
1,4-Dioxane		120	U	26	120
2,4,6-Trichlorophenol		170	U	93	170
2,4,5-Trichlorophenol		170	U	29	170
2,4-Dichlorophenol		170	U	23	170
2,4-Dimethylphenol		170	U	23	170
2,4-Dinitrophenol		380	U	93	380
2,4-Dinitrotoluene		230	U	31	230
2-Chloronaphthalene		58	U	3.8	58
2-Chlorophenol		58	U	31	58
2-Methylnaphthalene		7.7	U	3.8	7.7
2-Methylphenol		230	U	93	230
2-Nitroaniline		230	U	11	230
2-Nitrophenol		58	U	31	58
3 & 4 Methylphenol		460	U	23	460
3,3'-Dichlorobenzidine		120	U	21	120
3-Nitroaniline		230	U	19	230
4,6-Dinitro-2-methylphenol		170	U	93	170
4-Bromophenyl phenyl ether		58	U	15	58
4-Chloro-3-methylphenol		170	U	24	170
4-Chloroaniline		170	U	20	170
4-Chlorophenyl phenyl ether		58	U	15	58
4-Nitroaniline		230	U	30	230
Acenaphthene		7.7	U	3.8	7.7
Acenaphthylene		7.7	U	3.8	7.7
Acetophenone		120	U	11	120
Anthracene		7.7	U	3.8	7.7
Atrazine		230	U	11	230
Benzaldehyde		120	U	14	120
Benzo[a]anthracene		7.7	U	3.8	7.7
Benzo[a]pyrene		7.7	U	3.8	7.7
Benzo[b]fluoranthene		7.7	U	3.8	7.7
Benzo[g,h,i]perylene		7.7	U	3.8	7.7
Benzo[k]fluoranthene		7.7	U	3.8	7.7
Bis(2-chloroethoxy)methane		120	U	26	120
Bis(2-chloroethyl)ether		120	U	2.3	120
Bis(2-ethylhexyl) phthalate		25	J	22	58
Butyl benzyl phthalate		58	U	12	58
Caprolactam		380	U	43	380
Carbazole		58	U	31	58
Chrysene		7.7	U	1.3	7.7
Di-n-butyl phthalate		58	U	17	58
Di-n-octyl phthalate		58	U	31	58
Dibenzo(a,h)anthracene		7.7	U	3.8	7.7
Dibenzofuran		58	U	3.8	58
Diethyl phthalate		58	U	19	58

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-0-2**

Lab Sample ID: 240-742-3
Client Matrix: Solid % Moisture: 13.9

Date Sampled: 06/02/2011 1005
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-8069	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G3C.D
Dilution:	1.0			Initial Weight/Volume:	30.00 g
Analysis Date:	07/12/2011 0059			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		58	U	20	58
Fluoranthene		8.7		3.8	7.7
Fluorene		7.7	U	3.8	7.7
Hexachlorobenzene		7.7	U	2.4	7.7
Hexachlorobutadiene		58	U	31	58
Hexachlorocyclopentadiene		380	U	31	380
Hexachloroethane		58	U	10	58
Indeno[1,2,3-cd]pyrene		7.7	U	3.8	7.7
Isophorone		58	U	15	58
N-Nitrosodi-n-propylamine		58	U	31	58
N-Nitrosodimethylamine		120	U	19	120
N-Nitrosodiphenylamine		58	U	24	58
Naphthalene		7.7	U	3.8	7.7
Nitrobenzene		120	U	2.6	120
Pentachlorophenol		170	U	93	170
Phenanthrene		7.7	U	3.8	7.7
Phenol		58	U	31	58
Pyrene		7.1	J	3.8	7.7
2,2'-oxybis[1-chloropropane]		120	U	11	120
2,6-Dinitrotoluene		230	U	24	230
4-Nitrophenol		380	U	93	380

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	70		41 - 119
Phenol-d5 (Surr)	69		28 - 110
Nitrobenzene-d5 (Surr)	58		24 - 112
2-Fluorophenol (Surr)	70		26 - 110
2-Fluorobiphenyl (Surr)	56		34 - 110
2,4,6-Tribromophenol (Surr)	48		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-108-6-8

Lab Sample ID: 240-742-4
Client Matrix: Solid

% Moisture: 15.9

Date Sampled: 06/02/2011 1015
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G4C.D
Dilution:	1.0			Initial Weight/Volume:	30.09 g
Analysis Date:	07/07/2011 1727			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		59	U	32	59
1,4-Dioxane		120	U	26	120
2,4,6-Trichlorophenol		180	U	95	180
2,4,5-Trichlorophenol		180	U	30	180
2,4-Dichlorophenol		180	U	24	180
2,4-Dimethylphenol		180	U	24	180
2,4-Dinitrophenol		390	U	95	390
2,4-Dinitrotoluene		240	U	32	240
2-Chloronaphthalene		59	U	3.9	59
2-Chlorophenol		59	U	32	59
2-Methylnaphthalene		7.9	U	3.9	7.9
2-Methylphenol		240	U	95	240
2-Nitroaniline		240	U	11	240
2-Nitrophenol		59	U	32	59
3 & 4 Methylphenol		470	U	24	470
3,3'-Dichlorobenzidine		120	U	21	120
3-Nitroaniline		240	U	19	240
4,6-Dinitro-2-methylphenol		180	U	95	180
4-Bromophenyl phenyl ether		59	U	15	59
4-Chloro-3-methylphenol		180	U	25	180
4-Chloroaniline		180	U	20	180
4-Chlorophenyl phenyl ether		59	U	15	59
4-Nitroaniline		240	U	31	240
Acenaphthene		7.9	U	3.9	7.9
Acenaphthylene		7.9	U	3.9	7.9
Acetophenone		120	U	11	120
Anthracene		7.9	U	3.9	7.9
Atrazine		240	U	11	240
Benzaldehyde		120	U	14	120
Benzo[a]anthracene		14		3.9	7.9
Benzo[a]pyrene		20		3.9	7.9
Benzo[b]fluoranthene		26		3.9	7.9
Benzo[g,h,i]perylene		19		3.9	7.9
Benzo[k]fluoranthene		14		3.9	7.9
Bis(2-chloroethoxy)methane		120	U	26	120
Bis(2-chloroethyl)ether		120	U	2.4	120
Bis(2-ethylhexyl) phthalate		59	U	23	59
Butyl benzyl phthalate		59	U	12	59
Caprolactam		390	U	44	390
Carbazole		59	U	32	59
Chrysene		20		1.3	7.9
Di-n-butyl phthalate		59	U	18	59
Di-n-octyl phthalate		59	U	32	59
Dibenzo(a,h)anthracene		7.9	U	3.9	7.9
Dibenzofuran		59	U	3.9	59
Diethyl phthalate		59	U	19	59

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-6-8**

Lab Sample ID: 240-742-4

Client Matrix: Solid

% Moisture: 15.9

Date Sampled: 06/02/2011 1015

Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G4C.D
Dilution:	1.0			Initial Weight/Volume:	30.09 g
Analysis Date:	07/07/2011 1727			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		59	U	20	59
Fluoranthene		28		3.9	7.9
Fluorene		7.9	U	3.9	7.9
Hexachlorobenzene		7.9	U	2.5	7.9
Hexachlorobutadiene		59	U	32	59
Hexachlorocyclopentadiene		390	U	32	390
Hexachloroethane		59	U	11	59
Indeno[1,2,3-cd]pyrene		15		3.9	7.9
Isophorone		59	U	15	59
N-Nitrosodi-n-propylamine		59	U	32	59
N-Nitrosodimethylamine		120	U	19	120
N-Nitrosodiphenylamine		59	U	25	59
Naphthalene		7.9	U	3.9	7.9
Nitrobenzene		120	U	2.6	120
Pentachlorophenol		180	U	95	180
Phenanthrene		11		3.9	7.9
Phenol		59	U	32	59
Pyrene		26		3.9	7.9
2,2'-oxybis[1-chloropropane]		120	U	11	120
2,6-Dinitrotoluene		240	U	25	240
4-Nitrophenol		390	U	95	390

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	80		41 - 119
Phenol-d5 (Surr)	61		28 - 110
Nitrobenzene-d5 (Surr)	53		24 - 112
2-Fluorophenol (Surr)	70		26 - 110
2-Fluorobiphenyl (Surr)	64		34 - 110
2,4,6-Tribromophenol (Surr)	45		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-0-2**

Lab Sample ID: 240-742-1
Client Matrix: Solid

% Moisture: 4.6

Date Sampled: 06/02/2011 0915
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G1C.D
Dilution:	10			Initial Weight/Volume:	30.01 g
Analysis Date:	07/07/2011 1904			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		520	U	280	520
1,4-Dioxane		1000	U	230	1000
2,4,6-Trichlorophenol		1600	U	840	1600
2,4,5-Trichlorophenol		1600	U	260	1600
2,4-Dichlorophenol		1600	U	210	1600
2,4-Dimethylphenol		1600	U	210	1600
2,4-Dinitrophenol		3500	U	840	3500
2,4-Dinitrotoluene		2100	U	280	2100
2-Chloronaphthalene		520	U	35	520
2-Chlorophenol		520	U	280	520
2-Methylnaphthalene		70	U	35	70
2-Methylphenol		2100	U	840	2100
2-Nitroaniline		2100	U	95	2100
2-Nitrophenol		520	U	280	520
3 & 4 Methylphenol		4200	U	210	4200
3,3'-Dichlorobenzidine		1000	U	190	1000
3-Nitroaniline		2100	U	170	2100
4,6-Dinitro-2-methylphenol		1600	U	840	1600
4-Bromophenyl phenyl ether		520	U	140	520
4-Chloro-3-methylphenol		1600	U	220	1600
4-Chloroaniline		1600	U	180	1600
4-Chlorophenyl phenyl ether		520	U	140	520
4-Nitroaniline		2100	U	270	2100
Acenaphthene		70	U	35	70
Acenaphthylene		70	U	35	70
Acetophenone		1000	U	96	1000
Anthracene		150		35	70
Atrazine		2100	U	95	2100
Benzaldehyde		1000	U	130	1000
Benzo[a]anthracene		290		35	70
Benzo[a]pyrene		460		35	70
Benzo[b]fluoranthene		380		35	70
Benzo[g,h,i]perylene		550		35	70
Benzo[k]fluoranthene		200		35	70
Bis(2-chloroethoxy)methane		1000	U	230	1000
Bis(2-chloroethyl)ether		1000	U	21	1000
Bis(2-ethylhexyl) phthalate		520	U	200	520
Butyl benzyl phthalate		520	U	100	520
Caprolactam		3500	U	390	3500
Carbazole		520	U	280	520
Chrysene		410		12	70
Di-n-butyl phthalate		520	U	160	520
Di-n-octyl phthalate		520	U	280	520
Dibenzo(a,h)anthracene		70	U	35	70
Dibenzofuran		520	U	35	520
Diethyl phthalate		520	U	170	520

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-0-2**

Lab Sample ID: 240-742-1
Client Matrix: Solid % Moisture: 4.6

Date Sampled: 06/02/2011 0915
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G1C.D
Dilution:	10			Initial Weight/Volume:	30.01 g
Analysis Date:	07/07/2011 1904			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		520	U	180	520
Fluoranthene		480		35	70
Fluorene		70	U	35	70
Hexachlorobenzene		70	U	22	70
Hexachlorobutadiene		520	U	280	520
Hexachlorocyclopentadiene		3500	U	280	3500
Hexachloroethane		520	U	94	520
Indeno[1,2,3-cd]pyrene		340		35	70
Isophorone		520	U	140	520
N-Nitrosodi-n-propylamine		520	U	280	520
N-Nitrosodimethylamine		1000	U	170	1000
N-Nitrosodiphenylamine		520	U	220	520
Naphthalene		70	U	35	70
Nitrobenzene		1000	U	23	1000
Pentachlorophenol		1600	U	840	1600
Phenanthrene		360		35	70
Phenol		520	U	280	520
Pyrene		600		35	70
2,2'-oxybis[1-chloropropane]		1000	U	99	1000
2,6-Dinitrotoluene		2100	U	220	2100
4-Nitrophenol		3500	U	840	3500

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	78		41 - 119
Phenol-d5 (Surr)	43		28 - 110
Nitrobenzene-d5 (Surr)	67		24 - 112
2-Fluorophenol (Surr)	64		26 - 110
2-Fluorobiphenyl (Surr)	69		34 - 110
2,4,6-Tribromophenol (Surr)	24		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-6-8**

Lab Sample ID: 240-742-2
Client Matrix: Solid

% Moisture: 12.0

Date Sampled: 06/02/2011 0930
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G2C.D
Dilution:	25			Initial Weight/Volume:	30.15 g
Analysis Date:	07/07/2011 1844			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		1400	U	760	1400
1,4-Dioxane		2800	U	620	2800
2,4,6-Trichlorophenol		4200	U	2300	4200
2,4,5-Trichlorophenol		4200	U	710	4200
2,4-Dichlorophenol		4200	U	570	4200
2,4-Dimethylphenol		4200	U	570	4200
2,4-Dinitrophenol		9300	U	2300	9300
2,4-Dinitrotoluene		5700	U	760	5700
2-Chloronaphthalene		1400	U	93	1400
2-Chlorophenol		1400	U	760	1400
2-Methylnaphthalene		1200		93	190
2-Methylphenol		5700	U	2300	5700
2-Nitroaniline		5700	U	260	5700
2-Nitrophenol		1400	U	760	1400
3 & 4 Methylphenol		11000	U	570	11000
3,3'-Dichlorobenzidine		2800	U	510	2800
3-Nitroaniline		5700	U	450	5700
4,6-Dinitro-2-methylphenol		4200	U	2300	4200
4-Bromophenyl phenyl ether		1400	U	370	1400
4-Chloro-3-methylphenol		4200	U	590	4200
4-Chloroaniline		4200	U	480	4200
4-Chlorophenyl phenyl ether		1400	U	370	1400
4-Nitroaniline		5700	U	730	5700
Acenaphthene		1100		93	190
Acenaphthylene		1900		93	190
Acetophenone		2800	U	260	2800
Anthracene		4000		93	190
Atrazine		5700	U	260	5700
Benzaldehyde		2800	U	340	2800
Benzo[a]anthracene		13000		93	190
Benzo[a]pyrene		14000		93	190
Benzo[b]fluoranthene		12000		93	190
Benzo[g,h,i]perylene		10000		93	190
Benzo[k]fluoranthene		6300		93	190
Bis(2-chloroethoxy)methane		2800	U	620	2800
Bis(2-chloroethyl)ether		2800	U	57	2800
Bis(2-ethylhexyl) phthalate		1400	U	540	1400
Butyl benzyl phthalate		1400	U	280	1400
Caprolactam		9300	U	1000	9300
Carbazole		1400	U	760	1400
Chrysene		14000		31	190
Di-n-butyl phthalate		1400	U	420	1400
Di-n-octyl phthalate		1400	U	760	1400
Dibenzo(a,h)anthracene		2700		93	190
Dibenzofuran		290	J	93	1400
Diethyl phthalate		1400	U	450	1400

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-6-8**

Lab Sample ID: 240-742-2
Client Matrix: Solid
% Moisture: 12.0

Date Sampled: 06/02/2011 0930
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G2C.D
Dilution:	25			Initial Weight/Volume:	30.15 g
Analysis Date:	07/07/2011 1844			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte (DryWt Corrected: Y)	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate	1400	U	480	1400
Fluoranthene	21000		93	190
Fluorene	2000		93	190
Hexachlorobenzene	190	U	59	190
Hexachlorobutadiene	1400	U	760	1400
Hexachlorocyclopentadiene	9300	U	760	9300
Hexachloroethane	1400	U	250	1400
Indeno[1,2,3-cd]pyrene	7500		93	190
Isophorone	1400	U	370	1400
N-Nitrosodi-n-propylamine	1400	U	760	1400
N-Nitrosodimethylamine	2800	U	450	2800
N-Nitrosodiphenylamine	1400	U	590	1400
Naphthalene	1100		93	190
Nitrobenzene	2800	U	62	2800
Pentachlorophenol	4200	U	2300	4200
Phenanthrene	13000		93	190
Phenol	1400	U	760	1400
Pyrene	32000		93	190
2,2'-oxybis[1-chloropropane]	2800	U	270	2800
2,6-Dinitrotoluene	5700	U	590	5700
4-Nitrophenol	9300	U	2300	9300

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	70		41 - 119
Phenol-d5 (Surr)	36		28 - 110
Nitrobenzene-d5 (Surr)	0	X	24 - 112
2-Fluorophenol (Surr)	57		26 - 110
2-Fluorobiphenyl (Surr)	65		34 - 110
2,4,6-Tribromophenol (Surr)	0	X	10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-110-0-2

Lab Sample ID: 240-742-5
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 1100
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-8069	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742F5B.D
Dilution:	1.0			Initial Weight/Volume:	30.19 g
Analysis Date:	07/12/2011 0118			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		57	U	31	57
1,4-Dioxane		110	U	25	110
2,4,6-Trichlorophenol		170	U	91	170
2,4,5-Trichlorophenol		170	U	28	170
2,4-Dichlorophenol		170	U	23	170
2,4-Dimethylphenol		170	U	23	170
2,4-Dinitrophenol		370	U	91	370
2,4-Dinitrotoluene		230	U	31	230
2-Chloronaphthalene		57	U	3.7	57
2-Chlorophenol		57	U	31	57
2-Methylnaphthalene		21		3.7	7.5
2-Methylphenol		230	U	91	230
2-Nitroaniline		230	U	10	230
2-Nitrophenol		57	U	31	57
3 & 4 Methylphenol		450	U	23	450
3,3'-Dichlorobenzidine		110	U	20	110
3-Nitroaniline		230	U	18	230
4,6-Dinitro-2-methylphenol		170	U	91	170
4-Bromophenyl phenyl ether		57	U	15	57
4-Chloro-3-methylphenol		170	U	24	170
4-Chloroaniline		170	U	19	170
4-Chlorophenyl phenyl ether		57	U	15	57
4-Nitroaniline		230	U	29	230
Acenaphthene		7.5	U	3.7	7.5
Acenaphthylene		16		3.7	7.5
Acetophenone		110	U	10	110
Anthracene		27		3.7	7.5
Atrazine		230	U	10	230
Benzaldehyde		110	U	14	110
Benzo[a]anthracene		32		3.7	7.5
Benzo[a]pyrene		49		3.7	7.5
Benzo[b]fluoranthene		40		3.7	7.5
Benzo[g,h,i]perylene		81		3.7	7.5
Benzo[k]fluoranthene		16		3.7	7.5
Bis(2-chloroethoxy)methane		110	U	25	110
Bis(2-chloroethyl)ether		110	U	2.3	110
Bis(2-ethylhexyl) phthalate		57	U	22	57
Butyl benzyl phthalate		57	U	11	57
Caprolactam		370	U	42	370
Carbazole		57	U	31	57
Chrysene		37		1.2	7.5
Di-n-butyl phthalate		57	U	17	57
Di-n-octyl phthalate		57	U	31	57
Dibenzo(a,h)anthracene		7.5	U	3.7	7.5
Dibenzofuran		57	U	3.7	57
Diethyl phthalate		57	U	18	57

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-110-0-2**

Lab Sample ID: 240-742-5
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 1100
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-8069	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742F5B.D
Dilution:	1.0			Initial Weight/Volume:	30.19 g
Analysis Date:	07/12/2011 0118			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		57	U	19	57
Fluoranthene		37		3.7	7.5
Fluorene		9.4		3.7	7.5
Hexachlorobenzene		7.5	U	2.4	7.5
Hexachlorobutadiene		57	U	31	57
Hexachlorocyclopentadiene		370	U	31	370
Hexachloroethane		57	U	10	57
Indeno[1,2,3-cd]pyrene		44		3.7	7.5
Isophorone		57	U	15	57
N-Nitrosodi-n-propylamine		57	U	31	57
N-Nitrosodimethylamine		110	U	18	110
N-Nitrosodiphenylamine		57	U	24	57
Naphthalene		24		3.7	7.5
Nitrobenzene		110	U	2.5	110
Pentachlorophenol		170	U	91	170
Phenanthrene		46		3.7	7.5
Phenol		57	U	31	57
Pyrene		54		3.7	7.5
2,2'-oxybis[1-chloropropane]		110	U	11	110
2,6-Dinitrotoluene		230	U	24	230
4-Nitrophenol		370	U	91	370

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	62		41 - 119
Phenol-d5 (Surr)	62		28 - 110
Nitrobenzene-d5 (Surr)	53		24 - 112
2-Fluorophenol (Surr)	62		26 - 110
2-Fluorobiphenyl (Surr)	53		34 - 110
2,4,6-Tribromophenol (Surr)	35		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-110-6-8

Lab Sample ID: 240-742-6
Client Matrix: Solid

% Moisture: 7.2

Date Sampled: 06/02/2011 1110
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G6B.D
Dilution:	10			Initial Weight/Volume:	29.93 g
Analysis Date:	07/07/2011 1923			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		540	U	290	540
1,4-Dioxane		1100	U	240	1100
2,4,6-Trichlorophenol		1600	U	860	1600
2,4,5-Trichlorophenol		1600	U	270	1600
2,4-Dichlorophenol		1600	U	220	1600
2,4-Dimethylphenol		1600	U	220	1600
2,4-Dinitrophenol		3600	U	860	3600
2,4-Dinitrotoluene		2200	U	290	2200
2-Chloronaphthalene		540	U	36	540
2-Chlorophenol		540	U	290	540
2-Methylnaphthalene		72	U	36	72
2-Methylphenol		2200	U	860	2200
2-Nitroaniline		2200	U	98	2200
2-Nitrophenol		540	U	290	540
3 & 4 Methylphenol		4300	U	220	4300
3,3'-Dichlorobenzidine		1100	U	190	1100
3-Nitroaniline		2200	U	170	2200
4,6-Dinitro-2-methylphenol		1600	U	860	1600
4-Bromophenyl phenyl ether		540	U	140	540
4-Chloro-3-methylphenol		1600	U	230	1600
4-Chloroaniline		1600	U	180	1600
4-Chlorophenyl phenyl ether		540	U	140	540
4-Nitroaniline		2200	U	280	2200
Acenaphthene		72	U	36	72
Acenaphthylene		72	U	36	72
Acetophenone		1100	U	99	1100
Anthracene		130		36	72
Atrazine		2200	U	98	2200
Benzaldehyde		1100	U	130	1100
Benzo[a]anthracene		280		36	72
Benzo[a]pyrene		390		36	72
Benzo[b]fluoranthene		340		36	72
Benzo[g,h,i]perylene		430		36	72
Benzo[k]fluoranthene		210		36	72
Bis(2-chloroethoxy)methane		1100	U	240	1100
Bis(2-chloroethyl)ether		1100	U	22	1100
Bis(2-ethylhexyl) phthalate		540	U	210	540
Butyl benzyl phthalate		540	U	110	540
Caprolactam		3600	U	400	3600
Carbazole		540	U	290	540
Chrysene		360		12	72
Di-n-butyl phthalate		540	U	160	540
Di-n-octyl phthalate		540	U	290	540
Dibenzo(a,h)anthracene		72	U	36	72
Dibenzofuran		540	U	36	540
Diethyl phthalate		540	U	170	540

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-110-6-8**

Lab Sample ID: 240-742-6
Client Matrix: Solid

% Moisture: 7.2

Date Sampled: 06/02/2011 1110
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	742G6B.D
Dilution:	10			Initial Weight/Volume:	29.93 g
Analysis Date:	07/07/2011 1923			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		540	U	180	540
Fluoranthene		500		36	72
Fluorene		72	U	36	72
Hexachlorobenzene		72	U	23	72
Hexachlorobutadiene		540	U	290	540
Hexachlorocyclopentadiene		3600	U	290	3600
Hexachloroethane		540	U	97	540
Indeno[1,2,3-cd]pyrene		270		36	72
Isophorone		540	U	140	540
N-Nitrosodi-n-propylamine		540	U	290	540
N-Nitrosodimethylamine		1100	U	170	1100
N-Nitrosodiphenylamine		540	U	230	540
Naphthalene		72	U	36	72
Nitrobenzene		1100	U	24	1100
Pentachlorophenol		1600	U	860	1600
Phenanthrene		310		36	72
Phenol		540	U	290	540
Pyrene		490		36	72
2,2'-oxybis[1-chloropropane]		1100	U	100	1100
2,6-Dinitrotoluene		2200	U	230	2200
4-Nitrophenol		3600	U	860	3600

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	83		41 - 119
Phenol-d5 (Surr)	73		28 - 110
Nitrobenzene-d5 (Surr)	69		24 - 112
2-Fluorophenol (Surr)	77		26 - 110
2-Fluorobiphenyl (Surr)	71		34 - 110
2,4,6-Tribromophenol (Surr)	23		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-99-0-2**

Lab Sample ID: 240-741-7
Client Matrix: Solid

% Moisture: 13.1

Date Sampled: 06/02/2011 1148
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D
Prep Method: 3540C
Dilution: 1.0
Analysis Date: 07/07/2011 1825
Prep Date: 06/14/2011 1052

Analysis Batch: 240-7724
Prep Batch: 240-4656

Instrument ID: A4HP9
Lab File ID: 741F7D.D
Initial Weight/Volume: 30.12 g
Final Weight/Volume: 2.00 mL
Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		57	U	31	57
1,4-Dioxane		110	U	25	110
2,4,6-Trichlorophenol		170	U	92	170
2,4,5-Trichlorophenol		170	U	29	170
2,4-Dichlorophenol		170	U	23	170
2,4-Dimethylphenol		170	U	23	170
2,4-Dinitrophenol		380	U	92	380
2,4-Dinitrotoluene		230	U	31	230
2-Chloronaphthalene		57	U	3.8	57
2-Chlorophenol		57	U	31	57
2-Methylnaphthalene		7.6	U	3.8	7.6
2-Methylphenol		230	U	92	230
2-Nitroaniline		230	U	10	230
2-Nitrophenol		57	U	31	57
3 & 4 Methylphenol		460	U	23	460
3,3'-Dichlorobenzidine		110	U	21	110
3-Nitroaniline		230	U	18	230
4,6-Dinitro-2-methylphenol		170	U	92	170
4-Bromophenyl phenyl ether		57	U	15	57
4-Chloro-3-methylphenol		170	U	24	170
4-Chloroaniline		170	U	19	170
4-Chlorophenyl phenyl ether		57	U	15	57
4-Nitroaniline		230	U	30	230
Acenaphthene		17		3.8	7.6
Acenaphthylene		7.6	U	3.8	7.6
Acetophenone		110	U	11	110
Anthracene		35		3.8	7.6
Atrazine		230	U	10	230
Benzaldehyde		110	U	14	110
Benzo[a]anthracene		83		3.8	7.6
Benzo[a]pyrene		85		3.8	7.6
Benzo[b]fluoranthene		110		3.8	7.6
Benzo[g,h,i]perylene		60		3.8	7.6
Benzo[k]fluoranthene		46		3.8	7.6
Bis(2-chloroethoxy)methane		110	U	25	110
Bis(2-chloroethyl)ether		110	U	2.3	110
Bis(2-ethylhexyl) phthalate		57	U	22	57
Butyl benzyl phthalate		57	U	11	57
Caprolactam		380	U	42	380
Carbazole		57	U	31	57
Chrysene		90		1.3	7.6
Di-n-butyl phthalate		57	U	17	57
Di-n-octyl phthalate		57	U	31	57
Dibenzo(a,h)anthracene		13		3.8	7.6
Dibenzofuran		9.1	J	3.8	57
Diethyl phthalate		57	U	18	57

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-99-0-2**

Lab Sample ID: 240-741-7
Client Matrix: Solid

% Moisture: 13.1

Date Sampled: 06/02/2011 1148
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741F7D.D
Dilution:	1.0			Initial Weight/Volume:	30.12 g
Analysis Date:	07/07/2011 1825			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		57	U	19	57
Fluoranthene		210		3.8	7.6
Fluorene		15		3.8	7.6
Hexachlorobenzene		7.6	U	2.4	7.6
Hexachlorobutadiene		57	U	31	57
Hexachlorocyclopentadiene		380	U	31	380
Hexachloroethane		57	U	10	57
Indeno[1,2,3-cd]pyrene		50		3.8	7.6
Isophorone		57	U	15	57
N-Nitrosodi-n-propylamine		57	U	31	57
N-Nitrosodimethylamine		110	U	18	110
N-Nitrosodiphenylamine		57	U	24	57
Naphthalene		10		3.8	7.6
Nitrobenzene		110	U	2.5	110
Pentachlorophenol		170	U	92	170
Phenanthrene		120		3.8	7.6
Phenol		57	U	31	57
Pyrene		150		3.8	7.6
2,2'-oxybis[1-chloropropane]		110	U	11	110
2,6-Dinitrotoluene		230	U	24	230
4-Nitrophenol		380	U	92	380

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	73		41 - 119
Phenol-d5 (Surr)	61		28 - 110
Nitrobenzene-d5 (Surr)	64		24 - 112
2-Fluorophenol (Surr)	71		26 - 110
2-Fluorobiphenyl (Surr)	63		34 - 110
2,4,6-Tribromophenol (Surr)	65		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-99-6-8**

Lab Sample ID: 240-741-8
Client Matrix: Solid % Moisture: 19.7

Date Sampled: 06/02/2011 1153
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741F8A.D
Dilution:	1.0			Initial Weight/Volume:	29.95 g
Analysis Date:	07/07/2011 1610			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		62	U	34	62
1,4-Dioxane		120	U	27	120
2,4,6-Trichlorophenol		190	U	100	190
2,4,5-Trichlorophenol		190	U	31	190
2,4-Dichlorophenol		190	U	25	190
2,4-Dimethylphenol		190	U	25	190
2,4-Dinitrophenol		410	U	100	410
2,4-Dinitrotoluene		250	U	34	250
2-Chloronaphthalene		62	U	4.1	62
2-Chlorophenol		62	U	34	62
2-Methylnaphthalene		8.3	U	4.1	8.3
2-Methylphenol		250	U	100	250
2-Nitroaniline		250	U	11	250
2-Nitrophenol		62	U	34	62
3 & 4 Methylphenol		500	U	25	500
3,3'-Dichlorobenzidine		120	U	22	120
3-Nitroaniline		250	U	20	250
4,6-Dinitro-2-methylphenol		190	U	100	190
4-Bromophenyl phenyl ether		62	U	16	62
4-Chloro-3-methylphenol		190	U	26	190
4-Chloroaniline		190	U	21	190
4-Chlorophenyl phenyl ether		62	U	16	62
4-Nitroaniline		250	U	32	250
Acenaphthene		8.3	U	4.1	8.3
Acenaphthylene		8.3	U	4.1	8.3
Acetophenone		120	U	11	120
Anthracene		8.3	U	4.1	8.3
Atrazine		250	U	11	250
Benzaldehyde		120	U	15	120
Benzo[a]anthracene		8.3	U	4.1	8.3
Benzo[a]pyrene		8.3	U	4.1	8.3
Benzo[b]fluoranthene		8.3	U	4.1	8.3
Benzo[g,h,i]perylene		8.3	U	4.1	8.3
Benzo[k]fluoranthene		8.3	U	4.1	8.3
Bis(2-chloroethoxy)methane		120	U	27	120
Bis(2-chloroethyl)ether		120	U	2.5	120
Bis(2-ethylhexyl) phthalate		62	U	24	62
Butyl benzyl phthalate		62	U	12	62
Caprolactam		410	U	46	410
Carbazole		62	U	34	62
Chrysene		8.3	U	1.4	8.3
Di-n-butyl phthalate		62	U	19	62
Di-n-octyl phthalate		62	U	34	62
Dibenzo(a,h)anthracene		8.3	U	4.1	8.3
Dibenzofuran		62	U	4.1	62
Diethyl phthalate		62	U	20	62

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-99-6-8**

Lab Sample ID: 240-741-8
Client Matrix: Solid
% Moisture: 19.7

Date Sampled: 06/02/2011 1153
Date Received: 06/03/2011 0915

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	240-7724	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-4656	Lab File ID:	741F8A.D
Dilution:	1.0			Initial Weight/Volume:	29.95 g
Analysis Date:	07/07/2011 1610			Final Weight/Volume:	2.00 mL
Prep Date:	06/14/2011 1052			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dimethyl phthalate		62	U	21	62
Fluoranthene		8.3	U	4.1	8.3
Fluorene		8.3	U	4.1	8.3
Hexachlorobenzene		8.3	U	2.6	8.3
Hexachlorobutadiene		62	U	34	62
Hexachlorocyclopentadiene		410	U	34	410
Hexachloroethane		62	U	11	62
Indeno[1,2,3-cd]pyrene		8.3	U	4.1	8.3
Isophorone		62	U	16	62
N-Nitrosodi-n-propylamine		62	U	34	62
N-Nitrosodimethylamine		120	U	20	120
N-Nitrosodiphenylamine		62	U	26	62
Naphthalene		8.3	U	4.1	8.3
Nitrobenzene		120	U	2.7	120
Pentachlorophenol		190	U	100	190
Phenanthrene		8.3	U	4.1	8.3
Phenol		62	U	34	62
Pyrene		8.3	U	4.1	8.3
2,2'-oxybis[1-chloropropane]		120	U	12	120
2,6-Dinitrotoluene		250	U	26	250
4-Nitrophenol		410	U	100	410

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (Surr)	82		41 - 119
Phenol-d5 (Surr)	59		28 - 110
Nitrobenzene-d5 (Surr)	56		24 - 112
2-Fluorophenol (Surr)	74		26 - 110
2-Fluorobiphenyl (Surr)	66		34 - 110
2,4,6-Tribromophenol (Surr)	43		10 - 118

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-2-4**

Lab Sample ID: 240-741-9
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 1415
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.06 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1833			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	18	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	19	38
Aroclor-1254		38	U	19	38
Aroclor-1260		38	U	19	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	69		29 - 151
Decachlorobiphenyl	64		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-2-4**

Lab Sample ID: 240-741-9
Client Matrix: Solid % Moisture: 12.2

Date Sampled: 06/02/2011 1415
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.06 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1833			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	18	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	19	38
Aroclor-1254		38	U	19	38
Aroclor-1260		38	U	19	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	69		29 - 151
Decachlorobiphenyl	62		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-6-8**

Lab Sample ID: 240-741-10
Client Matrix: Solid
% Moisture: 10.2

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.05 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1847			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		37	U	23	37
Aroclor-1221		37	U	18	37
Aroclor-1232		37	U	16	37
Aroclor-1242		37	U	14	37
Aroclor-1248		37	U	19	37
Aroclor-1254		37	U	19	37
Aroclor-1260		37	U	19	37

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		29 - 151
Decachlorobiphenyl	74		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-6-8**

Lab Sample ID: 240-741-10
Client Matrix: Solid

% Moisture: 10.2

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.05 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1847			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		37	U	23	37
Aroclor-1221		37	U	18	37
Aroclor-1232		37	U	16	37
Aroclor-1242		37	U	14	37
Aroclor-1248		37	U	19	37
Aroclor-1254		37	U	19	37
Aroclor-1260		37	U	19	37

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		29 - 151
Decachlorobiphenyl	73		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-101-0-2**

Lab Sample ID: 240-741-5
Client Matrix: Solid

% Moisture: 5.3

Date Sampled: 06/02/2011 1051
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	29.97 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1651			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		35	U	22	35
Aroclor-1221		35	U	17	35
Aroclor-1232		35	U	15	35
Aroclor-1242		35	U	14	35
Aroclor-1248		35	U	18	35
Aroclor-1254		35	U	18	35
Aroclor-1260		35	U	18	35

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	68		29 - 151
Decachlorobiphenyl	62		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-101-0-2

Lab Sample ID: 240-741-5
Client Matrix: Solid

% Moisture: 5.3

Date Sampled: 06/02/2011 1051
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	29.97 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1651			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		35	U	22	35
Aroclor-1221		35	U	17	35
Aroclor-1232		35	U	15	35
Aroclor-1242		35	U	14	35
Aroclor-1248		35	U	18	35
Aroclor-1254		35	U	18	35
Aroclor-1260		35	U	18	35

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	68		29 - 151
Decachlorobiphenyl	55		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-101-6-8**

Lab Sample ID: 240-741-6
Client Matrix: Solid % Moisture: 14.1

Date Sampled: 06/02/2011 1055
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	29.96 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1705			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	19	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	20	38
Aroclor-1254		38	U	20	38
Aroclor-1260		38	U	20	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	84		29 - 151
Decachlorobiphenyl	71		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-101-6-8**

Lab Sample ID: 240-741-6
Client Matrix: Solid

% Moisture: 14.1

Date Sampled: 06/02/2011 1055
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	29.96 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1705			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	19	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	20	38
Aroclor-1254		38	U	20	38
Aroclor-1260		38	U	20	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	84		29 - 151
Decachlorobiphenyl	66		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-0-2**

Lab Sample ID: 240-742-7
Client Matrix: Solid

% Moisture: 4.2

Date Sampled: 06/02/2011 1210
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-5117	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4687	Initial Weight/Volume:	30.03 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/17/2011 1434			Injection Volume:	1 uL
Prep Date:	06/14/2011 1210			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		34	U	22	34
Aroclor-1221		34	U	17	34
Aroclor-1232		34	U	15	34
Aroclor-1242		34	U	14	34
Aroclor-1248		34	U	18	34
Aroclor-1254		34	U	18	34
Aroclor-1260		34	U	18	34

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	80		29 - 151
Decachlorobiphenyl	68		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-0-2**

Lab Sample ID: 240-742-7
Client Matrix: Solid % Moisture: 4.2

Date Sampled: 06/02/2011 1210
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-5117	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4687	Initial Weight/Volume:	30.03 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/17/2011 1434			Injection Volume:	1 uL
Prep Date:	06/14/2011 1210			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		34	U	22	34
Aroclor-1221		34	U	17	34
Aroclor-1232		34	U	15	34
Aroclor-1242		34	U	14	34
Aroclor-1248		34	U	18	34
Aroclor-1254		34	U	18	34
Aroclor-1260		34	U	18	34

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		29 - 151
Decachlorobiphenyl	68		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-6-8**

Lab Sample ID: 240-742-8
Client Matrix: Solid

% Moisture: 7.2

Date Sampled: 06/02/2011 1230
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-5117	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4687	Initial Weight/Volume:	30.06 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/17/2011 1449			Injection Volume:	1 uL
Prep Date:	06/14/2011 1210			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		35	U	23	35
Aroclor-1221		35	U	17	35
Aroclor-1232		35	U	15	35
Aroclor-1242		35	U	14	35
Aroclor-1248		35	U	18	35
Aroclor-1254		35	U	18	35
Aroclor-1260		35	U	18	35

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	74		29 - 151
Decachlorobiphenyl	72		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-6-8**

Lab Sample ID: 240-742-8
Client Matrix: Solid % Moisture: 7.2

Date Sampled: 06/02/2011 1230
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-5117	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4687	Initial Weight/Volume:	30.06 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/17/2011 1449			Injection Volume:	1 uL
Prep Date:	06/14/2011 1210			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		35	U	23	35
Aroclor-1221		35	U	17	35
Aroclor-1232		35	U	15	35
Aroclor-1242		35	U	14	35
Aroclor-1248		35	U	18	35
Aroclor-1254		35	U	18	35
Aroclor-1260		35	U	18	35

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	66		29 - 151
Decachlorobiphenyl	70		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-103-0-2

Lab Sample ID: 240-741-1
Client Matrix: Solid

% Moisture: 15.1

Date Sampled: 06/02/2011 0855
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	29.94 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1524			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		39	U	25	39
Aroclor-1221		39	U	19	39
Aroclor-1232		39	U	17	39
Aroclor-1242		39	U	15	39
Aroclor-1248		39	U	20	39
Aroclor-1254		39	U	20	39
Aroclor-1260		39	U	20	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	73		29 - 151
Decachlorobiphenyl	69		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-103-0-2**

Lab Sample ID: 240-741-1
Client Matrix: Solid

% Moisture: 15.1

Date Sampled: 06/02/2011 0855
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	29.94 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1524			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		39	U	25	39
Aroclor-1221		39	U	19	39
Aroclor-1232		39	U	17	39
Aroclor-1242		39	U	15	39
Aroclor-1248		39	U	20	39
Aroclor-1254		39	U	20	39
Aroclor-1260		39	U	20	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	74		29 - 151
Decachlorobiphenyl	71		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-103-6-8**

Lab Sample ID: 240-741-2
Client Matrix: Solid

% Moisture: 9.5

Date Sampled: 06/02/2011 0859
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.16 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1539			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		36	U	23	36
Aroclor-1221		36	U	18	36
Aroclor-1232		36	U	15	36
Aroclor-1242		36	U	14	36
Aroclor-1248		36	U	19	36
Aroclor-1254		36	U	19	36
Aroclor-1260		36	U	19	36

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	79		29 - 151
Decachlorobiphenyl	79		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-103-6-8**

Lab Sample ID: 240-741-2
Client Matrix: Solid

% Moisture: 9.5

Date Sampled: 06/02/2011 0859
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.16 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1539			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		36	U	23	36
Aroclor-1221		36	U	18	36
Aroclor-1232		36	U	15	36
Aroclor-1242		36	U	14	36
Aroclor-1248		36	U	19	36
Aroclor-1254		36	U	19	36
Aroclor-1260		36	U	19	36

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	83		29 - 151
Decachlorobiphenyl	80		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-105-0-2**

Lab Sample ID: 240-741-3
Client Matrix: Solid % Moisture: 13.8

Date Sampled: 06/02/2011 0942
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.12 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1553			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	18	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	20	38
Aroclor-1254		38	U	20	38
Aroclor-1260		38	U	20	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	71		29 - 151
Decachlorobiphenyl	64		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-105-0-2

Lab Sample ID: 240-741-3
Client Matrix: Solid

% Moisture: 13.8

Date Sampled: 06/02/2011 0942
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.12 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1553			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	18	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	20	38
Aroclor-1254		38	U	20	38
Aroclor-1260		38	U	20	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	74		29 - 151
Decachlorobiphenyl	54		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-105-6-8**

Lab Sample ID: 240-741-4
Client Matrix: Solid
% Moisture: 12.2

Date Sampled: 06/02/2011 0945
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.09 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1608			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		37	U	24	37
Aroclor-1221		37	U	18	37
Aroclor-1232		37	U	16	37
Aroclor-1242		37	U	15	37
Aroclor-1248		37	U	19	37
Aroclor-1254		37	U	19	37
Aroclor-1260		37	U	19	37

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	89		29 - 151
Decachlorobiphenyl	76		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-105-6-8**

Lab Sample ID: 240-741-4
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 0945
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.09 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1608			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		37	U	24	37
Aroclor-1221		37	U	18	37
Aroclor-1232		37	U	16	37
Aroclor-1242		37	U	15	37
Aroclor-1248		37	U	19	37
Aroclor-1254		37	U	19	37
Aroclor-1260		37	U	19	37

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	92		29 - 151
Decachlorobiphenyl	67		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-0-2**

Lab Sample ID: 240-742-9
Client Matrix: Solid

% Moisture: 19.1

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-5117	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4687	Initial Weight/Volume:	29.99 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/17/2011 1503			Injection Volume:	1 uL
Prep Date:	06/14/2011 1210			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		41	U	26	41
Aroclor-1221		41	U	20	41
Aroclor-1232		41	U	17	41
Aroclor-1242		41	U	16	41
Aroclor-1248		41	U	21	41
Aroclor-1254		41	U	21	41
Aroclor-1260		41	U	21	41

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	76		29 - 151
Decachlorobiphenyl	66		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-0-2**

Lab Sample ID: 240-742-9
Client Matrix: Solid

% Moisture: 19.1

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-5117	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4687	Initial Weight/Volume:	29.99 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/17/2011 1503			Injection Volume:	1 uL
Prep Date:	06/14/2011 1210			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		41	U	26	41
Aroclor-1221		41	U	20	41
Aroclor-1232		41	U	17	41
Aroclor-1242		41	U	16	41
Aroclor-1248		41	U	21	41
Aroclor-1254		41	U	21	41
Aroclor-1260		41	U	21	41

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	79		29 - 151
Decachlorobiphenyl	62		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-6-8**

Lab Sample ID: 240-742-10
Client Matrix: Solid % Moisture: 16.3

Date Sampled: 06/02/2011 1430
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-5117	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4687	Initial Weight/Volume:	30.01 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/17/2011 1518			Injection Volume:	1 uL
Prep Date:	06/14/2011 1210			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		39	U	25	39
Aroclor-1221		39	U	19	39
Aroclor-1232		39	U	17	39
Aroclor-1242		39	U	16	39
Aroclor-1248		39	U	20	39
Aroclor-1254		39	U	20	39
Aroclor-1260		39	U	20	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	85		29 - 151
Decachlorobiphenyl	77		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-107-6-8

Lab Sample ID: 240-742-10
Client Matrix: Solid

% Moisture: 16.3

Date Sampled: 06/02/2011 1430
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-5117	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4687	Initial Weight/Volume:	30.01 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/17/2011 1518			Injection Volume:	1 uL
Prep Date:	06/14/2011 1210			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		39	U	25	39
Aroclor-1221		39	U	19	39
Aroclor-1232		39	U	17	39
Aroclor-1242		39	U	16	39
Aroclor-1248		39	U	20	39
Aroclor-1254		39	U	20	39
Aroclor-1260		39	U	20	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		29 - 151
Decachlorobiphenyl	73		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-0-2**

Lab Sample ID: 240-742-3
Client Matrix: Solid

% Moisture: 13.9

Date Sampled: 06/02/2011 1005
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	29.99 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1931			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	19	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	20	38
Aroclor-1254		38	U	20	38
Aroclor-1260		38	U	20	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	72		29 - 151
Decachlorobiphenyl	62		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-0-2**

Lab Sample ID: 240-742-3
Client Matrix: Solid % Moisture: 13.9

Date Sampled: 06/02/2011 1005
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	29.99 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1931			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	19	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	20	38
Aroclor-1254		38	U	20	38
Aroclor-1260		38	U	20	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		29 - 151
Decachlorobiphenyl	54		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-6-8**

Lab Sample ID: 240-742-4
Client Matrix: Solid
% Moisture: 15.9

Date Sampled: 06/02/2011 1015
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.13 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1946			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		39	U	25	39
Aroclor-1221		39	U	19	39
Aroclor-1232		39	U	17	39
Aroclor-1242		39	U	15	39
Aroclor-1248		39	U	20	39
Aroclor-1254		39	U	20	39
Aroclor-1260		39	U	20	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	83		29 - 151
Decachlorobiphenyl	66		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-6-8**

Lab Sample ID: 240-742-4
Client Matrix: Solid
% Moisture: 15.9

Date Sampled: 06/02/2011 1015
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.13 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1946			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		39	U	25	39
Aroclor-1221		39	U	19	39
Aroclor-1232		39	U	17	39
Aroclor-1242		39	U	15	39
Aroclor-1248		39	U	20	39
Aroclor-1254		39	U	20	39
Aroclor-1260		39	U	20	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		29 - 151
Decachlorobiphenyl	72		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-0-2**

Lab Sample ID: 240-742-1
Client Matrix: Solid

% Moisture: 4.6

Date Sampled: 06/02/2011 0915
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.15 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1902			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		34	U	22	34
Aroclor-1221		34	U	17	34
Aroclor-1232		34	U	15	34
Aroclor-1242		34	U	14	34
Aroclor-1248		34	U	18	34
Aroclor-1254		34	U	18	34
Aroclor-1260		34	U	18	34

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		29 - 151
Decachlorobiphenyl	63		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-0-2**

Lab Sample ID: 240-742-1
Client Matrix: Solid

% Moisture: 4.6

Date Sampled: 06/02/2011 0915
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.15 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1902			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		34	U	22	34
Aroclor-1221		34	U	17	34
Aroclor-1232		34	U	15	34
Aroclor-1242		34	U	14	34
Aroclor-1248		34	U	18	34
Aroclor-1254		34	U	18	34
Aroclor-1260		34	U	18	34

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	75		29 - 151
Decachlorobiphenyl	57		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-109-6-8

Lab Sample ID: 240-742-2
Client Matrix: Solid

% Moisture: 12.0

Date Sampled: 06/02/2011 0930
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	29.98 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1916			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	18	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	19	38
Aroclor-1254		38	U	19	38
Aroclor-1260		64		19	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	80		29 - 151
Decachlorobiphenyl	67		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-109-6-8

Lab Sample ID: 240-742-2
Client Matrix: Solid

% Moisture: 12.0

Date Sampled: 06/02/2011 0930
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	29.98 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1916			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	18	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	19	38
Aroclor-1254		38	U	19	38
Aroclor-1260		53		19	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	75		29 - 151
Decachlorobiphenyl	66		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-110-0-2**

Lab Sample ID: 240-742-5
Client Matrix: Solid % Moisture: 12.2

Date Sampled: 06/02/2011 1100
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	29.99 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 2000			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	18	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	19	38
Aroclor-1254		38	U	19	38
Aroclor-1260		38	U	19	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	92		29 - 151
Decachlorobiphenyl	80		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-110-0-2**

Lab Sample ID: 240-742-5
Client Matrix: Solid % Moisture: 12.2

Date Sampled: 06/02/2011 1100
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	29.99 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 2000			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	18	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	19	38
Aroclor-1254		38	U	19	38
Aroclor-1260		38	U	19	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	92		29 - 151
Decachlorobiphenyl	73		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-110-6-8

Lab Sample ID: 240-742-6
Client Matrix: Solid

% Moisture: 7.2

Date Sampled: 06/02/2011 1110
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-5117	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4687	Initial Weight/Volume:	30.02 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/17/2011 1420			Injection Volume:	1 uL
Prep Date:	06/14/2011 1210			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		36	U	23	36
Aroclor-1221		36	U	17	36
Aroclor-1232		36	U	15	36
Aroclor-1242		36	U	14	36
Aroclor-1248		36	U	18	36
Aroclor-1254		36	U	18	36
Aroclor-1260		36	U	18	36

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	82		29 - 151
Decachlorobiphenyl	69		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-110-6-8**

Lab Sample ID: 240-742-6
Client Matrix: Solid % Moisture: 7.2

Date Sampled: 06/02/2011 1110
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-5117	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4687	Initial Weight/Volume:	30.02 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/17/2011 1420			Injection Volume:	1 uL
Prep Date:	06/14/2011 1210			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		36	U	23	36
Aroclor-1221		36	U	17	36
Aroclor-1232		36	U	15	36
Aroclor-1242		36	U	14	36
Aroclor-1248		36	U	18	36
Aroclor-1254		36	U	18	36
Aroclor-1260		36	U	18	36

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	81		29 - 151
Decachlorobiphenyl	81		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-99-0-2

Lab Sample ID: 240-741-7
Client Matrix: Solid

% Moisture: 13.1

Date Sampled: 06/02/2011 1148
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.03 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1720			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	18	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	20	38
Aroclor-1254		38	U	20	38
Aroclor-1260		38	U	20	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	73		29 - 151
Decachlorobiphenyl	62		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-99-0-2**

Lab Sample ID: 240-741-7
Client Matrix: Solid % Moisture: 13.1

Date Sampled: 06/02/2011 1148
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.03 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1720			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		38	U	24	38
Aroclor-1221		38	U	18	38
Aroclor-1232		38	U	16	38
Aroclor-1242		38	U	15	38
Aroclor-1248		38	U	20	38
Aroclor-1254		38	U	20	38
Aroclor-1260		38	U	20	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	70		29 - 151
Decachlorobiphenyl	63		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-99-6-8

Lab Sample ID: 240-741-8
Client Matrix: Solid

% Moisture: 19.7

Date Sampled: 06/02/2011 1153
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.17 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1735			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		41	U	26	41
Aroclor-1221		41	U	20	41
Aroclor-1232		41	U	17	41
Aroclor-1242		41	U	16	41
Aroclor-1248		41	U	21	41
Aroclor-1254		41	U	21	41
Aroclor-1260		41	U	21	41

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	80		29 - 151
Decachlorobiphenyl	76		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-99-6-8

Lab Sample ID: 240-741-8
Client Matrix: Solid

% Moisture: 19.7

Date Sampled: 06/02/2011 1153
Date Received: 06/03/2011 0915

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	240-4691	Instrument ID:	A2HP12
Prep Method:	3540C	Prep Batch:	240-4340	Initial Weight/Volume:	30.17 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Analysis Date:	06/14/2011 1735			Injection Volume:	1 uL
Prep Date:	06/10/2011 1123			Result Type:	SECONDARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor-1016		41	U	26	41
Aroclor-1221		41	U	20	41
Aroclor-1232		41	U	17	41
Aroclor-1242		41	U	16	41
Aroclor-1248		41	U	21	41
Aroclor-1254		41	U	21	41
Aroclor-1260		41	U	21	41

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		29 - 151
Decachlorobiphenyl	80		14 - 163

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-2-4**

Lab Sample ID: 240-741-9
Client Matrix: Solid % Moisture: 12.2

Date Sampled: 06/02/2011 1415
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116283	Instrument ID:	INST13-14
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 2023			Injection Volume:	
Prep Date:	06/13/2011 2023			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		57	U	28	57

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	100		64 - 116
4-Bromofluorobenzene	95		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-100-6-8

Lab Sample ID: 240-741-10
Client Matrix: Solid

% Moisture: 10.2

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116283	Instrument ID:	INST13-14
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 2058			Injection Volume:	
Prep Date:	06/13/2011 2058			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		56	U	28	56

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	77		64 - 116
4-Bromofluorobenzene	75		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-101-0-2

Lab Sample ID: 240-741-5
Client Matrix: Solid

% Moisture: 5.3

Date Sampled: 06/02/2011 1051
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116283	Instrument ID:	INST13-14
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1805			Injection Volume:	
Prep Date:	06/13/2011 1805			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		53	U	26	53

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	74		64 - 116
4-Bromofluorobenzene	62		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-101-6-8**

Lab Sample ID: 240-741-6
Client Matrix: Solid % Moisture: 14.1

Date Sampled: 06/02/2011 1055
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116283	Instrument ID:	INST13-14
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1840			Injection Volume:	
Prep Date:	06/13/2011 1840			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		58	U	29	58

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	100		64 - 116
4-Bromofluorobenzene	95		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-102-0-2

Lab Sample ID: 240-742-7
Client Matrix: Solid

% Moisture: 4.2

Date Sampled: 06/02/2011 1210
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116287	Instrument ID:	CINST11-12
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1752			Injection Volume:	
Prep Date:	06/13/2011 1752			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		52	U	26	52

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	82		64 - 116
4-Bromofluorobenzene	63		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-6-8**

Lab Sample ID: 240-742-8
Client Matrix: Solid % Moisture: 7.2

Date Sampled: 06/02/2011 1230
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116287	Instrument ID:	CINST11-12
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1827			Injection Volume:	
Prep Date:	06/13/2011 1827			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		54	U	27	54

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	93		64 - 116
4-Bromofluorobenzene	84		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-103-0-2

Lab Sample ID: 240-741-1
Client Matrix: Solid % Moisture: 15.1

Date Sampled: 06/02/2011 0855
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116283	Instrument ID:	INST13-14
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1513			Injection Volume:	
Prep Date:	06/13/2011 1513			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		59	U	29	59

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	99		64 - 116
4-Bromofluorobenzene	93		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-103-6-8**

Lab Sample ID: 240-741-2
Client Matrix: Solid

% Moisture: 9.5

Date Sampled: 06/02/2011 0859
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116283	Instrument ID:	INST13-14
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1622			Injection Volume:	
Prep Date:	06/13/2011 1622			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		55	U	28	55

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	99		64 - 116
4-Bromofluorobenzene	93		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-105-0-2**

Lab Sample ID: 240-741-3
Client Matrix: Solid

% Moisture: 13.8

Date Sampled: 06/02/2011 0942
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116283	Instrument ID:	INST13-14
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1656			Injection Volume:	
Prep Date:	06/13/2011 1656			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		58	U	29	58

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	70		64 - 116
4-Bromofluorobenzene	54		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-105-6-8**

Lab Sample ID: 240-741-4

Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 0945

Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116283	Instrument ID:	INST13-14
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1731			Injection Volume:	
Prep Date:	06/13/2011 1731			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		57	U	28	57

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	98		64 - 116
4-Bromofluorobenzene	90		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-0-2**

Lab Sample ID: 240-742-9
Client Matrix: Solid

% Moisture: 19.1

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116287	Instrument ID:	CINST11-12
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1902			Injection Volume:	
Prep Date:	06/13/2011 1902			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		62	U	31	62

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	93		64 - 116
4-Bromofluorobenzene	79		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-107-6-8

Lab Sample ID: 240-742-10
Client Matrix: Solid

% Moisture: 16.3

Date Sampled: 06/02/2011 1430
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116287	Instrument ID:	CINST11-12
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1937			Injection Volume:	
Prep Date:	06/13/2011 1937			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		60	U	30	60

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	101		64 - 116
4-Bromofluorobenzene	90		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-0-2**

Lab Sample ID: 240-742-3
Client Matrix: Solid % Moisture: 13.9

Date Sampled: 06/02/2011 1005
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116287	Instrument ID:	CINST11-12
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1412			Injection Volume:	
Prep Date:	06/13/2011 1412			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		58	U	29	58

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	97		64 - 116
4-Bromofluorobenzene	84		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-6-8**

Lab Sample ID: 240-742-4
Client Matrix: Solid % Moisture: 15.9

Date Sampled: 06/02/2011 1015
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116287	Instrument ID:	CINST11-12
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1447			Injection Volume:	
Prep Date:	06/13/2011 1447			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		59	U	30	59

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	101		64 - 116
4-Bromofluorobenzene	88		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-0-2**

Lab Sample ID: 240-742-1
Client Matrix: Solid
% Moisture: 4.6

Date Sampled: 06/02/2011 0915
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116287	Instrument ID:	CINST11-12
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1153			Injection Volume:	
Prep Date:	06/13/2011 1153			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		52	U	26	52

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	91		64 - 116
4-Bromofluorobenzene	82		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-6-8**

Lab Sample ID: 240-742-2
Client Matrix: Solid
% Moisture: 12.0

Date Sampled: 06/02/2011 0930
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116287	Instrument ID:	CINST11-12
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1337			Injection Volume:	
Prep Date:	06/13/2011 1337			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		57	U	28	57

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	94		64 - 116
4-Bromofluorobenzene	82		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-110-0-2**

Lab Sample ID: 240-742-5
Client Matrix: Solid % Moisture: 12.2

Date Sampled: 06/02/2011 1100
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116287	Instrument ID:	CINST11-12
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1608			Injection Volume:	
Prep Date:	06/13/2011 1608			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		57	U	28	57

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	97		64 - 116
4-Bromofluorobenzene	87		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-110-6-8**

Lab Sample ID: 240-742-6
Client Matrix: Solid % Moisture: 7.2

Date Sampled: 06/02/2011 1110
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116287	Instrument ID:	CINST11-12
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1643			Injection Volume:	
Prep Date:	06/13/2011 1643			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		54	U	27	54

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	86		64 - 116
4-Bromofluorobenzene	74		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-99-0-2

Lab Sample ID: 240-741-7
Client Matrix: Solid

% Moisture: 13.1

Date Sampled: 06/02/2011 1148
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116283	Instrument ID:	INST13-14
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1914			Injection Volume:	
Prep Date:	06/13/2011 1914			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		58	U	29	58

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	85		64 - 116
4-Bromofluorobenzene	72		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-99-6-8

Lab Sample ID: 240-741-8
Client Matrix: Solid

% Moisture: 19.7

Date Sampled: 06/02/2011 1153
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analysis Method:	8015C	Analysis Batch:	500-116283	Instrument ID:	INST13-14
Prep Method:	5030C		N/A	Initial Weight/Volume:	5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/13/2011 1949			Injection Volume:	
Prep Date:	06/13/2011 1949			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Gasoline Range Organics (GRO)-C6-C10		62	U	31	62

Surrogate	%Rec	Qualifier	Acceptance Limits
a,a,a-Trifluorotoluene	99		64 - 116
4-Bromofluorobenzene	94		51 - 117

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-100-2-4

Lab Sample ID: 240-741-9
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 1415
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	29.92 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 1759			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		19	U	11	19

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	48		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-100-6-8**

Lab Sample ID: 240-741-10
Client Matrix: Solid

% Moisture: 10.2

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	30.14 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 1827			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		19	U	10	19

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	47		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-101-0-2

Lab Sample ID: 240-741-5
Client Matrix: Solid

% Moisture: 5.3

Date Sampled: 06/02/2011 1051
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	29.94 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 1607			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		72	B	9.8	18

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	45		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-101-6-8**

Lab Sample ID: 240-741-6
Client Matrix: Solid

% Moisture: 14.1

Date Sampled: 06/02/2011 1055
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	29.99 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 1635			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		13	J B	11	19

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	39		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-102-0-2

Lab Sample ID: 240-742-7
Client Matrix: Solid

% Moisture: 4.2

Date Sampled: 06/02/2011 1210
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5688	Instrument ID:	A2HP14F
Prep Method:	3540C	Prep Batch:	240-4675	Initial Weight/Volume:	30.08 g
Dilution:	1.0			Final Weight/Volume:	5.00 mL
Analysis Date:	06/22/2011 1613			Injection Volume:	1 uL
Prep Date:	06/14/2011 1136			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		190		9.6	17

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	49		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-102-6-8**

Lab Sample ID: 240-742-8
Client Matrix: Solid

% Moisture: 7.2

Date Sampled: 06/02/2011 1230
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5688	Instrument ID:	A2HP14F
Prep Method:	3540C	Prep Batch:	240-4675	Initial Weight/Volume:	29.98 g
Dilution:	1.0			Final Weight/Volume:	5.00 mL
Analysis Date:	06/22/2011 1638			Injection Volume:	1 uL
Prep Date:	06/14/2011 1136			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		340		10	18

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	47		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-103-0-2**

Lab Sample ID: 240-741-1
Client Matrix: Solid % Moisture: 15.1

Date Sampled: 06/02/2011 0855
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	30.11 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 1414			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		20	U	11	20

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	45		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-103-6-8

Lab Sample ID: 240-741-2
Client Matrix: Solid

% Moisture: 9.5

Date Sampled: 06/02/2011 0859
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	30.07 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 1442			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		13	J B	10	18

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	48		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-105-0-2

Lab Sample ID: 240-741-3
Client Matrix: Solid
% Moisture: 13.8

Date Sampled: 06/02/2011 0942
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	30.10 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 1510			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		140	B	11	19

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	41		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-105-6-8

Lab Sample ID: 240-741-4
Client Matrix: Solid

% Moisture: 12.2

Date Sampled: 06/02/2011 0945
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	30.10 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 1538			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		27	B	11	19

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	47		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-107-0-2**

Lab Sample ID: 240-742-9
Client Matrix: Solid

% Moisture: 19.1

Date Sampled: 06/02/2011 1420
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5878	Instrument ID:	A2HP14F
Prep Method:	3540C	Prep Batch:	240-4675	Initial Weight/Volume:	30.18 g
Dilution:	1.0			Final Weight/Volume:	5.00 mL
Analysis Date:	06/23/2011 1542			Injection Volume:	1 uL
Prep Date:	06/14/2011 1136			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		21	U	11	21

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	43		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-107-6-8

Lab Sample ID: 240-742-10
Client Matrix: Solid
% Moisture: 16.3

Date Sampled: 06/02/2011 1430
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5878	Instrument ID:	A2HP14F
Prep Method:	3540C	Prep Batch:	240-4675	Initial Weight/Volume:	30.11 g
Dilution:	1.0			Final Weight/Volume:	5.00 mL
Analysis Date:	06/23/2011 1607			Injection Volume:	1 uL
Prep Date:	06/14/2011 1136			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		20	U	11	20

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	47		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-108-0-2

Lab Sample ID: 240-742-3
Client Matrix: Solid

% Moisture: 13.9

Date Sampled: 06/02/2011 1005
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	30.07 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 2047			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		24	B	11	19

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	45		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-108-6-8**

Lab Sample ID: 240-742-4
Client Matrix: Solid

% Moisture: 15.9

Date Sampled: 06/02/2011 1015
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	29.96 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 2115			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		23	B	11	20

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	42		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-0-2**

Lab Sample ID: 240-742-1
Client Matrix: Solid % Moisture: 4.6

Date Sampled: 06/02/2011 0915
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	30.04 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 1855			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		290	B	9.7	17

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	41		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-109-6-8**

Lab Sample ID: 240-742-2
Client Matrix: Solid
% Moisture: 12.0

Date Sampled: 06/02/2011 0930
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5475	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	30.03 g
Dilution:	2.0			Final Weight/Volume:	5 mL
Analysis Date:	06/21/2011 1411			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		410	B	21	38

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	45		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-110-0-2**

Lab Sample ID: 240-742-5
Client Matrix: Solid % Moisture: 12.2

Date Sampled: 06/02/2011 1100
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	30.20 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 2143			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		320	B	10	19

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	41		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-110-6-8**

Lab Sample ID: 240-742-6
Client Matrix: Solid % Moisture: 7.2

Date Sampled: 06/02/2011 1110
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	30.03 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 2211			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		210	B	10	18

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	41		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: **GSP-SB-99-0-2**

Lab Sample ID: 240-741-7
Client Matrix: Solid % Moisture: 13.1

Date Sampled: 06/02/2011 1148
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	29.98 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 1703			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		47	B	11	19

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	42		10 - 110

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Client Sample ID: GSP-SB-99-6-8

Lab Sample ID: 240-741-8
Client Matrix: Solid

% Moisture: 19.7

Date Sampled: 06/02/2011 1153
Date Received: 06/03/2011 0915

8015C Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analysis Method:	8015C	Analysis Batch:	240-5319	Instrument ID:	A2HP5
Prep Method:	3540C	Prep Batch:	240-4516	Initial Weight/Volume:	30.06 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/20/2011 1731			Injection Volume:	1 uL
Prep Date:	06/13/2011 1056			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Total Petroleum Hydrocarbons (C10-C32)		16	J B	12	21

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	48		10 - 110

Appendix C

Support Documentation

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	MG/KG	GSP-SB-100-2-4	240-741-9	NM	06/02/2011	06/09/2011	07/08/2011	7	29	36
M	MG/KG	GSP-SB-101-0-2	240-741-5	NM	06/02/2011	06/09/2011	07/08/2011	7	29	36
M	MG/KG	GSP-SB-101-6-8	240-741-6	NM	06/02/2011	06/09/2011	07/08/2011	7	29	36
M	MG/KG	GSP-SB-102-0-2	240-742-7	NM	06/02/2011	06/09/2011	07/08/2011	7	29	36
M	MG/KG	GSP-SB-102-6-8	240-742-8	NM	06/02/2011	06/09/2011	07/08/2011	7	29	36
M	MG/KG	GSP-SB-103-0-2	240-741-1	NM	06/02/2011	06/09/2011	07/08/2011	7	29	36
M	MG/KG	GSP-SB-105-0-2	240-741-3	NM	06/02/2011	06/09/2011	07/08/2011	7	29	36
OS	UG/KG	GSP-SB-101-6-8	240-741-6	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-99-0-2	240-741-7	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-107-6-8	240-742-10	NM	06/02/2011	06/14/2011	07/01/2011	12	17	29
OS	UG/KG	GSP-SB-110-0-2	240-742-5	NM	06/02/2011	06/14/2011	07/12/2011	12	28	40
OS	UG/KG	GSP-SB-109-6-8	240-742-2	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-109-0-2	240-742-1	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-108-6-8	240-742-4	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-108-0-2	240-742-3	NM	06/02/2011	06/14/2011	07/12/2011	12	28	40
OS	UG/KG	GSP-SB-110-6-8	240-742-6	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-105-6-8	240-741-4	NM	06/02/2011	06/14/2011	07/12/2011	12	28	40
OS	UG/KG	GSP-SB-103-6-8	240-741-2	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/KG	GSP-SB-103-0-2	240-741-1	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-102-0-2	240-742-7	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-99-6-8	240-741-8	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-101-0-2	240-741-5	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-100-6-8	240-741-10	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-100-2-4	240-741-9	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-107-0-2	240-742-9	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-102-6-8	240-742-8	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OS	UG/KG	GSP-SB-105-0-2	240-741-3	NM	06/02/2011	06/14/2011	07/07/2011	12	23	35
OV	UG/KG	GSP-SB-103-0-2	240-741-1	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-100-2-4	240-741-9	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-100-6-8	240-741-10	NM	06/03/2011	06/03/2011	06/16/2011	0	13	13
OV	UG/KG	GSP-SB-101-0-2	240-741-5	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-101-6-8	240-741-6	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-102-6-8	240-742-8	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-103-6-8	240-741-2	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-105-0-2	240-741-3	NM	06/03/2011	06/03/2011	06/16/2011	0	13	13
OV	UG/KG	GSP-SB-105-6-8	240-741-4	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/KG	GSP-SB-110-6-8	240-742-6	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-102-0-2	240-742-7	NM	06/03/2011	06/03/2011	06/16/2011	0	13	13
OV	UG/KG	GSP-SB-99-0-2	240-741-7	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-107-0-2	240-742-9	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-110-0-2	240-742-5	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-109-6-8	240-742-2	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-109-0-2	240-742-1	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-108-6-8	240-742-4	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-108-0-2	240-742-3	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
OV	UG/KG	GSP-SB-107-6-8	240-742-10	NM	06/03/2011	06/03/2011	06/16/2011	0	13	13
OV	UG/KG	GSP-SB-99-6-8	240-741-8	NM	06/03/2011	06/03/2011	06/15/2011	0	12	12
PCB	UG/KG	GSP-SB-107-6-8	240-742-10	NM	06/02/2011	06/14/2011	06/17/2011	12	3	15
PCB	UG/KG	GSP-SB-99-0-2	240-741-7	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-100-2-4	240-741-9	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-99-6-8	240-741-8	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-110-6-8	240-742-6	NM	06/02/2011	06/14/2011	06/17/2011	12	3	15
PCB	UG/KG	GSP-SB-110-0-2	240-742-5	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-109-6-8	240-742-2	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCB	UG/KG	GSP-SB-109-0-2	240-742-1	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-108-6-8	240-742-4	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-108-0-2	240-742-3	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-102-0-2	240-742-7	NM	06/02/2011	06/14/2011	06/17/2011	12	3	15
PCB	UG/KG	GSP-SB-107-0-2	240-742-9	NM	06/02/2011	06/14/2011	06/17/2011	12	3	15
PCB	UG/KG	GSP-SB-101-0-2	240-741-5	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-102-6-8	240-742-8	NM	06/02/2011	06/14/2011	06/17/2011	12	3	15
PCB	UG/KG	GSP-SB-103-0-2	240-741-1	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-103-6-8	240-741-2	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-105-0-2	240-741-3	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-105-6-8	240-741-4	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-100-6-8	240-741-10	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
PCB	UG/KG	GSP-SB-101-6-8	240-741-6	NM	06/02/2011	06/10/2011	06/14/2011	8	4	12
DRO	MG/KG	GSP-SB-109-6-8	240-742-2	NM	06/02/2011	06/13/2011	06/21/2011	11	8	19
DRO	MG/KG	GSP-SB-99-6-8	240-741-8	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-107-6-8	240-742-10	NM	06/02/2011	06/14/2011	06/23/2011	12	9	21
DRO	MG/KG	GSP-SB-99-0-2	240-741-7	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-101-0-2	240-741-5	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
DRO	MG/KG	GSP-SB-110-0-2	240-742-5	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-109-0-2	240-742-1	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-108-6-8	240-742-4	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-108-0-2	240-742-3	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-100-6-8	240-741-10	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-110-6-8	240-742-6	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-107-0-2	240-742-9	NM	06/02/2011	06/14/2011	06/23/2011	12	9	21
DRO	MG/KG	GSP-SB-100-2-4	240-741-9	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-101-6-8	240-741-6	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-102-0-2	240-742-7	NM	06/02/2011	06/14/2011	06/22/2011	12	8	20
DRO	MG/KG	GSP-SB-102-6-8	240-742-8	NM	06/02/2011	06/14/2011	06/22/2011	12	8	20
DRO	MG/KG	GSP-SB-103-0-2	240-741-1	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-103-6-8	240-741-2	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-105-0-2	240-741-3	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
DRO	MG/KG	GSP-SB-105-6-8	240-741-4	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
GRO	UG/KG	GSP-SB-99-0-2	240-741-7	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-101-6-8	240-741-6	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-107-0-2	240-742-9	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
GRO	UG/KG	GSP-SB-110-0-2	240-742-5	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-109-6-8	240-742-2	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-109-0-2	240-742-1	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-108-6-8	240-742-4	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-108-0-2	240-742-3	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-107-6-8	240-742-10	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-110-6-8	240-742-6	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-105-6-8	240-741-4	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-105-0-2	240-741-3	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-103-6-8	240-741-2	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-103-0-2	240-741-1	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-102-0-2	240-742-7	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-101-0-2	240-741-5	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-100-6-8	240-741-10	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-100-2-4	240-741-9	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-99-6-8	240-741-8	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
GRO	UG/KG	GSP-SB-102-6-8	240-742-8	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	MG/KG	GSP-SB-110-6-8	240-742-6	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TPH	MG/KG	GSP-SB-103-6-8	240-741-2	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	MG/KG	GSP-SB-99-6-8	240-741-8	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	MG/KG	GSP-SB-109-6-8	240-742-2	NM	06/02/2011	06/13/2011	06/21/2011	11	8	19
TPH	MG/KG	GSP-SB-109-0-2	240-742-1	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	MG/KG	GSP-SB-108-6-8	240-742-4	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	MG/KG	GSP-SB-108-0-2	240-742-3	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	MG/KG	GSP-SB-107-6-8	240-742-10	NM	06/02/2011	06/14/2011	06/23/2011	12	9	21
TPH	MG/KG	GSP-SB-107-0-2	240-742-9	NM	06/02/2011	06/14/2011	06/23/2011	12	9	21
TPH	MG/KG	GSP-SB-110-0-2	240-742-5	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	MG/KG	GSP-SB-105-0-2	240-741-3	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	MG/KG	GSP-SB-99-0-2	240-741-7	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	MG/KG	GSP-SB-103-0-2	240-741-1	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	MG/KG	GSP-SB-102-6-8	240-742-8	NM	06/02/2011	06/14/2011	06/22/2011	12	8	20
TPH	MG/KG	GSP-SB-102-0-2	240-742-7	NM	06/02/2011	06/14/2011	06/22/2011	12	8	20
TPH	MG/KG	GSP-SB-101-6-8	240-741-6	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	MG/KG	GSP-SB-101-0-2	240-741-5	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	MG/KG	GSP-SB-100-6-8	240-741-10	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	MG/KG	GSP-SB-100-2-4	240-741-9	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TPH	MG/KG	GSP-SB-105-6-8	240-741-4	NM	06/02/2011	06/13/2011	06/20/2011	11	7	18
TPH	UG/KG	GSP-SB-105-6-8	240-741-4	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-99-6-8	240-741-8	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-110-6-8	240-742-6	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-110-0-2	240-742-5	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-109-6-8	240-742-2	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-109-0-2	240-742-1	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-108-6-8	240-742-4	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-108-0-2	240-742-3	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-100-2-4	240-741-9	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-107-0-2	240-742-9	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-99-0-2	240-741-7	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-105-0-2	240-741-3	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-103-6-8	240-741-2	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-103-0-2	240-741-1	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-102-6-8	240-742-8	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-102-0-2	240-742-7	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-101-6-8	240-741-6	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TPH	UG/KG	GSP-SB-101-0-2	240-741-5	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-100-6-8	240-741-10	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11
TPH	UG/KG	GSP-SB-107-6-8	240-742-10	NM	06/02/2011	06/13/2011	06/13/2011	11	0	11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-741-1

Job Description: MSA Greater Strawberry Point PH. II 2011

For:
Tetra Tech NUS Inc
20251 Century Blvd
Suite 200
Germantown, MD 20874

Attention: Tony Apanavage

Rebecca L. Strait

Approved for release.
Rebecca L Strait
Project Manager II
7/24/2011 7:16 PM

Designee for
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Project Manager II
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07/24/2011

cc: Samantha Brenner
Ms. Kelly Carper
Dev Murali
Ms. Tobrena Sedlmyer
Final Data Tracking

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CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: MSA Greater Strawberry Point PH. II 2011

Report Number: 240-741-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/03/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.0 and 3.9 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-SB-109-0-2 (240-742-1), GSP-SB-109-6-8 (240-742-2), GSP-SB-108-0-2 (240-742-3), GSP-SB-108-6-8 (240-742-4), GSP-SB-110-0-2 (240-742-5), GSP-SB-110-6-8 (240-742-6), GSP-SB-102-0-2 (240-742-7), GSP-SB-102-6-8 (240-742-8), GSP-SB-107-0-2 (240-742-9) and GSP-SB-107-6-8 (240-742-10) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. Samples GSP-SB-103-0-2 (240-741-1), GSP-SB-103-6-8 (240-741-2), GSP-SB-105-0-2 (240-741-3), GSP-SB-105-6-8 (240-741-4), GSP-SB-101-0-2 (240-741-5), GSP-SB-101-6-8 (240-741-6), GSP-SB-99-0-2 (240-741-7), GSP-SB-99-6-8 (240-741-8), GSP-SB-100-2-4 (240-741-9) and GSP-SB-100-6-8 (240-741-10) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/15/2011 and 06/16/2011.

o 1,2,4-Trichlorobenzene and Naphthalene were detected in method blank MB 240-4766/6 at levels that were above the method detection limit but below the reporting limit.
o Naphthalene was detected in method blank MB 240-4867/6 at a level that was above the method detection limit but below the reporting limit.
o 1,2,4-Trichlorobenzene and Naphthalene were detected in method blank MB 240-4936/7 at levels that were above the method detection limit but below the reporting limit.
o Acetone and Naphthalene were detected in method blank MB 240-5027/6 at levels that were above the method detection limit but below the reporting limit.

In all cases, the values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

o Acetone and Methylene Chloride were detected in method blank MB 240-4867/6 at levels exceeding the reporting limit.
o Methylene Chloride was detected in method blank MB 240-5027/6 at a level exceeding the reporting limit.

If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

- o Chloroethane and Chloromethane failed the recovery criteria high for LCS 240-4867/5.
- o Bromodichloromethane failed the recovery criteria low for LCS 240-4936/6.
- o Chloroethane failed the recovery criteria high for LCS 240-5027/5.

- o Tetrachloroethene and Vinyl Acetate failed the recovery criteria low for the MS of sample 240-728-5 in batch 240-4766.
- o Vinyl acetate failed the recovery criteria low for the MS/MSD of sample 240-787-8 in batch 240-4936.
- o Chloroethane failed the recovery criteria high for the MS/MSD of sample 240-787-9 in batch 240-5027.

Internal standard responses were outside of acceptance limits for the following sample: GSP-SB-101-0-2 (240-741-5). The sample shows evidence of matrix interference.

Refer to the QC report for details.

No other difficulties were encountered during the volatiles analyses.

All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples GSP-SB-103-0-2 (240-741-1), GSP-SB-103-6-8 (240-741-2), GSP-SB-105-0-2 (240-741-3), GSP-SB-105-6-8 (240-741-4), GSP-SB-101-0-2 (240-741-5), GSP-SB-101-6-8 (240-741-6), GSP-SB-99-0-2 (240-741-7), GSP-SB-99-6-8 (240-741-8), GSP-SB-100-2-4 (240-741-9) and GSP-SB-100-6-8 (240-741-10) were analyzed for Semi volatiles in accordance with 8270D. Samples GSP-SB-109-0-2 (240-742-1), GSP-SB-109-6-8 (240-742-2), GSP-SB-108-0-2 (240-742-3), GSP-SB-108-6-8 (240-742-4), GSP-SB-110-0-2 (240-742-5), GSP-SB-110-6-8 (240-742-6), GSP-SB-102-0-2 (240-742-7), GSP-SB-102-6-8 (240-742-8), GSP-SB-107-0-2 (240-742-9) and GSP-SB-107-6-8 (240-742-10) were analyzed for Semi volatiles in accordance with 8270D. The samples were analyzed on 07/01/2011, 07/07/2011 and 07/12/2011.

2,4,6-Tribromophenol (Surr) and Nitrobenzene-d5 (Surr) failed the surrogate recovery criteria low for GSP-SB-109-6-8 (240-742-2), GSP-SB-110-6-8MS (240-742-6MS, GSP-SB-110-6-8MSD (240-742-6MSD). Refer to the QC report for details.

Several analytes failed the recovery criteria low for the MS and MSD of sample GSP-SB-110-6-8 (240-742-6) in batch 240-7724. 2-Nitroaniline, Acetophenone, Nitrobenzene and N-Nitrosodi-n-propylamine exceeded the rpd limit.

Samples GSP-SB-109-0-2 (240-742-1)[10X], GSP-SB-109-6-8 (240-742-2)[25X], GSP-SB-105-0-2 (240-742-3)[5X], GSP-SB-101-0-2 (240-742-5)[5X], GSP-SB-110-6-8 (240-742-6)[10X] and GSP-SB-102-6-8 (240-742-8)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Internal standard responses were outside of acceptance limits for the following sample(s): GSP-SB-110-6-8 (240-742-6). The sample(s) shows evidence of matrix interference.

Refer to the QC report for details.

No other difficulties were encountered during the Semi volatiles analyses.

All other quality control parameters were within the acceptance limits.

GRO

Samples GSP-SB-109-0-2 (240-742-1), GSP-SB-109-6-8 (240-742-2), GSP-SB-108-0-2 (240-742-3), GSP-SB-108-6-8 (240-742-4), GSP-SB-110-0-2 (240-742-5), GSP-SB-110-6-8 (240-742-6), GSP-SB-102-0-2 (240-742-7), GSP-SB-102-6-8 (240-742-8), GSP-SB-107-0-2 (240-742-9) and GSP-SB-107-6-8 (240-742-10) were analyzed for GRO in accordance with 8015C. Samples GSP-SB-103-0-2 (240-741-1), GSP-SB-103-6-8 (240-741-2), GSP-SB-105-0-2 (240-741-3), GSP-SB-105-6-8 (240-741-4), GSP-SB-101-0-2 (240-741-5), GSP-SB-101-6-8 (240-741-6), GSP-SB-99-0-2 (240-741-7), GSP-SB-99-6-8 (240-741-8), GSP-SB-100-2-4 (240-741-9) and GSP-SB-100-6-8 (240-741-10) were analyzed for GRO in accordance with 8015C. The samples were analyzed on 06/13/2011.

No difficulties were encountered during the GRO analyses.

All quality control parameters were within the acceptance limits.

DRO

Samples GSP-SB-103-0-2 (240-741-1), GSP-SB-103-6-8 (240-741-2), GSP-SB-105-0-2 (240-741-3), GSP-SB-105-6-8 (240-741-4), GSP-SB-101-0-2 (240-741-5), GSP-SB-101-6-8 (240-741-6), GSP-SB-99-0-2 (240-741-7), GSP-SB-99-6-8 (240-741-8), GSP-SB-100-2-4 (240-741-9) and GSP-SB-100-6-8 (240-741-10) were analyzed for DRO in accordance with 8015C. Samples GSP-SB-109-0-2 (240-742-1), GSP-SB-109-6-8 (240-742-2), GSP-SB-108-0-2 (240-742-3), GSP-SB-108-6-8 (240-742-4), GSP-SB-110-0-2 (240-742-5), GSP-SB-110-6-8 (240-742-6), GSP-SB-102-0-2 (240-742-7), GSP-SB-102-6-8 (240-742-8), GSP-SB-107-0-2 (240-742-9) and GSP-SB-107-6-8 (240-742-10) were analyzed for DRO in accordance with 8015C. The samples were

analyzed on 06/20/2011, 06/21/2011, 06/22/2011 and 06/23/2011.

Total Petroleum Hydrocarbons (C10-C32) was detected in method blank MB 240-4516/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Sample GSP-SB-109-6-8 (240-742-2)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the DRO analyses.

All other quality control parameters were within the acceptance limits.

PCBS

Samples GSP-SB-103-0-2 (240-741-1), GSP-SB-103-6-8 (240-741-2), GSP-SB-105-0-2 (240-741-3), GSP-SB-105-6-8 (240-741-4), GSP-SB-101-0-2 (240-741-5), GSP-SB-101-6-8 (240-741-6), GSP-SB-99-0-2 (240-741-7), GSP-SB-99-6-8 (240-741-8), GSP-SB-100-2-4 (240-741-9) and GSP-SB-100-6-8 (240-741-10) were analyzed for PCBs in accordance with 8082A. Samples GSP-SB-109-0-2 (240-742-1), GSP-SB-109-6-8 (240-742-2), GSP-SB-108-0-2 (240-742-3), GSP-SB-108-6-8 (240-742-4), GSP-SB-110-0-2 (240-742-5), GSP-SB-110-6-8 (240-742-6), GSP-SB-102-0-2 (240-742-7), GSP-SB-102-6-8 (240-742-8), GSP-SB-107-0-2 (240-742-9) and GSP-SB-107-6-8 (240-742-10) were analyzed for PCBs in accordance with 8082A. The samples were analyzed on 06/14/2011 and 06/17/2011.

The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: GSP-SB-100-2-4 (240-741-9), GSP-SB-100-6-8 (240-741-10), GSP-SB-108-0-2 (240-742-3), GSP-SB-108-6-8 (240-742-4), GSP-SB-109-0-2 (240-742-1), GSP-SB-109-6-8 (240-742-2), GSP-SB-110-0-2 (240-742-5), (MB 240-4340/23-A), GSP-SB-103-0-2 (240-741-1), GSP-SB-103-6-8 (240-741-2), GSP-SB-105-0-2 (240-741-3), GSP-SB-105-6-8 (240-741-4), (240-741-5 MS), (240-741-5 MSD), GSP-SB-101-0-2 (240-741-5), GSP-SB-101-6-8 (240-741-6), GSP-SB-99-0-2 (240-741-7), GSP-SB-99-6-8 (240-741-8), (240-742-10 MS), (240-742-10 MSD), GSP-SB-102-0-2 (240-742-7), GSP-SB-102-6-8 (240-742-8), GSP-SB-107-0-2 (240-742-9), GSP-SB-107-6-8 (240-742-10), GSP-SB-110-6-8 (240-742-6).

No other difficulties were encountered during the PCBs analyses.

All quality control parameters were within the acceptance limits.

METALS (ICP)

Samples GSP-SB-109-0-2 (240-742-1), GSP-SB-109-6-8 (240-742-2), GSP-SB-108-0-2 (240-742-3), GSP-SB-108-6-8 (240-742-4), GSP-SB-110-0-2 (240-742-5), GSP-SB-110-6-8 (240-742-6), GSP-SB-102-0-2 (240-742-7), GSP-SB-102-6-8 (240-742-8), GSP-SB-107-0-2 (240-742-9) and GSP-SB-107-6-8 (240-742-10) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. Samples GSP-SB-103-0-2 (240-741-1), GSP-SB-103-6-8 (240-741-2), GSP-SB-105-0-2 (240-741-3), GSP-SB-105-6-8 (240-741-4), GSP-SB-101-0-2 (240-741-5), GSP-SB-101-6-8 (240-741-6), GSP-SB-99-0-2 (240-741-7), GSP-SB-99-6-8 (240-741-8), GSP-SB-100-2-4 (240-741-9) and GSP-SB-100-6-8 (240-741-10) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were analyzed on 07/08/2011.

Barium was detected in method blank MB 240-4145/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Antimony failed the recovery criteria low for the MS of sample GSP-SB-102-6-8MS (240-742-8) in batch 240-7831. Chromium failed the recovery criteria high.

Antimony failed the recovery criteria low for the MSD of sample GSP-SB-102-6-8MSD (240-742-8) in batch 240-7831.

Refer to the QC report for details.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

MERCURY

Samples GSP-SB-103-0-2 (240-741-1), GSP-SB-103-6-8 (240-741-2), GSP-SB-105-0-2 (240-741-3), GSP-SB-105-6-8 (240-741-4), GSP-SB-101-0-2 (240-741-5), GSP-SB-101-6-8 (240-741-6), GSP-SB-99-0-2 (240-741-7), GSP-SB-99-6-8 (240-741-8), GSP-SB-100-2-4 (240-741-9) and GSP-SB-100-6-8 (240-741-10) were analyzed for mercury in accordance with EPA SW-846 Method 7471B. Samples GSP-SB-109-0-2 (240-742-1), GSP-SB-109-6-8 (240-742-2), GSP-SB-108-0-2 (240-742-3), GSP-SB-108-6-8 (240-742-4), GSP-SB-110-0-2 (240-742-5), GSP-SB-110-6-8 (240-742-6), GSP-SB-102-0-2 (240-742-7), GSP-SB-102-6-8 (240-742-8), GSP-SB-107-0-2 (240-742-9) and GSP-SB-107-6-8 (240-742-10) were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were analyzed on 06/17/2011.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples GSP-SB-109-0-2 (240-742-1), GSP-SB-109-6-8 (240-742-2), GSP-SB-108-0-2 (240-742-3), GSP-SB-108-6-8 (240-742-4), GSP-SB-110-0-2 (240-742-5), GSP-SB-110-6-8 (240-742-6), GSP-SB-102-0-2 (240-742-7), GSP-SB-102-6-8 (240-742-8), GSP-SB-107-0-2 (240-742-9) and GSP-SB-107-6-8 (240-742-10) were analyzed for percent solids in accordance with EPA SW846 3550C. Samples GSP-SB-103-0-2 (240-741-1), GSP-SB-103-6-8 (240-741-2), GSP-SB-105-0-2 (240-741-3), GSP-SB-105-6-8 (240-741-4), GSP-SB-101-0-2 (240-741-5), GSP-SB-101-6-8 (240-741-6), GSP-SB-99-0-2 (240-741-7), GSP-SB-99-6-8 (240-741-8), GSP-SB-100-2-4 (240-741-9) and GSP-SB-100-6-8 (240-741-10) were analyzed for percent solids in accordance with EPA SW846 3550C. The samples were analyzed on 06/06/2011.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

METHOD SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Description	Lab Location	Method	Preparation Method
Matrix Solid			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Closed System Purge and Trap			SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Soxhlet Extraction			SW846 3540C
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL NC	SW846 8015C	
Soxhlet Extraction			SW846 3540C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL NC	SW846 8082A	
Soxhlet Extraction			SW846 3540C
Metals (ICP)	TAL NC	SW846 6010C	
Preparation, Metals			SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL NC	SW846 7471B	
Preparation, Mercury			SW846 7471B
Percent Moisture	TAL NC	EPA Moisture	
Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	TAL CHI	SW846 8015C	
Purge and Trap	TAL CHI		SW846 5030C

Lab References:

TAL CHI = TestAmerica Chicago

TAL NC = TestAmerica North Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Method	Analyst	Analyst ID
SW846 8260B	Lata, Todd	TL
SW846 8260B	Macenczak, Steven	SM
SW846 8270D	Gruber, John	JG
SW846 8270D	Ulman, Mark	MU
SW846 8015C	Estes, William R	WRE
SW846 8015C	Geis, Sharon	SG
SW846 8082A	Hass, Lori	LH
SW846 6010C	Counts, Karen	KC
SW846 7471B	Davies, Brian	BD
EPA Moisture	Martin, Aaron	AM

DATA REPORTING QUALIFIERS

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Lab Section	Qualifier	Description
GC/MS VOA		
	B	Compound was found in the blank and sample.
	J	Indicates an Estimated Value for TICs
	U	Indicates the analyte was analyzed for but not detected.
	*	LCS or LCSD exceeds the control limits
	F	MS or MSD exceeds the control limits
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	N	This flag indicates the presumptive evidence of a compound.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	F	RPD of the MS and MSD exceeds the control limits
	X	Surrogate is outside control limits
GC VOA		
	U	Indicates the analyte was analyzed for but not detected.
GC Semi VOA		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

DATA REPORTING QUALIFIERS

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Lab Section	Qualifier	Description
Metals		
	L	A negative instrument reading had an absolute value greater than the reporting limit
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Chain of Custody Record

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: TetraTech NUS	Client Project Manager: Dev Murali	Site Contact: Dawn MarkIewicz	Lab Contact:	COC No: 009826
Address: 20251 Century Blvd.	Telephone: (301) 528-3063	Telephone: (724) 244-2701	Telephone:	1 of 1 COCs
City/State/Zip: Germantown, MD	Email: Dev.Murali@TetraTech.com	Analysis Turnaround Time (In BUS days)	Analyses	For lab use only
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client: ☐ Lab pickup: ☐ Lab sampling: ☐
Project Name: GSP	Method of Shipment/Carrier:			
Project Number: 112ic03279	Shipping/Tracking No:			Job/SDG No:
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite C/Grab G	VOC	GRO/DRO	PCB	Metals + Hg	SVOC	Sample Specific Notes / Special Instructions:
GSP-SB-103-0-2	6/2/11	0855				X							3	3		G	X	X	X	X	X	
GSP-SB-103-6-8		0859				X							3	3		G	X	X	X	X	X	
GSP-SB-105-0-2		0942				X							3	3		G	X	X	X	X	X	
GSP-SB-105-6-8		0945				X							3	3		G	X	X	X	X	X	
GSP-SB-101-0-2		1051				X							3	3		G	X	X	X	X	X	
GSP-SB-101-6-8		1055				X							3	3		G	X	X	X	X	X	
GSP-SB-99-0-2		1148				X							3	3		G	X	X	X	X	X	
GSP-SB-99-6-8		1153				X							3	3		G	X	X	X	X	X	
GSP-SB-100-2-4		1415				X							3	3		G	X	X	X	X	X	
GSP-SB-100-6-8		1430				X							3	3		G	X	X	X	X	X	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company: TetraTech GEO	Date/Time: 6/2/11 @ 1452	Received by:	Company: TA Inc	Date/Time: 6/02/11 16:00
Relinquished by:	Company: TestAmerica	Date/Time: 6-2-11 1702	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA	Date/Time: 6/3/11 910

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TAL 0018-1 (04/10)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:**_____
North Canton Facility

Client Tetra Tech Project GSP Phase II By: Terry Burns
Cooler Received on 6/3/11 Opened on 6/3/11 (Signature)
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other_____
TestAmerica Cooler # _____ Multiple Coolers ☒ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 1 each Quantity Unsalvageable_____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt _____ °C See back of form for multiple coolers/temps ☒
   METHOD: IR ☒ Other ☐ _____
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☒
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☒
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☐ No ☒ Were VOAs on the COC? Yes ☐ No ☒

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 100110-HNO_3; *Sulfuric Acid Lot#* 110410-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN$/*NaOH*. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant
Client Cooler	3.0°C	IR	ICE
1	3.9°C	1	1

Discrepancies Cont'd:

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech	Client Project Manager: Dev Murali	Site Contact: Stu Cameron	Lab Contact: Pat O'Meara	COC No: 007041
Address: 20251 Century Blvd Ste 200	Telephone: (301) 528-3063	Telephone: (703) 342-9585	Telephone: (330) 497-9396	01 of 01 COCs
City/State/Zip: Germantown MD 20874	Email: Dev.Murali@tetratech.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only: Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No.:
Phone: 301/528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: GSP Phase II	Method of Shipment/Carrier:			
Project Number: 112IC03279-04	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: MeOH Unpres	Filtered Sample (Y/N)	Composite=C / Grab=G	VOC	GRO/DRO	PCB	Metals + Hg	SVOC	Sample Specific Notes / Special Instructions:
GSP-SB-109-0-2	6/2/11	0915			X								3	3		G	X	X	X	X	X	
GSP-SB-109-6-8		0930																				
GSP-SB-108-0-2		1005																				
GSP-SB-109-6-8		1015																				
GSP-SB-110-0-2		1100																				
GSP-SB-110-6-8		1110																				
GSP-SB-102-0-2		1210																				
GSP-SB-102-6-8		1230																				
GSP-SB-107-0-2		1420																				
GSP-SB-107-6-8		1430																				

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Tetra Tech	6-2-11 / 1600		TA Inc.	06/02 14:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TEST				
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA	6/3/11 915

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TAL 0018-1 (04/10)

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 742
North Canton Facility

Client TetraTech Project GSP Phase II By: Terry Burns (Signature)
Cooler Received on 6/3/11 Opened on 6/3/11
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # _____ Multiple Coolers ☒ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 1 each Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt _____ °C See back of form for multiple coolers/temps ☒
   METHOD: IR ☒ Other ☐ _____
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☒
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☒
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☐ No ☒ Were VOAs on the COC? Yes ☐ No ☒

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 100110-HNO_3; *Sulfuric Acid Lot#* 110410-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-$(CH_3COO)_2ZN/NaOH$. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 240-4589					
240-728-F-5-A MS	Matrix Spike	T	Solid	5035	
240-728-H-5-A MSD	Matrix Spike Duplicate	T	Solid	5035	
Prep Batch: 240-4762					
240-741-1	GSP-SB-103-0-2	T	Solid	5035	
240-741-2	GSP-SB-103-6-8	T	Solid	5035	
240-741-3	GSP-SB-105-0-2	T	Solid	5035	
240-741-4	GSP-SB-105-6-8	T	Solid	5035	
240-741-5	GSP-SB-101-0-2	T	Solid	5035	
240-741-6	GSP-SB-101-6-8	T	Solid	5035	
240-741-7	GSP-SB-99-0-2	T	Solid	5035	
240-741-8	GSP-SB-99-6-8	T	Solid	5035	
240-741-9	GSP-SB-100-2-4	T	Solid	5035	
240-741-10	GSP-SB-100-6-8	T	Solid	5035	
240-742-1	GSP-SB-109-0-2	T	Solid	5035	
240-742-2	GSP-SB-109-6-8	T	Solid	5035	
240-742-3	GSP-SB-108-0-2	T	Solid	5035	
240-742-4	GSP-SB-108-6-8	T	Solid	5035	
240-742-5	GSP-SB-110-0-2	T	Solid	5035	
240-742-6	GSP-SB-110-6-8	T	Solid	5035	
240-742-7	GSP-SB-102-0-2	T	Solid	5035	
240-742-8	GSP-SB-102-6-8	T	Solid	5035	
240-742-9	GSP-SB-107-0-2	T	Solid	5035	
240-742-10	GSP-SB-107-6-8	T	Solid	5035	
Analysis Batch:240-4766					
LCS 240-4766/5	Lab Control Sample	T	Solid	8260B	
MB 240-4766/6	Method Blank	T	Solid	8260B	
240-728-F-5-A MS	Matrix Spike	T	Solid	8260B	240-4589
240-728-H-5-A MSD	Matrix Spike Duplicate	T	Solid	8260B	240-4589
240-741-1	GSP-SB-103-0-2	T	Solid	8260B	240-4762
240-741-2	GSP-SB-103-6-8	T	Solid	8260B	240-4762
240-741-4	GSP-SB-105-6-8	T	Solid	8260B	240-4762
240-741-5	GSP-SB-101-0-2	T	Solid	8260B	240-4762
240-741-6	GSP-SB-101-6-8	T	Solid	8260B	240-4762

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:240-4867					
LCS 240-4867/5	Lab Control Sample	T	Solid	8260B	
MB 240-4867/6	Method Blank	T	Solid	8260B	
240-741-7	GSP-SB-99-0-2	T	Solid	8260B	240-4762
240-741-8	GSP-SB-99-6-8	T	Solid	8260B	240-4762
240-741-9	GSP-SB-100-2-4	T	Solid	8260B	240-4762
240-742-1	GSP-SB-109-0-2	T	Solid	8260B	240-4762
240-742-2	GSP-SB-109-6-8	T	Solid	8260B	240-4762
240-742-3	GSP-SB-108-0-2	T	Solid	8260B	240-4762
240-742-4	GSP-SB-108-6-8	T	Solid	8260B	240-4762
240-742-5	GSP-SB-110-0-2	T	Solid	8260B	240-4762
240-742-6	GSP-SB-110-6-8	T	Solid	8260B	240-4762
240-742-8	GSP-SB-102-6-8	T	Solid	8260B	240-4762
240-742-9	GSP-SB-107-0-2	T	Solid	8260B	240-4762
Analysis Batch:240-4936					
LCS 240-4936/6	Lab Control Sample	T	Solid	8260B	
MB 240-4936/7	Method Blank	T	Solid	8260B	
240-741-3	GSP-SB-105-0-2	T	Solid	8260B	240-4762
240-787-A-8 MS	Matrix Spike	T	Solid	8260B	
240-787-A-8 MSD	Matrix Spike Duplicate	T	Solid	8260B	
Analysis Batch:240-5027					
LCS 240-5027/5	Lab Control Sample	T	Solid	8260B	
MB 240-5027/6	Method Blank	T	Solid	8260B	
240-741-10	GSP-SB-100-6-8	T	Solid	8260B	240-4762
240-742-7	GSP-SB-102-0-2	T	Solid	8260B	240-4762
240-742-10	GSP-SB-107-6-8	T	Solid	8260B	240-4762
240-787-A-9 MS	Matrix Spike	T	Solid	8260B	
240-787-A-9 MSD	Matrix Spike Duplicate	T	Solid	8260B	

Report Basis
T = Total

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 240-4642					
LCS 240-4642/24-A	Lab Control Sample	T	Solid	3540C	
MB 240-4642/23-A	Method Blank	T	Solid	3540C	
240-742-10	GSP-SB-107-6-8	T	Solid	3540C	
240-742-10MS	Matrix Spike	T	Solid	3540C	
240-742-10MSD	Matrix Spike Duplicate	T	Solid	3540C	
Prep Batch: 240-4656					
LCS 240-4656/23-A	Lab Control Sample	T	Solid	3540C	
MB 240-4656/24-A	Method Blank	T	Solid	3540C	
240-741-1	GSP-SB-103-0-2	T	Solid	3540C	
240-741-2	GSP-SB-103-6-8	T	Solid	3540C	
240-741-3	GSP-SB-105-0-2	T	Solid	3540C	
240-741-4	GSP-SB-105-6-8	T	Solid	3540C	
240-741-5	GSP-SB-101-0-2	T	Solid	3540C	
240-741-6	GSP-SB-101-6-8	T	Solid	3540C	
240-741-7	GSP-SB-99-0-2	T	Solid	3540C	
240-741-8	GSP-SB-99-6-8	T	Solid	3540C	
240-741-9	GSP-SB-100-2-4	T	Solid	3540C	
240-741-10	GSP-SB-100-6-8	T	Solid	3540C	
240-742-1	GSP-SB-109-0-2	T	Solid	3540C	
240-742-2	GSP-SB-109-6-8	T	Solid	3540C	
240-742-3	GSP-SB-108-0-2	T	Solid	3540C	
240-742-4	GSP-SB-108-6-8	T	Solid	3540C	
240-742-5	GSP-SB-110-0-2	T	Solid	3540C	
240-742-6	GSP-SB-110-6-8	T	Solid	3540C	
240-742-6MS	Matrix Spike	T	Solid	3540C	
240-742-6MSD	Matrix Spike Duplicate	T	Solid	3540C	
240-742-7	GSP-SB-102-0-2	T	Solid	3540C	
240-742-8	GSP-SB-102-6-8	T	Solid	3540C	
240-742-9	GSP-SB-107-0-2	T	Solid	3540C	
Analysis Batch:240-6847					
LCS 240-4642/24-A	Lab Control Sample	T	Solid	8270D	240-4642
MB 240-4642/23-A	Method Blank	T	Solid	8270D	240-4642
240-742-10	GSP-SB-107-6-8	T	Solid	8270D	240-4642
240-742-10MS	Matrix Spike	T	Solid	8270D	240-4642
240-742-10MSD	Matrix Spike Duplicate	T	Solid	8270D	240-4642

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Analysis Batch:240-7724					
LCS 240-4656/23-A	Lab Control Sample	T	Solid	8270D	240-4656
MB 240-4656/24-A	Method Blank	T	Solid	8270D	240-4656
240-741-1	GSP-SB-103-0-2	T	Solid	8270D	240-4656
240-741-2	GSP-SB-103-6-8	T	Solid	8270D	240-4656
240-741-3	GSP-SB-105-0-2	T	Solid	8270D	240-4656
240-741-5	GSP-SB-101-0-2	T	Solid	8270D	240-4656
240-741-6	GSP-SB-101-6-8	T	Solid	8270D	240-4656
240-741-7	GSP-SB-99-0-2	T	Solid	8270D	240-4656
240-741-8	GSP-SB-99-6-8	T	Solid	8270D	240-4656
240-741-9	GSP-SB-100-2-4	T	Solid	8270D	240-4656
240-741-10	GSP-SB-100-6-8	T	Solid	8270D	240-4656
240-742-1	GSP-SB-109-0-2	T	Solid	8270D	240-4656
240-742-2	GSP-SB-109-6-8	T	Solid	8270D	240-4656
240-742-4	GSP-SB-108-6-8	T	Solid	8270D	240-4656
240-742-6	GSP-SB-110-6-8	T	Solid	8270D	240-4656
240-742-6MS	Matrix Spike	T	Solid	8270D	240-4656
240-742-6MSD	Matrix Spike Duplicate	T	Solid	8270D	240-4656
240-742-7	GSP-SB-102-0-2	T	Solid	8270D	240-4656
240-742-8	GSP-SB-102-6-8	T	Solid	8270D	240-4656
240-742-9	GSP-SB-107-0-2	T	Solid	8270D	240-4656
Analysis Batch:240-8069					
240-741-4	GSP-SB-105-6-8	T	Solid	8270D	240-4656
240-742-3	GSP-SB-108-0-2	T	Solid	8270D	240-4656
240-742-5	GSP-SB-110-0-2	T	Solid	8270D	240-4656

Report Basis
T = Total

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC VOA					
Analysis Batch:500-116283					
LCS 500-116283/4	Lab Control Sample	T	Solid	8015C	
MB 500-116283/3	Method Blank	T	Solid	8015C	
240-681-E-30 MS	Matrix Spike	T	Solid	8015C	
240-681-E-30 MSD	Matrix Spike Duplicate	T	Solid	8015C	
240-741-1	GSP-SB-103-0-2	T	Solid	8015C	
240-741-2	GSP-SB-103-6-8	T	Solid	8015C	
240-741-3	GSP-SB-105-0-2	T	Solid	8015C	
240-741-4	GSP-SB-105-6-8	T	Solid	8015C	
240-741-5	GSP-SB-101-0-2	T	Solid	8015C	
240-741-6	GSP-SB-101-6-8	T	Solid	8015C	
240-741-7	GSP-SB-99-0-2	T	Solid	8015C	
240-741-8	GSP-SB-99-6-8	T	Solid	8015C	
240-741-9	GSP-SB-100-2-4	T	Solid	8015C	
240-741-10	GSP-SB-100-6-8	T	Solid	8015C	
Analysis Batch:500-116287					
LCS 500-116287/4	Lab Control Sample	T	Solid	8015C	
MB 500-116287/3	Method Blank	T	Solid	8015C	
240-742-1	GSP-SB-109-0-2	T	Solid	8015C	
240-742-1MS	Matrix Spike	T	Solid	8015C	
240-742-1MSD	Matrix Spike Duplicate	T	Solid	8015C	
240-742-2	GSP-SB-109-6-8	T	Solid	8015C	
240-742-3	GSP-SB-108-0-2	T	Solid	8015C	
240-742-4	GSP-SB-108-6-8	T	Solid	8015C	
240-742-5	GSP-SB-110-0-2	T	Solid	8015C	
240-742-6	GSP-SB-110-6-8	T	Solid	8015C	
240-742-7	GSP-SB-102-0-2	T	Solid	8015C	
240-742-8	GSP-SB-102-6-8	T	Solid	8015C	
240-742-9	GSP-SB-107-0-2	T	Solid	8015C	
240-742-10	GSP-SB-107-6-8	T	Solid	8015C	

Report Basis
T = Total

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 240-4340					
LCS 240-4340/24-A	Lab Control Sample	T	Solid	3540C	
MB 240-4340/23-A	Method Blank	T	Solid	3540C	
240-741-1	GSP-SB-103-0-2	T	Solid	3540C	
240-741-2	GSP-SB-103-6-8	T	Solid	3540C	
240-741-3	GSP-SB-105-0-2	T	Solid	3540C	
240-741-4	GSP-SB-105-6-8	T	Solid	3540C	
240-741-5	GSP-SB-101-0-2	T	Solid	3540C	
240-741-5MS	Matrix Spike	T	Solid	3540C	
240-741-5MSD	Matrix Spike Duplicate	T	Solid	3540C	
240-741-6	GSP-SB-101-6-8	T	Solid	3540C	
240-741-7	GSP-SB-99-0-2	T	Solid	3540C	
240-741-8	GSP-SB-99-6-8	T	Solid	3540C	
240-741-9	GSP-SB-100-2-4	T	Solid	3540C	
240-741-10	GSP-SB-100-6-8	T	Solid	3540C	
240-742-1	GSP-SB-109-0-2	T	Solid	3540C	
240-742-2	GSP-SB-109-6-8	T	Solid	3540C	
240-742-3	GSP-SB-108-0-2	T	Solid	3540C	
240-742-4	GSP-SB-108-6-8	T	Solid	3540C	
240-742-5	GSP-SB-110-0-2	T	Solid	3540C	
Prep Batch: 240-4516					
LCS 240-4516/2-A	Lab Control Sample	T	Solid	3540C	
MB 240-4516/1-A	Method Blank	T	Solid	3540C	
240-741-1	GSP-SB-103-0-2	T	Solid	3540C	
240-741-2	GSP-SB-103-6-8	T	Solid	3540C	
240-741-3	GSP-SB-105-0-2	T	Solid	3540C	
240-741-4	GSP-SB-105-6-8	T	Solid	3540C	
240-741-5	GSP-SB-101-0-2	T	Solid	3540C	
240-741-6	GSP-SB-101-6-8	T	Solid	3540C	
240-741-7	GSP-SB-99-0-2	T	Solid	3540C	
240-741-8	GSP-SB-99-6-8	T	Solid	3540C	
240-741-9	GSP-SB-100-2-4	T	Solid	3540C	
240-741-10	GSP-SB-100-6-8	T	Solid	3540C	
240-742-1	GSP-SB-109-0-2	T	Solid	3540C	
240-742-2	GSP-SB-109-6-8	T	Solid	3540C	
240-742-3	GSP-SB-108-0-2	T	Solid	3540C	
240-742-4	GSP-SB-108-6-8	T	Solid	3540C	
240-742-5	GSP-SB-110-0-2	T	Solid	3540C	
240-742-6	GSP-SB-110-6-8	T	Solid	3540C	

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 240-4675					
LCS 240-4675/24-A	Lab Control Sample	T	Solid	3540C	
MB 240-4675/23-A	Method Blank	T	Solid	3540C	
240-742-7	GSP-SB-102-0-2	T	Solid	3540C	
240-742-8	GSP-SB-102-6-8	T	Solid	3540C	
240-742-9	GSP-SB-107-0-2	T	Solid	3540C	
240-742-10	GSP-SB-107-6-8	T	Solid	3540C	
Prep Batch: 240-4687					
LCS 240-4687/18-A	Lab Control Sample	T	Solid	3540C	
MB 240-4687/17-A	Method Blank	T	Solid	3540C	
240-742-6	GSP-SB-110-6-8	T	Solid	3540C	
240-742-7	GSP-SB-102-0-2	T	Solid	3540C	
240-742-8	GSP-SB-102-6-8	T	Solid	3540C	
240-742-9	GSP-SB-107-0-2	T	Solid	3540C	
240-742-10	GSP-SB-107-6-8	T	Solid	3540C	
240-742-10MS	Matrix Spike	T	Solid	3540C	
240-742-10MSD	Matrix Spike Duplicate	T	Solid	3540C	
Analysis Batch:240-4691					
LCS 240-4340/24-A	Lab Control Sample	T	Solid	8082A	240-4340
MB 240-4340/23-A	Method Blank	T	Solid	8082A	240-4340
240-741-1	GSP-SB-103-0-2	T	Solid	8082A	240-4340
240-741-2	GSP-SB-103-6-8	T	Solid	8082A	240-4340
240-741-3	GSP-SB-105-0-2	T	Solid	8082A	240-4340
240-741-4	GSP-SB-105-6-8	T	Solid	8082A	240-4340
240-741-5	GSP-SB-101-0-2	T	Solid	8082A	240-4340
240-741-5MS	Matrix Spike	T	Solid	8082A	240-4340
240-741-5MSD	Matrix Spike Duplicate	T	Solid	8082A	240-4340
240-741-6	GSP-SB-101-6-8	T	Solid	8082A	240-4340
240-741-7	GSP-SB-99-0-2	T	Solid	8082A	240-4340
240-741-8	GSP-SB-99-6-8	T	Solid	8082A	240-4340
240-741-9	GSP-SB-100-2-4	T	Solid	8082A	240-4340
240-741-10	GSP-SB-100-6-8	T	Solid	8082A	240-4340
240-742-1	GSP-SB-109-0-2	T	Solid	8082A	240-4340
240-742-2	GSP-SB-109-6-8	T	Solid	8082A	240-4340
240-742-3	GSP-SB-108-0-2	T	Solid	8082A	240-4340
240-742-4	GSP-SB-108-6-8	T	Solid	8082A	240-4340
240-742-5	GSP-SB-110-0-2	T	Solid	8082A	240-4340

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:240-5117					
LCS 240-4687/18-A	Lab Control Sample	T	Solid	8082A	240-4687
MB 240-4687/17-A	Method Blank	T	Solid	8082A	240-4687
240-742-6	GSP-SB-110-6-8	T	Solid	8082A	240-4687
240-742-7	GSP-SB-102-0-2	T	Solid	8082A	240-4687
240-742-8	GSP-SB-102-6-8	T	Solid	8082A	240-4687
240-742-9	GSP-SB-107-0-2	T	Solid	8082A	240-4687
240-742-10	GSP-SB-107-6-8	T	Solid	8082A	240-4687
240-742-10MS	Matrix Spike	T	Solid	8082A	240-4687
240-742-10MSD	Matrix Spike Duplicate	T	Solid	8082A	240-4687
Analysis Batch:240-5319					
LCS 240-4516/2-A	Lab Control Sample	T	Solid	8015C	240-4516
240-741-1	GSP-SB-103-0-2	T	Solid	8015C	240-4516
240-741-2	GSP-SB-103-6-8	T	Solid	8015C	240-4516
240-741-3	GSP-SB-105-0-2	T	Solid	8015C	240-4516
240-741-4	GSP-SB-105-6-8	T	Solid	8015C	240-4516
240-741-5	GSP-SB-101-0-2	T	Solid	8015C	240-4516
240-741-6	GSP-SB-101-6-8	T	Solid	8015C	240-4516
240-741-7	GSP-SB-99-0-2	T	Solid	8015C	240-4516
240-741-8	GSP-SB-99-6-8	T	Solid	8015C	240-4516
240-741-9	GSP-SB-100-2-4	T	Solid	8015C	240-4516
240-741-10	GSP-SB-100-6-8	T	Solid	8015C	240-4516
240-742-1	GSP-SB-109-0-2	T	Solid	8015C	240-4516
240-742-3	GSP-SB-108-0-2	T	Solid	8015C	240-4516
240-742-4	GSP-SB-108-6-8	T	Solid	8015C	240-4516
240-742-5	GSP-SB-110-0-2	T	Solid	8015C	240-4516
240-742-6	GSP-SB-110-6-8	T	Solid	8015C	240-4516
Analysis Batch:240-5475					
240-742-2	GSP-SB-109-6-8	T	Solid	8015C	240-4516
Analysis Batch:240-5688					
LCS 240-4675/24-A	Lab Control Sample	T	Solid	8015C	240-4675
240-742-7	GSP-SB-102-0-2	T	Solid	8015C	240-4675
240-742-8	GSP-SB-102-6-8	T	Solid	8015C	240-4675
Analysis Batch:240-5878					
MB 240-4675/23-A	Method Blank	T	Solid	8015C	240-4675
240-742-9	GSP-SB-107-0-2	T	Solid	8015C	240-4675
240-742-10	GSP-SB-107-6-8	T	Solid	8015C	240-4675
Analysis Batch:240-6175					
MB 240-4516/1-A	Method Blank	T	Solid	8015C	240-4516

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch

Report Basis
T = Total

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 240-4145					
LCS 240-4145/2-A	Lab Control Sample	T	Solid	3050B	
MB 240-4145/1-A	Method Blank	T	Solid	3050B	
240-741-1	GSP-SB-103-0-2	T	Solid	3050B	
240-741-2	GSP-SB-103-6-8	T	Solid	3050B	
240-741-3	GSP-SB-105-0-2	T	Solid	3050B	
240-741-4	GSP-SB-105-6-8	T	Solid	3050B	
240-741-5	GSP-SB-101-0-2	T	Solid	3050B	
240-741-6	GSP-SB-101-6-8	T	Solid	3050B	
240-741-7	GSP-SB-99-0-2	T	Solid	3050B	
240-741-8	GSP-SB-99-6-8	T	Solid	3050B	
240-741-9	GSP-SB-100-2-4	T	Solid	3050B	
240-741-10	GSP-SB-100-6-8	T	Solid	3050B	
240-742-1	GSP-SB-109-0-2	T	Solid	3050B	
240-742-2	GSP-SB-109-6-8	T	Solid	3050B	
240-742-3	GSP-SB-108-0-2	T	Solid	3050B	
240-742-4	GSP-SB-108-6-8	T	Solid	3050B	
240-742-5	GSP-SB-110-0-2	T	Solid	3050B	
240-742-6	GSP-SB-110-6-8	T	Solid	3050B	
240-742-7	GSP-SB-102-0-2	T	Solid	3050B	
240-742-8	GSP-SB-102-6-8	T	Solid	3050B	
240-742-8MS	Matrix Spike	T	Solid	3050B	
240-742-8MSD	Matrix Spike Duplicate	T	Solid	3050B	
240-742-9	GSP-SB-107-0-2	T	Solid	3050B	
240-742-10	GSP-SB-107-6-8	T	Solid	3050B	

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM	#	DCA	#	TOL	#	BFB	#
GSP-SB-103-0-2	240-741-1	90		84		90		82	
GSP-SB-103-6-8	240-741-2	91		90		86		94	
GSP-SB-105-0-2	240-741-3	96		95		101		80	
GSP-SB-105-6-8	240-741-4	92		94		86		95	
GSP-SB-101-0-2	240-741-5	92		91		101		74	
GSP-SB-101-6-8	240-741-6	88		84		86		92	
GSP-SB-99-0-2	240-741-7	91		118		118		114	
GSP-SB-99-6-8	240-741-8	86		110		105		93	
GSP-SB-100-2-4	240-741-9	91		116		112		100	
GSP-SB-100-6-8	240-741-10	99		113		106		93	
GSP-SB-109-0-2	240-742-1	82		110		109		104	
GSP-SB-109-6-8	240-742-2	82		117		100		92	
GSP-SB-108-0-2	240-742-3	83		113		103		96	
GSP-SB-108-6-8	240-742-4	85		113		104		88	
GSP-SB-110-0-2	240-742-5	84		112		108		103	
GSP-SB-110-6-8	240-742-6	86		114		109		97	
GSP-SB-102-0-2	240-742-7	86		108		107		107	
GSP-SB-102-6-8	240-742-8	87		110		109		105	
GSP-SB-107-0-2	240-742-9	88		112		105		96	
GSP-SB-107-6-8	240-742-10	88		113		102		92	
	MB 240-4766/6	90		87		87		92	
	MB 240-4867/6	87		107		104		96	
	MB 240-4936/7	96		94		86		99	
	MB 240-5027/6	91		110		104		94	
	LCS 240-4766/5	95		91		86		96	
	LCS 240-4867/5	100		107		104		97	
	LCS 240-4936/6	99		94		92		98	
	LCS 240-5027/5	102		111		108		102	
	240-728-F-5-A MS	95		90		87		96	
	240-787-A-8 MS	96		96		89		96	
	240-787-A-9 MS	97		107		103		101	
	240-728-H-5-A MSD	97		91		88		95	
	240-787-A-8 MSD	94		93		93		94	
	240-787-A-9 MSD	98		105		105		101	

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	37-132
DCA = 1,2-Dichloroethane-d4 (Surr)	58-123
TOL = Toluene-d8 (Surr)	67-125
BFB = 4-Bromofluorobenzene (Surr)	52-136

Column to be used to flag recovery values

FORM II 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: BFB14821.D BFB Injection Date: 05/13/2011

Instrument ID: A3UX14 BFB Injection Time: 10:01

Analysis Batch No.: 1969

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.9	
75	30.0 - 60.0 % of mass 95	45.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	79.5	
175	5.0 - 9.0 % of mass 174	5.8	(7.3)1
176	95.0 - 101.0 % of mass 174	77.0	(96.9)1
177	5.0 - 9.0 % of mass 176	5.0	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-1969/3	148155.D	05/13/2011	10:44
	STD8260 240-1969/4	148156.D	05/13/2011	11:06
	STD8260 240-1969/5	148157.D	05/13/2011	11:27
	STD8260 240-1969/6	148158.D	05/13/2011	11:49
	STD8260 240-1969/7	148159.D	05/13/2011	12:10
	STD8260 240-1969/8	148160.D	05/13/2011	12:31
	STD8260 240-1969/9	148161.D	05/13/2011	12:53
	STD8260 240-1969/10	148162.D	05/13/2011	13:14
	ICV 240-1969/11	148163.D	05/13/2011	13:36
	STD8A9 240-1969/13	148164.D	05/13/2011	13:57
	STD7A9 240-1969/14	148165.D	05/13/2011	14:19
	STD6A9 240-1969/15	148166.D	05/13/2011	14:40
	STD5A9 240-1969/16	148167.D	05/13/2011	15:02
	STD4A9 240-1969/17	148168.D	05/13/2011	15:23
	STD3A9 240-1969/18	148169.D	05/13/2011	15:44
	STD2A9 240-1969/19	148170.D	05/13/2011	16:06
	STD1A9 240-1969/20	148171.D	05/13/2011	16:27

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-1969/10	148162.D
Level 2	STD8260 240-1969/9	148161.D
Level 3	STD8260 240-1969/8	148160.D
Level 4	STD8260 240-1969/7	148159.D
Level 5	STD8260 240-1969/6	148158.D
Level 6	STD8260 240-1969/5	148157.D
Level 7	STD8260 240-1969/4	148156.D
Level 8	STD8260 240-1969/3	148155.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dichlorodifluoromethane	+++++	0.1307	0.1813	0.1935	0.1905	Ave		0.1809				12.0		15.0			
	0.1910	0.1876	0.1917														
Chloromethane	0.3183	0.2746	0.2949	0.2980	0.2897	Ave		0.2918			0.1000	4.4		15.0			
	0.2888	0.2850	0.2852														
Vinyl chloride	0.2115	0.1963	0.2324	0.2339	0.2328	Ave		0.2223				5.9		15.0			
	0.2285	0.2237	0.2193														
Bromomethane	+++++	+++++	0.0802	0.0741	0.0726	Ave		0.0706				8.8		15.0			
	0.0670	0.0659	0.0635														
Chloroethane	+++++	0.0616	0.0517	0.0536	0.0498	Ave		0.0509				11.0		15.0			
	0.0491	0.0451	0.0455														
Trichlorofluoromethane	0.1628	0.1645	0.2193	0.2342	0.2237	Ave		0.2149				15.0		15.0			
	0.2383	0.2350	0.2411														
Acrolein	0.0438	0.0390	0.0403	0.0394	0.0411	Ave		0.0402				4.1		15.0			
	0.0387	0.0394	0.0401														
1,1-Dichloroethene	0.1825	0.1653	0.2063	0.1906	0.1861	Ave		0.1866				6.1		15.0			
	0.1926	0.1838	0.1855														
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1552	0.1274	0.2001	0.1855	0.1814	Ave		0.1753				13.0		15.0			
	0.1873	0.1828	0.1831														
Acetone	0.1352	0.1017	0.0883	0.0916	0.0946	Lin1	0.4864	0.0818							0.9980		0.9900
	0.0835	0.0851	0.0825														
Iodomethane	0.3452	0.3376	0.3939	0.3758	0.3610	Ave		0.3631				4.8		15.0			
	0.3704	0.3620	0.3593														
Carbon disulfide	0.3858	0.3626	0.4688	0.4573	0.4652	Ave		0.4616				13.0		15.0			
	0.5030	0.5187	0.5315														
Acetonitrile	0.0465	0.0390	0.0352	0.0353	0.0360	Ave		0.0363				13.0		15.0			
	0.0325	0.0328	0.0328														
Methyl acetate	0.2396	0.2188	0.2257	0.2123	0.2208	Ave		0.2191				4.8		15.0			
	0.2042	0.2136	0.2180														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
tert-Butyl alcohol	0.0220	0.0203	0.0215	0.0212	0.0224	Ave		0.0217				6.6		15.0			
	0.0192	0.0230	0.0236														
Acrylonitrile	0.1161	0.1061	0.1061	0.1047	0.1060	Ave		0.1046				5.5		15.0			
	0.0979	0.1004	0.0993														
trans-1,2-Dichloroethene	0.2375	0.2083	0.2518	0.2275	0.2254	Ave		0.2275				5.7		15.0			
	0.2281	0.2212	0.2204														
Methyl tert-butyl ether	0.5833	0.5341	0.5924	0.5609	0.5714	Ave		0.5685				3.2		15.0			
	0.5556	0.5732	0.5770														
Hexane	0.0388	0.0386	0.0568	0.0546	0.0515	Ave		0.0501				14.0		15.0			
	0.0532	0.0532	0.0541														
1,1-Dichloroethane	0.3859	0.3709	0.4539	0.4277	0.4229	Ave		0.4178			0.1000	6.4		15.0			
	0.4303	0.4229	0.4280														
Vinyl acetate	0.0354	0.0292	0.0259	0.0286	0.0307	Ave		0.0316				12.0		15.0			
	0.0308	0.0356	0.0367														
2,2-Dichloropropane	0.1247	0.1337	0.1588	0.1527	0.1561	Ave		0.1535				11.0		15.0			
	0.1678	0.1684	0.1656														
cis-1,2-Dichloroethene	0.2399	0.2284	0.2726	0.2462	0.2467	Ave		0.2456				5.2		15.0			
	0.2500	0.2408	0.2399														
2-Butanone	0.1370	0.1203	0.1136	0.1204	0.1187	Ave		0.1203				6.5		15.0			
	0.1102	0.1204	0.1218														
Bromochloromethane	0.1367	0.1233	0.1399	0.1309	0.1300	Ave		0.1307				4.1		15.0			
	0.1293	0.1279	0.1275														
Tetrahydrofuran	+++++	0.0761	0.0931	0.0811	0.0776	Ave		0.0799				8.3		15.0			
	0.0717	0.0791	0.0806														
Chloroform	0.3577	0.3286	0.3971	0.3589	0.3673	Ave		0.3650				5.2		15.0			
	0.3701	0.3691	0.3712														
1,1,1-Trichloroethane	0.2243	0.2320	0.2950	0.2924	0.2941	Ave		0.2857				13.0		15.0			
	0.3146	0.3171	0.3165														
Cyclohexane	0.3955	0.3242	0.5235	0.4931	0.4835	Ave		0.4625				15.0		15.0			
	0.5007	0.4878	0.4917														
Carbon tetrachloride	+++++	+++++	0.2718	0.2675	0.2786	Ave		0.2938				8.2		15.0			
	0.3061	0.3162	0.3225														
1,1-Dichloropropene	0.2512	0.2451	0.3099	0.2800	0.2821	Ave		0.2791				7.6		15.0			
	0.2939	0.2837	0.2865														
Benzene	0.9367	0.8077	0.9426	0.8592	0.8405	Ave		0.8703				5.3		15.0			
	0.8594	0.8486	0.8677														
1,2-Dichloroethane	0.3610	0.3234	0.3750	0.3268	0.3387	Ave		0.3410				5.2		15.0			
	0.3297	0.3352	0.3387														
Trichloroethene	0.2480	0.2251	0.2912	0.2569	0.2553	Ave		0.2582				7.2		15.0			
	0.2692	0.2589	0.2607														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Methylcyclohexane	+++++ 0.4093	0.2626 0.4016	0.4415 0.3981	0.3974	0.3950	Ave		0.3865				15.0		15.0			
1,2-Dichloropropane	0.2291 0.2280	0.2260 0.2354	0.2529 0.2334	0.2372	0.2228	Ave		0.2331				4.0		15.0			
Dibromomethane	0.1140 0.1227	0.1172 0.1257	0.1238 0.1232	0.1241	0.1236	Ave		0.1218				3.3		15.0			
1,4-Dioxane	0.0023 0.0021	0.0025 0.0023	0.0025 0.0022	0.0024	0.0024	Ave		0.0023				4.9		15.0			
Bromodichloromethane	0.1842 0.2400	0.1814 0.2538	0.2199 0.2597	0.2049	0.2169	Ave		0.2201				13.0		15.0			
2-Chloroethyl vinyl ether	0.1201 0.1052	0.1129 0.1323	0.1024 0.1235	0.1270	0.1037	Ave		0.1159				9.9		15.0			
cis-1,3-Dichloropropene	+++++ 0.2809	0.2163 0.3106	0.2481 0.3122	0.2518	0.2532	Ave		0.2676				13.0		15.0			
4-Methyl-2-pentanone	0.2914 0.3159	0.2977 0.3375	0.3153 0.3537	0.3153	0.3391	Ave		0.3207				6.6		15.0			
Toluene	1.3797 1.2781	1.1975 1.2323	1.4438 1.2907	1.2030	1.2369	Ave		1.2828				6.8		15.0			
trans-1,3-Dichloropropene	0.2288 0.3204	0.2213 0.3613	0.2588 0.3771	0.2740	0.2849	Lin1	-0.301	0.3618							0.9940		0.9900
Ethyl methacrylate	0.2341 0.2877	0.2570 0.3373	0.3081 0.3365	0.2879	0.2864	Ave		0.2919				12.0		15.0			
1,1,2-Trichloroethane	0.2269 0.2175	0.2238 0.2267	0.2486 0.2289	0.2237	0.2209	Ave		0.2271				4.1		15.0			
Tetrachloroethene	0.2466 0.2851	0.2328 0.2696	0.3191 0.2733	0.2613	0.2722	Ave		0.2700				9.6		15.0			
1,3-Dichloropropane	0.3855 0.3629	0.3693 0.3850	0.4084 0.3819	0.3691	0.3606	Ave		0.3779				4.2		15.0			
2-Hexanone	0.1867 0.1916	0.1953 0.2308	0.2006 0.2307	0.2184	0.2103	Ave		0.2080				8.3		15.0			
Dibromochloromethane	+++++ 0.2647	+++++ 0.2895	0.2290 0.3055	0.2069	0.2361	Ave		0.2553				15.0		15.0			
1,2-Dibromoethane	0.2185 0.2299	0.2084 0.2463	0.2478 0.2477	0.2257	0.2236	Ave		0.2310				6.4		15.0			
Chlorobenzene	0.9274 0.8639	0.8393 0.8712	0.9758 0.8825	0.8681	0.8514	Ave		0.8850			0.3000	5.1		15.0			
1,1,1,2-Tetrachloroethane	+++++ 0.3204	+++++ 0.3112	0.2895 0.3289	0.2495	0.2979	Ave		0.2996				9.5		15.0			
Ethylbenzene	0.4701 0.4565	0.4216 0.4523	0.4985 0.4551	0.4497	0.4424	Ave		0.4558				4.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.5516 0.5569	0.5079 0.5488	0.6088 0.5499	0.5483	0.5344	Ave		0.5508				5.1		15.0			
o-Xylene	0.5646 0.5652	0.5079 0.5334	0.6234 0.5321	0.5321	0.5541	Ave		0.5516				6.3		15.0			
Styrene	0.8149 0.8802	0.7539 0.9285	0.9192 0.9239	0.8589	0.8639	Ave		0.8679				7.0		15.0			
Bromoform	0.0856 0.1469	0.0938 0.1780	0.1141 0.1879	0.1157	0.1287	Qua	-0.352	0.1602	0.0001		0.1000				0.9990		0.9900
Isopropylbenzene	1.2781 1.5490	1.2333 1.4885	1.6120 1.5613	1.4126	1.4701	Ave		1.4506				9.3		15.0			
1,1,2,2-Tetrachloroethane	0.4608 0.5165	0.4211 0.5093	0.5159 0.5146	0.4928	0.4989	Ave		0.4912			0.3000	6.9		15.0			
Bromobenzene	0.7470 0.7148	0.6925 0.7174	0.7921 0.7008	0.7563	0.7003	Ave		0.7277				4.7		15.0			
1,2,3-Trichloropropane	0.2089 0.1764	0.1790 0.1831	0.1944 0.1786	0.1892	0.1833	Ave		0.1866				5.8		15.0			
trans-1,4-Dichloro-2-butene	0.1636 0.1691	0.1704 0.2159	0.1683 0.2131	0.1701	0.1698	Ave		0.1800				12.0		15.0			
n-Propylbenzene	0.7738 0.8272	0.7050 0.7944	0.8646 0.7944	0.7963	0.7847	Ave		0.7926				5.7		15.0			
2-Chlorotoluene	0.7565 0.7429	0.6995 0.7115	0.8022 0.7134	0.7326	0.7184	Ave		0.7346				4.5		15.0			
1,3,5-Trimethylbenzene	2.0302 2.4951	1.9774 2.2842	2.4837 2.4078	2.2922	2.3398	Ave		2.2888				8.4		15.0			
4-Chlorotoluene	0.7661 0.7198	0.6853 0.7200	0.7828 0.7152	0.7401	0.7067	Ave		0.7295				4.4		15.0			
tert-Butylbenzene	1.8911 2.3939	1.9120 2.1518	2.3161 2.3077	2.0751	2.1555	Ave		2.1504				8.6		15.0			
1,2,4-Trimethylbenzene	2.1779 2.4862	2.0485 2.3360	2.5549 2.4254	2.3446	2.3266	Ave		2.3375				7.0		15.0			
sec-Butylbenzene	2.4199 3.2401	2.3931 2.9565	3.2020 3.1679	2.8781	2.9685	Ave		2.9033				11.0		15.0			
1,3-Dichlorobenzene	1.4217 1.3933	1.3260 1.3602	1.5660 1.3460	1.3769	1.3557	Ave		1.3932				5.4		15.0			
p-Isopropyltoluene	2.1473 2.7849	2.0718 2.6216	2.7358 2.7414	2.5559	2.5552	Ave		2.5268				11.0		15.0			
1,4-Dichlorobenzene	1.4903 1.3883	1.3816 1.3867	1.5928 1.3833	1.3848	1.3745	Ave		1.4228				5.5		15.0			
n-Butylbenzene	1.7590 2.2383	1.7428 2.1573	2.2739 2.2436	2.0719	2.1098	Ave		2.0746				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,2-Dichlorobenzene	1.3968 1.3577	1.2998 1.2950	1.4899 1.3060	1.3053	1.3320	Ave		1.3478				5.0		15.0			
1,2-Dibromo-3-Chloropropane	0.0707 0.1046	0.0876 0.1247	0.0952 0.1329	0.0857	0.0954	Lin1	-0.109	0.1254							0.9900		0.9900
1,3,5-Trichlorobenzene	0.9946 1.1061	0.9513 1.0267	1.1209 1.0624	1.0151	1.0582	Ave		1.0419				5.4		15.0			
1,2,4-Trichlorobenzene	0.9861 1.0305	0.8526 0.9312	1.0951 0.9734	0.9084	1.0057	Ave		0.9729				7.8		15.0			
Hexachlorobutadiene	0.3762 0.5137	0.3615 0.4619	0.5023 0.4733	0.4571	0.4662	Ave		0.4515				12.0		15.0			
Naphthalene	2.2685 2.4252	2.1387 2.3049	2.5447 2.5154	2.1018	2.3987	Ave		2.3372				7.0		15.0			
1,2,3-Trichlorobenzene	0.9222 0.9831	0.8033 0.8870	1.0574 0.9142	0.8671	0.9714	Ave		0.9257				8.4		15.0			
Dibromofluoromethane (Surr)	0.2238 0.2544	0.2114 0.2370	0.2193 0.2265	0.2214	0.2271	Qua	-0.161	0.2546	0						1.0000		0.9900
1,2-Dichloroethane-d4 (Surr)	0.2940 0.2809	0.2856 0.2666	0.2688 0.2610	0.2569	0.2604	Qua	-0.052	0.2774	0						1.0000		0.9900
Toluene-d8 (Surr)	1.1464 1.2650	1.0512 1.1381	1.1588 1.1451	1.0183	1.0737	Qua	-0.404	1.1914	0						0.9990		0.9900
4-Bromofluorobenzene (Surr)	1.0754 0.8680	0.8867 0.8378	0.8327 0.7886	0.8199	0.7755	Qua	-0.431	0.8899	0						1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-1969/10	148162.D
Level 2	STD8260 240-1969/9	148161.D
Level 3	STD8260 240-1969/8	148160.D
Level 4	STD8260 240-1969/7	148159.D
Level 5	STD8260 240-1969/6	148158.D
Level 6	STD8260 240-1969/5	148157.D
Level 7	STD8260 240-1969/4	148156.D
Level 8	STD8260 240-1969/3	148155.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++	9849	34698	71409	138895	+++++	2.00	5.00	10.0	20.0
			356795	731002	1505420			50.0	100	200		
Chloromethane	FB	Ave	11851	20697	56426	109992	211218	1.00	2.00	5.00	10.0	20.0
			539501	1110906	2239878			50.0	100	200		
Vinyl chloride	FB	Ave	7873	14791	44464	86335	169710	1.00	2.00	5.00	10.0	20.0
			426999	871763	1722469			50.0	100	200		
Bromomethane	FB	Ave	+++++	+++++	15342	27348	52915	+++++	+++++	5.00	10.0	20.0
			125197	256953	498881			50.0	100	200		
Chloroethane	FB	Ave	+++++	4643	9897	19798	36281	+++++	2.00	5.00	10.0	20.0
			91662	175679	357171			50.0	100	200		
Trichlorofluoromethane	FB	Ave	6062	12394	41962	86439	163071	1.00	2.00	5.00	10.0	20.0
			445167	915808	1893601			50.0	100	200		
Acrolein	FB	Ave	16312	29363	77104	145434	299603	10.0	20.0	50.0	100	200
			722901	1535052	3145757			500	1000	2000		
1,1-Dichloroethene	FB	Ave	6795	12461	39479	70340	135657	1.00	2.00	5.00	10.0	20.0
			359759	716532	1456794			50.0	100	200		
1,1,2-Trichloro-1,2,2-trichfluoroethane	FB	Ave	5779	9600	38295	68461	132256	1.00	2.00	5.00	10.0	20.0
			349958	712263	1437690			50.0	100	200		
Acetone	FB	Lin1	50343	76666	135160	202843	275807	10.0	20.0	40.0	60.0	80.0
			311847	663416	1296346			100	200	400		
Iodomethane	FB	Ave	12853	25444	75363	138693	263152	1.00	2.00	5.00	10.0	20.0
			692079	1410938	2821313			50.0	100	200		
Carbon disulfide	FB	Ave	14365	27325	89704	168773	339161	1.00	2.00	5.00	10.0	20.0
			939798	2021426	4173744			50.0	100	200		
Acetonitrile	FB	Ave	17308	29408	67449	130436	262368	10.0	20.0	50.0	100	200
			607932	1278853	2577172			500	1000	2000		
Methyl acetate	FB	Ave	17838	32975	86359	156676	321935	2.00	4.00	10.0	20.0	40.0
			762947	1664754	3423724			100	200	400		
tert-Butyl alcohol	FB	Ave	16351	30641	82322	156738	327066	20.0	40.0	100	200	400
			717848	1792132	3712426			1000	2000	4000		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Acrylonitrile	FB	Ave	8642	15999	40610	77255	154539	2.00	4.00	10.0	20.0	40.0
			365808	782583	1560298			100	200	400		
trans-1,2-Dichloroethene	FB	Ave	8842	15696	48187	83974	164310	1.00	2.00	5.00	10.0	20.0
			426082	861932	1730771			50.0	100	200		
Methyl tert-butyl ether	FB	Ave	21718	40251	113353	207005	416553	1.00	2.00	5.00	10.0	20.0
			1038033	2233941	4531154			50.0	100	200		
Hexane	FB	Ave	1443	2911	10864	20134	37577	1.00	2.00	5.00	10.0	20.0
			99469	207392	425091			50.0	100	200		
1,1-Dichloroethane	FB	Ave	14368	27951	86851	157829	308274	1.00	2.00	5.00	10.0	20.0
			803915	1648398	3361082			50.0	100	200		
Vinyl acetate	FB	Ave	1318	2202	4956	10563	22380	1.00	2.00	5.00	10.0	20.0
			57630	138636	288112			50.0	100	200		
2,2-Dichloropropane	FB	Ave	4644	10075	30378	56367	113823	1.00	2.00	5.00	10.0	20.0
			313532	656398	1300451			50.0	100	200		
cis-1,2-Dichloroethene	FB	Ave	8932	17213	52165	90871	179852	1.00	2.00	5.00	10.0	20.0
			467105	938617	1883929			50.0	100	200		
2-Butanone	FB	Ave	51000	90667	173948	266691	346161	10.0	20.0	40.0	60.0	80.0
			411603	938685	1912591			100	200	400		
Bromochloromethane	FB	Ave	5091	9294	26773	48291	94755	1.00	2.00	5.00	10.0	20.0
			241494	498635	1001261			50.0	100	200		
Tetrahydrofuran	FB	Ave	+++++	5734	17811	29943	56540	+++++	2.00	5.00	10.0	20.0
			134030	308258	632999			50.0	100	200		
Chloroform	FB	Ave	13317	24768	75981	132459	267772	1.00	2.00	5.00	10.0	20.0
			691512	1438506	2914731			50.0	100	200		
1,1,1-Trichloroethane	FB	Ave	8351	17482	56455	107921	214366	1.00	2.00	5.00	10.0	20.0
			587770	1235750	2485376			50.0	100	200		
Cyclohexane	FB	Ave	14725	24430	100167	181987	352453	1.00	2.00	5.00	10.0	20.0
			935506	1901244	3861567			50.0	100	200		
Carbon tetrachloride	FB	Ave	+++++	+++++	52006	98725	203075	+++++	+++++	5.00	10.0	20.0
			571821	1232486	2532291			50.0	100	200		
1,1-Dichloropropene	FB	Ave	9354	18475	59291	103321	205671	1.00	2.00	5.00	10.0	20.0
			549117	1105814	2249595			50.0	100	200		
Benzene	FB	Ave	34876	60874	180362	317094	612703	1.00	2.00	5.00	10.0	20.0
			1605631	3307296	6813692			50.0	100	200		
1,2-Dichloroethane	FB	Ave	13440	24371	71746	120623	246911	1.00	2.00	5.00	10.0	20.0
			615993	1306291	2659451			50.0	100	200		
Trichloroethene	FB	Ave	9233	16962	55729	94818	186079	1.00	2.00	5.00	10.0	20.0
			503010	1009190	2047039			50.0	100	200		
Methylcyclohexane	FB	Ave	+++++	19791	84481	146654	287986	+++++	2.00	5.00	10.0	20.0
			764717	1565362	3125994			50.0	100	200		
1,2-Dichloropropane	FB	Ave	8529	17034	48399	87529	162425	1.00	2.00	5.00	10.0	20.0
			425941	917347	1832626			50.0	100	200		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dibromomethane	FB	Ave	4245 229254	8830 489774	23692 967475	45805	90134	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,4-Dioxane	FB	Ave	4302 199899	9264 455747	23607 868037	43724	86844	50.0 2500	100 5000	250 10000	500	1000
Bromodichloromethane	FB	Ave	6859 448388	13669 989263	42082 2039428	75627	158131	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	8945 393076	17023 1031526	39187 1940089	93751	151164	2.00 100	4.00 200	10.0 400	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	+++++ 524840	16302 1210365	47482 2451663	92925	184608	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
4-Methyl-2-pentanone	CBZ	Ave	85065 826473	177952 2021717	335728 4012894	560172	698967	10.0 100	20.0 200	40.0 400	60.0	80.0
Toluene	CBZ	Ave	40282 1671785	71581 3690632	192175 7322088	356266	637439	1.00 50.0	2.00 100	5.00 200	10.0	20.0
trans-1,3-Dichloropropene	CBZ	Lin1	6679 419128	13227 1081882	34451 2139542	81132	146807	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Ethyl methacrylate	CBZ	Ave	6835 376318	15360 1010031	41010 1909248	85253	147619	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,2-Trichloroethane	CBZ	Ave	6624 284461	13377 679015	33095 1298780	66240	113838	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Tetrachloroethene	CBZ	Ave	7199 372869	13915 807412	42476 1550390	77370	140279	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,3-Dichloropropane	CBZ	Ave	11255 474673	22075 1153063	54364 2166700	109307	185850	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2-Hexanone	CBZ	Ave	54496 501317	116751 1382223	213554 2617421	388131	433533	10.0 100	20.0 200	40.0 400	60.0	80.0
Dibromochloromethane	CBZ	Ave	+++++ 346262	+++++ 866988	30482 1733038	61268	121680	+++++ 50.0	+++++ 100	5.00 200	10.0	20.0
1,2-Dibromoethane	CBZ	Ave	6380 300668	12458 737684	32983 1404972	66844	115233	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Chlorobenzene	CBZ	Ave	27078 1130081	50167 2609134	129882 5006716	257078	438769	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	+++++ 419050	+++++ 931960	38532 1866126	73895	153506	+++++ 50.0	+++++ 100	5.00 200	10.0	20.0
Ethylbenzene	CBZ	Ave	13724 597119	25201 1354582	66350 2581591	133177	227988	1.00 50.0	2.00 100	5.00 200	10.0	20.0
m-Xylene & p-Xylene	CBZ	Ave	32208 1456814	60714 3286981	162062 6238867	324753	550813	2.00 100	4.00 200	10.0 400	20.0	40.0
o-Xylene	CBZ	Ave	16485 739292	30359 1597442	82979 3018953	157580	285538	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Styrene	CBZ	Ave	23793 1151362	45065 2780714	122341 5241358	254343	445206	1.00 50.0	2.00 100	5.00 200	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Bromoform	CBZ	Qua	2498 192175	5608 533050	15181 1065843	34263	66339	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Isopropylbenzene	CBZ	Ave	37316 2026207	73722 4457748	214559 8857494	418334	757640	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,2,2-Tetrachloroethane	DCB	Ave	6809 343549	12754 807923	36223 1538339	74159	134825	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Bromobenzene	DCB	Ave	11038 475428	20972 1138086	55619 2094873	113818	189278	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,3-Trichloropropane	DCB	Ave	3087 117350	5422 290489	13653 533873	28476	49547	1.00 50.0	2.00 100	5.00 200	10.0	20.0
trans-1,4-Dichloro-2-butene	DCB	Ave	2418 112479	5161 342476	11814 637124	25601	45879	1.00 50.0	2.00 100	5.00 200	10.0	20.0
n-Propylbenzene	DCB	Ave	11433 550253	21353 1260258	60704 2374680	119837	212095	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2-Chlorotoluene	DCB	Ave	11178 494147	21186 1128727	56326 2132403	110252	194166	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,3,5-Trimethylbenzene	DCB	Ave	29998 1659654	59887 3623498	174392 7197407	344960	632389	1.00 50.0	2.00 100	5.00 200	10.0	20.0
4-Chlorotoluene	DCB	Ave	11320 478752	20756 1142122	54962 2137738	111376	190993	1.00 50.0	2.00 100	5.00 200	10.0	20.0
tert-Butylbenzene	DCB	Ave	27942 1592368	57907 3413432	162623 6898207	312282	582569	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,4-Trimethylbenzene	DCB	Ave	32180 1653733	62040 3705692	179386 7249885	352849	628822	1.00 50.0	2.00 100	5.00 200	10.0	20.0
sec-Butylbenzene	DCB	Ave	35755 2155184	72477 4690034	224827 9469527	433135	802287	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,3-Dichlorobenzene	DCB	Ave	21006 926777	40161 2157784	109953 4023329	207216	366393	1.00 50.0	2.00 100	5.00 200	10.0	20.0
p-Isopropyltoluene	DCB	Ave	31728 1852387	62747 4158799	192093 8194617	384642	690608	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,4-Dichlorobenzene	DCB	Ave	22020 923453	41844 2199739	111837 4135009	208405	371480	1.00 50.0	2.00 100	5.00 200	10.0	20.0
n-Butylbenzene	DCB	Ave	25990 1488843	52784 3422233	159661 6706550	311807	570224	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dichlorobenzene	DCB	Ave	20638 903080	39367 2054259	104609 3903851	196439	360006	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCB	Lin1	1045 69586	2653 197799	6682 397341	12891	25791	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,3,5-Trichlorobenzene	DCB	Ave	14696 735707	28812 1628652	78701 3175797	152772	285995	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,4-Trichlorobenzene	DCB	Ave	14570 685419	25823 1477129	76888 2909633	136706	271813	1.00 50.0	2.00 100	5.00 200	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Hexachlorobutadiene	DCB	Ave	5559	10950	35269	68783	125992	1.00	2.00	5.00	10.0	20.0
			341694	732719	1414919			50.0	100	200		
Naphthalene	DCB	Ave	33518	64772	178672	316311	648312	1.00	2.00	5.00	10.0	20.0
			1613135	3656364	7518982			50.0	100	200		
1,2,3-Trichlorobenzene	DCB	Ave	13626	24328	74246	130487	262553	1.00	2.00	5.00	10.0	20.0
			653890	1407038	2732713			50.0	100	200		
Dibromofluoromethane (Surr)	FB	Qua	8333	15935	41961	81709	165559	1.00	2.00	5.00	10.0	20.0
			475221	923821	1778783			50.0	100	200		
1,2-Dichloroethane-d4 (Surr)	FB	Qua	10945	21526	51431	94812	189823	1.00	2.00	5.00	10.0	20.0
			524830	1039210	2049787			50.0	100	200		
Toluene-d8 (Surr)	CBZ	Qua	33472	62832	154238	301566	553311	1.00	2.00	5.00	10.0	20.0
			1654693	3408414	6496327			50.0	100	200		
4-Bromofluorobenzene (Surr)	DCB	Qua	15890	26856	58464	123390	209607	1.00	2.00	5.00	10.0	20.0
			577351	1329052	2357233			50.0	100	200		

Curve Type Legend:
Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 13:57 Calibration End Date: 05/13/2011 16:27 Calibration ID: 987

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1A9 240-1969/20	148171.D
Level 2	STD2A9 240-1969/19	148170.D
Level 3	STD3A9 240-1969/18	148169.D
Level 4	STD4A9 240-1969/17	148168.D
Level 5	STD5A9 240-1969/16	148167.D
Level 6	STD6A9 240-1969/15	148166.D
Level 7	STD7A9 240-1969/14	148165.D
Level 8	STD8A9 240-1969/13	148164.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dichlorofluoromethane	0.3307	0.2526	0.2552	0.2634	0.2556	Ave		0.2683				9.6		15.0			
	0.2592	0.2622	0.2677														
Ethyl ether	0.2444	0.2216	0.2105	0.2175	0.2109	Ave		0.2111				8.6		15.0			
	0.1903	0.2071	0.1866														
3-Chloro-1-propene	0.0919	0.0769	0.0810	0.0945	0.0950	Ave		0.0947				12.0		15.0			
	0.0996	0.1071	0.1116														
Methylene Chloride	0.2962	0.2181	0.2173	0.2215	0.2173	Ave		0.2286				12.0		15.0			
	0.2168	0.2234	0.2182														
2-Chloro-1,3-butadiene	0.3698	0.3394	0.3825	0.4155	0.4091	Ave		0.4092				11.0		15.0			
	0.4360	0.4568	0.4648														
Diisopropyl ether	0.1961	0.1770	0.1837	0.1942	0.1894	Ave		0.1893				3.4		15.0			
	0.1929	0.1941	0.1866														
Ethyl-t-butyl ether (ETBE)	0.6828	0.6579	0.6589	0.7073	0.7035	Ave		0.7157				7.4		15.0			
	0.7382	0.7700	0.8071														
Propionitrile	0.0390	0.0395	0.0358	0.0358	0.0355	Ave		0.0368				4.5		15.0			
	0.0375	0.0364	0.0352														
Ethyl acetate	0.1831	0.1796	0.1900	0.2155	0.2123	Ave		0.2096				11.0		15.0			
	0.2330	0.2325	0.2311														
Methacrylonitrile	0.1228	0.1452	0.1353	0.1473	0.1506	Ave		0.1462				8.2		15.0			
	0.1529	0.1572	0.1584														
Isobutyl alcohol	0.0060	0.0069	0.0070	0.0072	0.0076	Ave		0.0077				15.0		15.0			
	0.0086	0.0092	0.0090														
Tert-amyl-methyl ether (TAME)	0.4511	0.4394	0.4308	0.4700	0.4748	Ave		0.4743				7.2		15.0			
	0.4885	0.5147	0.5252														
n-Heptane	0.0512	0.0372	0.0575	0.0601	0.0578	Ave		0.0560				15.0		15.0			
	0.0612	0.0610	0.0622														
n-Butanol	0.0060	0.0085	0.0068	0.0061	0.0079	Lin1	-0.101	0.0088							0.9950		0.9900
	0.0080	0.0090	0.0091														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 13:57 Calibration End Date: 05/13/2011 16:27 Calibration ID: 987

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Methyl methacrylate	0.1770 0.2231	0.1634 0.2265	0.1737 0.2260	0.2207	0.1790	Ave		0.1987				14.0		15.0			
2-Nitropropane	0.0285 0.0323	0.0235 0.0414	0.0250 0.0511	0.0283	0.0255	Qua	-0.092	0.0302	0.0001						1.0000		0.9900
n-Butyl acetate	0.3656 0.4982	0.4015 0.5066	0.3763 0.5120	0.4143	0.4242	Ave		0.4373				14.0		15.0			
Cyclohexanone	0.0227 0.0277	0.0195 0.0298	0.0245 0.0291	0.0247	0.0273	Ave		0.0257				14.0		15.0			
1,2,3-Trimethylbenzene	1.9349 2.1478	1.9001 2.2411	1.9102 2.2835	2.1068	2.0922	Ave		2.0771				7.2		15.0			
2-Methylnaphthalene	1.4494 1.3723	1.3533 1.5439	1.2640 1.4798	1.2633	1.3960	Ave		1.3902				7.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 13:57 Calibration End Date: 05/13/2011 16:27 Calibration ID: 987

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1A9 240-1969/20	148171.D
Level 2	STD2A9 240-1969/19	148170.D
Level 3	STD3A9 240-1969/18	148169.D
Level 4	STD4A9 240-1969/17	148168.D
Level 5	STD5A9 240-1969/16	148167.D
Level 6	STD6A9 240-1969/15	148166.D
Level 7	STD7A9 240-1969/14	148165.D
Level 8	STD8A9 240-1969/13	148164.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorofluoromethane	FB	Ave	11562 476869	18514 936178	46659 1953757	96356	190674	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Ethyl ether	FB	Ave	8543 350164	16241 739301	38491 1361952	79569	157322	1.00 50.0	2.00 100	5.00 200	10.0	20.0
3-Chloro-1-propene	FB	Ave	3212 183315	5637 382489	14802 814509	34554	70852	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Methylene Chloride	FB	Ave	51768 797994	159824 1595095	317816 3184535	486183	648440	5.00 100	20.0 200	40.0 400	60.0	80.0
2-Chloro-1,3-butadiene	FB	Ave	12928 802203	24874 1630700	69926 3392406	151981	305164	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Diisopropyl ether	FB	Ave	34277 1774855	64849 3465390	167953 6809108	355214	706186	5.00 250	10.0 500	25.0 1000	50.0	100
Ethyl-t-butyl ether (ETBE)	FB	Ave	23872 1358411	48215 2748972	120469 5890002	258702	524718	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Propionitrile	FB	Ave	2726 138042	5784 260109	13078 514053	26160	52968	2.00 100	4.00 200	10.0 400	20.0	40.0
Ethyl acetate	FB	Ave	12799 857582	26321 1660071	69485 3372846	157660	316666	2.00 100	4.00 200	10.0 400	20.0	40.0
Methacrylonitrile	FB	Ave	4293 281317	10642 561125	24733 1155918	53870	112331	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Isobutyl alcohol	FB	Ave	4185 315778	10076 658051	25612 1318836	52954	113557	20.0 1000	40.0 2000	100 4000	200	400
Tert-amyl-methyl ether (TAME)	FB	Ave	15771 898873	32206 1837513	78763 3832731	171930	354134	1.00 50.0	2.00 100	5.00 200	10.0	20.0
n-Heptane	FB	Ave	1789 112589	2726 217864	10519 453655	21997	43150	1.00 50.0	2.00 100	5.00 200	10.0	20.0
n-Butanol	CBZ	Lin1	2763 229732	8349 499949	18206 1028013	36564	82582	20.0 1000	40.0 2000	100 4000	200	400
Methyl methacrylate	FB	Ave	6187 410543	11976 808422	31755 1649508	80740	133511	1.00 50.0	2.00 100	5.00 200	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 13:57 Calibration End Date: 05/13/2011 16:27 Calibration ID: 987

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Nitropropane	FB	Qua	1991 119003	3449 295557	9146 745244	20713	38109	2.00 100	4.00 200	10.0 400	20.0	40.0
n-Butyl acetate	CBZ	Ave	16976 1434827	39626 2807789	101360 5806930	248102	445981	2.00 100	4.00 200	10.0 400	20.0	40.0
Cyclohexanone	CBZ	Ave	5266 398835	9604 827123	32989 1649798	74031	143607	10.0 500	20.0 1000	50.0 2000	100	200
1,2,3-Trimethylbenzene	DCB	Ave	23726 1654400	50061 3266502	137203 6643280	317942	602970	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2-Methylnaphthalene	DCB	Ave	35545 2114019	71310 4500581	181571 8609987	381291	804615	2.00 100	4.00 200	10.0 400	20.0	40.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

Second Source

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1969/11 Calibration Date: 05/13/2011 13:36

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148163.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1809	0.1714		47400	50000	-5.2	50.0
Chloromethane	Ave	0.2918	0.2785	0.1000	47700	50000	-4.6	50.0
Vinyl chloride	Ave	0.2223	0.2152		48400	50000	-3.2	20.0
Bromomethane	Ave	0.0706	0.0622		44100	50000	-11.8	50.0
Chloroethane	Ave	0.0509	0.0444		43600	50000	-12.8	50.0
Trichlorofluoromethane	Ave	0.2149	0.2429		56500	50000	13.0	50.0
Acrolein	Ave	0.0402	0.0393		146000	150000	-2.4	50.0
1,1-Dichloroethene	Ave	0.1866	0.2081		55800	50000	11.5	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1753	0.2091		59600	50000	19.2	50.0
Acetone	Lin1		0.0853		98300	100000	-1.7	50.0
Iodomethane	Ave	0.3631	0.4066		56000	50000	12.0	50.0
Carbon disulfide	Ave	0.4616	0.5060		54800	50000	9.6	50.0
Acetonitrile	Ave	0.0363	0.0348		144000	150000	-4.1	50.0
Methyl acetate	Ave	0.2191	0.2252		51400	50000	2.8	50.0
tert-Butyl alcohol	Ave	0.0217	0.0223		1030000	1000000	3.0	50.0
Acrylonitrile	Ave	0.1046	0.1012		145000	150000	-3.2	50.0
trans-1,2-Dichloroethene	Ave	0.2275	0.2306		50700	50000	1.4	50.0
Methyl tert-butyl ether	Ave	0.5685	0.5747		50500	50000	1.1	50.0
Hexane	Ave	0.0501	0.0561		56000	50000	12.0	20.0
1,1-Dichloroethane	Ave	0.4178	0.4336	0.1000	51900	50000	3.8	50.0
Vinyl acetate	Ave	0.0316	0.0332		52500	50000	4.9	50.0
2,2-Dichloropropane	Ave	0.1535	0.1471		47900	50000	-4.1	50.0
cis-1,2-Dichloroethene	Ave	0.2456	0.2479		50500	50000	1.0	50.0
2-Butanone	Ave	0.1203	0.1115		92700	100000	-7.3	50.0
Bromochloromethane	Ave	0.1307	0.1294		49500	50000	-1.0	50.0
Tetrahydrofuran	Ave	0.0799	0.0797		49900	50000	-0.3	50.0
Chloroform	Ave	0.3650	0.3722		51000	50000	2.0	20.0
1,1,1-Trichloroethane	Ave	0.2857	0.3007		52600	50000	5.2	50.0
Cyclohexane	Ave	0.4625	0.5050		54600	50000	9.2	50.0
1,1-Dichloropropene	Ave	0.2791	0.2861		51300	50000	2.5	50.0
Carbon tetrachloride	Ave	0.2938	0.2949		50200	50000	0.4	50.0
Benzene	Ave	0.8703	0.8392		48200	50000	-3.6	50.0
1,2-Dichloroethane	Ave	0.3410	0.3395		49800	50000	-0.5	50.0
Trichloroethene	Ave	0.2582	0.2622		50800	50000	1.5	50.0
Methylcyclohexane	Ave	0.3865	0.4050		52400	50000	4.8	50.0
1,2-Dichloropropane	Ave	0.2331	0.2274		48800	50000	-2.5	20.0
Dibromomethane	Ave	0.1218	0.1278		52500	50000	4.9	50.0
Bromodichloromethane	Ave	0.2201	0.2314		52600	50000	5.1	50.0
2-Chloroethyl vinyl ether	Ave	0.1159	0.1029		44400	50000	-11.2	50.0
cis-1,3-Dichloropropene	Ave	0.2676	0.2522		47100	50000	-5.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1969/11 Calibration Date: 05/13/2011 13:36

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148163.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Methyl-2-pentanone	Ave	0.3207	0.3246		101000	100000	1.2	50.0
Toluene	Ave	1.283	1.237		48200	50000	-3.6	20.0
trans-1,3-Dichloropropene	Lin1		0.3046		42900	50000	-14.2	50.0
1,1,2-Trichloroethane	Ave	0.2271	0.2258		49700	50000	-0.6	50.0
Tetrachloroethene	Ave	0.2700	0.2778		51400	50000	2.9	50.0
1,3-Dichloropropane	Ave	0.3779	0.3691		48800	50000	-2.3	50.0
2-Hexanone	Ave	0.2080	0.2004		96300	100000	-3.7	50.0
Dibromochloromethane	Ave	0.2553	0.2494		48900	50000	-2.3	50.0
1,2-Dibromoethane	Ave	0.2310	0.2313		50100	50000	0.1	50.0
Chlorobenzene	Ave	0.8850	0.8444	0.3000	47700	50000	-4.6	50.0
1,1,1,2-Tetrachloroethane	Ave	0.2996	0.3092		51600	50000	3.2	50.0
Ethylbenzene	Ave	0.4558	0.4441		48700	50000	-2.6	20.0
m-Xylene & p-Xylene	Ave	0.5508	0.5403		98100	100000	-1.9	50.0
o-Xylene	Ave	0.5516	0.5538		50200	50000	0.4	50.0
Styrene	Ave	0.8679	0.8479		48800	50000	-2.3	50.0
Bromoform	Qua		0.1386	0.1000	43700	50000	-12.6	50.0
Isopropylbenzene	Ave	1.451	1.487		51200	50000	2.5	50.0
1,1,2,2-Tetrachloroethane	Ave	0.4912	0.5016	0.3000	51100	50000	2.1	50.0
Bromobenzene	Ave	0.7277	0.7047		48400	50000	-3.2	50.0
1,2,3-Trichloropropane	Ave	0.1866	0.1847		49500	50000	-1.0	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1800	0.1839		102000	100000	2.1	50.0
n-Propylbenzene	Ave	0.7926	0.8123		51200	50000	2.5	50.0
2-Chlorotoluene	Ave	0.7346	0.7204		49000	50000	-1.9	50.0
1,3,5-Trimethylbenzene	Ave	2.289	2.364		51600	50000	3.3	50.0
4-Chlorotoluene	Ave	0.7295	0.6905		47300	50000	-5.3	50.0
tert-Butylbenzene	Ave	2.150	2.293		53300	50000	6.6	50.0
1,2,4-Trimethylbenzene	Ave	2.338	2.419		51700	50000	3.5	50.0
sec-Butylbenzene	Ave	2.903	3.072		52900	50000	5.8	50.0
1,3-Dichlorobenzene	Ave	1.393	1.334		47900	50000	-4.2	50.0
p-Isopropyltoluene	Ave	2.527	2.726		53900	50000	7.9	50.0
1,4-Dichlorobenzene	Ave	1.423	1.337		47000	50000	-6.1	50.0
n-Butylbenzene	Ave	2.075	2.151		51800	50000	3.7	50.0
1,2-Dichlorobenzene	Ave	1.348	1.307		48500	50000	-3.0	50.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1066		43400	50000	-13.2	50.0
1,2,4-Trichlorobenzene	Ave	0.9729	1.017		52200	50000	4.5	50.0
Hexachlorobutadiene	Ave	0.4515	0.4695		52000	50000	4.0	50.0
Naphthalene	Ave	2.337	2.454		52500	50000	5.0	50.0
1,2,3-Trichlorobenzene	Ave	0.9257	0.9622		52000	50000	3.9	50.0
Dibromofluoromethane (Surr)	Qua		0.2552		52200	50000	4.4	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2845		52300	50000	4.6	50.0
Toluene-d8 (Surr)	Qua		1.268		54100	50000	8.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1969/11 Calibration Date: 05/13/2011 13:36

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148163.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Bromofluorobenzene (Surr)	Qua		0.8627		50400	50000	0.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1969/11 Calibration Date: 05/13/2011 13:36

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 13:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 16:27

Lab File ID: 148163.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.2111	0.1902		45000	50000	-9.9	50.0
Methylene Chloride	Ave	0.2286	0.2191		47900	50000	-4.1	50.0
Diisopropyl ether	Ave	0.1893	0.1964		51900	50000	3.8	50.0
Isobutyl alcohol	Ave	0.0077	0.0091		2970000	2500000	18.7	50.0
Cyclohexanone	Ave	0.0257	0.0129		504000	1000000	-49.6	50.0
1,2,3-Trimethylbenzene	Ave	2.077	2.474		59500	50000	19.1	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: 14852.D BFB Injection Date: 06/15/2011

Instrument ID: A3UX14 BFB Injection Time: 11:48

Analysis Batch No.: 4867

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	27.4	
75	30.0 - 60.0 % of mass 95	46.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	78.4	
175	5.0 - 9.0 % of mass 174	5.9	(7.5)1
176	95.0 - 101.0 % of mass 174	76.0	(96.9)1
177	5.0 - 9.0 % of mass 176	4.8	(6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-4867/3	149010.D	06/15/2011	12:31
	CCV 240-4867/4	149011.D	06/15/2011	12:52
	LCS 240-4867/5	149012.D	06/15/2011	13:14
	MB 240-4867/6	149013.D	06/15/2011	13:35
GSP-SB-99-0-2	240-741-7	149020.D	06/15/2011	16:19
GSP-SB-99-6-8	240-741-8	149021.D	06/15/2011	16:41
GSP-SB-100-2-4	240-741-9	149022.D	06/15/2011	17:02
GSP-SB-109-0-2	240-742-1	149024.D	06/15/2011	17:45
GSP-SB-109-6-8	240-742-2	149025.D	06/15/2011	18:06
GSP-SB-108-0-2	240-742-3	149026.D	06/15/2011	18:28
GSP-SB-108-6-8	240-742-4	149027.D	06/15/2011	18:49
GSP-SB-110-0-2	240-742-5	149028.D	06/15/2011	19:11
GSP-SB-110-6-8	240-742-6	149029.D	06/15/2011	19:32
GSP-SB-102-6-8	240-742-8	149031.D	06/15/2011	20:15
GSP-SB-107-0-2	240-742-9	149032.D	06/15/2011	20:36

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4867/3 Calibration Date: 06/15/2011 12:31

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 149010.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1809	0.2307		63800	50000	27.6	50.0
Chloromethane	Ave	0.2918	0.3585	0.1000	61400	50000	22.8	50.0
Vinyl chloride	Ave	0.2223	0.2613		58800	50000	17.6	20.0
Bromomethane	Ave	0.0706	0.0850		60300	50000	20.5	50.0
Chloroethane	Ave	0.0509	0.1377		135000	50000	170.5*	50.0
Trichlorofluoromethane	Ave	0.2149	0.2585		60100	50000	20.3	50.0
Acrolein	Ave	0.0402	0.0325		404000	500000	-19.3	50.0
1,1-Dichloroethene	Ave	0.1866	0.1981		53100	50000	6.2	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1753	0.2100		59900	50000	19.8	50.0
Acetone	Lin1		0.0937		109000	100000	8.6	50.0
Iodomethane	Ave	0.3631	0.3687		50800	50000	1.5	50.0
Carbon disulfide	Ave	0.4616	0.3724		40300	50000	-19.3	50.0
Acetonitrile	Ave	0.0363	0.0329		453000	500000	-9.4	50.0
Methyl acetate	Ave	0.2191	0.2395		109000	100000	9.3	50.0
tert-Butyl alcohol	Ave	0.0217	0.0167		770000	1000000	-23.0	50.0
Acrylonitrile	Ave	0.1046	0.1058		101000	100000	1.2	50.0
trans-1,2-Dichloroethene	Ave	0.2275	0.2344		51500	50000	3.0	50.0
Methyl tert-butyl ether	Ave	0.5685	0.5518		48500	50000	-2.9	50.0
Hexane	Ave	0.0501	0.0558		55600	50000	11.3	20.0
1,1-Dichloroethane	Ave	0.4178	0.4506	0.1000	53900	50000	7.8	50.0
Vinyl acetate	Ave	0.0316	0.0238		37600	50000	-24.9	50.0
2,2-Dichloropropane	Ave	0.1535	0.1594		51900	50000	3.9	50.0
cis-1,2-Dichloroethene	Ave	0.2456	0.2500		50900	50000	1.8	50.0
2-Butanone	Ave	0.1203	0.1185		98500	100000	-1.5	50.0
Bromochloromethane	Ave	0.1307	0.1303		49800	50000	-0.3	50.0
Tetrahydrofuran	Ave	0.0799	0.0801		50100	50000	0.3	50.0
Chloroform	Ave	0.3650	0.3872		53000	50000	6.1	20.0
1,1,1-Trichloroethane	Ave	0.2857	0.3233		56600	50000	13.2	50.0
Cyclohexane	Ave	0.4625	0.5670		61300	50000	22.6	50.0
1,1-Dichloropropene	Ave	0.2791	0.2994		53700	50000	7.3	50.0
Carbon tetrachloride	Ave	0.2938	0.3122		53100	50000	6.3	50.0
Benzene	Ave	0.8703	0.8723		50100	50000	0.2	50.0
1,2-Dichloroethane	Ave	0.3410	0.3663		53700	50000	7.4	50.0
Trichloroethene	Ave	0.2582	0.2641		51100	50000	2.3	50.0
Methylcyclohexane	Ave	0.3865	0.4223		54600	50000	9.3	50.0
1,2-Dichloropropane	Ave	0.2331	0.2423		52000	50000	4.0	20.0
Dibromomethane	Ave	0.1218	0.1227		50400	50000	0.7	50.0
1,4-Dioxane	Ave	0.0023	0.0019		2060000	2500000	-17.4	50.0
Bromodichloromethane	Ave	0.2201	0.2163		49100	50000	-1.7	50.0
2-Chloroethyl vinyl ether	Ave	0.1159	0.1141		98500	100000	-1.5	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4867/3 Calibration Date: 06/15/2011 12:31

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 149010.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Ave	0.2676	0.2688		50200	50000	0.5	50.0
4-Methyl-2-pentanone	Ave	0.3207	0.3089		96300	100000	-3.7	50.0
Toluene	Ave	1.283	1.214		47300	50000	-5.3	20.0
trans-1,3-Dichloropropene	Lin1		0.3022		42600	50000	-14.8	50.0
Ethyl methacrylate	Ave	0.2919	0.2788		47800	50000	-4.5	50.0
1,1,2-Trichloroethane	Ave	0.2271	0.2207		48600	50000	-2.8	50.0
Tetrachloroethene	Ave	0.2700	0.2765		51200	50000	2.4	50.0
1,3-Dichloropropane	Ave	0.3779	0.3691		48800	50000	-2.3	50.0
2-Hexanone	Ave	0.2080	0.2098		101000	100000	0.8	50.0
Dibromochloromethane	Ave	0.2553	0.2201		43100	50000	-13.8	50.0
1,2-Dibromoethane	Ave	0.2310	0.2288		49500	50000	-1.0	50.0
Chlorobenzene	Ave	0.8850	0.8597	0.3000	48600	50000	-2.9	50.0
1,1,1,2-Tetrachloroethane	Ave	0.2996	0.2940		49100	50000	-1.9	50.0
Ethylbenzene	Ave	0.4558	0.4550		49900	50000	-0.2	20.0
m-Xylene & p-Xylene	Ave	0.5508	0.5607		102000	100000	1.8	50.0
o-Xylene	Ave	0.5516	0.5368		48700	50000	-2.7	50.0
Styrene	Ave	0.8679	0.8861		51000	50000	2.1	50.0
Bromoform	Qua		0.1146	0.1000	36700	50000	-26.6	50.0
Isopropylbenzene	Ave	1.451	1.469		50600	50000	1.3	50.0
1,1,2,2-Tetrachloroethane	Ave	0.4912	0.4752	0.3000	48400	50000	-3.3	50.0
Bromobenzene	Ave	0.7277	0.7246		49800	50000	-0.4	50.0
1,2,3-Trichloropropane	Ave	0.1866	0.1794		48000	50000	-3.9	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1800	0.1916		53200	50000	6.4	50.0
n-Propylbenzene	Ave	0.7926	0.8024		50600	50000	1.2	50.0
2-Chlorotoluene	Ave	0.7346	0.7115		48400	50000	-3.1	50.0
1,3,5-Trimethylbenzene	Ave	2.289	2.304		50300	50000	0.6	50.0
4-Chlorotoluene	Ave	0.7295	0.7302		50100	50000	0.1	50.0
tert-Butylbenzene	Ave	2.150	2.056		47800	50000	-4.4	50.0
1,2,4-Trimethylbenzene	Ave	2.338	2.329		49800	50000	-0.4	50.0
sec-Butylbenzene	Ave	2.903	2.896		49900	50000	-0.3	50.0
1,3-Dichlorobenzene	Ave	1.393	1.362		48900	50000	-2.2	50.0
p-Isopropyltoluene	Ave	2.527	2.567		50800	50000	1.6	50.0
1,4-Dichlorobenzene	Ave	1.423	1.398		49100	50000	-1.7	50.0
n-Butylbenzene	Ave	2.075	2.102		50700	50000	1.3	50.0
1,2-Dichlorobenzene	Ave	1.348	1.290		47800	50000	-4.3	50.0
1,2-Dibromo-3-Chloropropane	Lin1		0.0750		30800	50000	-38.4	50.0
1,3,5-Trichlorobenzene	Ave	1.042	0.9766		46900	50000	-6.3	50.0
1,2,4-Trichlorobenzene	Ave	0.9729	0.8336		42800	50000	-14.3	50.0
Hexachlorobutadiene	Ave	0.4515	0.4405		48800	50000	-2.5	50.0
Naphthalene	Ave	2.337	1.907		40800	50000	-18.4	50.0
1,2,3-Trichlorobenzene	Ave	0.9257	0.8041		43400	50000	-13.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4867/3 Calibration Date: 06/15/2011 12:31

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 149010.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Qua		0.2507		51300	50000	2.6	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2973		54700	50000	9.4	50.0
Toluene-d8 (Surr)	Qua		1.199		51200	50000	2.4	50.0
4-Bromofluorobenzene (Surr)	Qua		0.8512		49700	50000	-0.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4867/4 Calibration Date: 06/15/2011 12:52

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 149011.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Qua		0.2302		47000	50000	-6.0	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2945		54100	50000	8.2	50.0
Toluene-d8 (Surr)	Qua		1.251		53400	50000	6.8	50.0
4-Bromofluorobenzene (Surr)	Qua		0.8759		51200	50000	2.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4867/4 Calibration Date: 06/15/2011 12:52

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 13:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 16:27

Lab File ID: 149011.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.2683	0.2758		51400	50000	2.8	50.0
Ethyl ether	Ave	0.2111	0.2033		48200	50000	-3.7	50.0
3-Chloro-1-propene	Ave	0.0947	0.0852		45000	50000	-10.1	50.0
Methylene Chloride	Ave	0.2286	0.2321		102000	100000	1.5	50.0
2-Chloro-1,3-butadiene	Ave	0.4092	0.4480		54700	50000	9.5	50.0
Diisopropyl ether	Ave	0.1893	0.1830		242000	250000	-3.3	50.0
Ethyl-t-butyl ether (ETBE)	Ave	0.7157	0.7249		50600	50000	1.3	50.0
Propionitrile	Ave	0.0368	0.0364		98900	100000	-1.1	50.0
Ethyl acetate	Ave	0.2096	0.2225		106000	100000	6.1	50.0
Methacrylonitrile	Ave	0.1462	0.1588		54300	50000	8.6	50.0
Isobutyl alcohol	Ave	0.0077	0.0089		1160000	1000000	16.2	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.4743	0.4531		47800	50000	-4.5	50.0
n-Heptane	Ave	0.0560	0.0594		53000	50000	6.0	50.0
n-Butanol	Lin1		0.0093		1060000	1000000	5.9	50.0
Methyl methacrylate	Ave	0.1987	0.1818		45800	50000	-8.5	50.0
2-Nitropropane	Qua		0.0325		94800	100000	-5.2	50.0
Cyclohexanone	Ave	0.0257	0.0316		615000	500000	23.0	50.0
1,2,3-Trimethylbenzene	Ave	2.077	2.273		54700	50000	9.4	50.0
2-Methylnaphthalene	Ave	1.390	1.275		91700	100000	-8.3	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: 149013.D Lab Sample ID: MB 240-4867/6

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: A3UX14 Date Analyzed: 06/15/2011 13:35

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-4867/5	149012.D	06/15/2011 13:14
GSP-SB-99-0-2	240-741-7	149020.D	06/15/2011 16:19
GSP-SB-99-6-8	240-741-8	149021.D	06/15/2011 16:41
GSP-SB-100-2-4	240-741-9	149022.D	06/15/2011 17:02
GSP-SB-109-0-2	240-742-1	149024.D	06/15/2011 17:45
GSP-SB-109-6-8	240-742-2	149025.D	06/15/2011 18:06
GSP-SB-108-0-2	240-742-3	149026.D	06/15/2011 18:28
GSP-SB-108-6-8	240-742-4	149027.D	06/15/2011 18:49
GSP-SB-110-0-2	240-742-5	149028.D	06/15/2011 19:11
GSP-SB-110-6-8	240-742-6	149029.D	06/15/2011 19:32
GSP-SB-102-6-8	240-742-8	149031.D	06/15/2011 20:15
GSP-SB-107-0-2	240-742-9	149032.D	06/15/2011 20:36

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Method Blank - Batch: 240-4867

Method: 8260B
Preparation: N/A

Lab Sample ID:	MB 240-4867/6	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	149013.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	06/15/2011 1335	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	5.0	U	0.62	5.0
1,1,1-Trichloroethane	5.0	U	0.56	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.34	5.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	5.0	U	1.3	5.0
1,1-Dichloroethane	5.0	U	0.36	5.0
1,1-Dichloroethene	5.0	U	0.52	5.0
1,1-Dichloropropene	5.0	U	0.30	5.0
1,2,3-Trichlorobenzene	5.0	U	0.38	5.0
1,2,3-Trichloropropane	5.0	U	0.90	5.0
1,2,3-Trimethylbenzene	5.0	U	0.17	5.0
1,2,4-Trichlorobenzene	5.0	U	0.27	5.0
1,2,4-Trimethylbenzene	5.0	U	0.65	5.0
1,2-Dibromo-3-Chloropropane	10	U	1.3	10
1,2-Dichlorobenzene	5.0	U	0.36	5.0
1,2-Dichloroethane	5.0	U	0.34	5.0
1,2-Dichloropropane	5.0	U	0.69	5.0
1,3-Dichlorobenzene	5.0	U	0.35	5.0
1,3-Dichloropropane	5.0	U	0.34	5.0
1,4-Dichlorobenzene	5.0	U	0.66	5.0
2,2-Dichloropropane	5.0	U	0.94	5.0
2-Butanone	20	U	1.4	20
2-Chloroethyl vinyl ether	50	U	1.4	50
2-Chlorotoluene	5.0	U	0.40	5.0
2-Hexanone	20	U	0.63	20
4-Chlorotoluene	5.0	U	0.41	5.0
p-Isopropyltoluene	5.0	U	0.21	5.0
4-Methyl-2-pentanone	20	U	0.54	20
Acetone	8.89	J	6.3	20
Benzene	5.0	U	0.23	5.0
Bromobenzene	5.0	U	0.33	5.0
Bromoform	5.0	U	0.33	5.0
Bromomethane	5.0	U	0.54	5.0
Carbon disulfide	5.0	U	0.44	5.0
Carbon tetrachloride	5.0	U	0.37	5.0
Chlorobenzene	5.0	U	0.33	5.0
Dibromochloromethane	5.0	U	0.55	5.0
Chloroethane	5.0	U	0.86	5.0
Chloroform	5.0	U	0.29	5.0
Chloromethane	5.0	U	0.41	5.0
cis-1,2-Dichloroethene	5.0	U	0.36	5.0
cis-1,3-Dichloropropene	5.0	U	0.34	5.0
Dibromomethane	5.0	U	0.63	5.0
Bromochloromethane	5.0	U	0.71	5.0
Dichlorodifluoromethane	5.0	U	0.50	5.0
Bromodichloromethane	5.0	U	0.28	5.0

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Method Blank - Batch: 240-4867

Method: 8260B
Preparation: N/A

Lab Sample ID:	MB 240-4867/6	Analysis Batch:	240-4867	Instrument ID:	A3UX14
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	149013.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	06/15/2011 1335	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
tert-Butyl alcohol	200	U	7.6	200
Ethylbenzene	5.0	U	0.26	5.0
Hexachlorobutadiene	5.0	U	1.2	5.0
Diisopropyl ether	10	U	1.5	10
Isopropylbenzene	5.0	U	0.16	5.0
Methyl tert-butyl ether	20	U	0.43	20
Methylene Chloride	5.55		0.67	5.0
m-Xylene & p-Xylene	10	U	1.2	10
Naphthalene	0.385	J	0.19	5.0
n-Butylbenzene	5.0	U	0.23	5.0
n-Propylbenzene	5.0	U	0.40	5.0
o-Xylene	5.0	U	0.35	5.0
sec-Butylbenzene	5.0	U	0.18	5.0
Styrene	5.0	U	0.15	5.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.37	5.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.22	5.0
Tetrachloroethene	5.0	U	0.52	5.0
Toluene	5.0	U	0.27	5.0
trans-1,2-Dichloroethene	5.0	U	0.41	5.0
trans-1,3-Dichloropropene	5.0	U	0.54	5.0
Trichloroethene	5.0	U	0.42	5.0
Trichlorofluoromethane	5.0	U	0.34	5.0
Vinyl acetate	10	U	0.25	10
Vinyl chloride	5.0	U	0.39	5.0
Xylenes, Total	10	U	0.67	10
tert-Butylbenzene	5.0	U	0.29	5.0
1,2-Dibromoethane	5.0	U	0.50	5.0

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	104	67 - 125
Dibromofluoromethane (Surr)	87	37 - 132
4-Bromofluorobenzene (Surr)	96	52 - 136
1,2-Dichloroethane-d4 (Surr)	107	58 - 123

Method Blank TICs- Batch: 240-4867

Cas Number	Analyte	RT	Est. Result	Qual
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149012.D

Lab ID: LCS 240-4867/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	50.0	100	81-119	
1,1,1-Trichloroethane	50.0	52.4	105	77-126	
1,1,2,2-Tetrachloroethane	50.0	47.8	96	77-123	
1,1,2-Trichloro-1,2,2-trichfluoroethane	50.0	60.3	121	82-138	
1,1-Dichloroethane	50.0	52.1	104	76-115	
1,1-Dichloroethene	50.0	52.5	105	75-135	
1,1-Dichloropropene	50.0	49.7	99	80-120	
1,2,3-Trichlorobenzene	50.0	46.2	92	61-121	
1,2,3-Trichloropropane	50.0	48.3	97	84-126	
1,2,3-Trimethylbenzene	50.0	56.7	113	70-130	
1,2,4-Trichlorobenzene	50.0	42.4	85	64-124	
1,2,4-Trimethylbenzene	50.0	49.8	100	80-129	
1,2-Dibromo-3-Chloropropane	50.0	32.8	66	61-132	
1,2-Dichlorobenzene	50.0	46.7	93	76-110	
1,2-Dichloroethane	50.0	50.8	102	72-120	
1,2-Dichloropropane	50.0	48.0	96	87-113	
1,3-Dichlorobenzene	50.0	46.2	92	78-111	
1,3-Dichloropropane	50.0	45.2	90	82-118	
1,4-Dichlorobenzene	50.0	45.4	91	75-110	
2,2-Dichloropropane	50.0	49.1	98	69-135	
2-Butanone	100	89.5	90	52-131	
2-Chloroethyl vinyl ether	50.0	38.8 J	78	28-173	
2-Chlorotoluene	50.0	47.7	95	78-119	
2-Hexanone	100	92.7	93	64-136	
4-Chlorotoluene	50.0	46.5	93	79-118	
p-Isopropyltoluene	50.0	52.0	104	77-131	
4-Methyl-2-pentanone	100	99.9	100	67-135	
Acetone	100	107	107	41-137	
Benzene	50.0	47.7	95	79-112	
Bromobenzene	50.0	46.7	93	81-115	
Bromoform	50.0	34.6	69	62-133	
Bromomethane	50.0	53.9	108	42-136	
Carbon disulfide	50.0	39.8	80	62-146	
Carbon tetrachloride	50.0	49.7	99	71-129	
Chlorobenzene	50.0	45.7	91	78-110	
Dibromochloromethane	50.0	40.9	82	72-127	
Chloroethane	50.0	116	233	58-117	*
Chloroform	50.0	51.9	104	77-114	
Chloromethane	50.0	55.9	112	50-110	*
cis-1,2-Dichloroethene	50.0	48.6	97	76-113	
cis-1,3-Dichloropropene	50.0	42.6	85	74-128	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149012.D

Lab ID: LCS 240-4867/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dibromomethane	50.0	49.6	99	85-120	
Bromochloromethane	50.0	47.7	95	79-111	
Dichlorodifluoromethane	50.0	50.2	100	26-113	
Bromodichloromethane	50.0	46.0	92	84-122	
tert-Butyl alcohol	1000	706	71	60-125	
Ethylbenzene	50.0	45.7	91	79-117	
Hexachlorobutadiene	50.0	46.9	94	54-131	
Diisopropyl ether	50.0	48.4	97	82-119	
Isopropylbenzene	50.0	48.6	97	76-122	
Methyl tert-butyl ether	50.0	47.5	95	49-165	
Methylene Chloride	50.0	51.8	104	75-118	
m-Xylene & p-Xylene	100	92.1	92	80-117	
Naphthalene	50.0	43.7	87	65-123	
n-Butylbenzene	50.0	48.7	97	68-135	
n-Propylbenzene	50.0	48.6	97	81-129	
o-Xylene	50.0	46.9	94	80-120	
sec-Butylbenzene	50.0	49.5	99	74-129	
Styrene	50.0	45.7	91	87-117	
Tetrachloroethene	50.0	49.8	100	79-114	
Toluene	50.0	46.1	92	75-111	
trans-1,2-Dichloroethene	50.0	49.2	98	78-117	
trans-1,3-Dichloropropene	50.0	39.0	78	73-131	
Trichloroethene	50.0	50.1	100	79-113	
Trichlorofluoromethane	50.0	56.1	112	57-146	
Vinyl acetate	50.0	45.3	91	70-130	
Vinyl chloride	50.0	53.4	107	57-114	
tert-Butylbenzene	50.0	49.4	99	76-126	
1,2-Dibromoethane	50.0	47.4	95	83-117	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: BFB14853.D BFB Injection Date: 06/16/2011

Instrument ID: A3UX14 BFB Injection Time: 11:37

Analysis Batch No.: 5027

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.8	
75	30.0 - 60.0 % of mass 95	45.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	86.9	
175	5.0 - 9.0 % of mass 174	6.4	(7.3)1
176	95.0 - 101.0 % of mass 174	83.8	(96.5)1
177	5.0 - 9.0 % of mass 176	5.4	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-5027/3	149043.D	06/16/2011	12:19
	CCV 240-5027/4	149044.D	06/16/2011	12:40
	LCS 240-5027/5	149045.D	06/16/2011	13:02
	MB 240-5027/6	149046.D	06/16/2011	13:23
	240-787-A-9 MS	149058.D	06/16/2011	17:41
	240-787-A-9 MSD	149059.D	06/16/2011	18:02
GSP-SB-100-6-8	240-741-10	149060.D	06/16/2011	18:24
GSP-SB-102-0-2	240-742-7	149061.D	06/16/2011	18:45
GSP-SB-107-6-8	240-742-10	149062.D	06/16/2011	19:06

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5027/3 Calibration Date: 06/16/2011 12:19

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 149043.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1809	0.2126		58800	50000	17.5	50.0
Chloromethane	Ave	0.2918	0.3430	0.1000	58800	50000	17.5	50.0
Vinyl chloride	Ave	0.2223	0.2469		55500	50000	11.0	20.0
Bromomethane	Ave	0.0706	0.0836		59300	50000	18.5	50.0
Chloroethane	Ave	0.0509	0.1267		124000	50000	148 D*	50.0
Trichlorofluoromethane	Ave	0.2149	0.2454		57100	50000	14.2	50.0
Acrolein	Ave	0.0402	0.0294		366000	500000	-26.9	50.0
1,1-Dichloroethene	Ave	0.1866	0.1813		48600	50000	-2.9	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1753	0.1938		55300	50000	10.5	50.0
Acetone	Lin1		0.0918		106000	100000	6.2	50.0
Iodomethane	Ave	0.3631	0.3434		47300	50000	-5.4	50.0
Carbon disulfide	Ave	0.4616	0.3384		36700	50000	-26.7	50.0
Acetonitrile	Ave	0.0363	0.0322		444000	500000	-11.2	50.0
Methyl acetate	Ave	0.2191	0.2434		111000	100000	11.1	50.0
tert-Butyl alcohol	Ave	0.0217	0.0164		755000	1000000	-24.5	50.0
Acrylonitrile	Ave	0.1046	0.1047		100000	100000	0.1	50.0
trans-1,2-Dichloroethene	Ave	0.2275	0.2173		47800	50000	-4.5	50.0
Methyl tert-butyl ether	Ave	0.5685	0.5204		45800	50000	-8.5	50.0
Hexane	Ave	0.0501	0.0557		55500	50000	11.1	20.0
1,1-Dichloroethane	Ave	0.4178	0.4250	0.1000	50900	50000	1.7	50.0
Vinyl acetate	Ave	0.0316	0.0228		36000	50000	-28.0	50.0
2,2-Dichloropropane	Ave	0.1535	0.1525		49700	50000	-0.6	50.0
cis-1,2-Dichloroethene	Ave	0.2456	0.2371		48300	50000	-3.5	50.0
2-Butanone	Ave	0.1203	0.1212		101000	100000	0.8	50.0
Bromochloromethane	Ave	0.1307	0.1272		48700	50000	-2.7	50.0
Tetrahydrofuran	Ave	0.0799	0.0796		49800	50000	-0.3	50.0
Chloroform	Ave	0.3650	0.3684		50500	50000	0.9	20.0
1,1,1-Trichloroethane	Ave	0.2857	0.3068		53700	50000	7.4	50.0
Cyclohexane	Ave	0.4625	0.5338		57700	50000	15.4	50.0
1,1-Dichloropropene	Ave	0.2791	0.2874		51500	50000	3.0	50.0
Carbon tetrachloride	Ave	0.2938	0.2936		50000	50000	-0.0	50.0
Benzene	Ave	0.8703	0.8623		49500	50000	-0.9	50.0
1,2-Dichloroethane	Ave	0.3410	0.3604		52800	50000	5.7	50.0
Trichloroethene	Ave	0.2582	0.2678		51900	50000	3.7	50.0
Methylcyclohexane	Ave	0.3865	0.3919		50700	50000	1.4	50.0
1,2-Dichloropropane	Ave	0.2331	0.2376		51000	50000	1.9	20.0
Dibromomethane	Ave	0.1218	0.1220		50100	50000	0.2	50.0
1,4-Dioxane	Ave	0.0023	0.0019		2010000	2500000	-19.7	50.0
Bromodichloromethane	Ave	0.2201	0.2181		49500	50000	-0.9	50.0
2-Chloroethyl vinyl ether	Ave	0.1159	0.1047		90300	100000	-9.7	50.0

FORM VII 8260B

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5027/3 Calibration Date: 06/16/2011 12:19

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 149043.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Ave	0.2676	0.2685		50200	50000	0.3	50.0
4-Methyl-2-pentanone	Ave	0.3207	0.3268		102000	100000	1.9	50.0
Toluene	Ave	1.283	1.263		49200	50000	-1.6	20.0
trans-1,3-Dichloropropene	Lin1		0.3072		43300	50000	-13.4	50.0
Ethyl methacrylate	Ave	0.2919	0.2771		47500	50000	-5.1	50.0
1,1,2-Trichloroethane	Ave	0.2271	0.2293		50500	50000	0.9	50.0
Tetrachloroethene	Ave	0.2700	0.2867		53100	50000	6.2	50.0
1,3-Dichloropropane	Ave	0.3779	0.3735		49400	50000	-1.2	50.0
2-Hexanone	Ave	0.2080	0.2116		102000	100000	1.7	50.0
Dibromochloromethane	Ave	0.2553	0.2271		44500	50000	-11.1	50.0
1,2-Dibromoethane	Ave	0.2310	0.2316		50100	50000	0.2	50.0
Chlorobenzene	Ave	0.8850	0.8695	0.3000	49100	50000	-1.7	50.0
1,1,1,2-Tetrachloroethane	Ave	0.2996	0.3036		50700	50000	1.4	50.0
Ethylbenzene	Ave	0.4558	0.4570		50100	50000	0.3	20.0
m-Xylene & p-Xylene	Ave	0.5508	0.5581		101000	100000	1.3	50.0
o-Xylene	Ave	0.5516	0.5433		49200	50000	-1.5	50.0
Styrene	Ave	0.8679	0.8760		50500	50000	0.9	50.0
Bromoform	Qua		0.1140	0.1000	36500	50000	-27.0	50.0
Isopropylbenzene	Ave	1.451	1.507		51900	50000	3.9	50.0
1,1,2,2-Tetrachloroethane	Ave	0.4912	0.4938	0.3000	50300	50000	0.5	50.0
Bromobenzene	Ave	0.7277	0.7277		50000	50000	0.0	50.0
1,2,3-Trichloropropane	Ave	0.1866	0.1858		49800	50000	-0.5	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1800	0.1948		54100	50000	8.2	50.0
n-Propylbenzene	Ave	0.7926	0.8193		51700	50000	3.4	50.0
2-Chlorotoluene	Ave	0.7346	0.7287		49600	50000	-0.8	50.0
1,3,5-Trimethylbenzene	Ave	2.289	2.394		52300	50000	4.6	50.0
4-Chlorotoluene	Ave	0.7295	0.7351		50400	50000	0.8	50.0
tert-Butylbenzene	Ave	2.150	2.241		52100	50000	4.2	50.0
1,2,4-Trimethylbenzene	Ave	2.338	2.350		50300	50000	0.5	50.0
sec-Butylbenzene	Ave	2.903	3.009		51800	50000	3.7	50.0
1,3-Dichlorobenzene	Ave	1.393	1.380		49500	50000	-1.0	50.0
p-Isopropyltoluene	Ave	2.527	2.612		51700	50000	3.4	50.0
1,4-Dichlorobenzene	Ave	1.423	1.387		48700	50000	-2.5	50.0
n-Butylbenzene	Ave	2.075	2.106		50700	50000	1.5	50.0
1,2-Dichlorobenzene	Ave	1.348	1.304		48400	50000	-3.2	50.0
1,2-Dibromo-3-Chloropropane	Lin1		0.0779		31900	50000	-36.2	50.0
1,3,5-Trichlorobenzene	Ave	1.042	0.9756		46800	50000	-6.4	50.0
1,2,4-Trichlorobenzene	Ave	0.9729	0.8566		44000	50000	-11.9	50.0
Hexachlorobutadiene	Ave	0.4515	0.4544		50300	50000	0.6	50.0
Naphthalene	Ave	2.337	1.996		42700	50000	-14.6	50.0
1,2,3-Trichlorobenzene	Ave	0.9257	0.8140		44000	50000	-12.1	50.0

FORM VII 8260B

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5027/3 Calibration Date: 06/16/2011 12:19

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 149043.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Qua		0.2409		49300	50000	-1.4	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2933		53900	50000	7.8	50.0
Toluene-d8 (Surr)	Qua		1.233		52600	50000	5.2	50.0
4-Bromofluorobenzene (Surr)	Qua		0.8527		49800	50000	-0.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5027/4 Calibration Date: 06/16/2011 12:40

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 149044.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Qua		0.2225		45400	50000	-9.2	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2848		52300	50000	4.6	50.0
Toluene-d8 (Surr)	Qua		1.211		51700	50000	3.4	50.0
4-Bromofluorobenzene (Surr)	Qua		0.8736		51000	50000	2.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5027/4 Calibration Date: 06/16/2011 12:40

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 13:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 16:27

Lab File ID: 149044.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.2683	0.2755		51300	50000	2.7	50.0
Ethyl ether	Ave	0.2111	0.1965		46500	50000	-6.9	50.0
3-Chloro-1-propene	Ave	0.0947	0.0815		43000	50000	-14.0	50.0
Methylene Chloride	Ave	0.2286	0.2213		96800	100000	-3.2	50.0
2-Chloro-1,3-butadiene	Ave	0.4092	0.4304		52600	50000	5.2	50.0
Diisopropyl ether	Ave	0.1893	0.1789		236000	250000	-5.5	50.0
Ethyl-t-butyl ether (ETBE)	Ave	0.7157	0.6873		48000	50000	-4.0	50.0
Propionitrile	Ave	0.0368	0.0367		99500	100000	-0.5	50.0
Ethyl acetate	Ave	0.2096	0.2301		110000	100000	9.7	50.0
Methacrylonitrile	Ave	0.1462	0.1569		53700	50000	7.3	50.0
Isobutyl alcohol	Ave	0.0077	0.0090		1170000	1000000	16.7	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.4743	0.4315		45500	50000	-9.0	50.0
n-Heptane	Ave	0.0560	0.0591		52800	50000	5.5	50.0
n-Butanol	Lin1		0.0090		1030000	1000000	3.4	50.0
Methyl methacrylate	Ave	0.1987	0.1870		47100	50000	-5.9	50.0
2-Nitropropane	Qua		0.0335		97400	100000	-2.6	50.0
Cyclohexanone	Ave	0.0257	0.0326		636000	500000	27.2	50.0
1,2,3-Trimethylbenzene	Ave	2.077	2.214		53300	50000	6.6	50.0
2-Methylnaphthalene	Ave	1.390	1.216		87400	100000	-12.6	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: 149046.D Lab Sample ID: MB 240-5027/6

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: A3UX14 Date Analyzed: 06/16/2011 13:23

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-5027/5	149045.D	06/16/2011 13:02
	240-787-A-9 MS	149058.D	06/16/2011 17:41
	240-787-A-9 MSD	149059.D	06/16/2011 18:02
GSP-SB-100-6-8	240-741-10	149060.D	06/16/2011 18:24
GSP-SB-102-0-2	240-742-7	149061.D	06/16/2011 18:45
GSP-SB-107-6-8	240-742-10	149062.D	06/16/2011 19:06

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Method Blank - Batch: 240-5027

Method: 8260B
Preparation: N/A

Lab Sample ID:	MB 240-5027/6	Analysis Batch:	240-5027	Instrument ID:	A3UX14
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	149046.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	06/16/2011 1323	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	5.0	U	0.62	5.0
1,1,1-Trichloroethane	5.0	U	0.56	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.34	5.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	5.0	U	1.3	5.0
1,1-Dichloroethane	5.0	U	0.36	5.0
1,1-Dichloroethene	5.0	U	0.52	5.0
1,1-Dichloropropene	5.0	U	0.30	5.0
1,2,3-Trichlorobenzene	5.0	U	0.38	5.0
1,2,3-Trichloropropane	5.0	U	0.90	5.0
1,2,3-Trimethylbenzene	5.0	U	0.17	5.0
1,2,4-Trichlorobenzene	5.0	U	0.27	5.0
1,2,4-Trimethylbenzene	5.0	U	0.65	5.0
1,2-Dibromo-3-Chloropropane	10	U	1.3	10
1,2-Dichlorobenzene	5.0	U	0.36	5.0
1,2-Dichloroethane	5.0	U	0.34	5.0
1,2-Dichloropropane	5.0	U	0.69	5.0
1,3-Dichlorobenzene	5.0	U	0.35	5.0
1,3-Dichloropropane	5.0	U	0.34	5.0
1,4-Dichlorobenzene	5.0	U	0.66	5.0
2,2-Dichloropropane	5.0	U	0.94	5.0
2-Butanone	20	U	1.4	20
2-Chloroethyl vinyl ether	50	U	1.4	50
2-Chlorotoluene	5.0	U	0.40	5.0
2-Hexanone	20	U	0.63	20
4-Chlorotoluene	5.0	U	0.41	5.0
p-Isopropyltoluene	5.0	U	0.21	5.0
4-Methyl-2-pentanone	20	U	0.54	20
Acetone	13.3	J	6.3	20
Benzene	5.0	U	0.23	5.0
Bromobenzene	5.0	U	0.33	5.0
Bromoform	5.0	U	0.33	5.0
Bromomethane	5.0	U	0.54	5.0
Carbon disulfide	5.0	U	0.44	5.0
Carbon tetrachloride	5.0	U	0.37	5.0
Chlorobenzene	5.0	U	0.33	5.0
Dibromochloromethane	5.0	U	0.55	5.0
Chloroethane	5.0	U	0.86	5.0
Chloroform	5.0	U	0.29	5.0
Chloromethane	5.0	U	0.41	5.0
cis-1,2-Dichloroethene	5.0	U	0.36	5.0
cis-1,3-Dichloropropene	5.0	U	0.34	5.0
Dibromomethane	5.0	U	0.63	5.0
Bromochloromethane	5.0	U	0.71	5.0
Dichlorodifluoromethane	5.0	U	0.50	5.0
Bromodichloromethane	5.0	U	0.28	5.0

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Method Blank - Batch: 240-5027

Method: 8260B
Preparation: N/A

Lab Sample ID:	MB 240-5027/6	Analysis Batch:	240-5027	Instrument ID:	A3UX14
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	149046.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	06/16/2011 1323	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
tert-Butyl alcohol	200	U	7.6	200
Ethylbenzene	5.0	U	0.26	5.0
Hexachlorobutadiene	5.0	U	1.2	5.0
Diisopropyl ether	10	U	1.5	10
Isopropylbenzene	5.0	U	0.16	5.0
Methyl tert-butyl ether	20	U	0.43	20
Methylene Chloride	5.88		0.67	5.0
m-Xylene & p-Xylene	10	U	1.2	10
Naphthalene	0.448	J	0.19	5.0
n-Butylbenzene	5.0	U	0.23	5.0
n-Propylbenzene	5.0	U	0.40	5.0
o-Xylene	5.0	U	0.35	5.0
sec-Butylbenzene	5.0	U	0.18	5.0
Styrene	5.0	U	0.15	5.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.37	5.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.22	5.0
Tetrachloroethene	5.0	U	0.52	5.0
Toluene	5.0	U	0.27	5.0
trans-1,2-Dichloroethene	5.0	U	0.41	5.0
trans-1,3-Dichloropropene	5.0	U	0.54	5.0
Trichloroethene	5.0	U	0.42	5.0
Trichlorofluoromethane	5.0	U	0.34	5.0
Vinyl acetate	10	U	0.25	10
Vinyl chloride	5.0	U	0.39	5.0
Xylenes, Total	10	U	0.67	10
tert-Butylbenzene	5.0	U	0.29	5.0
1,2-Dibromoethane	5.0	U	0.50	5.0

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	104	67 - 125
Dibromofluoromethane (Surr)	91	37 - 132
4-Bromofluorobenzene (Surr)	94	52 - 136
1,2-Dichloroethane-d4 (Surr)	110	58 - 123

Method Blank TICs- Batch: 240-5027

Cas Number	Analyte	RT	Est. Result	Qual
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149045.D

Lab ID: LCS 240-5027/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	50.5	101	81-119	
1,1,1-Trichloroethane	50.0	52.3	105	77-126	
1,1,2,2-Tetrachloroethane	50.0	50.1	100	77-123	
1,1,2-Trichloro-1,2,2-trichfluoroethane	50.0	58.9	118	82-138	
1,1-Dichloroethane	50.0	51.7	103	76-115	
1,1-Dichloroethene	50.0	51.3	103	75-135	
1,1-Dichloropropene	50.0	50.4	101	80-120	
1,2,3-Trichlorobenzene	50.0	47.1	94	61-121	
1,2,3-Trichloropropane	50.0	49.8	100	84-126	
1,2,3-Trimethylbenzene	50.0	57.2	114	70-130	
1,2,4-Trichlorobenzene	50.0	44.7	89	64-124	
1,2,4-Trimethylbenzene	50.0	50.2	100	80-129	
1,2-Dibromo-3-Chloropropane	50.0	35.8	72	61-132	
1,2-Dichlorobenzene	50.0	47.9	96	76-110	
1,2-Dichloroethane	50.0	52.7	105	72-120	
1,2-Dichloropropane	50.0	49.4	99	87-113	
1,3-Dichlorobenzene	50.0	47.7	95	78-111	
1,3-Dichloropropane	50.0	48.7	97	82-118	
1,4-Dichlorobenzene	50.0	45.9	92	75-110	
2,2-Dichloropropane	50.0	47.5	95	69-135	
2-Butanone	100	102	102	52-131	
2-Chloroethyl vinyl ether	50.0	43.8 J	88	28-173	
2-Chlorotoluene	50.0	48.0	96	78-119	
2-Hexanone	100	103	103	64-136	
4-Chlorotoluene	50.0	47.3	95	79-118	
p-Isopropyltoluene	50.0	52.5	105	77-131	
4-Methyl-2-pentanone	100	109	109	67-135	
Acetone	100	114	114	41-137	
Benzene	50.0	48.2	96	79-112	
Bromobenzene	50.0	47.5	95	81-115	
Bromoform	50.0	35.6	71	62-133	
Bromomethane	50.0	52.2	104	42-136	
Carbon disulfide	50.0	38.2	76	62-146	
Carbon tetrachloride	50.0	50.1	100	71-129	
Chlorobenzene	50.0	47.2	94	78-110	
Dibromochloromethane	50.0	42.5	85	72-127	
Chloroethane	50.0	113	226	58-117	*
Chloroform	50.0	51.4	103	77-114	
Chloromethane	50.0	54.2	108	50-110	
cis-1,2-Dichloroethene	50.0	48.0	96	76-113	
cis-1,3-Dichloropropene	50.0	44.8	90	74-128	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149045.D

Lab ID: LCS 240-5027/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dibromomethane	50.0	51.4	103	85-120	
Bromochloromethane	50.0	47.5	95	79-111	
Dichlorodifluoromethane	50.0	48.3	97	26-113	
Bromodichloromethane	50.0	47.9	96	84-122	
tert-Butyl alcohol	1000	791	79	60-125	
Ethylbenzene	50.0	47.1	94	79-117	
Hexachlorobutadiene	50.0	47.8	96	54-131	
Diisopropyl ether	50.0	49.0	98	82-119	
Isopropylbenzene	50.0	49.2	98	76-122	
Methyl tert-butyl ether	50.0	46.9	94	49-165	
Methylene Chloride	50.0	50.1	100	75-118	
m-Xylene & p-Xylene	100	94.0	94	80-117	
Naphthalene	50.0	45.4	91	65-123	
n-Butylbenzene	50.0	49.5	99	68-135	
n-Propylbenzene	50.0	49.6	99	81-129	
o-Xylene	50.0	47.4	95	80-120	
sec-Butylbenzene	50.0	50.5	101	74-129	
Styrene	50.0	46.2	92	87-117	
Tetrachloroethene	50.0	51.4	103	79-114	
Toluene	50.0	47.3	95	75-111	
trans-1,2-Dichloroethene	50.0	48.5	97	78-117	
trans-1,3-Dichloropropene	50.0	42.2	84	73-131	
Trichloroethene	50.0	50.2	100	79-113	
Trichlorofluoromethane	50.0	54.5	109	57-146	
Vinyl acetate	50.0	50.6	101	70-130	
Vinyl chloride	50.0	51.8	104	57-114	
tert-Butylbenzene	50.0	51.1	102	76-126	
1,2-Dibromoethane	50.0	48.7	97	83-117	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149058.D

Lab ID: 240-787-A-9 MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	55.8	5.6 U	42.7	77	34-135	
1,1,1-Trichloroethane	55.8	5.6 U	46.9	84	51-128	
1,1,2,2-Tetrachloroethane	55.8	5.6 U	47.0	84	16-179	
1,1,2-Trichloro-1,2,2-trichfluoroethane	55.8	5.6 U	56.3	101	50-147	
1,1-Dichloroethane	55.8	5.6 U	49.6	89	54-122	
1,1-Dichloroethene	55.8	5.6 U	47.5	85	49-157	
1,1-Dichloropropene	55.8	5.6 U	45.2	81	50-122	
1,2,3-Trichlorobenzene	55.8	5.6 U	26.6	48	10-110	
1,2,3-Trichloropropane	55.8	5.6 U	47.4	85	32-174	
1,2,3-Trimethylbenzene	55.8	5.6 U	42.2	76	70-130	
1,2,4-Trichlorobenzene	55.8	5.6 U	24.8	44	10-111	
1,2,4-Trimethylbenzene	55.8	5.6 U	35.5	64	10-173	
1,2-Dibromo-3-Chloropropane	55.8	11 U	28.3	51	10-153	
1,2-Dichlorobenzene	55.8	5.6 U	34.7	62	17-122	
1,2-Dichloroethane	55.8	5.6 U	51.1	92	49-123	
1,2-Dichloropropane	55.8	5.6 U	46.1	83	61-117	
1,3-Dichlorobenzene	55.8	5.6 U	33.8	61	16-126	
1,3-Dichloropropane	55.8	5.6 U	45.0	81	54-128	
1,4-Dichlorobenzene	55.8	5.6 U	32.8	59	15-121	
2,2-Dichloropropane	55.8	5.6 U	41.9	75	49-132	
2-Butanone	112	22 U	104	93	30-143	
2-Chloroethyl vinyl ether	55.8	56 U	41.5 J	74	10-162	
2-Chlorotoluene	55.8	5.6 U	35.9	64	11-162	
2-Hexanone	112	22 U	102	91	37-147	
4-Chlorotoluene	55.8	5.6 U	34.7	62	15-149	
p-Isopropyltoluene	55.8	5.6 U	32.9	59	10-165	
4-Methyl-2-pentanone	112	22 U	106	95	43-147	
Acetone	112	37	137	90	24-140	
Benzene	55.8	5.6 U	45.1	81	53-118	
Bromobenzene	55.8	5.6 U	39.1	70	24-144	
Bromoform	55.8	5.6 U	31.3	56	18-129	
Bromomethane	55.8	5.6 U	49.6	89	33-130	
Carbon disulfide	55.8	5.6 U	30.0	54	20-151	
Carbon tetrachloride	55.8	5.6 U	44.3	79	32-137	
Chlorobenzene	55.8	5.6 U	38.2	68	37-116	
Dibromochloromethane	55.8	5.6 U	36.9	66	29-135	
Chloroethane	55.8	5.6 U	110	197	45-118	F
Chloroform	55.8	5.6 U	48.9	88	53-119	
Chloromethane	55.8	5.6 U	52.9	95	34-117	
cis-1,2-Dichloroethene	55.8	5.6 U	45.5	82	50-119	
cis-1,3-Dichloropropene	55.8	5.6 U	40.3	72	27-133	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149058.D

Lab ID: 240-787-A-9 MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Dibromomethane	55.8	5.6 U	49.1	88	52-123	
Bromochloromethane	55.8	5.6 U	45.5	82	53-116	
Dichlorodifluoromethane	55.8	5.6 U	46.2	83	17-115	
Bromodichloromethane	55.8	5.6 U	43.5	78	35-132	
tert-Butyl alcohol	1120	220 U	780	70	60-125	
Ethylbenzene	55.8	5.6 U	37.6	67	30-131	
Hexachlorobutadiene	55.8	5.6 U	22.5	40	10-131	
Diisopropyl ether	55.8	11 U	46.4	83	62-128	
Isopropylbenzene	55.8	5.6 U	35.6	64	21-134	
Methyl tert-butyl ether	55.8	22 U	46.5	83	51-157	
Methylene Chloride	55.8	6.4	48.9	76	54-115	
m-Xylene & p-Xylene	112	11 U	74.4	67	29-131	
Naphthalene	55.8	5.6 U	30.8	55	10-124	
n-Butylbenzene	55.8	5.6 U	28.6	51	10-148	
n-Propylbenzene	55.8	5.6 U	35.3	63	10-178	
o-Xylene	55.8	5.6 U	37.5	67	29-134	
sec-Butylbenzene	55.8	5.6 U	32.9	59	10-172	
Styrene	55.8	5.6 U	36.5	65	27-127	
Tetrachloroethene	55.8	5.6 U	42.1	75	31-135	
Toluene	55.8	5.6 U	40.8	73	39-129	
trans-1,2-Dichloroethene	55.8	5.6 U	45.2	81	50-123	
trans-1,3-Dichloropropene	55.8	5.6 U	36.9	66	28-137	
Trichloroethene	55.8	5.6 U	45.3	81	10-177	
Trichlorofluoromethane	55.8	5.6 U	49.3	88	36-142	
Vinyl acetate	55.8	11 U	39.5	71	70-130	
Vinyl chloride	55.8	5.6 U	49.3	88	42-117	
tert-Butylbenzene	55.8	5.6 U	35.7	64	10-163	
1,2-Dibromoethane	55.8	5.6 U	45.6	82	45-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149059.D

Lab ID: 240-787-A-9 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	55.8	45.9	82	7	30	34-135	
1,1,1-Trichloroethane	55.8	50.7	91	8	30	51-128	
1,1,2,2-Tetrachloroethane	55.8	46.9	84	0	30	16-179	
1,1,2-Trichloro-1,2,2-trichfluoroethane	55.8	59.9	107	6	30	50-147	
1,1-Dichloroethane	55.8	52.7	94	6	30	54-122	
1,1-Dichloroethene	55.8	51.2	92	7	30	49-157	
1,1-Dichloropropene	55.8	48.2	86	6	30	50-122	
1,2,3-Trichlorobenzene	55.8	28.7	51	8	30	10-110	
1,2,3-Trichloropropane	55.8	47.5	85	0	30	32-174	
1,2,3-Trimethylbenzene	55.8	44.3	79	5	30	70-130	
1,2,4-Trichlorobenzene	55.8	26.9	48	8	30	10-111	
1,2,4-Trimethylbenzene	55.8	38.1	68	7	30	10-173	
1,2-Dibromo-3-Chloropropane	55.8	31.1	56	9	30	10-153	
1,2-Dichlorobenzene	55.8	36.9	66	6	30	17-122	
1,2-Dichloroethane	55.8	53.2	95	4	30	49-123	
1,2-Dichloropropane	55.8	49.4	89	7	30	61-117	
1,3-Dichlorobenzene	55.8	36.8	66	9	30	16-126	
1,3-Dichloropropane	55.8	46.2	83	3	30	54-128	
1,4-Dichlorobenzene	55.8	35.3	63	7	30	15-121	
2,2-Dichloropropane	55.8	46.2	83	10	30	49-132	
2-Butanone	112	103	92	1	30	30-143	
2-Chloroethyl vinyl ether	55.8	41.5 J	74	0	30	10-162	
2-Chlorotoluene	55.8	38.5	69	7	30	11-162	
2-Hexanone	112	97.3	87	5	30	37-147	
4-Chlorotoluene	55.8	37.1	66	7	30	15-149	
p-Isopropyltoluene	55.8	35.4	63	7	30	10-165	
4-Methyl-2-pentanone	112	104	93	2	30	43-147	
Acetone	112	128	82	7	30	24-140	
Benzene	55.8	47.7	85	6	30	53-118	
Bromobenzene	55.8	41.2	74	5	30	24-144	
Bromoform	55.8	33.3	60	6	30	18-129	
Bromomethane	55.8	53.7	96	8	30	33-130	
Carbon disulfide	55.8	35.6	64	17	30	20-151	
Carbon tetrachloride	55.8	47.5	85	7	30	32-137	
Chlorobenzene	55.8	40.8	73	7	30	37-116	
Dibromochloromethane	55.8	40.1	72	8	30	29-135	
Chloroethane	55.8	118	212	7	30	45-118	F
Chloroform	55.8	51.9	93	6	30	53-119	
Chloromethane	55.8	56.0	100	6	30	34-117	
cis-1,2-Dichloroethene	55.8	48.2	86	6	30	50-119	
cis-1,3-Dichloropropene	55.8	42.3	76	5	30	27-133	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149059.D

Lab ID: 240-787-A-9 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dibromomethane	55.8	50.7	91	3	30	52-123	
Bromochloromethane	55.8	48.8	87	7	30	53-116	
Dichlorodifluoromethane	55.8	49.6	89	7	30	17-115	
Bromodichloromethane	55.8	45.6	82	5	30	35-132	
tert-Butyl alcohol	1120	744	67	5	30	60-125	
Ethylbenzene	55.8	39.4	71	5	30	30-131	
Hexachlorobutadiene	55.8	23.8	43	5	30	10-131	
Diisopropyl ether	55.8	49.7	89	7	30	62-128	
Isopropylbenzene	55.8	38.1	68	7	30	21-134	
Methyl tert-butyl ether	55.8	47.5	85	2	30	51-157	
Methylene Chloride	55.8	51.7	81	6	30	54-115	
m-Xylene & p-Xylene	112	77.8	70	4	30	29-131	
Naphthalene	55.8	32.0	57	4	30	10-124	
n-Butylbenzene	55.8	30.2	54	6	30	10-148	
n-Propylbenzene	55.8	37.6	67	6	30	10-178	
o-Xylene	55.8	40.5	73	8	30	29-134	
sec-Butylbenzene	55.8	35.0	63	6	30	10-172	
Styrene	55.8	38.4	69	5	30	27-127	
Tetrachloroethene	55.8	44.3	79	5	30	31-135	
Toluene	55.8	43.4	78	6	30	39-129	
trans-1,2-Dichloroethene	55.8	47.9	86	6	30	50-123	
trans-1,3-Dichloropropene	55.8	39.2	70	6	30	28-137	
Trichloroethene	55.8	47.1	84	4	30	10-177	
Trichlorofluoromethane	55.8	54.5	98	10	30	36-142	
Vinyl acetate	55.8	42.3	76	7	30	70-130	
Vinyl chloride	55.8	52.8	95	7	30	42-117	
tert-Butylbenzene	55.8	37.6	67	5	30	10-163	
1,2-Dibromoethane	55.8	47.5	85	4	30	45-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: BFB8710.D BFB Injection Date: 06/10/2011

Instrument ID: A3UX8 BFB Injection Time: 01:06

Analysis Batch No.: 4259

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.3	
75	30.0 - 60.0 % of mass 95	51.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	68.9	
175	5.0 - 9.0 % of mass 174	5.1	(7.3)1
176	95.0 - 101.0 % of mass 174	66.8	(96.9)1
177	5.0 - 9.0 % of mass 176	4.4	(6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-4259/3	UX82538.D	06/10/2011	01:49
	STD8260 240-4259/4	UX82539.D	06/10/2011	02:10
	STD8260 240-4259/5	UX82540.D	06/10/2011	02:32
	STD8260 240-4259/6	UX82541.D	06/10/2011	02:53
	STD8260 240-4259/7	UX82542.D	06/10/2011	03:14
	STD8260 240-4259/8	UX82543.D	06/10/2011	03:35
	STD8260 240-4259/9	UX82544.D	06/10/2011	03:56
	STD8260 240-4259/10	UX82545.D	06/10/2011	04:18
	STDA9 240-4259/11	UX82546.D	06/10/2011	04:39
	STDA9 240-4259/12	UX82547.D	06/10/2011	05:00
	STDA9 240-4259/13	UX82548.D	06/10/2011	05:21
	STDA9 240-4259/14	UX82549.D	06/10/2011	05:42
	STDA9 240-4259/15	UX82550.D	06/10/2011	06:04
	STDA9 240-4259/16	UX82551.D	06/10/2011	06:25
	ICV 240-4259/17	UX82552.D	06/10/2011	06:46

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-4259/10	UX82545.D
Level 2	STD8260 240-4259/9	UX82544.D
Level 3	STD8260 240-4259/8	UX82543.D
Level 4	STD8260 240-4259/7	UX82542.D
Level 5	STD8260 240-4259/6	UX82541.D
Level 6	STD8260 240-4259/5	UX82540.D
Level 7	STD8260 240-4259/4	UX82539.D
Level 8	STD8260 240-4259/3	UX82538.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Chloromethane	+++++	0.4253	0.3552	0.3591	0.3512	Ave		0.3506			0.1000	12.0		15.0			
	0.3556	0.3171	0.2906														
Dichlorodifluoromethane	0.3145	0.3131	0.2884	0.2629	0.2650	Ave		0.2686				13.0		15.0			
	0.2572	0.2366	0.2114														
Vinyl chloride	0.2589	0.2426	0.2653	0.2739	0.2746	Ave		0.2587				7.7		15.0			
	0.2836	0.2472	0.2240														
Bromomethane	0.2209	0.1827	0.1526	0.1400	0.1231	Qua	0.0911	0.1319	0						1.0000		0.9900
	0.1148	0.0929															
Acetone	+++++	+++++	0.2886	0.1726	0.1444	Lin1	1.8605	0.0969							0.9940		0.9900
	0.1246	0.1128	0.0966														
Chloroethane	0.1485	0.1650	0.1691	0.1704	0.1638	Ave		0.1532				12.0		15.0			
	0.1553	0.1300	0.1231														
Acetonitrile	+++++	+++++	0.0649	0.0536	0.0508	Lin1	1.4818	0.0408							0.9930		0.9900
	0.0486	0.0449	0.0390														
Methylene Chloride	+++++	+++++	1.0069	0.5928	0.5068	Qua	3.1541	0.3278	0						0.9990		0.9900
	0.3562	0.3218	0.2606														
Trichlorofluoromethane	0.2510	0.2451	0.2695	0.2658	0.2681	Ave		0.2483				12.0		15.0			
	0.2723	0.2280	0.1866														
Acrolein	0.0677	0.0635	0.0678	0.0588	0.0577	Ave		0.0585				14.0		15.0			
	0.0561	0.0527	0.0441														
1,1-Dichloroethene	0.2225	0.2388	0.2488	0.2541	0.2617	Ave		0.2383				10.0		15.0			
	0.2626	0.2275	0.1903														
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1324	0.1362	0.1467	0.1581	0.1651	Ave		0.1502				11.0		15.0			
	0.1761	0.1531	0.1339														
Acrylonitrile	+++++	0.1662	0.1709	0.1418	0.1384	Ave		0.1408				15.0		15.0			
	0.1298	0.1262	0.1126														
Iodomethane	0.3428	0.3612	0.3851	0.3867	0.3997	Ave		0.3639				9.6		15.0			
	0.3949	0.3435	0.2973														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.7963 0.9898	0.8661 0.8376	0.8975 0.7195	0.9028	0.9592	Ave		0.8711				10.0		15.0			
Methyl acetate	0.2692 0.2612	0.2768 0.2555	0.3106 0.2381	0.2663	0.2650	Ave		0.2678				7.7		15.0			
tert-Butyl alcohol	0.0402 0.0381	0.0404 0.0369	0.0471 0.0307	0.0408	0.0403	Ave		0.0393				12.0		15.0			
Methyl tert-butyl ether	0.8744 0.8992	0.9394 0.9103	1.0300 0.7952	0.9911	0.9954	Ave		0.9294				8.2		15.0			
trans-1,2-Dichloroethene	0.2769 0.2982	0.2728 0.2660	0.2993 0.2273	0.2968	0.3000	Ave		0.2797				9.0		15.0			
Hexane	0.0455 0.0597	0.0529 0.0580	0.0644 0.0556	0.0578	0.0606	Ave		0.0568				10.0		15.0			
2-Butanone	+++++ 0.1224	0.1625 0.1243	0.1665 0.1201	0.1396	0.1249	Ave		0.1372				14.0		15.0			
1,1-Dichloroethane	0.4986 0.5343	0.4930 0.5003	0.5318 0.4547	0.5314	0.5498	Ave		0.5117			0.1000	6.0		15.0			
Vinyl acetate	0.0425 0.0417	0.0404 0.0447	0.0478 0.0452	0.0457	0.0418	Ave		0.0437				5.7		15.0			
Tetrahydrofuran	+++++ 0.0966	0.1822 0.0965	0.1350 0.0879	0.1123	0.0977	Lin1	0.2027	0.0898							0.9980		0.9900
cis-1,2-Dichloroethene	0.2885 0.3007	0.2950 0.2847	0.3149 0.2538	0.3075	0.3184	Ave		0.2954				7.0		15.0			
2,2-Dichloropropane	0.3908 0.4040	0.3945 0.3344	0.3861 0.2797	0.3720	0.3944	Ave		0.3695				11.0		15.0			
Bromochloromethane	0.1381 0.1209	0.1224 0.1191	0.1357 0.1089	0.1242	0.1275	Ave		0.1246				7.5		15.0			
Chloroform	0.4807 0.4472	0.4294 0.4374	0.4674 0.4048	0.4611	0.4602	Ave		0.4485				5.4		15.0			
2-Chloroethyl vinyl ether	+++++ 0.0069	+++++ 0.0084	0.0079 0.0106	0.0075	0.0071	Qua	0.0210	0.0058	0						1.0000		0.9900
1,1,1-Trichloroethane	0.3307 0.4302	0.3691 0.3781	0.3870 0.3264	0.3939	0.4232	Ave		0.3798				10.0		15.0			
Cyclohexane	0.4552 0.6366	0.4991 0.5439	0.5746 0.4763	0.5673	0.6006	Ave		0.5442				12.0		15.0			
1,1-Dichloropropene	0.2765 0.3259	0.2692 0.3116	0.3023 0.2997	0.2991	0.3228	Ave		0.3009				6.7		15.0			
Carbon tetrachloride	0.2558 0.3382	0.2844 0.2933	0.2910 0.2580	0.3011	0.3213	Ave		0.2929				9.7		15.0			
1,2-Dichloroethane	0.3262 0.3328	0.3059 0.3501	0.3597 0.3424	0.3421	0.3504	Ave		0.3387				5.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 / LVL 6	LVL 2 / LVL 7	LVL 3 / LVL 8	LVL 4	LVL 5		B	M1	M2								
Benzene	0.9689 / 1.0085	0.9556 / 0.9766	1.0328 / 0.9319	0.9834	1.0066	Ave		0.9830				3.3		15.0			
Trichloroethene	0.1479 / 0.1975	0.1678 / 0.1955	0.1949 / 0.1926	0.1869	0.1906	Ave		0.1842				9.5		15.0			
Methylcyclohexane	0.4728 / 0.5564	0.4189 / 0.4809	0.5093 / 0.4195	0.5154	0.5323	Ave		0.4882				10.0		15.0			
1,2-Dichloropropane	0.2175 / 0.2332	0.2228 / 0.2312	0.2422 / 0.2273	0.2333	0.2344	Ave		0.2302				3.3		15.0			
Dibromomethane	0.1343 / 0.1248	0.1223 / 0.1282	0.1336 / 0.1242	0.1308	0.1292	Ave		0.1284				3.4		15.0			
1,4-Dioxane	0.0021 / 0.0025	0.0027 / 0.0024	0.0029 / 0.0022	0.0027	0.0026	Ave		0.0025				11.0		15.0			
Bromodichloromethane	0.2988 / 0.2768	0.2787 / 0.2887	0.2891 / 0.2912	0.2850	0.2829	Ave		0.2864				2.5		15.0			
Ethyl methacrylate	+++++ / 0.4484	0.5543 / 0.4598	0.5392 / 0.4595	0.5043	0.4881	Ave		0.4934				8.4		15.0			
2-Hexanone	+++++ / 0.2761	0.3498 / 0.2676	0.4014 / 0.2592	0.3192	0.3027	Lin1	0.7604	0.2628							0.9970		0.9900
cis-1,3-Dichloropropene	0.2913 / 0.3081	0.3010 / 0.3249	0.3267 / 0.3418	0.3175	0.3074	Ave		0.3148				5.1		15.0			
4-Methyl-2-pentanone	0.3352 / 0.2661	0.2991 / 0.2737	0.3617 / 0.2658	0.2898	0.2766	Ave		0.2960				12.0		15.0			
Toluene	1.3531 / 1.4697	1.3205 / 1.4458	1.3565 / 1.4363	1.3471	1.4141	Ave		1.3929				4.0		15.0			
trans-1,3-Dichloropropene	0.3998 / 0.4576	0.4277 / 0.4728	0.4682 / 0.4964	0.4596	0.4467	Ave		0.4536				6.5		15.0			
1,1,2-Trichloroethane	0.2495 / 0.2560	0.2541 / 0.2674	0.2641 / 0.2738	0.2554	0.2531	Ave		0.2592				3.2		15.0			
1,3-Dichloropropane	0.4537 / 0.4671	0.4540 / 0.4808	0.4967 / 0.4969	0.4810	0.4742	Ave		0.4755				3.5		15.0			
Tetrachloroethene	0.1630 / 0.2434	0.1610 / 0.2367	0.2116 / 0.2300	0.2135	0.2335	Ave		0.2116				15.0		15.0			
Dibromochloromethane	0.2058 / 0.2650	0.2431 / 0.2802	0.2589 / 0.2861	0.2562	0.2665	Ave		0.2577				9.7		15.0			
1,2-Dibromoethane	0.2753 / 0.2609	0.2322 / 0.2636	0.2911 / 0.2680	0.2607	0.2621	Ave		0.2642				6.3		15.0			
Chlorobenzene	0.8139 / 0.8954	0.8310 / 0.8559	0.8637 / 0.8705	0.8517	0.8884	Ave		0.8588			0.3000	3.2		15.0			
1,1,1,2-Tetrachloroethane	0.3302 / 0.3712	0.2830 / 0.3599	0.3468 / 0.3279	0.3401	0.3620	Ave		0.3401				8.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Ethylbenzene	0.4766 0.5439	0.4923 0.5077	0.4868 0.4944	0.5014	0.5301	Ave		0.5041				4.5		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.2882	0.3589 0.2944	0.3474 0.2982	0.3094	0.2928	Ave		0.3128				9.1		15.0			
m-Xylene & p-Xylene	0.5855 0.6746	0.5784 0.6230	0.6193 0.5922	0.6340	0.6595	Ave		0.6208				5.6		15.0			
o-Xylene	0.6196 0.7219	0.6301 0.6800	0.6571 0.6185	0.6707	0.7238	Ave		0.6652				6.3		15.0			
Styrene	1.0614 1.1050	0.9715 1.0544	1.0655 0.9963	1.0540	1.1337	Ave		1.0552				5.0		15.0			
Bromoform	0.1453 0.1940	0.1554 0.2041	0.1847 0.2028	0.1888	0.1973	Ave		0.1841			0.1000	12.0		15.0			
Isopropylbenzene	1.4263 2.0011	1.5118 1.8652	1.7099 1.6833	1.7286	1.9389	Ave		1.7331				11.0		15.0			
1,1,2,2-Tetrachloroethane	0.9112 0.7696	0.7452 0.7827	0.8474 0.7947	0.7878	0.7644	Ave		0.8004			0.3000	6.7		15.0			
Bromobenzene	0.5824 0.6889	0.6145 0.6768	0.6532 0.6956	0.6828	0.6884	Ave		0.6603				6.2		15.0			
1,2,3-Trichloropropane	0.2074 0.2312	0.2364 0.2307	0.2466 0.2331	0.2412	0.2176	Ave		0.2305				5.5		15.0			
n-Propylbenzene	0.7279 0.8808	0.7193 0.8206	0.7768 0.8301	0.7928	0.8430	Ave		0.7989				7.0		15.0			
Hexachlorobutadiene	+++++ 0.5389	+++++ 0.5201	0.4209 0.5003	0.4728	0.5055	Ave		0.4931				8.4		15.0			
2-Chlorotoluene	0.6428 0.7236	0.5972 0.7050	0.6483 0.6990	0.6805	0.6960	Ave		0.6741				6.2		15.0			
1,3,5-Trimethylbenzene	2.2722 2.9633	2.2078 2.8643	2.4932 2.7792	2.5843	2.7657	Ave		2.6162				11.0		15.0			
4-Chlorotoluene	0.6473 0.7061	0.6473 0.6769	0.6419 0.6902	0.6940	0.6894	Ave		0.6741				3.7		15.0			
tert-Butylbenzene	1.7611 2.6068	1.8780 2.4813	2.0810 2.4571	2.2327	2.4002	Ave		2.2373				14.0		15.0			
1,2,4-Trimethylbenzene	2.4778 2.9475	2.2997 2.8465	2.5786 2.8018	2.6385	2.8164	Ave		2.6758				8.1		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1556	0.1215 0.1625	0.1512 0.1579	0.1468	0.1520	Ave		0.1496				8.9		15.0			
sec-Butylbenzene	2.6806 3.9014	2.5570 3.7273	3.1578 3.5696	3.3106	3.6143	Ave		3.3148				15.0		15.0			
1,3-Dichlorobenzene	1.3535 1.3261	1.1959 1.2916	1.2943 1.2685	1.2805	1.3150	Ave		1.2907				3.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
p-Isopropyltoluene	2.1021 3.0137	2.0473 2.8719	2.5066 2.7449	2.5817	2.8052	Ave		2.5842				14.0		15.0			
1,4-Dichlorobenzene	1.3535 1.3530	1.2002 1.3083	1.2869 1.3129	1.2788	1.3355	Ave		1.3036				3.9		15.0			
n-Butylbenzene	2.0947 2.9478	1.9594 2.7803	2.3584 2.6876	2.5441	2.7369	Ave		2.5136				14.0		15.0			
1,2-Dichlorobenzene	1.1742 1.3156	1.1260 1.2913	1.2635 1.2377	1.2749	1.2836	Ave		1.2459				5.2		15.0			
1,3,5-Trichlorobenzene	0.7695 1.0632	0.7299 1.0516	0.9266 1.0225	0.9694	1.0218	Ave		0.9443				14.0		15.0			
1,2,4-Trichlorobenzene	0.7714 0.9240	0.7272 0.9291	0.8058 0.9255	0.8437	0.8715	Ave		0.8498				9.0		15.0			
Naphthalene	2.2546 2.3075	2.0637 2.3605	2.2223 2.2799	2.2293	2.2456	Ave		2.2454				3.8		15.0			
1,2,3-Trichlorobenzene	0.7467 0.8254	0.6637 0.8492	0.7606 0.8393	0.7784	0.8089	Ave		0.7840				7.8		15.0			
Dibromofluoromethane (Surr)	+++++ 0.1897	+++++ 0.2019	+++++ 0.1911	0.2444	0.2214	Ave		0.2097				11.0		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2295	+++++ 0.2608	+++++ 0.2631	0.3088	0.2744	Ave		0.2673				11.0		15.0			
Toluene-d8 (Surr)	+++++ 1.1494	+++++ 1.1663	+++++ 1.1685	1.1591	1.1552	Ave		1.1597				0.7		15.0			
4-Bromofluorobenzene (Surr)	+++++ 0.4746	+++++ 0.4611	+++++ 0.4570	0.5558	0.5293	Ave		0.4955				9.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-4259/10	UX82545.D
Level 2	STD8260 240-4259/9	UX82544.D
Level 3	STD8260 240-4259/8	UX82543.D
Level 4	STD8260 240-4259/7	UX82542.D
Level 5	STD8260 240-4259/6	UX82541.D
Level 6	STD8260 240-4259/5	UX82540.D
Level 7	STD8260 240-4259/4	UX82539.D
Level 8	STD8260 240-4259/3	UX82538.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chloromethane	FB	Ave	+++++ 391694	18256 788838	40277 1570371	80953	157078	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
Dichlorodifluoromethane	FB	Ave	7369 283316	13439 588495	32699 1142774	59257	118503	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Vinyl chloride	FB	Ave	6066 312363	10411 614814	30076 1210426	61745	122809	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Bromomethane	FB	Qua	5175 126476	7842 231042	17308	31566	55063	1.00 50.0	2.00 100	5.00	10.0	20.0
Acetone	FB	Lin1	+++++ 274436	+++++ 561376	65447 1044507	77811	129196	+++++ 100	+++++ 200	10.0 400	20.0	40.0
Chloroethane	FB	Ave	3480 171109	7081 323442	19177 665064	38418	73250	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Acetonitrile	FB	Lin1	+++++ 535716	+++++ 1117910	73604 2106918	120767	227379	+++++ 500	+++++ 1000	50.0 2000	100	200
Methylene Chloride	FB	Qua	+++++ 392389	+++++ 800438	114171 1408442	133636	226645	+++++ 50.0	+++++ 100	5.00 200	10.0	20.0
Trichlorofluoromethane	FB	Ave	5880 299906	10519 567271	30561 1008388	59925	119920	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Acrolein	FB	Ave	15852 617405	27251 1310787	76875 2384723	132554	258120	10.0 500	20.0 1000	50.0 2000	100	200
1,1-Dichloroethene	FB	Ave	5214 289236	10248 565824	28213 1028272	57276	117057	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	FB	Ave	3101 193935	5848 380740	16639 723564	35631	73819	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Acrylonitrile	FB	Ave	+++++ 285972	14265 627756	38747 1216633	63921	123784	+++++ 100	4.00 200	10.0 400	20.0	40.0
Iodomethane	FB	Ave	8032 434937	15503 854524	43659 1606954	87174	178779	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Carbon disulfide	FB	Ave	18657 1090284	37173 2083743	101759 3888688	203513	428990	1.00 50.0	2.00 100	5.00 200	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Methyl acetate	FB	Ave	12615	23761	70438	120077	237011	2.00	4.00	10.0	20.0	40.0
			575393	1271089	2573483			100	200	400		
tert-Butyl alcohol	FB	Ave	18829	34692	106766	184116	360136	20.0	40.0	100	200	400
			838548	1836923	3319513			1000	2000	4000		
Methyl tert-butyl ether	FB	Ave	20486	40320	116782	223407	445157	1.00	2.00	5.00	10.0	20.0
			990441	2264581	4297739			50.0	100	200		
trans-1,2-Dichloroethene	FB	Ave	6487	11711	33933	66900	134172	1.00	2.00	5.00	10.0	20.0
			328445	661798	1228351			50.0	100	200		
Hexane	FB	Ave	1066	2271	7305	13029	27089	1.00	2.00	5.00	10.0	20.0
			65794	144196	300466			50.0	100	200		
2-Butanone	FB	Ave	+++++	13949	37755	62951	111707	+++++	4.00	10.0	20.0	40.0
			269758	618465	1297908			100	200	400		
1,1-Dichloroethane	FB	Ave	11682	21159	60296	119777	245871	1.00	2.00	5.00	10.0	20.0
			588500	1244626	2457691			50.0	100	200		
Vinyl acetate	FB	Ave	995	1733	5417	10304	18706	1.00	2.00	5.00	10.0	20.0
			45953	111205	244540			50.0	100	200		
Tetrahydrofuran	FB	Lin1	+++++	7819	15307	25317	43682	+++++	2.00	5.00	10.0	20.0
			106359	240026	475180			50.0	100	200		
cis-1,2-Dichloroethene	FB	Ave	6760	12663	35702	69324	142389	1.00	2.00	5.00	10.0	20.0
			331250	708190	1371846			50.0	100	200		
2,2-Dichloropropane	FB	Ave	9157	16931	43774	83849	176398	1.00	2.00	5.00	10.0	20.0
			444972	831778	1511465			50.0	100	200		
Bromochloromethane	FB	Ave	3236	5253	15388	27986	57002	1.00	2.00	5.00	10.0	20.0
			133153	296166	588509			50.0	100	200		
Chloroform	FB	Ave	11263	18432	52990	103935	205798	1.00	2.00	5.00	10.0	20.0
			492565	1088187	2187969			50.0	100	200		
2-Chloroethyl vinyl ether	FB	Qua	+++++	+++++	1791	3397	6356	+++++	+++++	10.0	20.0	40.0
			15099	41743	114168			100	200	400		
1,1,1-Trichloroethane	FB	Ave	7747	15841	43876	88794	189257	1.00	2.00	5.00	10.0	20.0
			473884	940679	1763852			50.0	100	200		
Cyclohexane	FB	Ave	10664	21421	65145	127870	268584	1.00	2.00	5.00	10.0	20.0
			701166	1352911	2574163			50.0	100	200		
1,1-Dichloropropene	FB	Ave	6479	11556	34272	67415	144364	1.00	2.00	5.00	10.0	20.0
			359009	775155	1619576			50.0	100	200		
Carbon tetrachloride	FB	Ave	5994	12206	32995	67863	143707	1.00	2.00	5.00	10.0	20.0
			372575	729639	1394420			50.0	100	200		
1,2-Dichloroethane	FB	Ave	7642	13130	40786	77113	156711	1.00	2.00	5.00	10.0	20.0
			366599	870825	1850599			50.0	100	200		
Benzene	FB	Ave	22701	41014	117101	221667	450166	1.00	2.00	5.00	10.0	20.0
			1110911	2429321	5036413			50.0	100	200		
Trichloroethene	FB	Ave	3466	7201	22099	42137	85258	1.00	2.00	5.00	10.0	20.0
			217533	486420	1040976			50.0	100	200		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Methylcyclohexane	FB	Ave	11077 612925	17982 1196249	57741 2267446	116187	238048	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dichloropropane	FB	Ave	5097 256856	9564 575143	27466 1228357	52595	104829	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Dibromomethane	FB	Ave	3147 137466	5249 318812	15150 671477	29474	57784	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,4-Dioxane	FB	Ave	2419 139177	5833 298931	16262 595225	29896	58222	50.0 2500	100 5000	250 10000	500	1000
Bromodichloromethane	FB	Ave	7000 304852	11963 718247	32784 1573919	64249	126522	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Ethyl methacrylate	CBZ	Ave	+++++ 290441	16193 669547	39669 1455815	72267	130834	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
2-Hexanone	CBZ	Lin1	+++++ 357660	20439 779401	59059 1642539	91488	162263	+++++ 100	4.00 200	10.0 400	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	6825 339350	12920 808297	37045 1847299	71565	137486	1.00 50.0	2.00 100	5.00 200	10.0	20.0
4-Methyl-2-pentanone	FB	Ave	15707 586184	25679 1361848	82024 2873085	130659	247448	2.00 100	4.00 200	10.0 400	20.0	40.0
Toluene	CBZ	Ave	21120 952032	38579 2105310	99796 4550556	193028	379034	1.00 50.0	2.00 100	5.00 200	10.0	20.0
trans-1,3-Dichloropropene	CBZ	Ave	6240 296412	12495 688546	34446 1572681	65855	119731	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,2-Trichloroethane	CBZ	Ave	3895 165865	7424 389455	19427 867577	36594	67836	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,3-Dichloropropane	CBZ	Ave	7082 302560	13265 700086	36544 1574218	68920	127099	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Tetrachloroethene	CBZ	Ave	2545 157659	4705 344611	15565 728625	30594	62589	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Dibromochloromethane	CBZ	Ave	3212 171660	7102 408095	19047 906470	36707	71420	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dibromoethane	CBZ	Ave	4297 169016	6783 383795	21413 849081	37362	70262	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Chlorobenzene	CBZ	Ave	12705 580005	24277 1246296	63544 2757893	122045	238114	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	5154 240444	8269 524113	25514 1038856	48731	97034	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Ethylbenzene	CBZ	Ave	7440 352350	14382 739244	35814 1566430	71840	142090	1.00 50.0	2.00 100	5.00 200	10.0	20.0
trans-1,4-Dichloro-2-butene	DCB	Ave	+++++ 104294	5774 233871	14456 474820	25217	45733	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
m-Xylene & p-Xylene	CBZ	Ave	18279 874044	33799 1814441	91128 3752466	181683	353564	2.00 100	4.00 200	10.0 400	20.0	40.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
o-Xylene	CBZ	Ave	9671	18408	48343	96100	194014	1.00	2.00	5.00	10.0	20.0
			467662	990209	1959588			50.0	100	200		
Styrene	CBZ	Ave	16568	28384	78392	151022	303868	1.00	2.00	5.00	10.0	20.0
			715789	1535445	3156368			50.0	100	200		
Bromoform	CBZ	Ave	2268	4541	13588	27047	52889	1.00	2.00	5.00	10.0	20.0
			125681	297199	642502			50.0	100	200		
Isopropylbenzene	CBZ	Ave	22263	44168	125799	247696	519701	1.00	2.00	5.00	10.0	20.0
			1296262	2716045	5332841			50.0	100	200		
1,1,2,2-Tetrachloroethane	DCB	Ave	7819	11988	35261	64198	119405	1.00	2.00	5.00	10.0	20.0
			278491	621789	1265527			50.0	100	200		
Bromobenzene	DCB	Ave	4997	9885	27180	55641	107538	1.00	2.00	5.00	10.0	20.0
			249279	537701	1107772			50.0	100	200		
1,2,3-Trichloropropane	DCB	Ave	1780	3803	10261	19658	33996	1.00	2.00	5.00	10.0	20.0
			83669	183255	371272			50.0	100	200		
n-Propylbenzene	DCB	Ave	6246	11571	32322	64604	131673	1.00	2.00	5.00	10.0	20.0
			318743	651926	1321977			50.0	100	200		
Hexachlorobutadiene	DCB	Ave	+++++	+++++	17512	38532	78963	+++++	+++++	5.00	10.0	20.0
			195007	413209	796686			50.0	100	200		
2-Chlorotoluene	DCB	Ave	5516	9606	26976	55459	108715	1.00	2.00	5.00	10.0	20.0
			261864	560074	1113139			50.0	100	200		
1,3,5-Trimethylbenzene	DCB	Ave	19497	35515	103737	210598	432007	1.00	2.00	5.00	10.0	20.0
			1072312	2275506	4425790			50.0	100	200		
4-Chlorotoluene	DCB	Ave	5554	10412	26707	56555	107691	1.00	2.00	5.00	10.0	20.0
			255525	537775	1099196			50.0	100	200		
tert-Butylbenzene	DCB	Ave	15111	30209	86586	181944	374914	1.00	2.00	5.00	10.0	20.0
			943339	1971218	3912977			50.0	100	200		
1,2,4-Trimethylbenzene	DCB	Ave	21261	36992	107294	215014	439938	1.00	2.00	5.00	10.0	20.0
			1066602	2261370	4461817			50.0	100	200		
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++	1955	6291	11963	23736	+++++	2.00	5.00	10.0	20.0
			56317	129064	251516			50.0	100	200		
sec-Butylbenzene	DCB	Ave	23001	41132	131391	269787	564562	1.00	2.00	5.00	10.0	20.0
			1411802	2961163	5684553			50.0	100	200		
1,3-Dichlorobenzene	DCB	Ave	11614	19237	53855	104349	205416	1.00	2.00	5.00	10.0	20.0
			479863	1026135	2020042			50.0	100	200		
p-Isopropyltoluene	DCB	Ave	18037	32933	104295	210386	438186	1.00	2.00	5.00	10.0	20.0
			1090576	2281530	4371279			50.0	100	200		
1,4-Dichlorobenzene	DCB	Ave	11614	19306	53545	104214	208614	1.00	2.00	5.00	10.0	20.0
			489627	1039378	2090704			50.0	100	200		
n-Butylbenzene	DCB	Ave	17974	31518	98128	207319	427517	1.00	2.00	5.00	10.0	20.0
			1066703	2208802	4279927			50.0	100	200		
1,2-Dichlorobenzene	DCB	Ave	10075	18112	52573	103896	200509	1.00	2.00	5.00	10.0	20.0
			476088	1025828	1971097			50.0	100	200		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,3,5-Trichlorobenzene	DCB	Ave	6603 384742	11741 835451	38556 1628401	78996	159610	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,4-Trichlorobenzene	DCB	Ave	6619 334375	11697 738112	33528 1473793	68757	136133	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Naphthalene	DCB	Ave	19346 835009	33196 1875302	92465 3630772	181666	350774	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,3-Trichlorobenzene	DCB	Ave	6407 298694	10677 674675	31649 1336626	63434	126348	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 208986	+++++ 502255	+++++ 1032636	55099	99010	+++++ 50.0	+++++ 100	+++++ 200	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 252800	+++++ 648836	+++++ 1421732	69615	122732	+++++ 50.0	+++++ 100	+++++ 200	10.0	20.0
Toluene-d8 (Surr)	CBZ	Ave	+++++ 744594	+++++ 1698354	+++++ 3702164	166088	309629	+++++ 50.0	+++++ 100	+++++ 200	10.0	20.0
4-Bromofluorobenzene (Surr)	CBZ	Ave	+++++ 307409	+++++ 671419	+++++ 1447764	79634	141862	+++++ 50.0	+++++ 100	+++++ 200	10.0	20.0

Curve Type Legend:
Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 04:39 Calibration End Date: 06/10/2011 06:25 Calibration ID: 1464

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-4259/16	UX82551.D
Level 2	STDA9 240-4259/15	UX82550.D
Level 3	STDA9 240-4259/14	UX82549.D
Level 4	STDA9 240-4259/13	UX82548.D
Level 5	STDA9 240-4259/12	UX82547.D
Level 6	STDA9 240-4259/11	UX82546.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	0.4383 0.3130	0.3342	0.3940	0.3958	0.3593	Ave		0.3725				12.0		15.0			
Ethyl ether	0.2152 0.1916	0.2826	0.2213	0.2223	0.2124	Ave		0.2242				14.0		15.0			
3-Chloro-1-propene	0.1591 0.1697	0.1558	0.1759	0.1773	0.1764	Ave		0.1690				5.6		15.0			
Diisopropyl ether	0.2464 0.2207	0.2556	0.2765	0.2790	0.2664	Ave		0.2575				8.5		15.0			
2-Chloro-1,3-butadiene	0.4384 0.4531	0.4342	0.4656	0.4706	0.4470	Ave		0.4515				3.2		15.0			
Ethyl-t-butyl ether (ETBE)	1.0412 1.1091	1.0681	1.1602	1.1965	1.1822	Ave		1.1262				5.6		15.0			
Ethyl acetate	0.2322 0.1960	0.2250	0.2274	0.2169	0.2018	Ave		0.2166				6.8		15.0			
Propionitrile	0.0474 0.0399	0.0428	0.0479	0.0448	0.0416	Ave		0.0441				7.3		15.0			
Methacrylonitrile	0.1614 0.1543	0.1599	0.1664	0.1623	0.1592	Ave		0.1606				2.5		15.0			
Isobutyl alcohol	0.0132 0.0103	0.0115	0.0115	0.0118	0.0110	Ave		0.0115				8.3		15.0			
Tert-amyl-methyl ether (TAME)	0.8434 0.9078	0.8775	0.9610	1.0068	0.9956	Ave		0.9320				7.1		15.0			
n-Heptane	0.0463 0.0498	0.0410	0.0501	0.0498	0.0480	Ave		0.0475				7.4		15.0			
n-Butanol	0.0118 0.0076	0.0115	0.0098	0.0094	0.0083	Lin1	0.5922	0.0078							0.9940		0.9900
Ethyl acrylate	0.3519 0.2427	0.3049	0.3123	0.2918	0.2531	Ave		0.2928				14.0		15.0			
Methyl methacrylate	0.2015 0.1767	0.2120	0.2109	0.2080	0.1864	Ave		0.1992				7.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 04:39 Calibration End Date: 06/10/2011 06:25 Calibration ID: 1464

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Nitropropane	0.0644 0.0626	0.0651	0.0695	0.0675	0.0651	Ave		0.0657				3.8		15.0			
n-Butyl acetate	0.4672 0.3347	0.4355	0.4724	0.4364	0.3838	Ave		0.4217				13.0		15.0			
Cyclohexanone	0.0560 0.0591	0.0585	0.0568	0.0570	0.0569	Ave		0.0574				2.0		15.0			
1,2,3-Trimethylbenzene	2.5131 2.7915	2.5252	2.6342	2.7330	2.6717	Ave		2.6448				4.2		15.0			
2-Methylnaphthalene	1.0709 1.1222	0.9504	1.0303	1.1381	1.0262	Ave		1.0563				6.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 04:39 Calibration End Date: 06/10/2011 06:25 Calibration ID: 1464

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-4259/16	UX82551.D
Level 2	STDA9 240-4259/15	UX82550.D
Level 3	STDA9 240-4259/14	UX82549.D
Level 4	STDA9 240-4259/13	UX82548.D
Level 5	STDA9 240-4259/12	UX82547.D
Level 6	STDA9 240-4259/11	UX82546.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorofluoromethane	FB	Ave	51242 1483225	82753	177785	441807	798547	5.00 200	10.0	20.0	50.0	100
Ethyl ether	FB	Ave	25162 907707	69966	99867	248075	471944	5.00 200	10.0	20.0	50.0	100
3-Chloro-1-propene	FB	Ave	18598 803915	38588	79385	197915	391978	5.00 200	10.0	20.0	50.0	100
Diisopropyl ether	FB	Ave	144010 5229086	316465	623928	1557330	2960564	25.0 1000	50.0	100	250	500
2-Chloro-1,3-butadiene	FB	Ave	51253 2146603	107496	210092	525217	993353	5.00 200	10.0	20.0	50.0	100
Ethyl-t-butyl ether (ETBE)	FB	Ave	121718 5254937	264447	523584	1335474	2627224	5.00 200	10.0	20.0	50.0	100
Ethyl acetate	FB	Ave	54294 1857722	111425	205213	484247	896938	10.0 400	20.0	40.0	100	200
Propionitrile	FB	Ave	11078 378124	21208	43272	99927	184950	10.0 400	20.0	40.0	100	200
Methacrylonitrile	FB	Ave	18864 731125	39583	75073	181118	353804	5.00 200	10.0	20.0	50.0	100
Isobutyl alcohol	FB	Ave	30828 976304	56821	103506	263749	490614	100 4000	200	400	1000	2000
Tert-amyl-methyl ether (TAME)	FB	Ave	98594 4301214	217260	433672	1123800	2212493	5.00 200	10.0	20.0	50.0	100
n-Heptane	FB	Ave	5417 235857	10142	22631	55565	106697	5.00 200	10.0	20.0	50.0	100
n-Butanol	FB	Lin1	27599 722724	56845	88721	209261	368904	100 4000	200	400	1000	2000
Ethyl acrylate	FB	Ave	41143 1149991	75494	140952	325694	562352	5.00 200	10.0	20.0	50.0	100
Methyl methacrylate	FB	Ave	23553 837255	52496	95169	232140	414188	5.00 200	10.0	20.0	50.0	100
2-Nitropropane	FB	Ave	15051 592938	32225	62748	150788	289156	10.0 400	20.0	40.0	100	200

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 04:39 Calibration End Date: 06/10/2011 06:25 Calibration ID: 1464

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
n-Butyl acetate	FB	Ave	109227	215658	426378	974168	1705634	10.0	20.0	40.0	100	200
			3171303					400				
Cyclohexanone	CBZ	Ave	43739	94050	174221	415826	812278	50.0	100	200	500	1000
			1678566					2000				
1,2,3-Trimethylbenzene	DCB	Ave	106226	222016	440020	1154078	2232544	5.00	10.0	20.0	50.0	100
			4568598					200				
2-Methylnaphthalene	DCB	Ave	90531	167123	344188	961182	1715010	10.0	20.0	40.0	100	200
			3673344					400				

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

Second Source

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-4259/17 Calibration Date: 06/10/2011 06:46

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82552.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2686	0.2205		41000	50000	-17.9	50.0
Chloromethane	Ave	0.3506	0.3538	0.1000	50500	50000	0.9	50.0
Vinyl chloride	Ave	0.2587	0.2672		51600	50000	3.3	20.0
Bromomethane	Qua		0.1119		49000	50000	-2.0	50.0
Chloroethane	Ave	0.1532	0.1571		51300	50000	2.5	50.0
Trichlorofluoromethane	Ave	0.2483	0.2712		54600	50000	9.2	50.0
1,1-Dichloroethene	Ave	0.2383	0.2674		56100	50000	12.2	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1502	0.1757		58500	50000	17.0	50.0
Acetone	Lin1		0.1217		106000	100000	6.3	50.0
Iodomethane	Ave	0.3639	0.4540		62400	50000	24.8	50.0
Carbon disulfide	Ave	0.8711	0.9654		55400	50000	10.8	50.0
Methyl acetate	Ave	0.2678	0.2814		52500	50000	5.1	50.0
Methylene Chloride	Qua		0.3844		52500	50000	5.0	50.0
tert-Butyl alcohol	Ave	0.0393	0.0436		1110000	1000000	10.9	50.0
Methyl tert-butyl ether	Ave	0.9294	1.024		55100	50000	10.2	50.0
trans-1,2-Dichloroethene	Ave	0.2797	0.2956		52900	50000	5.7	50.0
Hexane	Ave	0.0568	0.0570		50100	50000	0.3	20.0
1,1-Dichloroethane	Ave	0.5117	0.5571	0.1000	54400	50000	8.9	50.0
Vinyl acetate	Ave	0.0437	0.0438		50200	50000	0.4	50.0
2-Butanone	Ave	0.1372	0.1220		88900	100000	-11.1	50.0
cis-1,2-Dichloroethene	Ave	0.2954	0.3179		53800	50000	7.6	50.0
2,2-Dichloropropane	Ave	0.3695	0.3741		50600	50000	1.3	50.0
Bromochloromethane	Ave	0.1246	0.1309		52500	50000	5.1	50.0
Tetrahydrofuran	Lin1		0.0973		51900	50000	3.8	50.0
Chloroform	Ave	0.4485	0.4841		54000	50000	7.9	20.0
1,1,1-Trichloroethane	Ave	0.3798	0.4053		53400	50000	6.7	50.0
Cyclohexane	Ave	0.5442	0.5592		51400	50000	2.8	50.0
1,1-Dichloropropene	Ave	0.3009	0.3020		50200	50000	0.4	50.0
Carbon tetrachloride	Ave	0.2929	0.3106		53000	50000	6.0	50.0
1,2-Dichloroethane	Ave	0.3387	0.3521		52000	50000	3.9	50.0
Benzene	Ave	0.9830	1.000		50900	50000	1.7	50.0
Trichloroethene	Ave	0.1842	0.1871		50800	50000	1.5	50.0
Methylcyclohexane	Ave	0.4882	0.4972		50900	50000	1.8	50.0
1,2-Dichloropropane	Ave	0.2302	0.2442		53000	50000	6.1	20.0
Dibromomethane	Ave	0.1284	0.1367		53200	50000	6.4	50.0
Bromodichloromethane	Ave	0.2864	0.2901		50700	50000	1.3	50.0
2-Chloroethyl vinyl ether	Qua		0.0074		53600	50000	7.2	50.0
cis-1,3-Dichloropropene	Ave	0.3148	0.3017		47900	50000	-4.2	50.0
4-Methyl-2-pentanone	Ave	0.2960	0.2894		97800	100000	-2.2	50.0
Toluene	Ave	1.393	1.360		48800	50000	-2.4	20.0

OK

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-4259/17 Calibration Date: 06/10/2011 06:46

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82552.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
trans-1,3-Dichloropropene	Ave	0.4536	0.4494		49500	50000	-0.9	50.0
1,1,2-Trichloroethane	Ave	0.2592	0.2709		52300	50000	4.5	50.0
1,3-Dichloropropane	Ave	0.4755	0.4872		51200	50000	2.5	50.0
Tetrachloroethene	Ave	0.2116	0.2119		50100	50000	0.1	50.0
2-Hexanone	Lin1		0.2839		105000	100000	5.1	50.0
Dibromochloromethane	Ave	0.2577	0.2716		52700	50000	5.4	50.0
1,2-Dibromoethane	Ave	0.2642	0.2723		51500	50000	3.1	50.0
Chlorobenzene	Ave	0.8588	0.8840	0.3000	51500	50000	2.9	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3401	0.3845		56500	50000	13.0	50.0
Ethylbenzene	Ave	0.5041	0.5125		50800	50000	1.6	20.0
m-Xylene & p-Xylene	Ave	0.6208	0.6190		99700	100000	-0.3	50.0
o-Xylene	Ave	0.6652	0.7273		54700	50000	9.3	50.0
Styrene	Ave	1.055	1.120		53100	50000	6.1	50.0
Bromoform	Ave	0.1841	0.2109	0.1000	57300	50000	14.6	50.0
Isopropylbenzene	Ave	1.733	1.838		53000	50000	6.1	50.0
1,1,2,2-Tetrachloroethane	Ave	0.8004	0.7978	0.3000	49800	50000	-0.3	50.0
Bromobenzene	Ave	0.6603	0.6931		52500	50000	5.0	50.0
1,2,3-Trichloropropane	Ave	0.2305	0.2429		52700	50000	5.4	50.0
trans-1,4-Dichloro-2-butene	Ave	0.3128	0.3100		99100	100000	-0.9	50.0
n-Propylbenzene	Ave	0.7989	0.8030		50300	50000	0.5	50.0
2-Chlorotoluene	Ave	0.6741	0.6942		51500	50000	3.0	50.0
1,3,5-Trimethylbenzene	Ave	2.616	2.767		52900	50000	5.8	50.0
4-Chlorotoluene	Ave	0.6741	0.6906		51200	50000	2.4	50.0
tert-Butylbenzene	Ave	2.237	2.310		51600	50000	3.3	50.0
1,2,4-Trimethylbenzene	Ave	2.676	2.842		53100	50000	6.2	50.0
sec-Butylbenzene	Ave	3.315	3.468		52300	50000	4.6	50.0
1,3-Dichlorobenzene	Ave	1.291	1.296		50200	50000	0.4	50.0
p-Isopropyltoluene	Ave	2.584	2.809		54300	50000	8.7	50.0
1,4-Dichlorobenzene	Ave	1.304	1.302		49900	50000	-0.1	50.0
n-Butylbenzene	Ave	2.514	2.588		51500	50000	3.0	50.0
1,2-Dichlorobenzene	Ave	1.246	1.323		53100	50000	6.2	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1496	0.1587		53000	50000	6.0	50.0
1,2,4-Trichlorobenzene	Ave	0.8498	0.8281		48700	50000	-2.5	50.0
Hexachlorobutadiene	Ave	0.4931	0.4574		46400	50000	-7.2	50.0
Naphthalene	Ave	2.245	2.328		51800	50000	3.7	50.0
1,2,3-Trichlorobenzene	Ave	0.7840	0.8296		52900	50000	5.8	50.0
Dibromofluoromethane (Surr)	Ave	0.2097	0.1977		47100	50000	-5.7	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2673	0.2311		43200	50000	-13.6	50.0
Toluene-d8 (Surr)	Ave	1.160	1.115		48100	50000	-3.8	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4955	0.4656		47000	50000	-6.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-4259/17 Calibration Date: 06/10/2011 06:46

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 04:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 06:25

Lab File ID: UX82552.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.2242	0.2335		52100	50000	4.2	50.0
Diisopropyl ether	Ave	0.2575	0.2908		56500	50000	13.0	50.0
Isobutyl alcohol	Ave	0.0115	0.0121		2610000	2500000	4.5	50.0
Cyclohexanone	Ave	0.0574	0.0191		333000	1000000	-66.7*	50.0
1,2,3-Trimethylbenzene	Ave	2.645	3.074		58100	50000	16.2	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: BFB8715.D BFB Injection Date: 06/14/2011

Instrument ID: A3UX8 BFB Injection Time: 19:38

Analysis Batch No.: 4766

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.8	
75	30.0 - 60.0 % of mass 95	50.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.2	(0.3)1
174	50.0 - 120.00 % of mass 95	70.7	
175	5.0 - 9.0 % of mass 174	5.3	(7.5)1
176	95.0 - 101.0 % of mass 174	67.9	(96.0)1
177	5.0 - 9.0 % of mass 176	4.6	(6.8)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-4766/3	UX82667.D	06/14/2011	20:22
	CCV 240-4766/4	UX82668.D	06/14/2011	20:43
	LCS 240-4766/5	UX82669.D	06/14/2011	21:04
	MB 240-4766/6	UX82670.D	06/14/2011	21:25
	240-728-F-5-A MS	UX82675.D	06/14/2011	23:51
	240-728-H-5-A MSD	UX82676.D	06/15/2011	00:13
GSP-SB-103-0-2	240-741-1	UX82684.D	06/15/2011	03:03
GSP-SB-103-6-8	240-741-2	UX82685.D	06/15/2011	03:24
GSP-SB-105-6-8	240-741-4	UX82687.D	06/15/2011	04:06
GSP-SB-101-0-2	240-741-5	UX82688.D	06/15/2011	04:28
GSP-SB-101-6-8	240-741-6	UX82689.D	06/15/2011	04:49

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVIS 240-4766/3 Calibration Date: 06/14/2011 20:22

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82667.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2686	0.1755		32700	50000	-34.7	50.0
Chloromethane	Ave	0.3506	0.2934	0.1000	41800	50000	-16.3	50.0
Vinyl chloride	Ave	0.2587	0.2339		45200	50000	-9.6	20.0
Bromomethane	Qua		0.1018		43600	50000	-12.8	50.0
Chloroethane	Ave	0.1532	0.1390		45400	50000	-9.2	50.0
Trichlorofluoromethane	Ave	0.2483	0.2522		50800	50000	1.6	50.0
Acrolein	Ave	0.0585	0.0430		367000	500000	-26.5	50.0
1,1-Dichloroethene	Ave	0.2383	0.2290		48100	50000	-3.9	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1502	0.1549		51600	50000	3.1	50.0
Acetone	Lin1		0.1124		96800	100000	-3.2	50.0
Iodomethane	Ave	0.3639	0.3529		48500	50000	-3.0	50.0
Carbon disulfide	Ave	0.8711	0.8114		46600	50000	-6.8	50.0
Acetonitrile	Lin1		0.0444		508000	500000	1.6	50.0
Methyl acetate	Ave	0.2678	0.2642		98700	100000	-1.3	50.0
Methylene Chloride	Qua		0.3386		44500	50000	-11.0	50.0
tert-Butyl alcohol	Ave	0.0393	0.0354		900000	1000000	-10.0	50.0
Acrylonitrile	Ave	0.1408	0.1235		87700	100000	-12.3	50.0
Methyl tert-butyl ether	Ave	0.9294	0.9022		48500	50000	-2.9	50.0
trans-1,2-Dichloroethene	Ave	0.2797	0.2739		49000	50000	-2.1	50.0
Hexane	Ave	0.0568	0.0604		53200	50000	6.3	20.0
1,1-Dichloroethane	Ave	0.5117	0.5090	0.1000	49700	50000	-0.5	50.0
Vinyl acetate	Ave	0.0437	0.0348		39600	50000	-20.8	50.0
2-Butanone	Ave	0.1372	0.1260		91800	100000	-8.2	50.0
cis-1,2-Dichloroethene	Ave	0.2954	0.2976		50400	50000	0.7	50.0
2,2-Dichloropropane	Ave	0.3695	0.3202		43300	50000	-13.3	50.0
Bromochloromethane	Ave	0.1246	0.1226		49200	50000	-1.6	50.0
Tetrahydrofuran	Lin1		0.0938		50000	50000	0.0	50.0
Chloroform	Ave	0.4485	0.4364		48600	50000	-2.7	20.0
1,1,1-Trichloroethane	Ave	0.3798	0.3670		48300	50000	-3.4	50.0
Cyclohexane	Ave	0.5442	0.5605		51500	50000	3.0	50.0
1,1-Dichloropropene	Ave	0.3009	0.3150		52300	50000	4.7	50.0
Carbon tetrachloride	Ave	0.2929	0.2734		46700	50000	-6.7	50.0
1,2-Dichloroethane	Ave	0.3387	0.3486		51500	50000	2.9	50.0
Benzene	Ave	0.9830	1.004		51100	50000	2.2	50.0
Trichloroethene	Ave	0.1842	0.2040		55400	50000	10.7	50.0
Methylcyclohexane	Ave	0.4882	0.5038		51600	50000	3.2	50.0
1,2-Dichloropropane	Ave	0.2302	0.2454		53300	50000	6.6	20.0
1,4-Dioxane	Ave	0.0025	0.0026		2610000	2500000	4.6	50.0
Dibromomethane	Ave	0.1284	0.1300		50600	50000	1.2	50.0
Bromodichloromethane	Ave	0.2864	0.2780		48500	50000	-2.9	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVIS 240-4766/3 Calibration Date: 06/14/2011 20:22

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82667.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Qua		0.0103		136000	100000	35.5	50.0
cis-1,3-Dichloropropene	Ave	0.3148	0.3491		55400	50000	10.9	50.0
4-Methyl-2-pentanone	Ave	0.2960	0.2829		95600	100000	-4.4	50.0
Toluene	Ave	1.393	1.382		49600	50000	-0.8	20.0
trans-1,3-Dichloropropene	Ave	0.4536	0.4589		50600	50000	1.2	50.0
Ethyl methacrylate	Ave	0.4934	0.4687		47500	50000	-5.0	50.0
1,1,2-Trichloroethane	Ave	0.2592	0.2688		51900	50000	3.7	50.0
1,3-Dichloropropane	Ave	0.4755	0.5022		52800	50000	5.6	50.0
Tetrachloroethene	Ave	0.2116	0.2275		53800	50000	7.5	50.0
2-Hexanone	Lin1		0.2758		102000	100000	2.1	50.0
Dibromochloromethane	Ave	0.2577	0.2470		47900	50000	-4.2	50.0
1,2-Dibromoethane	Ave	0.2642	0.2721		51500	50000	3.0	50.0
Chlorobenzene	Ave	0.8588	0.8799	0.3000	51200	50000	2.5	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3401	0.2988		43900	50000	-12.2	50.0
Ethylbenzene	Ave	0.5041	0.5156		51100	50000	2.3	20.0
m-Xylene & p-Xylene	Ave	0.6208	0.6323		102000	100000	1.8	50.0
o-Xylene	Ave	0.6652	0.6539		49200	50000	-1.7	50.0
Styrene	Ave	1.055	1.079		51100	50000	2.3	50.0
Bromoform	Ave	0.1841	0.1690	0.1000	45900	50000	-8.2	50.0
Isopropylbenzene	Ave	1.733	1.711		49400	50000	-1.3	50.0
1,1,2,2-Tetrachloroethane	Ave	0.8004	0.7951	0.3000	49700	50000	-0.7	50.0
Bromobenzene	Ave	0.6603	0.7431		56300	50000	12.5	50.0
1,2,3-Trichloropropane	Ave	0.2305	0.2416		52400	50000	4.8	50.0
trans-1,4-Dichloro-2-butene	Ave	0.3128	0.2862		45700	50000	-8.5	50.0
n-Propylbenzene	Ave	0.7989	0.8690		54400	50000	8.8	50.0
2-Chlorotoluene	Ave	0.6741	0.7332		54400	50000	8.8	50.0
1,3,5-Trimethylbenzene	Ave	2.616	2.777		53100	50000	6.1	50.0
4-Chlorotoluene	Ave	0.6741	0.7342		54500	50000	8.9	50.0
tert-Butylbenzene	Ave	2.237	2.426		54200	50000	8.4	50.0
1,2,4-Trimethylbenzene	Ave	2.676	2.796		52200	50000	4.5	50.0
sec-Butylbenzene	Ave	3.315	3.609		54400	50000	8.9	50.0
1,3-Dichlorobenzene	Ave	1.291	1.332		51600	50000	3.2	50.0
p-Isopropyltoluene	Ave	2.584	2.781		53800	50000	7.6	50.0
1,4-Dichlorobenzene	Ave	1.304	1.347		51600	50000	3.3	50.0
n-Butylbenzene	Ave	2.514	2.628		52300	50000	4.6	50.0
1,2-Dichlorobenzene	Ave	1.246	1.283		51500	50000	3.0	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1496	0.1266		42300	50000	-15.4	50.0
1,3,5-Trichlorobenzene	Ave	0.9443	0.9933		52600	50000	5.2	50.0
1,2,4-Trichlorobenzene	Ave	0.8498	0.8517		50100	50000	0.2	50.0
Hexachlorobutadiene	Ave	0.4931	0.4680		47500	50000	-5.1	50.0
Naphthalene	Ave	2.245	2.065		46000	50000	-8.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVIS 240-4766/3 Calibration Date: 06/14/2011 20:22

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82667.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.7840	0.7724		49300	50000	-1.5	50.0
Dibromofluoromethane (Surr)	Ave	0.2097	0.1880		47100	50000	-10.3	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2673	0.2421		46200	50000	-9.4	50.0
Toluene-d8 (Surr)	Ave	1.160	1.074		44200	50000	-7.4	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4955	0.4558		48400	50000	-8.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4766/4 Calibration Date: 06/14/2011 20:43

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 04:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 06:25

Lab File ID: UX82668.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.3725	0.3471		46600	50000	-6.8	50.0
Ethyl ether	Ave	0.2242	0.2094		46700	50000	-6.6	50.0
3-Chloro-1-propene	Ave	0.1690	0.1679		49700	50000	-0.7	50.0
Diisopropyl ether	Ave	0.2575	0.2673		260000	250000	3.8	50.0
2-Chloro-1,3-butadiene	Ave	0.4515	0.4627		51200	50000	2.5	50.0
Ethyl-t-butyl ether (ETBE)	Ave	1.126	1.120		49700	50000	-0.6	50.0
Ethyl acetate	Ave	0.2166	0.2422		112000	100000	11.8	50.0
Propionitrile	Ave	0.0441	0.0428		97200	100000	-2.8	50.0
Methacrylonitrile	Ave	0.1606	0.1773		55200	50000	10.4	50.0
Isobutyl alcohol	Ave	0.0115	0.0124		1070000	1000000	7.3	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.9320	0.9290		49800	50000	-0.3	50.0
n-Heptane	Ave	0.0475	0.0581		61200	50000	22.4	50.0
n-Butanol	Lin1		0.0098		1180000	1000000	17.6	50.0
Methyl methacrylate	Ave	0.1992	0.2328		58400	50000	16.8	50.0
2-Nitropropane	Ave	0.0657	0.0579		88200	100000	-11.8	50.0
Cyclohexanone	Ave	0.0574	0.0608		530000	500000	5.9	50.0
1,2,3-Trimethylbenzene	Ave	2.645	2.742		51800	50000	3.7	50.0
2-Methylnaphthalene	Ave	1.056	0.9295		88000	100000	-12.0	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: UX82670.D Lab Sample ID: MB 240-4766/6

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: A3UX8 Date Analyzed: 06/14/2011 21:25

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-4766/5	UX82669.D	06/14/2011 21:04
	240-728-F-5-A MS	UX82675.D	06/14/2011 23:51
	240-728-H-5-A MSD	UX82676.D	06/15/2011 00:13
GSP-SB-103-0-2	240-741-1	UX82684.D	06/15/2011 03:03
GSP-SB-103-6-8	240-741-2	UX82685.D	06/15/2011 03:24
GSP-SB-105-6-8	240-741-4	UX82687.D	06/15/2011 04:06
GSP-SB-101-0-2	240-741-5	UX82688.D	06/15/2011 04:28
GSP-SB-101-6-8	240-741-6	UX82689.D	06/15/2011 04:49

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Method Blank - Batch: 240-4766

Method: 8260B
Preparation: N/A

Lab Sample ID:	MB 240-4766/6	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	UX82670.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/14/2011 2125	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	5.0	U	0.62	5.0
1,1,1-Trichloroethane	5.0	U	0.56	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.34	5.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	5.0	U	1.3	5.0
1,1-Dichloroethane	5.0	U	0.36	5.0
1,1-Dichloroethene	5.0	U	0.52	5.0
1,1-Dichloropropene	5.0	U	0.30	5.0
1,2,3-Trichlorobenzene	5.0	U	0.38	5.0
1,2,3-Trichloropropane	5.0	U	0.90	5.0
1,2,3-Trimethylbenzene	5.0	U	0.17	5.0
1,2,4-Trichlorobenzene	0.282	J	0.27	5.0
1,2,4-Trimethylbenzene	5.0	U	0.65	5.0
1,2-Dibromo-3-Chloropropane	10	U	1.3	10
1,2-Dichlorobenzene	5.0	U	0.36	5.0
1,2-Dichloroethane	5.0	U	0.34	5.0
1,2-Dichloropropane	5.0	U	0.69	5.0
1,3-Dichlorobenzene	5.0	U	0.35	5.0
1,3-Dichloropropane	5.0	U	0.34	5.0
1,4-Dichlorobenzene	5.0	U	0.66	5.0
2,2-Dichloropropane	5.0	U	0.94	5.0
2-Butanone	20	U	1.4	20
2-Chloroethyl vinyl ether	50	U	1.4	50
2-Chlorotoluene	5.0	U	0.40	5.0
2-Hexanone	20	U	0.63	20
4-Chlorotoluene	5.0	U	0.41	5.0
p-Isopropyltoluene	5.0	U	0.21	5.0
4-Methyl-2-pentanone	20	U	0.54	20
Acetone	20	U	6.3	20
Benzene	5.0	U	0.23	5.0
Bromobenzene	5.0	U	0.33	5.0
Bromoform	5.0	U	0.33	5.0
Bromomethane	5.0	U	0.54	5.0
Carbon disulfide	5.0	U	0.44	5.0
Carbon tetrachloride	5.0	U	0.37	5.0
Chlorobenzene	5.0	U	0.33	5.0
Dibromochloromethane	5.0	U	0.55	5.0
Chloroethane	5.0	U	0.86	5.0
Chloroform	5.0	U	0.29	5.0
Chloromethane	5.0	U	0.41	5.0
cis-1,2-Dichloroethene	5.0	U	0.36	5.0
cis-1,3-Dichloropropene	5.0	U	0.34	5.0
Dibromomethane	5.0	U	0.63	5.0
Bromochloromethane	5.0	U	0.71	5.0
Dichlorodifluoromethane	5.0	U	0.50	5.0
Bromodichloromethane	5.0	U	0.28	5.0

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Method Blank - Batch: 240-4766

Method: 8260B
Preparation: N/A

Lab Sample ID:	MB 240-4766/6	Analysis Batch:	240-4766	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	UX82670.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/14/2011 2125	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
tert-Butyl alcohol	200	U	7.6	200
Ethylbenzene	5.0	U	0.26	5.0
Hexachlorobutadiene	5.0	U	1.2	5.0
Diisopropyl ether	10	U	1.5	10
Isopropylbenzene	5.0	U	0.16	5.0
Methyl tert-butyl ether	20	U	0.43	20
Methylene Chloride	5.0	U	0.67	5.0
m-Xylene & p-Xylene	10	U	1.2	10
Naphthalene	0.456	J	0.19	5.0
n-Butylbenzene	5.0	U	0.23	5.0
n-Propylbenzene	5.0	U	0.40	5.0
o-Xylene	5.0	U	0.35	5.0
sec-Butylbenzene	5.0	U	0.18	5.0
Styrene	5.0	U	0.15	5.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.37	5.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.22	5.0
Tetrachloroethene	5.0	U	0.52	5.0
Toluene	5.0	U	0.27	5.0
trans-1,2-Dichloroethene	5.0	U	0.41	5.0
trans-1,3-Dichloropropene	5.0	U	0.54	5.0
Trichloroethene	5.0	U	0.42	5.0
Trichlorofluoromethane	5.0	U	0.34	5.0
Vinyl acetate	10	U	0.25	10
Vinyl chloride	5.0	U	0.39	5.0
Xylenes, Total	10	U	0.67	10
tert-Butylbenzene	5.0	U	0.29	5.0
1,2-Dibromoethane	5.0	U	0.50	5.0

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	87	67 - 125
Dibromofluoromethane (Surr)	90	37 - 132
4-Bromofluorobenzene (Surr)	92	52 - 136
1,2-Dichloroethane-d4 (Surr)	87	58 - 123

Method Blank TICs- Batch: 240-4766

Cas Number	Analyte	RT	Est. Result	Qual
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82669.D

Lab ID: LCS 240-4766/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	42.3	85	81-119	
1,1,1-Trichloroethane	50.0	48.6	97	77-126	
1,1,2,2-Tetrachloroethane	50.0	48.8	98	77-123	
1,1,2-Trichloro-1,2,2-trichfluoroethane	50.0	58.6	117	82-138	
1,1-Dichloroethane	50.0	51.3	103	76-115	
1,1-Dichloroethene	50.0	54.3	109	75-135	
1,1-Dichloropropene	50.0	50.1	100	80-120	
1,2,3-Trichlorobenzene	50.0	51.0	102	61-121	
1,2,3-Trichloropropane	50.0	54.5	109	84-126	
1,2,3-Trimethylbenzene	50.0	52.5	105	70-130	
1,2,4-Trichlorobenzene	50.0	48.7	97	64-124	
1,2,4-Trimethylbenzene	50.0	49.4	99	80-129	
1,2-Dibromo-3-Chloropropane	50.0	46.9	94	61-132	
1,2-Dichlorobenzene	50.0	49.6	99	76-110	
1,2-Dichloroethane	50.0	50.4	101	72-120	
1,2-Dichloropropane	50.0	51.4	103	87-113	
1,3-Dichlorobenzene	50.0	48.1	96	78-111	
1,3-Dichloropropane	50.0	50.5	101	82-118	
1,4-Dichlorobenzene	50.0	48.0	96	75-110	
2,2-Dichloropropane	50.0	43.3	87	69-135	
2-Butanone	100	97.0	97	52-131	
2-Chloroethyl vinyl ether	50.0	68.7	137	28-173	
2-Chlorotoluene	50.0	48.5	97	78-119	
2-Hexanone	100	110	110	64-136	
4-Chlorotoluene	50.0	49.1	98	79-118	
p-Isopropyltoluene	50.0	51.8	104	77-131	
4-Methyl-2-pentanone	100	105	105	67-135	
Acetone	100	117	117	41-137	
Benzene	50.0	48.9	98	79-112	
Bromobenzene	50.0	52.9	106	81-115	
Bromoform	50.0	45.4	91	62-133	
Bromomethane	50.0	40.0	80	42-136	
Carbon disulfide	50.0	49.8	100	62-146	
Carbon tetrachloride	50.0	47.6	95	71-129	
Chlorobenzene	50.0	47.6	95	78-110	
Dibromochloromethane	50.0	44.3	89	72-127	
Chloroethane	50.0	44.2	88	58-117	
Chloroform	50.0	50.0	100	77-114	
Chloromethane	50.0	43.2	86	50-110	
cis-1,2-Dichloroethene	50.0	50.6	101	76-113	
cis-1,3-Dichloropropene	50.0	49.5	99	74-128	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82669.D

Lab ID: LCS 240-4766/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dibromomethane	50.0	52.5	105	85-120	
Bromochloromethane	50.0	50.3	101	79-111	
Dichlorodifluoromethane	50.0	34.4	69	26-113	
Bromodichloromethane	50.0	46.4	93	84-122	
tert-Butyl alcohol	1000	1100	110	60-125	
Ethylbenzene	50.0	46.9	94	79-117	
Hexachlorobutadiene	50.0	44.7	89	54-131	
Diisopropyl ether	50.0	53.3	107	82-119	
Isopropylbenzene	50.0	45.8	92	76-122	
Methyl tert-butyl ether	50.0	53.9	108	49-165	
Methylene Chloride	50.0	53.1	106	75-118	
m-Xylene & p-Xylene	100	92.9	93	80-117	
Naphthalene	50.0	49.9	100	65-123	
n-Butylbenzene	50.0	50.3	101	68-135	
n-Propylbenzene	50.0	50.0	100	81-129	
o-Xylene	50.0	46.2	92	80-120	
sec-Butylbenzene	50.0	50.2	100	74-129	
Styrene	50.0	47.6	95	87-117	
Tetrachloroethene	50.0	49.8	100	79-114	
Toluene	50.0	44.9	90	75-111	
trans-1,2-Dichloroethene	50.0	51.8	104	78-117	
trans-1,3-Dichloropropene	50.0	46.4	93	73-131	
Trichloroethene	50.0	50.9	102	79-113	
Trichlorofluoromethane	50.0	51.1	102	57-146	
Vinyl acetate	50.0	52.9	106	70-130	
Vinyl chloride	50.0	45.5	91	57-114	
tert-Butylbenzene	50.0	47.4	95	76-126	
1,2-Dibromoethane	50.0	50.7	101	83-117	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82675.D

Lab ID: 240-728-F-5-A MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	44.6	4.4 U	33.8	76	34-135	
1,1,1-Trichloroethane	44.6	4.4 U	39.5	89	51-128	
1,1,2,2-Tetrachloroethane	44.6	4.4 U	38.1	85	16-179	
1,1,2-Trichloro-1,2,2-trichfluoroethane	44.6	4.4 U	48.6	109	50-147	
1,1-Dichloroethane	44.6	4.4 U	41.9	94	54-122	
1,1-Dichloroethene	44.6	4.4 U	44.4	100	49-157	
1,1-Dichloropropene	44.6	4.4 U	40.2	90	50-122	
1,2,3-Trichlorobenzene	44.6	4.4 U	27.6	62	10-110	
1,2,3-Trichloropropane	44.6	4.4 U	42.0	94	32-174	
1,2,3-Trimethylbenzene	44.6	4.4 U	39.3	88	70-130	
1,2,4-Trichlorobenzene	44.6	4.4 U	28.9	65	10-111	
1,2,4-Trimethylbenzene	44.6	4.4 U	37.3	84	10-173	
1,2-Dibromo-3-Chloropropane	44.6	8.7 U	30.8	69	10-153	
1,2-Dichlorobenzene	44.6	4.4 U	34.9	78	17-122	
1,2-Dichloroethane	44.6	4.4 U	41.6	93	49-123	
1,2-Dichloropropane	44.6	4.4 U	42.7	96	61-117	
1,3-Dichlorobenzene	44.6	4.4 U	34.9	78	16-126	
1,3-Dichloropropane	44.6	4.4 U	41.1	92	54-128	
1,4-Dichlorobenzene	44.6	4.4 U	34.3	77	15-121	
2,2-Dichloropropane	44.6	4.4 U	36.1	81	49-132	
2-Butanone	89.2	5.0 J	76.0	80	30-143	
2-Chloroethyl vinyl ether	44.6	44 U	55.8	125	10-162	
2-Chlorotoluene	44.6	4.4 U	37.3	84	11-162	
2-Hexanone	89.2	17 U	84.4	95	37-147	
4-Chlorotoluene	44.6	4.4 U	37.2	83	15-149	
p-Isopropyltoluene	44.6	4.4 U	37.7	85	10-165	
4-Methyl-2-pentanone	89.2	17 U	81.5	91	43-147	
Acetone	89.2	31	95.0	71	24-140	
Benzene	44.6	4.4 U	40.0	90	53-118	
Bromobenzene	44.6	4.4 U	40.1	90	24-144	
Bromoform	44.6	4.4 U	32.9	74	18-129	
Bromomethane	44.6	4.4 U	31.9	72	33-130	
Carbon disulfide	44.6	0.44 J	40.9	91	20-151	
Carbon tetrachloride	44.6	4.4 U	37.8	85	32-137	
Chlorobenzene	44.6	4.4 U	37.5	84	37-116	
Dibromochloromethane	44.6	4.4 U	34.0	76	29-135	
Chloroethane	44.6	4.4 U	36.5	82	45-118	
Chloroform	44.6	4.4 U	40.2	90	53-119	
Chloromethane	44.6	4.4 U	36.0	81	34-117	
cis-1,2-Dichloroethene	44.6	4.4 U	41.2	92	50-119	
cis-1,3-Dichloropropene	44.6	4.4 U	39.5	89	27-133	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82675.D

Lab ID: 240-728-F-5-A MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Dibromomethane	44.6	4.4 U	42.2	95	52-123	
Bromochloromethane	44.6	4.4 U	40.9	92	53-116	
Dichlorodifluoromethane	44.6	4.4 U	29.1	65	17-115	
Bromodichloromethane	44.6	4.4 U	37.5	84	35-132	
tert-Butyl alcohol	892	170 U	852	96	60-125	
Ethylbenzene	44.6	4.4 U	37.6	84	30-131	
Hexachlorobutadiene	44.6	4.4 U	26.5	59	10-131	
Diisopropyl ether	44.6	8.7 U	44.9	101	62-128	
Isopropylbenzene	44.6	4.4 U	35.6	80	21-134	
Methyl tert-butyl ether	44.6	17 U	45.3	102	51-157	
Methylene Chloride	44.6	4.4 U	36.8	83	54-115	
m-Xylene & p-Xylene	89.2	8.7 U	72.5	81	29-131	
Naphthalene	44.6	4.4 U	28.7	64	10-124	
n-Butylbenzene	44.6	4.4 U	34.4	77	10-148	
n-Propylbenzene	44.6	4.4 U	38.7	87	10-178	
o-Xylene	44.6	4.4 U	36.6	82	29-134	
sec-Butylbenzene	44.6	4.4 U	36.6	82	10-172	
Styrene	44.6	4.4 U	36.6	82	27-127	
Tetrachloroethene	44.6	45	47.6	6	31-135	F
Toluene	44.6	0.44 J	37.1	82	39-129	
trans-1,2-Dichloroethene	44.6	4.4 U	42.4	95	50-123	
trans-1,3-Dichloropropene	44.6	4.4 U	37.1	83	28-137	
Trichloroethene	44.6	3.6 J	44.2	91	10-177	
Trichlorofluoromethane	44.6	4.4 U	42.3	95	36-142	
Vinyl acetate	44.6	8.7 U	32.6	73	70-130	
Vinyl chloride	44.6	4.4 U	38.5	86	42-117	
tert-Butylbenzene	44.6	4.4 U	36.1	81	10-163	
1,2-Dibromoethane	44.6	4.4 U	39.7	89	45-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82676.D

Lab ID: 240-728-H-5-A MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	43.8	34.1	78	1	30	34-135	
1,1,1-Trichloroethane	43.8	40.8	93	3	30	51-128	
1,1,2,2-Tetrachloroethane	43.8	37.9	86	1	30	16-179	
1,1,2-Trichloro-1,2,2-trichfluoroethane	43.8	49.5	113	2	30	50-147	
1,1-Dichloroethane	43.8	43.1	98	3	30	54-122	
1,1-Dichloroethene	43.8	45.6	104	3	30	49-157	
1,1-Dichloropropene	43.8	40.1	91	0	30	50-122	
1,2,3-Trichlorobenzene	43.8	29.7	68	7	30	10-110	
1,2,3-Trichloropropane	43.8	41.5	95	1	30	32-174	
1,2,3-Trimethylbenzene	43.8	39.5	90	0	30	70-130	
1,2,4-Trichlorobenzene	43.8	29.7	68	3	30	10-111	
1,2,4-Trimethylbenzene	43.8	37.2	85	0	30	10-173	
1,2-Dibromo-3-Chloropropane	43.8	31.9	73	4	30	10-153	
1,2-Dichlorobenzene	43.8	34.8	79	0	30	17-122	
1,2-Dichloroethane	43.8	42.2	96	1	30	49-123	
1,2-Dichloropropane	43.8	43.4	99	2	30	61-117	
1,3-Dichlorobenzene	43.8	34.5	79	1	30	16-126	
1,3-Dichloropropane	43.8	41.4	94	1	30	54-128	
1,4-Dichlorobenzene	43.8	34.8	79	1	30	15-121	
2,2-Dichloropropane	43.8	37.4	85	4	30	49-132	
2-Butanone	87.6	76.2	81	0	30	30-143	
2-Chloroethyl vinyl ether	43.8	58.2	133	4	30	10-162	
2-Chlorotoluene	43.8	36.5	83	2	30	11-162	
2-Hexanone	87.6	87.4	100	3	30	37-147	
4-Chlorotoluene	43.8	36.6	84	2	30	15-149	
p-Isopropyltoluene	43.8	37.9	86	0	30	10-165	
4-Methyl-2-pentanone	87.6	85.4	98	5	30	43-147	
Acetone	87.6	98.2	76	3	30	24-140	
Benzene	43.8	40.7	93	2	30	53-118	
Bromobenzene	43.8	39.2	89	2	30	24-144	
Bromoform	43.8	32.5	74	1	30	18-129	
Bromomethane	43.8	35.8	82	11	30	33-130	
Carbon disulfide	43.8	42.5	96	4	30	20-151	
Carbon tetrachloride	43.8	38.7	88	2	30	32-137	
Chlorobenzene	43.8	37.3	85	0	30	37-116	
Dibromochloromethane	43.8	35.1	80	3	30	29-135	
Chloroethane	43.8	39.2	89	7	30	45-118	
Chloroform	43.8	41.5	95	3	30	53-119	
Chloromethane	43.8	37.4	85	4	30	34-117	
cis-1,2-Dichloroethene	43.8	42.3	97	3	30	50-119	
cis-1,3-Dichloropropene	43.8	40.1	91	1	30	27-133	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82676.D

Lab ID: 240-728-H-5-A MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dibromomethane	43.8	43.5	99	3	30	52-123	
Bromochloromethane	43.8	42.0	96	3	30	53-116	
Dichlorodifluoromethane	43.8	30.0	68	3	30	17-115	
Bromodichloromethane	43.8	37.6	86	0	30	35-132	
tert-Butyl alcohol	876	921	105	8	30	60-125	
Ethylbenzene	43.8	37.0	84	2	30	30-131	
Hexachlorobutadiene	43.8	27.7	63	4	30	10-131	
Diisopropyl ether	43.8	46.4	106	3	30	62-128	
Isopropylbenzene	43.8	35.6	81	0	30	21-134	
Methyl tert-butyl ether	43.8	46.9	107	3	30	51-157	
Methylene Chloride	43.8	45.0	103	20	30	54-115	
m-Xylene & p-Xylene	87.6	73.2	84	1	30	29-131	
Naphthalene	43.8	30.8	70	7	30	10-124	
n-Butylbenzene	43.8	34.8	79	1	30	10-148	
n-Propylbenzene	43.8	37.9	87	2	30	10-178	
o-Xylene	43.8	36.6	84	0	30	29-134	
sec-Butylbenzene	43.8	36.5	83	0	30	10-172	
Styrene	43.8	36.5	83	0	30	27-127	
Tetrachloroethene	43.8	61.5	38	25	30	31-135	
Toluene	43.8	36.8	83	1	30	39-129	
trans-1,2-Dichloroethene	43.8	43.8	100	3	30	50-123	
trans-1,3-Dichloropropene	43.8	36.5	83	2	30	28-137	
Trichloroethene	43.8	43.5	91	2	30	10-177	
Trichlorofluoromethane	43.8	44.0	100	4	30	36-142	
Vinyl acetate	43.8	29.9	68	9	30	70-130	F
Vinyl chloride	43.8	40.1	91	4	30	42-117	
tert-Butylbenzene	43.8	37.3	85	3	30	10-163	
1,2-Dibromoethane	43.8	39.8	91	0	30	45-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: BFB8716.D BFB Injection Date: 06/15/2011

Instrument ID: A3UX8 BFB Injection Time: 21:44

Analysis Batch No.: 4936

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.2	
75	30.0 - 60.0 % of mass 95	51.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	70.0	
175	5.0 - 9.0 % of mass 174	5.2	(7.4)1
176	95.0 - 101.0 % of mass 174	67.9	(97.0)1
177	5.0 - 9.0 % of mass 176	4.4	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-4936/4	UX82698.D	06/15/2011	22:48
	CCVIS 240-4936/5	UX82699.D	06/15/2011	23:54
	LCS 240-4936/6	UX82700.D	06/16/2011	00:16
	MB 240-4936/7	UX82701.D	06/16/2011	00:37
GSP-SB-105-0-2	240-741-3	UX82702.D	06/16/2011	01:00
	240-787-A-8 MS	UX82718.D	06/16/2011	06:41
	240-787-A-8 MSD	UX82719.D	06/16/2011	07:02

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4936/4 Calibration Date: 06/15/2011 22:48

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 04:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 06:25

Lab File ID: UX82698.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.3725	0.3529		47400	50000	-5.3	50.0
Ethyl ether	Ave	0.2242	0.2074		46300	50000	-7.5	50.0
3-Chloro-1-propene	Ave	0.1690	0.1504		44500	50000	-11.0	50.0
Diisopropyl ether	Ave	0.2575	0.2550		248000	250000	-1.0	50.0
2-Chloro-1,3-butadiene	Ave	0.4515	0.4785		53000	50000	6.0	50.0
Ethyl-t-butyl ether (ETBE)	Ave	1.126	1.062		47200	50000	-5.7	50.0
Ethyl acetate	Ave	0.2166	0.1951		90100	100000	-9.9	50.0
Propionitrile	Ave	0.0441	0.0407		92300	100000	-7.7	50.0
Methacrylonitrile	Ave	0.1606	0.1652		51500	50000	2.9	50.0
Isobutyl alcohol	Ave	0.0115	0.0069		593000	1000000	-40.7	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.9320	0.8689		46600	50000	-6.8	50.0
n-Heptane	Ave	0.0475	0.0581		61100	50000	22.3	50.0
n-Butanol	Lin1		0.0048		535000	1000000	-46.5	50.0
Methyl methacrylate	Ave	0.1992	0.1705		42800	50000	-14.4	50.0
2-Nitropropane	Ave	0.0657	0.0188		28600	100000	-71.4*	50.0
Cyclohexanone	Ave	0.0574	0.0531		463000	500000	-7.4	50.0
1,2,3-Trimethylbenzene	Ave	2.645	2.690		50900	50000	1.7	50.0
2-Methylnaphthalene	Ave	1.056	0.9072		85900	100000	-14.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVIS 240-4936/5 Calibration Date: 06/15/2011 23:54

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82699.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2686	0.2362		44000	50000	-12.1	50.0
Chloromethane	Ave	0.3506	0.3481	0.1000	49600	50000	-0.7	50.0
Vinyl chloride	Ave	0.2587	0.2760		53300	50000	6.7	20.0
Bromomethane	Qua		0.1127		49400	50000	-1.2	50.0
Chloroethane	Ave	0.1532	0.1577		51500	50000	3.0	50.0
Trichlorofluoromethane	Ave	0.2483	0.2796		56300	50000	12.6	50.0
Acrolein	Ave	0.0585	0.0480		410000	500000	-17.9	50.0
1,1-Dichloroethene	Ave	0.2383	0.2568		53900	50000	7.8	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1502	0.1786		59500	50000	18.9	50.0
Acetone	Lin1		0.1347		120000	100000	19.7	50.0
Iodomethane	Ave	0.3639	0.3914		53800	50000	7.5	50.0
Carbon disulfide	Ave	0.8711	0.8941		51300	50000	2.6	50.0
Acetonitrile	Lin1		0.0519		600000	500000	19.9	50.0
Methyl acetate	Ave	0.2678	0.2958		110000	100000	10.4	50.0
Methylene Chloride	Qua		0.3738		50600	50000	1.2	50.0
tert-Butyl alcohol	Ave	0.0393	0.0360		917000	1000000	-8.3	50.0
Acrylonitrile	Ave	0.1408	0.1408		100000	100000	-0.0	50.0
Methyl tert-butyl ether	Ave	0.9294	1.052		56600	50000	13.2	50.0
trans-1,2-Dichloroethene	Ave	0.2797	0.3007		53800	50000	7.5	50.0
Hexane	Ave	0.0568	0.0647		57000	50000	13.9	20.0
1,1-Dichloroethane	Ave	0.5117	0.5417	0.1000	52900	50000	5.9	50.0
Vinyl acetate	Ave	0.0437	0.0292		33400	50000	-33.3	50.0
2-Butanone	Ave	0.1372	0.1404		102000	100000	2.3	50.0
cis-1,2-Dichloroethene	Ave	0.2954	0.3152		53300	50000	6.7	50.0
2,2-Dichloropropane	Ave	0.3695	0.3521		47600	50000	-4.7	50.0
Bromochloromethane	Ave	0.1246	0.1317		52900	50000	5.7	50.0
Chloroform	Ave	0.4485	0.4582		51100	50000	2.2	20.0
Tetrahydrofuran	Lin1		0.1063		56900	50000	13.8	50.0
1,1,1-Trichloroethane	Ave	0.3798	0.3726		49000	50000	-1.9	50.0
Cyclohexane	Ave	0.5442	0.6286		57800	50000	15.5	50.0
1,1-Dichloropropene	Ave	0.3009	0.3280		54500	50000	9.0	50.0
Carbon tetrachloride	Ave	0.2929	0.2293		39100	50000	-21.7	50.0
1,2-Dichloroethane	Ave	0.3387	0.3716		54800	50000	9.7	50.0
Benzene	Ave	0.9830	1.045		53200	50000	6.3	50.0
Trichloroethene	Ave	0.1842	0.2097		56900	50000	13.8	50.0
Methylcyclohexane	Ave	0.4882	0.5708		58500	50000	16.9	50.0
1,2-Dichloropropane	Ave	0.2302	0.2473		53700	50000	7.4	20.0
1,4-Dioxane	Ave	0.0025	0.0028		2740000	2500000	9.6	50.0
Dibromomethane	Ave	0.1284	0.1366		53200	50000	6.3	50.0
Bromodichloromethane	Ave	0.2864	0.2405		42000	50000	-16.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVIS 240-4936/5 Calibration Date: 06/15/2011 23:54

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82699.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Qua		0.0101		134000	100000	33.8	50.0
cis-1,3-Dichloropropene	Ave	0.3148	0.3017		47900	50000	-4.2	50.0
4-Methyl-2-pentanone	Ave	0.2960	0.2985		101000	100000	0.8	50.0
Toluene	Ave	1.393	1.463		52500	50000	5.1	20.0
trans-1,3-Dichloropropene	Ave	0.4536	0.4236		46700	50000	-6.6	50.0
Ethyl methacrylate	Ave	0.4934	0.4447		45100	50000	-9.9	50.0
1,1,2-Trichloroethane	Ave	0.2592	0.2728		52600	50000	5.2	50.0
1,3-Dichloropropane	Ave	0.4755	0.5044		53000	50000	6.1	50.0
Tetrachloroethene	Ave	0.2116	0.2527		59700	50000	19.4	50.0
2-Hexanone	Lin1		0.2933		109000	100000	8.7	50.0
Dibromochloromethane	Ave	0.2577	0.1836		35600	50000	-28.7	50.0
1,2-Dibromoethane	Ave	0.2642	0.2685		50800	50000	1.6	50.0
Chlorobenzene	Ave	0.8588	0.9072	0.3000	52800	50000	5.6	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3401	0.2825		41500	50000	-17.0	50.0
Ethylbenzene	Ave	0.5041	0.5368		53200	50000	6.5	20.0
m-Xylene & p-Xylene	Ave	0.6208	0.6593		106000	100000	6.2	50.0
o-Xylene	Ave	0.6652	0.7194		54100	50000	8.1	50.0
Styrene	Ave	1.055	1.088		51500	50000	3.1	50.0
Bromoform	Ave	0.1841	0.1132	0.1000	30700	50000	-38.5	50.0
Isopropylbenzene	Ave	1.733	1.949		56200	50000	12.5	50.0
1,1,2,2-Tetrachloroethane	Ave	0.8004	0.7784	0.3000	48600	50000	-2.7	50.0
Bromobenzene	Ave	0.6603	0.6988		52900	50000	5.8	50.0
1,2,3-Trichloropropane	Ave	0.2305	0.2432		52800	50000	5.5	50.0
trans-1,4-Dichloro-2-butene	Ave	0.3128	0.2631		42100	50000	-15.9	50.0
n-Propylbenzene	Ave	0.7989	0.8723		54600	50000	9.2	50.0
2-Chlorotoluene	Ave	0.6741	0.7199		53400	50000	6.8	50.0
1,3,5-Trimethylbenzene	Ave	2.616	2.920		55800	50000	11.6	50.0
4-Chlorotoluene	Ave	0.6741	0.7003		51900	50000	3.9	50.0
tert-Butylbenzene	Ave	2.237	2.554		57100	50000	14.2	50.0
1,2,4-Trimethylbenzene	Ave	2.676	2.913		54400	50000	8.9	50.0
sec-Butylbenzene	Ave	3.315	3.815		57500	50000	15.1	50.0
1,3-Dichlorobenzene	Ave	1.291	1.378		53400	50000	6.8	50.0
p-Isopropyltoluene	Ave	2.584	2.963		57300	50000	14.7	50.0
1,4-Dichlorobenzene	Ave	1.304	1.399		53700	50000	7.3	50.0
n-Butylbenzene	Ave	2.514	2.879		57300	50000	14.5	50.0
1,2-Dichlorobenzene	Ave	1.246	1.343		53900	50000	7.8	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1496	0.1145		38300	50000	-23.5	50.0
1,3,5-Trichlorobenzene	Ave	0.9443	1.097		58100	50000	16.1	50.0
1,2,4-Trichlorobenzene	Ave	0.8498	0.9597		56500	50000	12.9	50.0
Hexachlorobutadiene	Ave	0.4931	0.5066		51400	50000	2.7	50.0
Naphthalene	Ave	2.245	2.410		53700	50000	7.3	50.0

FORM VII 8260B

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVIS 240-4936/5 Calibration Date: 06/15/2011 23:54

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82699.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.7840	0.8624		55000	50000	10.0	50.0
Dibromofluoromethane (Surr)	Ave	0.2097	0.1879		47100	50000	-10.4	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2673	0.2490		47600	50000	-6.8	50.0
Toluene-d8 (Surr)	Ave	1.160	1.103		45400	50000	-4.9	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4955	0.4489		47700	50000	-9.4	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: UX82701.D Lab Sample ID: MB 240-4936/7

Matrix: Solid Heated Purge: (Y/N) Y

Instrument ID: A3UX8 Date Analyzed: 06/16/2011 00:37

GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-4936/6	UX82700.D	06/16/2011 00:16
GSP-SB-105-0-2	240-741-3	UX82702.D	06/16/2011 01:00
	240-787-A-8 MS	UX82718.D	06/16/2011 06:41
	240-787-A-8 MSD	UX82719.D	06/16/2011 07:02

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Method Blank - Batch: 240-4936

Method: 8260B
Preparation: N/A

Lab Sample ID:	MB 240-4936/7	Analysis Batch:	240-4936	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	UX82701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/16/2011 0037	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	5.0	U	0.62	5.0
1,1,1-Trichloroethane	5.0	U	0.56	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.34	5.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	5.0	U	1.3	5.0
1,1-Dichloroethane	5.0	U	0.36	5.0
1,1-Dichloroethene	5.0	U	0.52	5.0
1,1-Dichloropropene	5.0	U	0.30	5.0
1,2,3-Trichlorobenzene	5.0	U	0.38	5.0
1,2,3-Trichloropropane	5.0	U	0.90	5.0
1,2,3-Trimethylbenzene	5.0	U	0.17	5.0
1,2,4-Trichlorobenzene	0.430	J	0.27	5.0
1,2,4-Trimethylbenzene	5.0	U	0.65	5.0
1,2-Dibromo-3-Chloropropane	10	U	1.3	10
1,2-Dichlorobenzene	5.0	U	0.36	5.0
1,2-Dichloroethane	5.0	U	0.34	5.0
1,2-Dichloropropane	5.0	U	0.69	5.0
1,3-Dichlorobenzene	5.0	U	0.35	5.0
1,3-Dichloropropane	5.0	U	0.34	5.0
1,4-Dichlorobenzene	5.0	U	0.66	5.0
2,2-Dichloropropane	5.0	U	0.94	5.0
2-Butanone	20	U	1.4	20
2-Chloroethyl vinyl ether	50	U	1.4	50
2-Chlorotoluene	5.0	U	0.40	5.0
2-Hexanone	20	U	0.63	20
4-Chlorotoluene	5.0	U	0.41	5.0
p-Isopropyltoluene	5.0	U	0.21	5.0
4-Methyl-2-pentanone	20	U	0.54	20
Acetone	20	U	6.3	20
Benzene	5.0	U	0.23	5.0
Bromobenzene	5.0	U	0.33	5.0
Bromoform	5.0	U	0.33	5.0
Bromomethane	5.0	U	0.54	5.0
Carbon disulfide	5.0	U	0.44	5.0
Carbon tetrachloride	5.0	U	0.37	5.0
Chlorobenzene	5.0	U	0.33	5.0
Dibromochloromethane	5.0	U	0.55	5.0
Chloroethane	5.0	U	0.86	5.0
Chloroform	5.0	U	0.29	5.0
Chloromethane	5.0	U	0.41	5.0
cis-1,2-Dichloroethene	5.0	U	0.36	5.0
cis-1,3-Dichloropropene	5.0	U	0.34	5.0
Dibromomethane	5.0	U	0.63	5.0
Bromochloromethane	5.0	U	0.71	5.0
Dichlorodifluoromethane	5.0	U	0.50	5.0
Bromodichloromethane	5.0	U	0.28	5.0

Client: Tetra Tech NUS Inc

Job Number: 240-741-1

Method Blank - Batch: 240-4936

Method: 8260B
Preparation: N/A

Lab Sample ID:	MB 240-4936/7	Analysis Batch:	240-4936	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	UX82701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/16/2011 0037	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
tert-Butyl alcohol	200	U	7.6	200
Ethylbenzene	5.0	U	0.26	5.0
Hexachlorobutadiene	5.0	U	1.2	5.0
Diisopropyl ether	10	U	1.5	10
Isopropylbenzene	5.0	U	0.16	5.0
Methyl tert-butyl ether	20	U	0.43	20
Methylene Chloride	5.0	U	0.67	5.0
m-Xylene & p-Xylene	10	U	1.2	10
Naphthalene	0.605	J	0.19	5.0
n-Butylbenzene	5.0	U	0.23	5.0
n-Propylbenzene	5.0	U	0.40	5.0
o-Xylene	5.0	U	0.35	5.0
sec-Butylbenzene	5.0	U	0.18	5.0
Styrene	5.0	U	0.15	5.0
Tert-amyl-methyl ether (TAME)	5.0	U	0.37	5.0
Ethyl-t-butyl ether (ETBE)	5.0	U	0.22	5.0
Tetrachloroethene	5.0	U	0.52	5.0
Toluene	5.0	U	0.27	5.0
trans-1,2-Dichloroethene	5.0	U	0.41	5.0
trans-1,3-Dichloropropene	5.0	U	0.54	5.0
Trichloroethene	5.0	U	0.42	5.0
Trichlorofluoromethane	5.0	U	0.34	5.0
Vinyl acetate	10	U	0.25	10
Vinyl chloride	5.0	U	0.39	5.0
Xylenes, Total	10	U	0.67	10
tert-Butylbenzene	5.0	U	0.29	5.0
1,2-Dibromoethane	5.0	U	0.50	5.0

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	86	67 - 125
Dibromofluoromethane (Surr)	96	37 - 132
4-Bromofluorobenzene (Surr)	99	52 - 136
1,2-Dichloroethane-d4 (Surr)	94	58 - 123

Method Blank TICs- Batch: 240-4936

Cas Number	Analyte	RT	Est. Result	Qual
	Tentatively Identified Compound		None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82700.D

Lab ID: LCS 240-4936/6 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	42.5	85	81-119	
1,1,1-Trichloroethane	50.0	50.5	101	77-126	
1,1,2,2-Tetrachloroethane	50.0	45.2	90	77-123	
1,1,2-Trichloro-1,2,2-trichfluoroethane	50.0	64.1	128	82-138	
1,1-Dichloroethane	50.0	54.6	109	76-115	
1,1-Dichloroethene	50.0	57.6	115	75-135	
1,1-Dichloropropene	50.0	56.5	113	80-120	
1,2,3-Trichlorobenzene	50.0	53.7	107	61-121	
1,2,3-Trichloropropane	50.0	49.6	99	84-126	
1,2,3-Trimethylbenzene	50.0	56.4	113	70-130	
1,2,4-Trichlorobenzene	50.0	53.6	107	64-124	
1,2,4-Trimethylbenzene	50.0	53.0	106	80-129	
1,2-Dibromo-3-Chloropropane	50.0	35.3	71	61-132	
1,2-Dichlorobenzene	50.0	52.6	105	76-110	
1,2-Dichloroethane	50.0	53.5	107	72-120	
1,2-Dichloropropane	50.0	52.2	104	87-113	
1,3-Dichlorobenzene	50.0	50.5	101	78-111	
1,3-Dichloropropane	50.0	50.1	100	82-118	
1,4-Dichlorobenzene	50.0	51.3	103	75-110	
2,2-Dichloropropane	50.0	48.3	97	69-135	
2-Butanone	100	89.5	90	52-131	
2-Chloroethyl vinyl ether	50.0	64.3	129	28-173	
2-Chlorotoluene	50.0	52.7	105	78-119	
2-Hexanone	100	95.7	96	64-136	
4-Chlorotoluene	50.0	50.8	102	79-118	
p-Isopropyltoluene	50.0	55.5	111	77-131	
4-Methyl-2-pentanone	100	91.5	92	67-135	
Acetone	100	112	112	41-137	
Benzene	50.0	51.8	104	79-112	
Bromobenzene	50.0	52.9	106	81-115	
Bromoform	50.0	31.2	62	62-133	
Bromomethane	50.0	50.0	100	42-136	
Carbon disulfide	50.0	54.2	108	62-146	
Carbon tetrachloride	50.0	42.8	86	71-129	
Chlorobenzene	50.0	51.0	102	78-110	
Dibromochloromethane	50.0	35.8	72	72-127	
Chloroethane	50.0	51.2	102	58-117	
Chloroform	50.0	53.3	107	77-114	
Chloromethane	50.0	48.0	96	50-110	
cis-1,2-Dichloroethene	50.0	53.2	106	76-113	
cis-1,3-Dichloropropene	50.0	45.5	91	74-128	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82700.D

Lab ID: LCS 240-4936/6 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dibromomethane	50.0	51.5	103	85-120	
Bromochloromethane	50.0	53.8	108	79-111	
Dichlorodifluoromethane	50.0	37.3	75	26-113	
Bromodichloromethane	50.0	41.7	83	84-122	*
tert-Butyl alcohol	1000	868	87	60-125	
Ethylbenzene	50.0	50.2	100	79-117	
Hexachlorobutadiene	50.0	48.5	97	54-131	
Diisopropyl ether	50.0	57.1	114	82-119	
Isopropylbenzene	50.0	51.8	104	76-122	
Methyl tert-butyl ether	50.0	55.7	111	49-165	
Methylene Chloride	50.0	56.5	113	75-118	
m-Xylene & p-Xylene	100	99.9	100	80-117	
Naphthalene	50.0	48.4	97	65-123	
n-Butylbenzene	50.0	54.3	109	68-135	
n-Propylbenzene	50.0	52.4	105	81-129	
o-Xylene	50.0	52.1	104	80-120	
sec-Butylbenzene	50.0	54.1	108	74-129	
Styrene	50.0	49.7	99	87-117	
Tetrachloroethene	50.0	53.4	107	79-114	
Toluene	50.0	48.8	98	75-111	
trans-1,2-Dichloroethene	50.0	54.5	109	78-117	
trans-1,3-Dichloropropene	50.0	44.5	89	73-131	
Trichloroethene	50.0	53.8	108	79-113	
Trichlorofluoromethane	50.0	58.5	117	57-146	
Vinyl acetate	50.0	50.2	100	70-130	
Vinyl chloride	50.0	50.1	100	57-114	
tert-Butylbenzene	50.0	54.0	108	76-126	
1,2-Dibromoethane	50.0	48.7	97	83-117	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82718.D

Lab ID: 240-787-A-8 MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	57.6	5.8 U	37.3	65	34-135	
1,1,1-Trichloroethane	57.6	5.8 U	49.9	87	51-128	
1,1,2,2-Tetrachloroethane	57.6	5.8 U	41.1	71	16-179	
1,1,2-Trichloro-1,2,2-trichfluoroethane	57.6	5.8 U	62.7	109	50-147	
1,1-Dichloroethane	57.6	5.8 U	53.6	93	54-122	
1,1-Dichloroethene	57.6	5.8 U	58.4	101	49-157	
1,1-Dichloropropene	57.6	5.8 U	54.4	94	50-122	
1,2,3-Trichlorobenzene	57.6	5.8 U	31.7	55	10-110	
1,2,3-Trichloropropane	57.6	5.8 U	48.5	84	32-174	
1,2,3-Trimethylbenzene	57.6	5.8 U	45.6	79	70-130	
1,2,4-Trichlorobenzene	57.6	5.8 U	32.0	56	10-111	
1,2,4-Trimethylbenzene	57.6	5.8 U	42.8	74	10-173	
1,2-Dibromo-3-Chloropropane	57.6	12 U	31.6	55	10-153	
1,2-Dichlorobenzene	57.6	5.8 U	39.8	69	17-122	
1,2-Dichloroethane	57.6	5.8 U	54.4	94	49-123	
1,2-Dichloropropane	57.6	5.8 U	53.4	93	61-117	
1,3-Dichlorobenzene	57.6	5.8 U	38.6	67	16-126	
1,3-Dichloropropane	57.6	5.8 U	50.5	88	54-128	
1,4-Dichlorobenzene	57.6	5.8 U	39.3	68	15-121	
2,2-Dichloropropane	57.6	5.8 U	46.6	81	49-132	
2-Butanone	115	10 J	104	81	30-143	
2-Chloroethyl vinyl ether	57.6	58 U	52.3 J	91	10-162	
2-Chlorotoluene	57.6	5.8 U	43.6	76	11-162	
2-Hexanone	115	23 U	103	89	37-147	
4-Chlorotoluene	57.6	5.8 U	42.4	74	15-149	
p-Isopropyltoluene	57.6	5.8 U	44.3	77	10-165	
4-Methyl-2-pentanone	115	23 U	102	89	43-147	
Acetone	115	72	171	86	24-140	
Benzene	57.6	5.8 U	52.2	91	53-118	
Bromobenzene	57.6	5.8 U	45.3	79	24-144	
Bromoform	57.6	5.8 U	27.4	48	18-129	
Bromomethane	57.6	5.8 U	50.0	87	33-130	
Carbon disulfide	57.6	5.8 U	53.6	93	20-151	
Carbon tetrachloride	57.6	5.8 U	41.3	72	32-137	
Chlorobenzene	57.6	5.8 U	46.6	81	37-116	
Dibromochloromethane	57.6	5.8 U	33.8	59	29-135	
Chloroethane	57.6	5.8 U	53.5	93	45-118	
Chloroform	57.6	5.8 U	52.1	90	53-119	
Chloromethane	57.6	5.8 U	50.7	88	34-117	
cis-1,2-Dichloroethene	57.6	5.8 U	52.3	91	50-119	
cis-1,3-Dichloropropene	57.6	5.8 U	45.2	78	27-133	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82718.D

Lab ID: 240-787-A-8 MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Dibromomethane	57.6	5.8 U	52.8	92	52-123	
Bromochloromethane	57.6	5.8 U	51.3	89	53-116	
Dichlorodifluoromethane	57.6	5.8 U	38.5	67	17-115	
Bromodichloromethane	57.6	5.8 U	41.8	73	35-132	
tert-Butyl alcohol	1150	230 U	953	83	60-125	
Ethylbenzene	57.6	5.8 U	46.2	80	30-131	
Hexachlorobutadiene	57.6	5.8 U	33.5	58	10-131	
Diisopropyl ether	57.6	12 U	56.0	97	62-128	
Isopropylbenzene	57.6	5.8 U	44.0	76	21-134	
Methyl tert-butyl ether	57.6	23 U	54.7	95	51-157	
Methylene Chloride	57.6	5.8	60.8	95	54-115	
m-Xylene & p-Xylene	115	12 U	90.6	79	29-131	
Naphthalene	57.6	5.8 U	31.5	55	10-124	
n-Butylbenzene	57.6	5.8 U	41.6	72	10-148	
n-Propylbenzene	57.6	5.8 U	44.0	76	10-178	
o-Xylene	57.6	5.8 U	45.9	80	29-134	
sec-Butylbenzene	57.6	5.8 U	43.3	75	10-172	
Styrene	57.6	5.8 U	43.4	75	27-127	
Tetrachloroethene	57.6	5.8 U	49.3	86	31-135	
Toluene	57.6	5.8 U	47.4	82	39-129	
trans-1,2-Dichloroethene	57.6	5.8 U	53.8	93	50-123	
trans-1,3-Dichloropropene	57.6	5.8 U	41.3	72	28-137	
Trichloroethene	57.6	5.8 U	53.5	93	10-177	
Trichlorofluoromethane	57.6	5.8 U	58.4	101	36-142	
Vinyl acetate	57.6	12 U	18.0	31	70-130	F
Vinyl chloride	57.6	5.8 U	53.9	94	42-117	
tert-Butylbenzene	57.6	5.8 U	44.1	77	10-163	
1,2-Dibromoethane	57.6	5.8 U	47.5	82	45-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82719.D

Lab ID: 240-787-A-8 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	57.6	43.0	75	14	30	34-135	
1,1,1-Trichloroethane	57.6	51.3	89	3	30	51-128	
1,1,2,2-Tetrachloroethane	57.6	45.8	79	11	30	16-179	
1,1,2-Trichloro-1,2,2-trichfluoroethane	57.6	62.5	108	0	30	50-147	
1,1-Dichloroethane	57.6	56.5	98	5	30	54-122	
1,1-Dichloroethene	57.6	57.6	100	1	30	49-157	
1,1-Dichloropropene	57.6	57.3	99	5	30	50-122	
1,2,3-Trichlorobenzene	57.6	33.2	58	5	30	10-110	
1,2,3-Trichloropropane	57.6	53.0	92	9	30	32-174	
1,2,3-Trimethylbenzene	57.6	53.7	93	16	30	70-130	
1,2,4-Trichlorobenzene	57.6	34.8	60	8	30	10-111	
1,2,4-Trimethylbenzene	57.6	50.5	88	17	30	10-173	
1,2-Dibromo-3-Chloropropane	57.6	33.2	58	5	30	10-153	
1,2-Dichlorobenzene	57.6	46.7	81	16	30	17-122	
1,2-Dichloroethane	57.6	57.2	99	5	30	49-123	
1,2-Dichloropropane	57.6	57.4	100	7	30	61-117	
1,3-Dichlorobenzene	57.6	46.6	81	19	30	16-126	
1,3-Dichloropropane	57.6	54.6	95	8	30	54-128	
1,4-Dichlorobenzene	57.6	46.2	80	16	30	15-121	
2,2-Dichloropropane	57.6	46.9	81	1	30	49-132	
2-Butanone	115	97.7	76	6	30	30-143	
2-Chloroethyl vinyl ether	57.6	62.8	109	18	30	10-162	
2-Chlorotoluene	57.6	52.2	91	18	30	11-162	
2-Hexanone	115	100	87	3	30	37-147	
4-Chlorotoluene	57.6	50.7	88	18	30	15-149	
p-Isopropyltoluene	57.6	50.2	87	13	30	10-165	
4-Methyl-2-pentanone	115	95.9	83	6	30	43-147	
Acetone	115	156	73	9	30	24-140	
Benzene	57.6	56.2	98	7	30	53-118	
Bromobenzene	57.6	54.0	94	18	30	24-144	
Bromoform	57.6	31.8	55	15	30	18-129	
Bromomethane	57.6	47.9	83	4	30	33-130	
Carbon disulfide	57.6	52.5	91	2	30	20-151	
Carbon tetrachloride	57.6	45.1	78	9	30	32-137	
Chlorobenzene	57.6	51.9	90	11	30	37-116	
Dibromochloromethane	57.6	39.3	68	15	30	29-135	
Chloroethane	57.6	51.4	89	4	30	45-118	
Chloroform	57.6	55.8	97	7	30	53-119	
Chloromethane	57.6	49.4	86	3	30	34-117	
cis-1,2-Dichloroethene	57.6	55.1	96	5	30	50-119	
cis-1,3-Dichloropropene	57.6	49.6	86	9	30	27-133	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82719.D

Lab ID: 240-787-A-8 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dibromomethane	57.6	55.1	96	4	30	52-123	
Bromochloromethane	57.6	54.9	95	7	30	53-116	
Dichlorodifluoromethane	57.6	38.3	66	1	30	17-115	
Bromodichloromethane	57.6	46.2	80	10	30	35-132	
tert-Butyl alcohol	1150	837	73	13	30	60-125	
Ethylbenzene	57.6	50.0	87	8	30	30-131	
Hexachlorobutadiene	57.6	35.7	62	6	30	10-131	
Diisopropyl ether	57.6	58.0	101	3	30	62-128	
Isopropylbenzene	57.6	47.8	83	8	30	21-134	
Methyl tert-butyl ether	57.6	55.0	95	0	30	51-157	
Methylene Chloride	57.6	62.5	98	3	30	54-115	
m-Xylene & p-Xylene	115	98.2	85	8	30	29-131	
Naphthalene	57.6	33.9	59	7	30	10-124	
n-Butylbenzene	57.6	45.8	79	9	30	10-148	
n-Propylbenzene	57.6	51.6	90	16	30	10-178	
o-Xylene	57.6	50.4	87	9	30	29-134	
sec-Butylbenzene	57.6	49.4	86	13	30	10-172	
Styrene	57.6	48.1	83	10	30	27-127	
Tetrachloroethene	57.6	54.7	95	10	30	31-135	
Toluene	57.6	52.1	90	10	30	39-129	
trans-1,2-Dichloroethene	57.6	55.2	96	3	30	50-123	
trans-1,3-Dichloropropene	57.6	46.6	81	12	30	28-137	
Trichloroethene	57.6	57.9	100	8	30	10-177	
Trichlorofluoromethane	57.6	55.7	97	5	30	36-142	
Vinyl acetate	57.6	21.8	38	19	30	70-130	F
Vinyl chloride	57.6	51.9	90	4	30	42-117	
tert-Butylbenzene	57.6	52.1	90	17	30	10-163	
1,2-Dibromoethane	57.6	52.0	90	9	30	45-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

IS Associations

Report Date: 16-May-2011 13:39:45 Chrom Revision: 1.2 15-May-2011 04:23:02

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\NCChrom\ChromData\A3UX14\20110513-528.b\148163.D
Lims ID: icv 8260 Client ID:
Inject. Date: 13-May-2011 13:36:30 Dil. Factor: 1.0000
Sample Type: ICV
Sample ID: ICV
Misc. Info.: R10513A-IC,8260SUX14,,2807,3 =R10513A-IC,8260SUX14,,2807,3
Operator: 2807 Instrument ID: A3UX14
Vol. Injected: 1.0000 ALS Bottle#: 10
Lims Batch ID: 1969 Lims Sample ID: 11
Sublist:
Detector: MS SCAN

Method: \\NCChrom\ChromData\A3UX14\20110513-528.b\8260_14.m
Last Update: 16-May-2011 13:39:45 Calib Date: 13-May-2011 16:27:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\NCChrom\ChromData\A3UX14\20110513-528.b\148171.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Process Host: CORP-CTX-17

First Level Reviewer: macenczaks Date: 16-May-2011 13:30:57

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
* 1 Fluorobenzene									
96	6.897	6.897	0.000	100	1872329	50.0			
* 2 Chlorobenzene-d5									
117	9.606	9.606	0.000	76	1293714	50.0	80.0- 120.0	100.0	
82	9.606	9.606	0.000		622036		26.8- 66.8	48.1	
* 3 1,4-Dichlorobenzene-d4									
152	11.571	11.571	0.000	98	666495	50.0	80.0- 120.0	100.0	
150	11.571	11.571	0.000		1134032		151.1- 191.1	170.1	
$ 5 Dibromofluoromethane (Surr)									
113	6.222	6.222	0.000	66	477733	52.2	80.0- 120.0	100.0	
111	6.222	6.222	0.000		490717		83.5- 123.5	102.7	
$ 6 1,2-Dichloroethane-d4 (Surr)									
65	6.553	6.553	0.000	94	532652	52.3	80.0- 120.0	100.0	
63	6.553	6.553	0.000		46829		0.0- 28.8	8.8	
$ 7 Toluene-d8 (Surr)									
98	8.364	8.364	0.000	84	1640106	54.1	80.0- 120.0	100.0	
100	8.364	8.364	0.000		1119513		48.4- 88.4	68.3	
$ 131 4-Bromofluorobenzene (Surr)									
95	10.600	10.600	0.000	92	575006	50.4	70.0- 130.0	100.0	
174	10.600	10.600	0.000		498083		56.4- 116.4	86.6	
176	10.600	10.600	0.000		484774		54.4- 114.4	84.3	
12 Dichlorodifluoromethane									
85	1.442	1.442	0.000	87	320951	47.4	80.0- 120.0	100.0	
87	1.442	1.442	0.000		104297		12.1- 52.1	32.5	
13 Chloromethane									
50	1.607	1.607	0.000	89	521444	47.7	80.0- 120.0	100.0	
52	1.607	1.607	0.000		164856		11.6- 51.6	31.6	

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
14 Vinyl chloride									
62	1.737	1.737	0.000	83	402851	48.4	80.0- 120.0	100.0	
64	1.737	1.737	0.000		118811		9.6- 49.6	29.5	
15 Bromomethane									
94	2.069	2.081	-0.012	90	116461	44.1	80.0- 120.0	100.0	
96	2.069	2.081	-0.012		108252		72.1- 112.1	93.0	
16 Chloroethane									
64	2.187	2.187	0.000	94	83149	43.6	80.0- 120.0	100.0	
66	2.187	2.187	0.000		29271		13.0- 53.0	35.2	
18 Trichlorofluoromethane									
101	2.495	2.507	-0.012	80	454772	56.5	80.0- 120.0	100.0	
103	2.495	2.507	-0.012		293498		45.2- 85.2	64.5	
19 Ethyl ether									
59	2.885	2.885	0.000	97	356130	45.0	80.0- 120.0	100.0	
74	2.885	2.885	0.000		187647		34.1- 74.1	52.7	
20 Acrolein									
56	3.051	3.051	0.000	94	220521	146.4	80.0- 120.0	100.0	
55	3.051	3.051	0.000		160913		52.1- 92.1	73.0	
21 1,1-Dichloroethene									
96	3.157	3.157	0.000	87	389662	55.8	80.0- 120.0	100.0	
61	3.157	3.157	0.000		712822		164.2- 204.2	182.9	
23 1,1,2-Trichloro-1,2,2-trifluoroeth									
151	3.193	3.193	0.000	73	391428	59.6	80.0- 120.0	100.0	
101	3.181	3.193	-0.012		411187		86.7- 126.7	105.0	
22 Acetone									
43	3.276	3.276	0.000	98	319443	98.3	80.0- 120.0	100.0	
58	3.276	3.276	0.000		85138		7.3- 47.3	26.7	
24 Iodomethane									
142	3.347	3.359	-0.012	99	761276	56.0	80.0- 120.0	100.0	
127	3.347	3.359	-0.012		313185		20.5- 60.5	41.1	
26 Carbon disulfide									
76	3.429	3.430	-0.001	99	947396	54.8	80.0- 120.0	100.0	
78	3.429	3.430	-0.001		90044		0.0- 29.6	9.5	
27 Acetonitrile									
41	3.690	3.690	0.000	94	195383	143.8	80.0- 120.0	100.0	
40	3.690	3.690	0.000		101755		33.6- 73.6	52.1	
28 Methyl acetate									
43	3.773	3.785	-0.011	98	421652	51.4	80.0- 120.0	100.0	
74	3.784	3.785	0.000		67596		0.0- 36.1	16.0	
30 Methylene Chloride									
84	3.903	3.903	0.000	90	410310	47.9	80.0- 120.0	100.0	
49	3.891	3.903	-0.012		739677		160.7- 200.7	180.3	
31 2-Methyl-2-propanol									
59	4.222	4.222	0.000	91	835293	1029.7	80.0- 120.0	100.0	
41	4.222	4.222	0.000		332783		17.5- 57.5	39.8	
32 Acrylonitrile									
53	4.317	4.317	0.000	95	568393	145.1	80.0- 120.0	100.0	
52	4.317	4.317	0.000		466126		61.8- 101.8	82.0	

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
33 trans-1,2-Dichloroethene									
96	4.329	4.329	0.000	92	431760	50.7	80.0- 120.0	100.0	
61	4.329	4.329	0.000		692674		141.3- 181.3	160.4	
34 Methyl tert-butyl ether									
73	4.364	4.364	0.000	85	1075983	50.5	80.0- 120.0	100.0	
41	4.364	4.364	0.000		410254		17.1- 57.1	38.1	
35 Hexane									
86	4.743	4.755	-0.012	95	105032	56.0	80.0- 120.0	100.0	
57	4.743	4.755	-0.012		723621		677.1- 717.1	689.0	
36 1,1-Dichloroethane									
63	4.932	4.932	0.000	86	811879	51.9	80.0- 120.0	100.0	
65	4.932	4.932	0.000		242304		9.8- 49.8	29.8	
37 Vinyl acetate									
86	5.051	5.051	0.000	95	62117	52.5	80.0- 120.0	100.0	
43	5.051	5.051	0.000		1714617		1348.0-1388.0	2760.3	
38 Isopropyl ether									
87	5.086	5.086	0.000	96	367676	51.9	80.0- 120.0	100.0	
45	5.086	5.086	0.000		1827647		504.9- 544.9	497.1	
43 2,2-Dichloropropane									
77	5.654	5.654	0.000	78	275501	47.9	80.0- 120.0	100.0	
97	5.654	5.654	0.000		74265		6.5- 46.5	27.0	
42 cis-1,2-Dichloroethene									
96	5.666	5.666	0.000	73	464204	50.5	80.0- 120.0	100.0	
61	5.666	5.666	0.000		726287		137.8- 177.8	156.5	
41 2-Butanone (MEK)									
43	5.713	5.713	0.000	97	417564	92.7	80.0- 120.0	100.0	
72	5.713	5.713	0.000		71554		0.0- 37.4	17.1	
47 Chlorobromomethane									
128	5.938	5.938	0.000	93	242264	49.5	80.0- 120.0	100.0	
49	5.938	5.938	0.000		476885		177.0- 217.0	196.8	
48 Tetrahydrofuran									
42	5.997	5.997	0.000	90	149177	49.9	80.0- 120.0	100.0	
71	5.997	5.997	0.000		41629		8.9- 48.9	27.9	
49 Chloroform									
83	6.045	6.045	0.000	83	696856	51.0	80.0- 120.0	100.0	
85	6.045	6.045	0.000		466843		47.3- 87.3	67.0	
50 1,1,1-Trichloroethane									
97	6.222	6.222	0.000	89	562958	52.6	80.0- 120.0	100.0	
99	6.222	6.222	0.000		361159		43.9- 83.9	64.2	
51 Cyclohexane									
56	6.269	6.269	0.000	95	945465	54.6	80.0- 120.0	100.0	
84	6.269	6.269	0.000		628670		45.9- 85.9	66.5	
53 Carbon tetrachloride									
117	6.400	6.400	0.000	85	552059	50.2	80.0- 120.0	100.0	
119	6.400	6.400	0.000		529616		76.1- 116.1	95.9	
52 1,1-Dichloropropene									
75	6.400	6.400	0.000	82	535599	51.3	80.0- 120.0	100.0	
110	6.400	6.400	0.000		221744		20.8- 60.8	41.4	

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
54 Isobutyl alcohol									
41	6.601	6.601	0.000	92	855149	2968.3	80.0- 120.0	100.0	
43	6.601	6.601	0.000		1157259		114.6- 154.6	135.3	
55 Benzene									
78	6.613	6.613	0.000	97	1571221	48.2	80.0- 120.0	100.0	
52	6.613	6.613	0.000		372806		3.0- 43.0	23.7	
56 1,2-Dichloroethane									
62	6.636	6.636	0.000	89	635603	49.8	80.0- 120.0	100.0	
64	6.636	6.636	0.000		191768		10.8- 50.8	30.2	
60 Trichloroethene									
130	7.252	7.252	0.000	90	490858	50.8	80.0- 120.0	100.0	
95	7.252	7.252	0.000		430848		65.7- 105.7	87.8	
63 Methylcyclohexane									
83	7.429	7.429	0.000	92	758245	52.4	80.0- 120.0	100.0	
55	7.429	7.429	0.000		781588		84.3- 124.3	103.1	
62 1,2-Dichloropropane									
63	7.465	7.465	-0.001	84	425717	48.8	80.0- 120.0	100.0	
62	7.465	7.465	-0.001		291303		49.5- 89.5	68.4	
65 Dibromomethane									
93	7.571	7.571	0.000	85	239296	52.5	80.0- 120.0	100.0	
174	7.571	7.571	0.000		276541		101.0- 141.0	115.6	
67 Dichlorobromomethane									
83	7.725	7.725	0.000	91	433301	52.6	80.0- 120.0	100.0	
85	7.725	7.725	0.000		287887		46.4- 86.4	66.4	
69 2-Chloroethyl vinyl ether									
63	7.997	7.997	0.000	90	192681	44.4	80.0- 120.0	100.0	
65	7.997	7.997	0.000		58050		10.2- 50.2	30.1	
70 cis-1,3-Dichloropropene									
75	8.127	8.127	0.000	84	472271	47.1	80.0- 120.0	100.0	
77	8.127	8.127	0.000		151131		11.7- 51.7	32.0	
71 4-Methyl-2-pentanone (MIBK)									
43	8.269	8.269	0.000	99	839953	101.2	80.0- 120.0	100.0	
58	8.269	8.269	0.000		281276		14.0- 54.0	33.5	
72 Toluene									
91	8.423	8.423	0.000	97	1599854	48.2	80.0- 120.0	100.0	
92	8.423	8.423	0.000		923060		38.0- 78.0	57.7	
73 trans-1,3-Dichloropropene									
75	8.612	8.612	0.000	91	394023	42.9	80.0- 120.0	100.0	
77	8.612	8.612	0.000		130603		13.9- 53.9	33.1	
75 1,1,2-Trichloroethane									
97	8.778	8.778	0.000	87	292062	49.7	80.0- 120.0	100.0	
83	8.778	8.778	0.000		232206		61.4- 101.4	79.5	
77 Tetrachloroethene									
164	8.896	8.896	0.000	91	359387	51.4	80.0- 120.0	100.0	
129	8.896	8.896	0.000		334733		75.5- 115.5	93.1	
76 1,3-Dichloropropane									
76	8.920	8.920	0.000	92	477452	48.8	80.0- 120.0	100.0	
78	8.920	8.920	0.000		157893		13.6- 53.6	33.1	

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
78 2-Hexanone									
43	8.991	8.991	0.000	98	518551	96.3	80.0- 120.0	100.0	
58	8.991	8.991	0.000		237962		26.2- 66.2	45.9	
79 Chlorodibromomethane									
129	9.109	9.109	0.000	88	322691	48.9	80.0- 120.0	100.0	
127	9.109	9.109	0.000		249647		57.4- 97.4	77.4	
123 Ethylene Dibromide									
107	9.216	9.216	0.000	100	299176	50.1	70.0- 130.0	100.0	
109	9.216	9.216	0.000		293239		67.6- 127.6	98.0	
81	9.216	9.216	0.000		22050		0.0- 37.4	7.4	
82 Chlorobenzene									
112	9.630	9.630	0.000	85	1092410	47.7	80.0- 120.0	100.0	
114	9.630	9.630	0.000		346456		12.1- 52.1	31.7	
83 1,1,1,2-Tetrachloroethane									
131	9.701	9.701	0.000	87	400024	51.6	80.0- 120.0	100.0	
133	9.701	9.701	0.000		384212		77.9- 117.9	96.0	
84 Ethylbenzene									
106	9.725	9.725	0.000	98	574531	48.7	80.0- 120.0	100.0	
91	9.725	9.725	0.000		1749844		281.4- 321.4	304.6	
10 m-Xylene & p-Xylene									
106	9.819	9.819	0.000	98	1398098	98.1	70.0- 130.0	100.0	
91	9.819	9.819	0.000		2746428		165.7- 225.7	196.4	
77	9.819	9.819	0.000		340225		0.0- 54.2	24.3	
85 o-Xylene									
106	10.151	10.151	0.000	86	716463	50.2	80.0- 120.0	100.0	
91	10.151	10.151	0.000		1495428		186.6- 226.6	208.7	
86 Styrene									
104	10.162	10.162	0.000	85	1096918	48.8	80.0- 120.0	100.0	
78	10.162	10.162	0.000		516646		27.9- 67.9	47.1	
87 Bromoform									
173	10.328	10.328	0.000	98	179342	43.7	80.0- 120.0	100.0	
171	10.328	10.328	0.000		92245		30.9- 70.9	51.4	
88 Isopropylbenzene									
105	10.470	10.470	0.000	95	1923387	51.2	80.0- 120.0	100.0	
120	10.470	10.470	0.000		547209		8.7- 48.7	28.5	
89 Cyclohexanone									
55	10.553	10.553	0.000	95	334938	504.4	80.0- 120.0	100.0	
42	10.553	10.553	0.000		255604		55.5- 95.5	76.3	
90 1,1,2,2-Tetrachloroethane									
83	10.707	10.707	0.000	83	334288	51.1	80.0- 120.0	100.0	
85	10.707	10.707	0.000		223245		44.5- 84.5	66.8	
91 Bromobenzene									
156	10.730	10.730	0.000	74	469655	48.4	80.0- 120.0	100.0	
158	10.730	10.730	0.000		452776		79.1- 119.1	96.4	
93 trans-1,4-Dichloro-2-butene									
53	10.754	10.754	0.000	70	245137	102.1	80.0- 120.0	100.0	
89	10.766	10.754	0.012		98028		21.3- 61.3	40.0	

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
92 1,2,3-Trichloropropane									
110	10.754	10.754	0.000	87	123131	49.5	80.0- 120.0	100.0	
75	10.754	10.754	0.000		482396		313.1- 353.1	391.8	
94 N-Propylbenzene									
120	10.813	10.813	0.000	95	541375	51.2	80.0- 120.0	100.0	
91	10.813	10.813	0.000		2062291		364.5- 404.5	380.9	
95 2-Chlorotoluene									
126	10.884	10.884	0.000	97	480145	49.0	80.0- 120.0	100.0	
91	10.884	10.884	0.000		1240179		241.5- 281.5	258.3	
96 1,3,5-Trimethylbenzene									
105	10.955	10.955	0.000	65	1575780	51.6	80.0- 120.0	100.0	
120	10.955	10.955	0.000		823126		32.3- 72.3	52.2	
104 4-Chlorotoluene									
126	10.979	10.979	0.000	97	460205	47.3	80.0- 120.0	100.0	
91	10.979	10.979	0.000		1373025		275.1- 315.1	298.4	
65	10.979	10.979	0.000		182281		19.3- 59.3	39.6	
97 tert-Butylbenzene									
119	11.239	11.239	0.000	86	1528212	53.3	80.0- 120.0	100.0	
91	11.239	11.239	0.000		919804		40.7- 80.7	60.2	
98 1,2,4-Trimethylbenzene									
105	11.275	11.275	0.000	73	1612086	51.7	80.0- 120.0	100.0	
120	11.275	11.275	0.000		789438		29.0- 69.0	49.0	
99 sec-Butylbenzene									
105	11.417	11.417	0.000	94	2047364	52.9	80.0- 120.0	100.0	
134	11.417	11.417	0.000		475325		2.9- 42.9	23.2	
100 1,3-Dichlorobenzene									
146	11.523	11.523	0.000	90	889119	47.9	80.0- 120.0	100.0	
148	11.523	11.523	0.000		561933		43.8- 83.8	63.2	
101 4-Isopropyltoluene									
119	11.535	11.535	0.000	87	1816794	53.9	80.0- 120.0	100.0	
134	11.535	11.535	0.000		510082		8.3- 48.3	28.1	
102 1,4-Dichlorobenzene									
146	11.594	11.594	0.000	95	890911	47.0	80.0- 120.0	100.0	
148	11.594	11.594	0.000		564294		42.7- 82.7	63.3	
103 1,2,3-Trimethylbenzene									
105	11.630	11.630	0.000	90	1648709	59.5	80.0- 120.0	100.0	
120	11.630	11.630	0.000		738395		24.6- 64.6	44.8	
105 n-Butylbenzene									
91	11.878	11.878	0.000	89	1433540	51.8	80.0- 120.0	100.0	
92	11.878	11.878	0.000		760697		32.6- 72.6	53.1	
106 1,2-Dichlorobenzene									
146	11.914	11.914	0.000	97	871229	48.5	80.0- 120.0	100.0	
148	11.914	11.914	0.000		556202		43.1- 83.1	63.8	
107 1,2-Dibromo-3-Chloropropane									
157	12.564	12.565	-0.001	82	71013	43.4	80.0- 120.0	100.0	
75	12.564	12.565	-0.001		52071		55.7- 95.7	73.3	

Report Date: 16-May-2011 13:39:45 Chrom Revision: 1.2 15-May-2011 04:23:02
Data File: \\NCChrom\ChromData\A3UX14\20110513-528.b\148163.D

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
109 1,2,4-Trichlorobenzene									
180	13.251	13.251	0.000	94	677496	52.2	80.0- 120.0	100.0	
182	13.251	13.251	0.000		644099		75.1- 115.1	95.1	
110 Hexachlorobutadiene									
225	13.381	13.381	0.000	96	312926	52.0	80.0- 120.0	100.0	
260	13.381	13.381	0.000		94451		10.0- 50.0	30.2	
111 Naphthalene									
128	13.440	13.440	0.000	97	1635253	52.5	80.0- 120.0	100.0	
130	13.440	13.440	0.000		8629		0.0- 20.5	0.5	
112 1,2,3-Trichlorobenzene									
180	13.629	13.629	0.000	94	641273	52.0	80.0- 120.0	100.0	
182	13.629	13.629	0.000		600310		75.0- 115.0	93.6	

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: STD8260 240-1969/5 Date Analyzed: 05/13/2011 11:27

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 148157.D Heated Purge: (Y/N) Y

Calibration ID: 985

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1868366	6.90	1308047	9.61	665164	11.57
UPPER LIMIT		3736732	7.40	2616094	10.11	1330328	12.07
LOWER LIMIT		934183	6.40	654024	9.11	332582	11.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-1969/11		1872329	6.90	1293714	9.61	666495	11.57

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: CCV 240-4867/3 Date Analyzed: 06/15/2011 12:31

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 149010.D Heated Purge: (Y/N) Y

Calibration ID: 987

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1382888	6.90	1083666	9.61	572261	11.57
UPPER LIMIT		2765776	7.40	2167332	10.11	1144522	12.07
LOWER LIMIT		691444	6.40	541833	9.11	286131	11.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-4867/4		1434214	6.90	974591	9.61	486780	11.57
LCS 240-4867/5		1433050	6.90	1000181	9.61	514506	11.57
MB 240-4867/6		1430198	6.90	978704	9.61	496445	11.57
240-741-7	GSP-SB-99-0-2	1269206	6.90	828174	9.61	334774	11.57
240-741-8	GSP-SB-99-6-8	1352818	6.90	930834	9.61	472643	11.57
240-741-9	GSP-SB-100-2-4	1220547	6.90	832604	9.61	421037	11.57
240-742-1	GSP-SB-109-0-2	1373534	6.90	924551	9.61	399271	11.57
240-742-2	GSP-SB-109-6-8	1160420	6.90	803888	9.61	403442	11.57
240-742-3	GSP-SB-108-0-2	1443480	6.90	1027294	9.61	513904	11.57
240-742-4	GSP-SB-108-6-8	1325765	6.90	904595	9.61	478727	11.57
240-742-5	GSP-SB-110-0-2	1367540	6.90	918590	9.61	411548	11.57
240-742-6	GSP-SB-110-6-8	1351737	6.90	885390	9.61	416791	11.57
240-742-8	GSP-SB-102-6-8	1243755	6.90	819729	9.61	366166	11.57
240-742-9	GSP-SB-107-0-2	995534	6.90	678139	9.61	334692	11.57

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: CCV 240-5027/3 Date Analyzed: 06/16/2011 12:19

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 149043.D Heated Purge: (Y/N) Y

Calibration ID: 987

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1453332	6.90	1056502	9.61	549361	11.57
UPPER LIMIT		2906664	7.40	2113004	10.11	1098722	12.07
LOWER LIMIT		726666	6.40	528251	9.11	274681	11.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-5027/4		1459242	6.90	1020713	9.61	506638	11.57
LCS 240-5027/5		1442265	6.90	1019687	9.61	518108	11.57
MB 240-5027/6		1320634	6.90	916685	9.61	474281	11.57
240-787-A-9 MS		1441022	6.90	1046679	9.61	523489	11.57
240-787-A-9 MSD		1414470	6.90	988790	9.61	490895	11.57
240-741-10	GSP-SB-100-6-8	1084542	6.90	716402	9.61	382453	11.57
240-742-7	GSP-SB-102-0-2	1402381	6.90	934405	9.61	391932	11.57
240-742-10	GSP-SB-107-6-8	991543	6.90	699194	9.61	361086	11.57

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: STD8260 240-4259/5 Date Analyzed: 06/10/2011 02:32

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX82540.D Heated Purge: (Y/N) Y

Calibration ID: 1462

	FB		CBZ		DCB	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	1101507	5.14	647790	7.68	361870	9.88
UPPER LIMIT	2203014	5.64	1295580	8.18	723740	10.38
LOWER LIMIT	550754	4.64	323895	7.18	180935	9.38
LAB SAMPLE ID CLIENT SAMPLE ID						
ICV 240-4259/17	1135485	5.15	701577	7.68	400592	9.88

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: CCVIS 240-4766/3 Date Analyzed: 06/14/2011 20:22

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX82667.D Heated Purge: (Y/N) Y

Calibration ID: 1464

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		987158	5.15	678420	7.68	340394	9.88
UPPER LIMIT		1974316	5.65	1356840	8.18	680788	10.38
LOWER LIMIT		493579	4.65	339210	7.18	170197	9.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-4766/4		957813	5.15	683335	7.68	348112	9.88
LCS 240-4766/5		941830	5.15	660839	7.68	342318	9.88
MB 240-4766/6		956207	5.15	695076	7.68	346128	9.88
240-728-F-5-A MS		948538	5.15	663282	7.68	337501	9.87
240-728-H-5-A MSD		931876	5.15	662702	7.68	343082	9.88
240-741-1	GSP-SB-103-0-2	897192	5.15	600240	7.68	224493	9.87
240-741-2	GSP-SB-103-6-8	946301	5.15	704370	7.68	357959	9.87
240-741-4	GSP-SB-105-6-8	976735	5.15	725433	7.68	370426	9.87
240-741-5	GSP-SB-101-0-2	881291	5.15	493853	7.68	144082*	9.88
240-741-6	GSP-SB-101-6-8	928778	5.15	681857	7.68	336372	9.87

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: CCVIS 240-4936/5 Date Analyzed: 06/15/2011 23:54

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX82699.D Heated Purge: (Y/N) Y

Calibration ID: 1464

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1169105	5.15	723889	7.68	405350	9.88
UPPER LIMIT		2338210	5.65	1447778	8.18	810700	10.38
LOWER LIMIT		584553	4.65	361945	7.18	202675	9.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-4936/4		1190684	5.16	750979	7.68	410245	9.88
LCS 240-4936/6		1121612	5.15	724246	7.68	394680	9.88
MB 240-4936/7		1086350	5.15	763131	7.68	411789	9.87
240-741-3	GSP-SB-105-0-2	1022602	5.16	620042	7.68	207722	9.88
240-787-A-8 MS		1075502	5.15	739131	7.68	396967	9.88
240-787-A-8 MSD		1176457	5.15	768357	7.68	381232	9.88

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP	#	PHL	#	NBZ	#	FBP	#	TBP	#	TPH	#
GSP-SB-103-0-2	240-741-1	77		65		65		66		65		82	
GSP-SB-103-6-8	240-741-2	71		53		50		62		44		72	
GSP-SB-105-0-2	240-741-3	77		74		66		65		63		71	
GSP-SB-105-6-8	240-741-4	68		65		55		57		58		69	
GSP-SB-101-0-2	240-741-5	76		71		65		63		66		67	
GSP-SB-101-6-8	240-741-6	78		59		57		73		39		83	
GSP-SB-99-0-2	240-741-7	71		61		64		63		65		73	
GSP-SB-99-6-8	240-741-8	74		59		56		66		43		82	
GSP-SB-100-2-4	240-741-9	73		53		52		67		51		82	
GSP-SB-100-6-8	240-741-10	73		57		62		71		49		84	
GSP-SB-109-0-2	240-742-1	64		43		67		69		24		78	
GSP-SB-109-6-8	240-742-2	57		36		0	X	65		0	X	70	
GSP-SB-108-0-2	240-742-3	70		69		58		56		48		70	
GSP-SB-108-6-8	240-742-4	70		61		53		64		45		80	
GSP-SB-110-0-2	240-742-5	62		62		53		53		35		62	
GSP-SB-110-6-8	240-742-6	77		73		69		71		23		83	
GSP-SB-102-0-2	240-742-7	72		73		57		65		58		72	
GSP-SB-102-6-8	240-742-8	70		63		71		66		55		80	
GSP-SB-107-0-2	240-742-9	70		61		60		65		63		77	
GSP-SB-107-6-8	240-742-10	62		59		52		56		44		70	
	MB 240-4642/23-A	66		62		56		59		40		70	
	MB 240-4656/24-A	76		79		72		71		42		88	
	LCS 240-4642/24-A	69		66		64		64		59		75	
	LCS 240-4656/23-A	77		77		77		74		64		86	
GSP-SB-110-6-8 MS	240-742-6 MS	51		66		68		70		8	X	79	
GSP-SB-107-6-8 MS	240-742-10 MS	66		64		58		60		49		73	
GSP-SB-110-6-8 MSD	240-742-6 MSD	64		88		66		67		0	X	79	
GSP-SB-107-6-8 MSD	240-742-10 MSD	64		64		59		59		54		74	

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	26-110
PHL = Phenol-d5 (Surr)	28-110
NBZ = Nitrobenzene-d5 (Surr)	24-112
FBP = 2-Fluorobiphenyl (Surr)	34-110
TBP = 2,4,6-Tribromophenol (Surr)	10-118
TPH = Terphenyl-d14 (Surr)	41-119

Column to be used to flag recovery values

FORM II 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: 0701008.D Lab Sample ID: MB 240-4642/23-A

Matrix: Solid Date Extracted: 06/14/2011 10:17

Instrument ID: A4HP10 Date Analyzed: 07/01/2011 11:53

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-4642/24-A	0701009.D	07/01/2011 12:11
GSP-SB-107-6-8	240-742-10	0701010.D	07/01/2011 12:30
GSP-SB-107-6-8 MS	240-742-10 MS	0701011.D	07/01/2011 12:49
GSP-SB-107-6-8 MSD	240-742-10 MSD	0701012.D	07/01/2011 13:07

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-741-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4642/23-A

Matrix: Solid | Lab File ID: 0701008.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/14/2011 10:17

Sample wt/vol: 30.00(g) | Date Analyzed: 07/01/2011 11:53

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6847 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	50	U	50	27
123-91-1	1,4-Dioxane	100	U	100	22
88-06-2	2,4,6-Trichlorophenol	150	U	150	80
95-95-4	2,4,5-Trichlorophenol	150	U	150	25
120-83-2	2,4-Dichlorophenol	150	U	150	20
105-67-9	2,4-Dimethylphenol	150	U	150	20
51-28-5	2,4-Dinitrophenol	330	U	330	80
121-14-2	2,4-Dinitrotoluene	200	U	200	27
91-58-7	2-Chloronaphthalene	50	U	50	3.3
95-57-8	2-Chlorophenol	50	U	50	27
91-57-6	2-Methylnaphthalene	6.7	U	6.7	3.3
95-48-7	2-Methylphenol	200	U	200	80
88-74-4	2-Nitroaniline	200	U	200	9.1
88-75-5	2-Nitrophenol	50	U	50	27
15831-10-4	3 & 4 Methylphenol	400	U	400	20
91-94-1	3,3'-Dichlorobenzidine	100	U	100	18
99-09-2	3-Nitroaniline	200	U	200	16
534-52-1	4,6-Dinitro-2-methylphenol	150	U	150	80
101-55-3	4-Bromophenyl phenyl ether	50	U	50	13
59-50-7	4-Chloro-3-methylphenol	150	U	150	21
106-47-8	4-Chloroaniline	150	U	150	17
7005-72-3	4-Chlorophenyl phenyl ether	50	U	50	13
100-01-6	4-Nitroaniline	200	U	200	26
83-32-9	Acenaphthene	6.7	U	6.7	3.3
208-96-8	Acenaphthylene	6.7	U	6.7	3.3
98-86-2	Acetophenone	100	U	100	9.2
120-12-7	Anthracene	6.7	U	6.7	3.3
1912-24-9	Atrazine	200	U	200	9.1
100-52-7	Benzaldehyde	100	U	100	12
56-55-3	Benzo[a]anthracene	6.7	U	6.7	3.3
50-32-8	Benzo[a]pyrene	6.7	U	6.7	3.3
205-99-2	Benzo[b]fluoranthene	6.7	U	6.7	3.3
191-24-2	Benzo[g,h,i]perylene	6.7	U	6.7	3.3
207-08-9	Benzo[k]fluoranthene	6.7	U	6.7	3.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-741-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4642/23-A

Matrix: Solid | Lab File ID: 0701008.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/14/2011 10:17

Sample wt/vol: 30.00(g) | Date Analyzed: 07/01/2011 11:53

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6847 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	100	U	100	22
111-44-4	Bis(2-chloroethyl)ether	100	U	100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	50	U	50	19
85-68-7	Butyl benzyl phthalate	50	U	50	10
105-60-2	Caprolactam	330	U	330	37
86-74-8	Carbazole	50	U	50	27
218-01-9	Chrysene	6.7	U	6.7	1.1
84-74-2	Di-n-butyl phthalate	50	U	50	15
117-84-0	Di-n-octyl phthalate	50	U	50	27
53-70-3	Dibenzo(a,h)anthracene	6.7	U	6.7	3.3
132-64-9	Dibenzofuran	50	U	50	3.3
84-66-2	Diethyl phthalate	50	U	50	16
131-11-3	Dimethyl phthalate	50	U	50	17
206-44-0	Fluoranthene	6.7	U	6.7	3.3
86-73-7	Fluorene	6.7	U	6.7	3.3
118-74-1	Hexachlorobenzene	6.7	U	6.7	2.1
87-68-3	Hexachlorobutadiene	50	U	50	27
77-47-4	Hexachlorocyclopentadiene	330	U	330	27
67-72-1	Hexachloroethane	50	U	50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	6.7	U	6.7	3.3
78-59-1	Isophorone	50	U	50	13
621-64-7	N-Nitrosodi-n-propylamine	50	U	50	27
62-75-9	N-Nitrosodimethylamine	100	U	100	16
86-30-6	N-Nitrosodiphenylamine	50	U	50	21
91-20-3	Naphthalene	6.7	U	6.7	3.3
98-95-3	Nitrobenzene	100	U	100	2.2
87-86-5	Pentachlorophenol	150	U	150	80
85-01-8	Phenanthrene	6.7	U	6.7	3.3
108-95-2	Phenol	50	U	50	27
129-00-0	Pyrene	6.7	U	6.7	3.3
108-60-1	2,2'-oxybis[1-chloropropane]	100	U	100	9.5
606-20-2	2,6-Dinitrotoluene	200	U	200	21
100-02-7	4-Nitrophenol	330	U	330	80

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton	Job No.: 240-741-1
SDG No.:	
Client Sample ID:	Lab Sample ID: MB 240-4642/23-A
Matrix: Solid	Lab File ID: 0701008.D
Analysis Method: 8270D	Date Collected:
Extract. Method: 3540C	Date Extracted: 06/14/2011 10:17
Sample wt/vol: 30.00(g)	Date Analyzed: 07/01/2011 11:53
Con. Extract Vol.: 2.00(mL)	Dilution Factor: 1
Injection Volume: 1(uL)	Level: (low/med) Low
% Moisture:	GPC Cleanup:(Y/N) N
Analysis Batch No.: 6847	Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	70		41-119
4165-62-2	Phenol-d5 (Surr)	62		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		24-112
367-12-4	2-Fluorophenol (Surr)	66		26-110
321-60-8	2-Fluorobiphenyl (Surr)	59		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	40		10-118

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0701009.D

Lab ID: LCS 240-4642/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	667	421	63	50-130	
1,4-Dioxane	667	255	38	10-110	
2,4,6-Trichlorophenol	667	429	64	37-110	
2,4,5-Trichlorophenol	667	427	64	42-110	
2,4-Dichlorophenol	667	439	66	40-110	
2,4-Dimethylphenol	667	311	47	28-110	
2,4-Dinitrophenol	667	333	50	10-110	
2,4-Dinitrotoluene	667	502	75	55-116	
2-Chloronaphthalene	667	432	65	46-110	
2-Chlorophenol	667	435	65	39-110	
2-Methylnaphthalene	667	515	77	46-110	
2-Methylphenol	667	416	62	36-110	
2-Nitroaniline	667	447	67	47-124	
2-Nitrophenol	667	432	65	35-110	
3 & 4 Methylphenol	1330	847	64	40-110	
3,3'-Dichlorobenzidine	667	320	48	31-110	
3-Nitroaniline	667	417	62	44-110	
4,6-Dinitro-2-methylphenol	667	413	62	21-110	
4-Bromophenyl phenyl ether	667	451	68	53-112	
4-Chloro-3-methylphenol	667	464	70	42-110	
4-Chloroaniline	667	330	49	25-110	
4-Chlorophenyl phenyl ether	667	467	70	53-110	
4-Nitroaniline	667	505	76	50-110	
Acenaphthene	667	423	63	46-110	
Acenaphthylene	667	429	64	47-110	
Acetophenone	667	436	65	50-130	
Anthracene	667	449	67	56-111	
Atrazine	667	489	73	50-130	
Benzaldehyde	667	493	74	10-130	
Benzo[a]anthracene	667	452	68	58-111	
Benzo[a]pyrene	667	398	60	44-115	
Benzo[b]fluoranthene	667	439	66	43-124	
Benzo[g,h,i]perylene	667	447	67	44-120	
Benzo[k]fluoranthene	667	463	69	38-122	
Bis(2-chloroethoxy)methane	667	443	66	42-110	
Bis(2-chloroethyl)ether	667	459	69	41-110	
Bis(2-ethylhexyl) phthalate	667	491	74	56-123	
Butyl benzyl phthalate	667	471	71	57-121	
Caprolactam	667	471	71	50-130	
Carbazole	667	445	67	56-115	
Chrysene	667	469	70	56-111	
Di-n-butyl phthalate	667	468	70	57-119	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0701009.D

Lab ID: LCS 240-4642/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	667	446	67	45-123	
Dibenzo(a,h)anthracene	667	451	68	45-122	
Dibenzofuran	667	441	66	50-110	
Diethyl phthalate	667	467	70	55-114	
Dimethyl phthalate	667	461	69	54-112	
Fluoranthene	667	467	70	55-118	
Fluorene	667	439	66	51-110	
Hexachlorobenzene	667	447	67	51-110	
Hexachlorobutadiene	667	441	66	39-110	
Hexachlorocyclopentadiene	667	402	60	10-110	
Hexachloroethane	667	412	62	38-110	
Indeno[1,2,3-cd]pyrene	667	449	67	45-121	
Isophorone	667	424	64	46-117	
N-Nitrosodi-n-propylamine	667	431	65	40-114	
N-Nitrosodimethylamine	667	411	62	10-130	
N-Nitrosodiphenylamine	667	433	65	54-112	
Naphthalene	667	424	64	42-110	
Nitrobenzene	667	437	65	40-110	
Pentachlorophenol	667	326	49	10-110	
Phenanthrene	667	439	66	54-110	
Phenol	667	440	66	39-110	
Pyrene	667	452	68	58-113	
2,2'-oxybis[1-chloropropane]	667	438	66	36-116	
2,6-Dinitrotoluene	667	492	74	54-115	
4-Nitrophenol	667	421	63	24-117	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0701011.D

Lab ID: 240-742-10 MS Client ID: GSP-SB-107-6-8 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1'-Biphenyl	796	60 U	465	58	50-130	
1,4-Dioxane	796	120 U	255	32	10-110	
2,4,6-Trichlorophenol	796	180 U	365	46	22-110	
2,4,5-Trichlorophenol	796	180 U	467	59	32-112	
2,4-Dichlorophenol	796	180 U	509	64	33-110	
2,4-Dimethylphenol	796	180 U	487	61	19-114	
2,4-Dinitrophenol	796	390 U	404	51	10-110	
2,4-Dinitrotoluene	796	240 U	559	70	42-118	
2-Chloronaphthalene	796	60 U	480	60	40-110	
2-Chlorophenol	796	60 U	498	62	32-110	
2-Methylnaphthalene	796	8.0 U	580	73	10-200	
2-Methylphenol	796	240 U	491	62	19-124	
2-Nitroaniline	796	240 U	510	64	31-141	
2-Nitrophenol	796	60 U	497	62	17-110	
3 & 4 Methylphenol	1590	480 U	1040	65	27-116	
3,3'-Dichlorobenzidine	796	120 U	234	29	10-110	
3-Nitroaniline	796	240 U	462	58	24-110	
4,6-Dinitro-2-methylphenol	796	180 U	494	62	10-110	
4-Bromophenyl phenyl ether	796	60 U	500	63	44-120	
4-Chloro-3-methylphenol	796	180 U	517	65	32-117	
4-Chloroaniline	796	180 U	369	46	11-110	
4-Chlorophenyl phenyl ether	796	60 U	517	65	47-116	
4-Nitroaniline	796	240 U	559	70	23-124	
Acenaphthene	796	8.0 U	475	60	10-200	
Acenaphthylene	796	8.0 U	479	60	10-200	
Acetophenone	796	120 U	502	63	50-130	
Anthracene	796	8.0 U	520	65	10-200	
Atrazine	796	240 U	567	71	50-130	
Benzaldehyde	796	120 U	548	69	10-130	
Benzo[a]anthracene	796	8.0 U	506	64	10-200	
Benzo[a]pyrene	796	8.0 U	449	56	10-200	
Benzo[b]fluoranthene	796	8.0 U	488	61	10-200	
Benzo[g,h,i]perylene	796	8.0 U	528	66	10-200	
Benzo[k]fluoranthene	796	8.0 U	541	68	10-200	
Bis(2-chloroethoxy)methane	796	120 U	500	63	36-110	
Bis(2-chloroethyl)ether	796	120 U	522	66	32-118	
Bis(2-ethylhexyl) phthalate	796	60 U	530	66	10-200	
Butyl benzyl phthalate	796	60 U	540	68	43-138	
Caprolactam	796	390 U	526	66	50-130	
Carbazole	796	60 U	519	65	10-162	
Chrysene	796	8.0 U	551	69	10-200	
Di-n-butyl phthalate	796	60 U	551	69	31-145	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0701011.D

Lab ID: 240-742-10 MS Client ID: GSP-SB-107-6-8 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	796	60 U	516	65	10-182	
Dibenzo(a,h)anthracene	796	8.0 U	529	66	10-200	
Dibenzofuran	796	60 U	497	62	10-200	
Diethyl phthalate	796	60 U	532	67	48-118	
Dimethyl phthalate	796	60 U	525	66	47-116	
Fluoranthene	796	8.0 U	551	69	10-200	
Fluorene	796	8.0 U	489	61	10-187	
Hexachlorobenzene	796	8.0 U	508	64	37-122	
Hexachlorobutadiene	796	60 U	498	63	30-110	
Hexachlorocyclopentadiene	796	390 U	315 J	40	10-110	
Hexachloroethane	796	60 U	470	59	13-110	
Indeno[1,2,3-cd]pyrene	796	8.0 U	524	66	10-200	
Isophorone	796	60 U	480	60	32-129	
N-Nitrosodi-n-propylamine	796	60 U	497	62	30-121	
N-Nitrosodimethylamine	797	120 U	461	58	10-130	
N-Nitrosodiphenylamine	796	60 U	514	65	10-169	
Naphthalene	796	8.0 U	475	60	10-200	
Nitrobenzene	796	120 U	497	62	33-111	
Pentachlorophenol	796	180 U	407	51	10-182	
Phenanthrene	796	8.0 U	510	64	10-200	
Phenol	796	60 U	510	64	10-144	
Pyrene	796	8.0 U	523	66	10-200	
2,2'-oxybis[1-chloropropane]	796	120 U	493	62	25-124	
2,6-Dinitrotoluene	796	240 U	565	71	28-137	
4-Nitrophenol	796	390 U	473	59	10-125	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III

GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0701012.D

Lab ID: 240-742-10 MSD Client ID: GSP-SB-107-6-8 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1'-Biphenyl	798	476	60	2	30	50-130	
1,4-Dioxane	798	249	31	2	30	10-110	
2,4,6-Trichlorophenol	798	419	53	14	30	22-110	
2,4,5-Trichlorophenol	798	540	68	14	30	32-112	
2,4-Dichlorophenol	798	508	64	0	30	33-110	
2,4-Dimethylphenol	798	490	61	1	30	19-114	
2,4-Dinitrophenol	798	457	57	12	30	10-110	
2,4-Dinitrotoluene	798	586	74	5	30	42-118	
2-Chloronaphthalene	798	483	61	1	30	40-110	
2-Chlorophenol	798	477	60	4	30	32-110	
2-Methylnaphthalene	798	569	71	2	30	10-200	
2-Methylphenol	798	525	66	7	30	19-124	
2-Nitroaniline	798	528	66	3	30	31-141	
2-Nitrophenol	798	491	62	1	30	17-110	
3 & 4 Methylphenol	1600	1040	65	0	30	27-116	
3,3'-Dichlorobenzidine	798	310	39	28	30	10-110	
3-Nitroaniline	798	485	61	5	30	24-110	
4,6-Dinitro-2-methylphenol	798	528	66	7	30	10-110	
4-Bromophenyl phenyl ether	798	523	66	4	30	44-120	
4-Chloro-3-methylphenol	798	558	70	8	30	32-117	
4-Chloroaniline	798	390	49	5	30	11-110	
4-Chlorophenyl phenyl ether	798	531	67	3	30	47-116	
4-Nitroaniline	798	595	75	6	30	23-124	
Acenaphthene	798	483	61	2	30	10-200	
Acenaphthylene	798	491	62	2	30	10-200	
Acetophenone	798	488	61	3	30	50-130	
Anthracene	798	541	68	4	30	10-200	
Atrazine	798	609	76	7	30	50-130	
Benzaldehyde	798	548	69	0	30	10-130	
Benzo[a]anthracene	798	531	67	5	30	10-200	
Benzo[a]pyrene	798	476	60	6	30	10-200	
Benzo[b]fluoranthene	798	502	63	3	30	10-200	
Benzo[g,h,i]perylene	798	551	69	4	30	10-200	
Benzo[k]fluoranthene	798	589	74	8	30	10-200	
Bis(2-chloroethoxy)methane	798	491	62	2	30	36-110	
Bis(2-chloroethyl)ether	798	519	65	1	30	32-118	
Bis(2-ethylhexyl) phthalate	798	570	71	7	30	10-200	
Butyl benzyl phthalate	798	567	71	5	30	43-138	
Caprolactam	798	555	70	5	30	50-130	
Carbazole	798	536	67	3	30	10-162	
Chrysene	798	569	71	3	30	10-200	
Di-n-butyl phthalate	798	578	73	5	30	31-145	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0701012.D

Lab ID: 240-742-10 MSD Client ID: GSP-SB-107-6-8 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Di-n-octyl phthalate	798	535	67	4	30	10-182	
Dibenzo(a,h)anthracene	798	555	70	5	30	10-200	
Dibenzofuran	798	513	64	3	30	10-200	
Diethyl phthalate	798	559	70	5	30	48-118	
Dimethyl phthalate	798	540	68	3	30	47-116	
Fluoranthene	798	566	71	3	30	10-200	
Fluorene	798	512	64	5	30	10-187	
Hexachlorobenzene	798	523	66	3	30	37-122	
Hexachlorobutadiene	798	484	61	3	30	30-110	
Hexachlorocyclopentadiene	798	348 J	44	10	30	10-110	
Hexachloroethane	798	453	57	4	30	13-110	
Indeno[1,2,3-cd]pyrene	798	541	68	3	30	10-200	
Isophorone	798	470	59	2	30	32-129	
N-Nitrosodi-n-propylamine	798	489	61	2	30	30-121	
N-Nitrosodimethylamine	799	463	58	0	30	10-130	
N-Nitrosodiphenylamine	798	534	67	4	30	10-169	
Naphthalene	798	461	58	3	30	10-200	
Nitrobenzene	798	480	60	3	30	33-111	
Pentachlorophenol	798	436	55	7	30	10-182	
Phenanthrene	798	535	67	5	30	10-200	
Phenol	798	508	64	0	30	10-144	
Pyrene	798	538	67	3	30	10-200	
2,2'-oxybis[1-chloropropane]	798	487	61	1	30	25-124	
2,6-Dinitrotoluene	798	589	74	4	30	28-137	
4-Nitrophenol	798	476	60	1	30	10-125	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton | Job No.: 240-741-1

SDG No.:

Lab File ID: MB4656.D | Lab Sample ID: MB 240-4656/24-A

Matrix: Solid | Date Extracted: 06/14/2011 10:52

Instrument ID: A4HP9 | Date Analyzed: 07/07/2011 13:16

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-4656/23-A	LCS4656.D	07/07/2011 13:35
GSP-SB-103-6-8	240-741-2	741F2B.D	07/07/2011 15:31
GSP-SB-101-6-8	240-741-6	741G6B.D	07/07/2011 15:50
GSP-SB-99-6-8	240-741-8	741F8A.D	07/07/2011 16:10
GSP-SB-100-2-4	240-741-9	741G9A.D	07/07/2011 16:29
GSP-SB-100-6-8	240-741-10	741F10B.D	07/07/2011 16:48
GSP-SB-108-6-8	240-742-4	742G4C.D	07/07/2011 17:27
GSP-SB-107-0-2	240-742-9	742G9A.D	07/07/2011 17:46
GSP-SB-103-0-2	240-741-1	741F1A.D	07/07/2011 18:06
GSP-SB-99-0-2	240-741-7	741F7D.D	07/07/2011 18:25
GSP-SB-109-6-8	240-742-2	742G2C.D	07/07/2011 18:44
GSP-SB-109-0-2	240-742-1	742G1C.D	07/07/2011 19:04
GSP-SB-110-6-8	240-742-6	742G6B.D	07/07/2011 19:23
GSP-SB-110-6-8 MS	240-742-6 MS	742G6CS.D	07/07/2011 19:42
GSP-SB-110-6-8 MSD	240-742-6 MSD	742G6DD.D	07/07/2011 20:02
GSP-SB-102-0-2	240-742-7	742G7A.D	07/07/2011 21:38
GSP-SB-105-0-2	240-741-3	741F3B.D	07/07/2011 21:57
GSP-SB-101-0-2	240-741-5	741G5B.D	07/07/2011 22:16
GSP-SB-102-6-8	240-742-8	742G8A.D	07/07/2011 22:36
GSP-SB-108-0-2	240-742-3	742G3C.D	07/12/2011 00:59
GSP-SB-110-0-2	240-742-5	742F5B.D	07/12/2011 01:18
GSP-SB-105-6-8	240-741-4	741G4B.D	07/12/2011 01:37

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-741-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-4656/24-A
Matrix: Solid
Lab File ID: MB4656.D
Analysis Method: 8270D
Date Collected:
Extract. Method: 3540C
Date Extracted: 06/14/2011 10:52
Sample wt/vol: 30.00(g)
Date Analyzed: 07/07/2011 13:16
Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 7724
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	50	U	50	27
123-91-1	1,4-Dioxane	100	U	100	22
88-06-2	2,4,6-Trichlorophenol	150	U	150	80
95-95-4	2,4,5-Trichlorophenol	150	U	150	25
120-83-2	2,4-Dichlorophenol	150	U	150	20
105-67-9	2,4-Dimethylphenol	150	U	150	20
51-28-5	2,4-Dinitrophenol	330	U	330	80
121-14-2	2,4-Dinitrotoluene	200	U	200	27
91-58-7	2-Chloronaphthalene	50	U	50	3.3
95-57-8	2-Chlorophenol	50	U	50	27
91-57-6	2-Methylnaphthalene	6.7	U	6.7	3.3
95-48-7	2-Methylphenol	200	U	200	80
88-74-4	2-Nitroaniline	200	U	200	9.1
88-75-5	2-Nitrophenol	50	U	50	27
15831-10-4	3 & 4 Methylphenol	400	U	400	20
91-94-1	3,3'-Dichlorobenzidine	100	U	100	18
99-09-2	3-Nitroaniline	200	U	200	16
534-52-1	4,6-Dinitro-2-methylphenol	150	U	150	80
101-55-3	4-Bromophenyl phenyl ether	50	U	50	13
59-50-7	4-Chloro-3-methylphenol	150	U	150	21
106-47-8	4-Chloroaniline	150	U	150	17
7005-72-3	4-Chlorophenyl phenyl ether	50	U	50	13
100-01-6	4-Nitroaniline	200	U	200	26
83-32-9	Acenaphthene	6.7	U	6.7	3.3
208-96-8	Acenaphthylene	6.7	U	6.7	3.3
98-86-2	Acetophenone	100	U	100	9.2
120-12-7	Anthracene	6.7	U	6.7	3.3
1912-24-9	Atrazine	200	U	200	9.1
100-52-7	Benzaldehyde	100	U	100	12
56-55-3	Benzo[a]anthracene	6.7	U	6.7	3.3
50-32-8	Benzo[a]pyrene	6.7	U	6.7	3.3
205-99-2	Benzo[b]fluoranthene	6.7	U	6.7	3.3
191-24-2	Benzo[g,h,i]perylene	6.7	U	6.7	3.3
207-08-9	Benzo[k]fluoranthene	6.7	U	6.7	3.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-741-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4656/24-A

Matrix: Solid | Lab File ID: MB4656.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/14/2011 10:52

Sample wt/vol: 30.00(g) | Date Analyzed: 07/07/2011 13:16

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7724 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	100	U	100	22
111-44-4	Bis(2-chloroethyl)ether	100	U	100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	50	U	50	19
85-68-7	Butyl benzyl phthalate	50	U	50	10
105-60-2	Caprolactam	330	U	330	37
86-74-8	Carbazole	50	U	50	27
218-01-9	Chrysene	6.7	U	6.7	1.1
84-74-2	Di-n-butyl phthalate	50	U	50	15
117-84-0	Di-n-octyl phthalate	50	U	50	27
53-70-3	Dibenzo(a,h)anthracene	6.7	U	6.7	3.3
132-64-9	Dibenzofuran	50	U	50	3.3
84-66-2	Diethyl phthalate	50	U	50	16
131-11-3	Dimethyl phthalate	50	U	50	17
206-44-0	Fluoranthene	6.7	U	6.7	3.3
86-73-7	Fluorene	6.7	U	6.7	3.3
118-74-1	Hexachlorobenzene	6.7	U	6.7	2.1
87-68-3	Hexachlorobutadiene	50	U	50	27
77-47-4	Hexachlorocyclopentadiene	330	U	330	27
67-72-1	Hexachloroethane	50	U	50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	6.7	U	6.7	3.3
78-59-1	Isophorone	50	U	50	13
621-64-7	N-Nitrosodi-n-propylamine	50	U	50	27
62-75-9	N-Nitrosodimethylamine	100	U	100	16
86-30-6	N-Nitrosodiphenylamine	50	U	50	21
91-20-3	Naphthalene	6.7	U	6.7	3.3
98-95-3	Nitrobenzene	100	U	100	2.2
87-86-5	Pentachlorophenol	150	U	150	80
85-01-8	Phenanthrene	6.7	U	6.7	3.3
108-95-2	Phenol	50	U	50	27
129-00-0	Pyrene	6.7	U	6.7	3.3
108-60-1	2,2'-oxybis[1-chloropropane]	100	U	100	9.5
606-20-2	2,6-Dinitrotoluene	200	U	200	21
100-02-7	4-Nitrophenol	330	U	330	80

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-741-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-4656/24-A
Matrix: Solid
Lab File ID: MB4656.D
Analysis Method: 8270D
Date Collected:
Extract. Method: 3540C
Date Extracted: 06/14/2011 10:52
Sample wt/vol: 30.00(g)
Date Analyzed: 07/07/2011 13:16
Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 7724
Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	88		41-119
4165-62-2	Phenol-d5 (Surr)	79		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	72		24-112
367-12-4	2-Fluorophenol (Surr)	76		26-110
321-60-8	2-Fluorobiphenyl (Surr)	71		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	42		10-118

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: LCS4656.D

Lab ID: LCS 240-4656/23-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	667	495	74	50-130	
1,4-Dioxane	667	245	37	10-110	
2,4,6-Trichlorophenol	667	479	72	37-110	
2,4,5-Trichlorophenol	667	473	71	42-110	
2,4-Dichlorophenol	667	497	75	40-110	
2,4-Dimethylphenol	667	327	49	28-110	
2,4-Dinitrophenol	667	404	61	10-110	
2,4-Dinitrotoluene	667	562	84	55-116	
2-Chloronaphthalene	667	509	76	46-110	
2-Chlorophenol	667	493	74	39-110	
2-Methylnaphthalene	667	593	89	46-110	
2-Methylphenol	667	487	73	36-110	
2-Nitroaniline	667	522	78	47-124	
2-Nitrophenol	667	529	79	35-110	
3 & 4 Methylphenol	1330	980	74	40-110	
3,3'-Dichlorobenzidine	667	409	61	31-110	
3-Nitroaniline	667	486	73	44-110	
4,6-Dinitro-2-methylphenol	667	500	75	21-110	
4-Bromophenyl phenyl ether	667	535	80	53-112	
4-Chloro-3-methylphenol	667	511	77	42-110	
4-Chloroaniline	667	371	56	25-110	
4-Chlorophenyl phenyl ether	667	528	79	53-110	
4-Nitroaniline	667	524	79	50-110	
Acenaphthene	667	496	74	46-110	
Acenaphthylene	667	501	75	47-110	
Acetophenone	667	504	76	50-130	
Anthracene	667	531	80	56-111	
Atrazine	667	579	87	50-130	
Benzaldehyde	667	526	79	10-130	
Benzo[a]anthracene	667	514	77	58-111	
Benzo[a]pyrene	667	475	71	44-115	
Benzo[b]fluoranthene	667	629	94	43-124	
Benzo[g,h,i]perylene	667	546	82	44-120	
Benzo[k]fluoranthene	667	411	62	38-122	
Bis(2-chloroethoxy)methane	667	520	78	42-110	
Bis(2-chloroethyl)ether	667	520	78	41-110	
Bis(2-ethylhexyl) phthalate	667	565	85	56-123	
Butyl benzyl phthalate	667	531	80	57-121	
Caprolactam	667	575	86	50-130	
Carbazole	667	525	79	56-115	
Chrysene	667	521	78	56-111	
Di-n-butyl phthalate	667	555	83	57-119	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: LCS4656.D

Lab ID: LCS 240-4656/23-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	667	543	81	45-123	
Dibenzo(a,h)anthracene	667	553	83	45-122	
Dibenzofuran	667	514	77	50-110	
Diethyl phthalate	667	543	81	55-114	
Dimethyl phthalate	667	533	80	54-112	
Fluoranthene	667	542	81	55-118	
Fluorene	667	506	76	51-110	
Hexachlorobenzene	667	514	77	51-110	
Hexachlorobutadiene	667	495	74	39-110	
Hexachlorocyclopentadiene	667	449	67	10-110	
Hexachloroethane	667	479	72	38-110	
Indeno[1,2,3-cd]pyrene	667	553	83	45-121	
Isophorone	667	493	74	46-117	
N-Nitrosodi-n-propylamine	667	505	76	40-114	
N-Nitrosodimethylamine	667	453	68	10-130	
N-Nitrosodiphenylamine	667	508	76	54-112	
Naphthalene	667	493	74	42-110	
Nitrobenzene	667	513	77	40-110	
Pentachlorophenol	667	450	67	10-110	
Phenanthrene	667	501	75	54-110	
Phenol	667	513	77	39-110	
Pyrene	667	510	76	58-113	
2,2'-oxybis[1-chloropropane]	667	516	77	36-116	
2,6-Dinitrotoluene	667	562	84	54-115	
4-Nitrophenol	667	501	75	24-117	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 742G6CS.D

Lab ID: 240-742-6 MS Client ID: GSP-SB-110-6-8 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1'-Biphenyl	717	540 U	529 J	74	50-130	
1,4-Dioxane	717	1100 U	261 J	36	10-110	
2,4,6-Trichlorophenol	717	1600 U	1600 U	NC	22-110	
2,4,5-Trichlorophenol	717	1600 U	1600 U	0	32-112	F
2,4-Dichlorophenol	717	1600 U	224 J	31	33-110	F
2,4-Dimethylphenol	717	1600 U	1600 U	0	19-114	F
2,4-Dinitrophenol	717	3600 U	3600 U	NC	10-110	
2,4-Dinitrotoluene	717	2200 U	461 J	64	42-118	
2-Chloronaphthalene	717	540 U	535 J	75	40-110	
2-Chlorophenol	717	540 U	335 J	47	32-110	
2-Methylnaphthalene	717	72 U	775	108	10-200	
2-Methylphenol	717	2200 U	2200 U	NC	19-124	
2-Nitroaniline	717	2200 U	525 J	73	31-141	
2-Nitrophenol	717	540 U	540 U	0	17-110	F
3 & 4 Methylphenol	1430	4300 U	940 J	66	27-116	
3,3'-Dichlorobenzidine	717	1100 U	344 J	48	10-110	
3-Nitroaniline	717	2200 U	450 J	63	24-110	
4,6-Dinitro-2-methylphenol	717	1600 U	1600 U	NC	10-110	
4-Bromophenyl phenyl ether	717	540 U	534 J	74	44-120	
4-Chloro-3-methylphenol	717	1600 U	1600 U	0	32-117	F
4-Chloroaniline	717	1600 U	244 J	34	11-110	
4-Chlorophenyl phenyl ether	717	540 U	557	78	47-116	
4-Nitroaniline	717	2200 U	559 J	78	23-124	
Acenaphthene	717	72 U	553	77	10-200	
Acenaphthylene	717	72 U	603	84	10-200	
Acetophenone	717	1100 U	340 J	47	50-130	F
Anthracene	717	130	832	98	10-200	
Atrazine	717	2200 U	516 J	72	50-130	
Benzaldehyde	717	1100 U	481 J	67	10-130	
Benzo[a]anthracene	717	280	925	91	10-200	
Benzo[a]pyrene	717	390	1100	98	10-200	
Benzo[b]fluoranthene	717	340	983	90	10-200	
Benzo[g,h,i]perylene	717	430	1260	116	10-200	
Benzo[k]fluoranthene	717	210	811	84	10-200	
Bis(2-chloroethoxy)methane	717	1100 U	519 J	72	36-110	
Bis(2-chloroethyl)ether	717	1100 U	512 J	71	32-118	
Bis(2-ethylhexyl) phthalate	717	540 U	589	82	10-200	
Butyl benzyl phthalate	717	540 U	532 J	74	43-138	
Caprolactam	717	3600 U	3600 U	0	50-130	F
Carbazole	717	540 U	539 J	75	10-162	
Chrysene	717	360	1060	98	10-200	
Di-n-butyl phthalate	717	540 U	538 J	75	31-145	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 742G6CS.D

Lab ID: 240-742-6 MS Client ID: GSP-SB-110-6-8 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	717	540 U	538 J	75	10-182	
Dibenzo(a,h)anthracene	717	72 U	648	90	10-200	
Dibenzofuran	717	540 U	556	77	10-200	
Diethyl phthalate	717	540 U	485 J	68	48-118	
Dimethyl phthalate	717	540 U	494 J	69	47-116	
Fluoranthene	717	500	1240	103	10-200	
Fluorene	717	72 U	676	94	10-187	
Hexachlorobenzene	717	72 U	478	67	37-122	
Hexachlorobutadiene	717	540 U	431 J	60	30-110	
Hexachlorocyclopentadiene	717	3600 U	3600 U	0	10-110	F
Hexachloroethane	717	540 U	406 J	57	13-110	
Indeno[1,2,3-cd]pyrene	717	270	947	94	10-200	
Isophorone	717	540 U	379 J	53	32-129	
N-Nitrosodi-n-propylamine	717	540 U	293 J	41	30-121	
N-Nitrosodimethylamine	718	1100 U	347 J	48	10-130	
N-Nitrosodiphenylamine	717	540 U	515 J	72	10-169	
Naphthalene	717	72 U	599	83	10-200	
Nitrobenzene	717	1100 U	466 J	65	33-111	
Pentachlorophenol	717	1600 U	1600 U	NC	10-182	
Phenanthrene	717	310	1130	113	10-200	
Phenol	717	540 U	457 J	64	10-144	
Pyrene	717	490	1350	120	10-200	
2,2'-oxybis[1-chloropropane]	717	1100 U	438 J	61	25-124	
2,6-Dinitrotoluene	717	2200 U	459 J	64	28-137	
4-Nitrophenol	717	3600 U	3600 U	NC	10-125	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 742G6DD.D

Lab ID: 240-742-6 MSD Client ID: GSP-SB-110-6-8 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1'-Biphenyl	718	587	82	10	30	50-130	
1,4-Dioxane	718	1100 U	0	NC	30	10-110	F
2,4,6-Trichlorophenol	718	1600 U	NC	NC	30	22-110	
2,4,5-Trichlorophenol	718	1600 U	0	NC	30	32-112	F
2,4-Dichlorophenol	718	259 J	36	14	30	33-110	
2,4-Dimethylphenol	718	1600 U	0	NC	30	19-114	F
2,4-Dinitrophenol	718	3600 U	NC	NC	30	10-110	
2,4-Dinitrotoluene	718	393 J	55	16	30	42-118	
2-Chloronaphthalene	718	558	78	4	30	40-110	
2-Chlorophenol	718	355 J	49	6	30	32-110	
2-Methylnaphthalene	718	740	103	5	30	10-200	
2-Methylphenol	718	2200 U	NC	NC	30	19-124	
2-Nitroaniline	718	725 J	101	32	30	31-141	F
2-Nitrophenol	718	540 U	0	NC	30	17-110	F
3 & 4 Methylphenol	1440	855 J	60	10	30	27-116	
3,3'-Dichlorobenzidine	718	365 J	51	6	30	10-110	
3-Nitroaniline	718	515 J	72	13	30	24-110	
4,6-Dinitro-2-methylphenol	718	1600 U	NC	NC	30	10-110	
4-Bromophenyl phenyl ether	718	590	82	10	30	44-120	
4-Chloro-3-methylphenol	718	1600 U	0	NC	30	32-117	F
4-Chloroaniline	718	264 J	37	8	30	11-110	
4-Chlorophenyl phenyl ether	718	566	79	2	30	47-116	
4-Nitroaniline	718	549 J	76	2	30	23-124	
Acenaphthene	718	573	80	3	30	10-200	
Acenaphthylene	718	609	85	1	30	10-200	
Acetophenone	718	561 J	78	49	30	50-130	F
Anthracene	718	833	98	0	30	10-200	
Atrazine	718	537 J	75	4	30	50-130	
Benzaldehyde	718	500 J	70	4	30	10-130	
Benzo[a]anthracene	718	926	91	0	30	10-200	
Benzo[a]pyrene	718	1080	95	2	30	10-200	
Benzo[b]fluoranthene	718	847	71	15	30	10-200	
Benzo[g,h,i]perylene	718	1140	99	10	30	10-200	
Benzo[k]fluoranthene	718	797	82	2	30	10-200	
Bis(2-chloroethoxy)methane	718	606 J	84	15	30	36-110	
Bis(2-chloroethyl)ether	718	551 J	77	7	30	32-118	
Bis(2-ethylhexyl) phthalate	718	657	91	11	30	10-200	
Butyl benzyl phthalate	718	555	77	4	30	43-138	
Caprolactam	718	3600 U	0	NC	30	50-130	F
Carbazole	718	542	75	0	30	10-162	
Chrysene	718	1010	90	5	30	10-200	
Di-n-butyl phthalate	718	567	79	5	30	31-145	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 742G6DD.D

Lab ID: 240-742-6 MSD Client ID: GSP-SB-110-6-8 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Di-n-octyl phthalate	718	558	78	4	30	10-182	
Dibenzo(a,h)anthracene	718	569	79	13	30	10-200	
Dibenzofuran	718	581	81	4	30	10-200	
Diethyl phthalate	718	536 J	75	10	30	48-118	
Dimethyl phthalate	718	536 J	75	8	30	47-116	
Fluoranthene	718	1210	98	3	30	10-200	
Fluorene	718	663	92	2	30	10-187	
Hexachlorobenzene	718	528	74	10	30	37-122	
Hexachlorobutadiene	718	469 J	65	8	30	30-110	
Hexachlorocyclopentadiene	718	3600 U	0	NC	30	10-110	F
Hexachloroethane	718	454 J	63	11	30	13-110	
Indeno[1,2,3-cd]pyrene	718	941	93	1	30	10-200	
Isophorone	718	322 J	45	16	30	32-129	
N-Nitrosodi-n-propylamine	718	446 J	62	41	30	30-121	F
N-Nitrosodimethylamine	719	357 J	50	3	30	10-130	
N-Nitrosodiphenylamine	718	585	82	13	30	10-169	
Naphthalene	718	626	87	4	30	10-200	
Nitrobenzene	718	725 J	101	44	30	33-111	F
Pentachlorophenol	718	1600 U	NC	NC	30	10-182	
Phenanthrene	718	1040	102	8	30	10-200	
Phenol	718	490 J	68	7	30	10-144	
Pyrene	718	1220	102	10	30	10-200	
2,2'-oxybis[1-chloropropane]	718	533 J	74	20	30	25-124	
2,6-Dinitrotoluene	718	385 J	54	18	30	28-137	
4-Nitrophenol	718	3600 U	NC	NC	30	10-125	

Column to be used to flag recovery and RPD values

FORM III 8270D

SDG 240-741-1

SAMPLE ID GSP-SB-100-2-4

SAMPLE CALC IS AREA	DILUTION	COMPOUND OF INTEREST	IS AMOUNT (NG)	Final Volume (ML)	AVE RRF	CONCENTRATION PPB
832604	1	6776	50	5	1.2830	0.28
		% Solids		**Sample Volume (Grams)**		
		0.878		6.5		

Toluene = 0.28 ug/kg

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Client Sample ID: GSP-SB-100-2-4 Lab Sample ID: 240-741-9

Matrix: Solid Lab File ID: 149022.D

Analysis Method: 8260B Date Collected: 06/02/2011 14:15

Sample wt/vol: 6.5(g) Date Analyzed: 06/15/2011 17:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.2 Level: (low/med) Low

Analysis Batch No.: 4867 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.4	U	4.4	0.48
75-00-3	Chloroethane	4.4	U *	4.4	0.75
67-66-3	Chloroform	4.4	U	4.4	0.25
74-87-3	Chloromethane	4.4	U *	4.4	0.36
156-59-2	cis-1,2-Dichloroethene	4.4	U	4.4	0.32
10061-01-5	cis-1,3-Dichloropropene	4.4	U	4.4	0.30
74-95-3	Dibromomethane	4.4	U	4.4	0.55
74-97-5	Bromochloromethane	4.4	U	4.4	0.62
75-71-8	Dichlorodifluoromethane	4.4	U	4.4	0.44
75-27-4	Bromodichloromethane	4.4	U	4.4	0.25
75-65-0	tert-Butyl alcohol	180	U	180	6.7
100-41-4	Ethylbenzene	4.4	U	4.4	0.23
87-68-3	Hexachlorobutadiene	4.4	U	4.4	1.1
108-20-3	Diisopropyl ether	8.8	U	8.8	1.3
98-82-8	Isopropylbenzene	4.4	U	4.4	0.14
1634-04-4	Methyl tert-butyl ether	18	U	18	0.38
75-09-2	Methylene Chloride	2.5	J B	4.4	0.59
179601-23-1	m-Xylene & p-Xylene	8.8	U	8.8	1.1
91-20-3	Naphthalene	4.4	U	4.4	0.17
104-51-8	n-Butylbenzene	4.4	U	4.4	0.20
103-65-1	n-Propylbenzene	4.4	U	4.4	0.35
95-47-6	o-Xylene	4.4	U	4.4	0.31
135-98-8	sec-Butylbenzene	4.4	U	4.4	0.16
100-42-5	Styrene	4.4	U	4.4	0.13
994-05-8	Tert-amyl-methyl ether (TAME)	4.4	U	4.4	0.32
637-92-3	Ethyl-t-butyl ether (ETBE)	4.4	U	4.4	0.19
127-18-4	Tetrachloroethene	4.4	U	4.4	0.46
108-88-3	Toluene	0.28	J	4.4	0.24
156-60-5	trans-1,2-Dichloroethene	4.4	U	4.4	0.36
10061-02-6	trans-1,3-Dichloropropene	4.4	U	4.4	0.47
79-01-6	Trichloroethene	4.4	U	4.4	0.37
75-69-4	Trichlorofluoromethane	4.4	U	4.4	0.30
108-05-4	Vinyl acetate	8.8	U	8.8	0.22
75-01-4	Vinyl chloride	4.4	U	4.4	0.34
1330-20-7	Xylenes, Total	8.8	U	8.8	0.59

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\NCChrom\ChromData\A3UX14\20110615-1126.b\149022.D		
Lims ID:	240-741-B-9-A	Client ID:	GSP-SB-100-2-4
Inject. Date:	15-Jun-2011 17:02:30	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-741-b-9-a		
Misc. Info.:	240-0001126-015 =240-0001126-015		
Operator:	2807	Instrument ID:	A3UX14
Vol. Injected:	1.0000	ALS Bottle#:	14
Lims Batch ID:	4867	Lims Sample ID:	15
Detector:	MS SCAN		
Method:	\\NCChrom\ChromData\A3UX14\20110615-1126.b\8260_14.m		
Last Update:	16-Jun-2011 16:30:39	Calib Date:	13-May-2011 16:27:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCChrom\ChromData\A3UX14\20110513-528.b\148171.D		
Limit Group:	MSV 8260B ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-17		

First Level Reviewer: macenczaks Date: 16-Jun-2011 12:30:33

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
* 1 Fluorobenzene									
96	6.896	6.896	0.000	99	1220547	50.0			
* 2 Chlorobenzene-d5									
117	9.606	9.606	0.000	91	832604	50.0	80.0- 120.0	100.0	
82	9.606	9.606	0.000		399720		27.5- 67.5	48.0	
* 3 1,4-Dichlorobenzene-d4									
152	11.570	11.570	0.000	98	421037	50.0	80.0- 120.0	100.0	
150	11.570	11.570	0.000		664197		138.6- 178.6	157.8	
$ 5 Dibromofluoromethane (Surr)									
113	6.222	6.222	0.000	63	271613	45.5	80.0- 120.0	100.0	
111	6.222	6.222	0.000		276262		83.5- 123.5	101.7	
$ 6 1,2-Dichloroethane-d4 (Surr)									
65	6.553	6.553	0.000	92	383389	57.8	80.0- 120.0	100.0	
63	6.553	6.553	0.000		34354		0.0- 28.8	9.0	
$ 7 Toluene-d8 (Surr)									
98	8.364	8.364	0.000	94	1089694	55.9	80.0- 120.0	100.0	
100	8.364	8.364	0.000		738555		48.4- 88.4	67.8	
$ 131 4-Bromofluorobenzene (Surr)									
95	10.600	10.600	0.000	91	359805	49.9	70.0- 130.0	100.0	
174	10.600	10.600	0.000		310287		56.4- 116.4	86.2	
176	10.600	10.600	0.000		300618		54.4- 114.4	83.6	
12 Dichlorodifluoromethane									
85		1.441							
87		1.441							
13 Chloromethane									
50		1.607							
52		1.607							

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
70 cis-1,3-Dichloropropene									
75		8.127							
77		8.127							
71 4-Methyl-2-pentanone (MIBK)									
43	8.269	8.269	0.000	52	2004	0.3752	80.0- 120.0	100.0	
58	8.269	8.269	0.000		692		14.0- 54.0	34.5	
72 Toluene									
91	8.423	8.423	0.000	78	6776	0.3172	80.0- 120.0	100.0	
92	8.423	8.423	0.000		4164		38.0- 78.0	61.5	
73 trans-1,3-Dichloropropene									
75		8.612							
77		8.612							
77 Tetrachloroethene									
164		8.896							
129		8.896							
76 1,3-Dichloropropane									
76		8.920							
78		8.920							
78 2-Hexanone									
43		8.991							
58		8.991							
79 Chlorodibromomethane									
129		9.121							
127		9.121							
123 Ethylene Dibromide									
107		9.216							
109		9.216							
81		9.216							
82 Chlorobenzene									
112		9.630							
114		9.630							
83 1,1,1,2-Tetrachloroethane									
131		9.701							
133		9.701							
84 Ethylbenzene									
106	9.724	9.724	0.000	1	540	0.0712	80.0- 120.0	100.0	7
91	9.724	9.724	0.000		1418		281.4- 321.4	262.6	
LOD = 0.1000									
10 m-Xylene & p-Xylene									
106	9.819	9.819	0.000	86	2458	0.2680	70.0- 130.0	100.0	
91	9.819	9.819	0.000		4000		165.7- 225.7	162.7	
77	9.819	9.819	0.000		530		0.0- 54.2	21.6	
85 o-Xylene									
106	10.150	10.162	-0.012	76	1705	0.1856	80.0- 120.0	100.0	
91	10.150	10.162	-0.012		3335		186.6- 226.6	195.6	
86 Styrene									
104		10.162							
78		10.162							

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: 0627001.D DFTPP Injection Date: 06/27/2011

Instrument ID: A4HP10 DFTPP Injection Time: 17:37

Analysis Batch No.: 6156

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	36.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	47.0	
70	Less than 2.0% of mass 69	0.2	(0.3)1
127	25.0 - 75.0% of mass 198	55.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	25.0	
365	Greater than 0.75% of mass 198	2.6	
441	Present, but less than mass 443	11.1	
442	40.0 - 110.0% of mass 198	68.8	
443	15.0 - 24.0% of mass 442	13.7	(19.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-6156/2	0627002.D	06/27/2011	17:56
	STD4 240-6156/3	0627003.D	06/27/2011	18:14
	STD3 240-6156/4	0627004.D	06/27/2011	18:33
	STD2 240-6156/5	0627005.D	06/27/2011	18:52
	STD1 240-6156/6	0627006.D	06/27/2011	19:11
	STD9 240-6156/7	0627007.D	06/27/2011	19:29
	STD8 240-6156/8	0627008.D	06/27/2011	19:48
	STD7 240-6156/9	0627009.D	06/27/2011	20:07
	STD6 240-6156/10	0627010.D	06/27/2011	20:25
	ICV 240-6156/13	0627013.D	06/27/2011	21:21

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6156/6	0627006.D
Level 2	STD2 240-6156/5	0627005.D
Level 3	STD3 240-6156/4	0627004.D
Level 4	STD4 240-6156/3	0627003.D
Level 5	STD5 240-6156/2	0627002.D
Level 6	STD6 240-6156/10	0627010.D
Level 7	STD7 240-6156/9	0627009.D
Level 8	STD8 240-6156/8	0627008.D
Level 9	STD9 240-6156/7	0627007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane		0.5719	0.5658	0.5540	0.5393	Ave		0.5541				3.2		20.0			
	0.5316	0.5597	0.5338	0.5771													
N-Nitrosodimethylamine		0.9702	0.9498	0.9699	0.9057	Ave		0.9506				2.5		20.0			
	0.9379	0.9510	0.9409	0.9792													
Pyridine		1.4518	1.4996	1.5671	1.5087	Ave		1.5431				3.8		20.0			
	1.5344	1.5750	1.5653	1.6430													
Ethyl methacrylate		1.2703	1.2703	1.2807	1.2379	Ave		1.2630				2.3		20.0			
	1.2298	1.2662	1.2316	1.3169													
3-Chloropropionitrile		0.7358	0.6866	0.7014	0.6689	Ave		0.6985				3.2		20.0			
	0.7011	0.6896	0.6791	0.7253													
Malononitrile		1.6722	1.6836	1.7078	1.5964	Ave		1.6565				2.3		20.0			
	1.6535	1.6840	1.6344	1.6198													
Benzoic acid		+++++	+++++	0.1569	0.2165	Qua	-0.353	0.2212	0.0020						0.9980		0.9900
	0.2186	0.2782	0.2957	0.3102													
Benzaldehyde		1.2690	1.2332	1.2393	1.0740	Ave		1.0531			0.0100	19.0		20.0			
	1.0688	0.9448	0.8660	0.7296													
Phenol		1.8081	1.8361	1.8670	1.7908	Ave		1.8527			0.8000	2.7		20.0			
	1.8179	1.8761	1.8792	1.9467													
Aniline		2.2239	2.2540	2.3318	2.3288	Ave		2.3736				5.0		20.0			
	2.3553	2.5007	2.4272	2.5670													
Bis(2-chloroethyl)ether		1.6310	1.5098	1.5659	1.3624	Ave		1.4943			0.7000	5.5		20.0			
	1.4641	1.4267	1.4904	1.5038													
2-Chlorophenol		1.5161	1.4573	1.4936	1.4375	Ave		1.4877			0.8000	2.5		20.0			
	1.4542	1.4878	1.5015	1.5532													
1,3-Dichlorobenzene		1.5493	1.5312	1.5069	1.4133	Ave		1.4870				3.1		20.0			
	1.4454	1.4797	1.4558	1.5141													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dichlorobenzene	1.5207	1.5083 1.5434	1.5510 1.5286	1.5621 1.5940	1.4924	Ave		1.5376				2.1		20.0			
Benzyl alcohol	0.8831	0.8703 0.8978	0.9148 0.9239	0.9513 0.9332	0.9075	Ave		0.9102				2.9		20.0			
1,2-Dichlorobenzene	1.3938	1.3997 1.4248	1.4330 1.4216	1.4464 1.4795	1.3863	Ave		1.4231				2.2		20.0			
2-Methylphenol	1.3326	1.3587 1.3877	1.3357 1.4059	1.4014 1.4574	1.3213	Ave		1.3751			0.7000	3.4		20.0			
2,2'-oxybis[1-chloropropane]	1.5387	1.5270 1.5279	1.5438 1.5346	1.6002 1.5804	1.4428	Ave		1.5369				3.0		20.0			
3 & 4 Methylphenol	1.3787	1.3332 1.4020	1.3982 1.4187	1.4475 1.4572	1.3671	Ave		1.4003				2.9		20.0			
N-Nitrosodi-n-propylamine	1.0734	1.0725 1.0912	1.1052 1.1029	1.0760 1.1283	1.0557	Ave		1.0882			0.5000	2.1		20.0			
Acetophenone	1.9328	1.8960 1.9527	1.9251 1.9705	1.9345 2.0274	1.8423	Ave		1.9352			0.0100	2.8		20.0			
Hexachloroethane	0.5414	0.5788 0.5488	0.5405 0.5502	0.5629 0.5721	0.5320	Ave		0.5533			0.3000	3.0		20.0			
Nitrobenzene	0.3975	0.3933 0.4010	0.3939 0.4000	0.4141 0.4237	0.3951	Ave		0.4023			0.2000	2.7		20.0			
2,4-Toluene diamine	0.1598	0.2640 0.1633	0.2331 +++++	0.1299 +++++	0.2195	Ave		0.1949				26.0	*	20.0			
Isophorone	0.7449	0.7406 0.7627	0.7430 0.7525	0.7817 0.7922	0.7388	Ave		0.7571			0.4000	2.7		20.0			
2,4-Dimethylphenol	0.3689	0.3637 0.3773	0.3738 0.3830	0.3824 0.4045	0.3631	Ave		0.3771			0.2000	3.6		20.0			
2-Nitrophenol	0.2107	0.1839 0.2141	0.1930 0.2170	0.2122 0.2279	0.2040	Ave		0.2078			0.1000	6.7		20.0			
1,3,5-Trichlorobenzene	0.3057	0.3041 0.3098	0.3133 0.3097	0.3195 0.3241	0.3069	Ave		0.3116				2.2		20.0			
Bis(2-chloroethoxy)methane	0.4235	0.4278 0.4292	0.4236 0.4277	0.4281 0.4594	0.4201	Ave		0.4299			0.3000	2.9		20.0			
2,4-Dichlorophenol	0.2834	0.2577 0.2915	0.2817 0.2930	0.2955 0.3034	0.2856	Ave		0.2865			0.2000	4.7		20.0			
1,2,4-Trichlorobenzene	0.3007	0.3150 0.3037	0.3114 0.2980	0.3041 0.3127	0.2967	Ave		0.3053				2.3		20.0			
Naphthalene	1.3322 1.1172	1.1267 1.1307	1.1441 1.1248	1.1650 1.1840	1.1094	Ave		1.1593			0.7000	6.0		20.0			
4-Chloroaniline	0.4641	0.4781 0.4909	0.4781 0.4957	0.5113 0.5208	0.5085	Ave		0.4934			0.0100	3.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Hexachlorobutadiene		0.1470	0.1474	0.1497	0.1454	Ave		0.1469			0.0100	1.8		20.0			
	0.1442	0.1460	0.1440	0.1513													
1,2,3-Trichlorobenzene		0.2772	0.2832	0.2908	0.2764	Ave		0.2827				2.5		20.0			
	0.2773	0.2805	0.2802	0.2958													
Caprolactam		0.1026	0.1233	0.1267	0.1224	Ave		0.1222			0.0100	6.8		20.0			
	0.1224	0.1271	0.1242	0.1292													
4-Chloro-3-methylphenol		0.2983	0.3087	0.3159	0.3015	Ave		0.3107			0.2000	3.5		20.0			
	0.3092	0.3116	0.3070	0.3336													
2-Methylnaphthalene	0.6706	0.5854	0.5982	0.6076	0.5803	Ave		0.6034			0.4000	4.8		20.0			
	0.5786	0.5945	0.5909	0.6242													
1-Methylnaphthalene	0.8213	0.6725	0.6794	0.6851	0.6606	Ave		0.6950				7.1		20.0			
	0.6684	0.6789	0.6777	0.7115													
4-Nitrophenol		+++++	0.1272	0.1497	0.1489	Ave		0.1415				13.0		20.0			
	0.1190	0.1250	0.1541	0.1666													
1,2,3,5-Tetrachlorobenzene		0.4798	0.4721	0.5059	0.4660	Ave		0.4770				2.9		20.0			
	0.4698	0.4700	0.4651	0.4873													
Hexachlorocyclopentadiene		0.2321	0.2621	0.2991	0.2948	Ave		0.2802			0.0500	8.4		20.0			
	0.2792	0.2840	0.2861	0.3044													
2,4,6-Trichlorophenol		0.3097	0.3282	0.3474	0.3375	Ave		0.3352			0.2000	4.7		20.0			
	0.3234	0.3356	0.3379	0.3618													
2,4,5-Trichlorophenol		0.3398	0.3514	0.3820	0.3476	Ave		0.3588			0.2000	5.2		20.0			
	0.3546	0.3574	0.3451	0.3921													
1,1'-Biphenyl	1.5899	1.4428	1.4664	1.5401	1.4376	Ave		1.5000			0.0100	3.7		20.0			
	1.4753	1.4856	1.4891	1.5729													
1,2,3,4 -Tetrachlorobenzene		0.4530	0.4607	0.4797	0.4617	Ave		0.4567				2.6		20.0			
	0.4487	0.4478	0.4419	0.4598													
2-Chloronaphthalene	1.3108	1.0968	1.0991	1.1206	1.0662	Ave		1.1284			0.8000	6.5		20.0			
	1.0886	1.1030	1.1014	1.1693													
4,6-Dinitro-2-methylphenol		+++++	0.1034	0.1409	0.1524	Ave		0.1469			0.0100	15.0		20.0			
	0.1461	0.1524	0.1604	0.1730													
2-Nitroaniline		0.3307	0.3394	0.3423	0.3301	Ave		0.3423			0.0100	3.2		20.0			
	0.3395	0.3491	0.3434	0.3640													
Dimethyl phthalate		1.2406	1.2774	1.3129	1.2055	Ave		1.2629			0.0100	3.1		20.0			
	1.2270	1.2775	1.2473	1.3152													
2,6-Dinitrotoluene		0.2648	0.2608	0.2889	0.2780	Ave		0.2867				6.4		20.0			
	0.2910	0.2964	0.2977	0.3164													
1,2-Dinitrobenzene		0.1304	0.1373	0.1515	0.1453	Ave		0.1477				6.6		20.0			
	0.1482	0.1538	0.1547	0.1602													
Acenaphthylene	2.1337	1.8623	1.8425	1.9326	1.7933	Ave		1.8923			0.9000	5.4		20.0			
	1.8277	1.8519	1.8449	1.9413													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
3-Nitroaniline		0.3306	0.3314	0.3535	0.3333	Ave		0.3441			0.0100	3.9		20.0			
	0.3373	0.3469	0.3503	0.3695													
2,4-Dinitrophenol		0.0778	0.1324	0.1885	0.2101	Qua	-0.097	0.1980	0.0010		0.0100				0.9990		0.9900
	0.2043	0.2311	0.2359	0.2483													
Acenaphthene	1.3487	1.1610	1.1484	1.2094	1.1152	Ave		1.1832			0.9000	5.8		20.0			
	1.1380	1.1709	1.1500	1.2072													
2,4-Dinitrotoluene		0.3335	0.3724	0.3865	0.3645	Ave		0.3792			0.2000	6.1		20.0			
	0.3829	0.3936	0.3886	0.4114													
Dibenzofuran	1.7973	1.5812	1.5635	1.6368	1.5125	Ave		1.5987			0.8000	5.3		20.0			
	1.5395	1.5693	1.5547	1.6339													
2,3,5,6-Tetrachlorophenol		0.2352	0.2463	0.2799	0.2676	Ave		0.2690				7.3		20.0			
	0.2699	0.2782	0.2794	0.2955													
Diethyl phthalate		1.2479	1.2429	1.2777	1.1804	Ave		1.2449			0.0100	3.0		20.0			
	1.2145	1.2584	1.2369	1.3003													
4-Chlorophenyl phenyl ether		0.5770	0.5729	0.6101	0.5540	Ave		0.5714			0.4000	3.4		20.0			
	0.5538	0.5620	0.5570	0.5841													
4-Nitroaniline		0.3310	0.3607	0.3848	0.3568	Ave		0.3700			0.0100	6.4		20.0			
	0.3529	0.3850	0.3842	0.4047													
Fluorene	1.5514	1.3248	1.3064	1.3672	1.2859	Ave		1.3489			0.9000	6.1		20.0			
	1.2889	1.3202	1.3172	1.3779													
N-Nitrosodiphenylamine		0.5994	0.6003	0.5943	0.5719	Ave		0.6078			0.0100	3.7		20.0			
	0.6072	0.6245	0.6179	0.6468													
Azobenzene		0.8795	0.8755	0.9124	0.8730	Ave		0.8976				2.9		20.0			
	0.8900	0.8957	0.9022	0.9527													
4-Bromophenyl phenyl ether		0.1967	0.1944	0.1995	0.1862	Ave		0.1932			0.1000	2.5		20.0			
	0.1902	0.1906	0.1897	0.1985													
Hexachlorobenzene	0.2194	0.1954	0.1865	0.1899	0.1799	Ave		0.1887			0.1000	6.8		20.0			
	0.1786	0.1807	0.1797	0.1880													
Atrazine		0.2155	0.2058	0.2116	0.2000	Ave		0.2007			0.0100	5.0		20.0			
	0.1983	0.1979	0.1848	0.1917													
Pentachlorophenol		0.0677	0.0837	0.1100	0.1283	Qua	-0.065	0.1253	0.0005		0.0500				1.0000		0.9900
	0.1284	0.1375	0.1424	0.1468													
Phenanthrene	1.3142	1.1248	1.1039	1.1651	1.0960	Ave		1.1449			0.7000	6.0		20.0			
	1.0965	1.1192	1.1155	1.1693													
Anthracene	1.3259	1.1044	1.1141	1.1587	1.1366	Ave		1.1608			0.7000	5.8		20.0			
	1.1256	1.1386	1.1521	1.1914													
Carbazole		1.0915	1.1131	1.1427	1.1034	Ave		1.1192			0.0100	2.3		20.0			
	1.0967	1.1193	1.1190	1.1680													
Di-n-butyl phthalate		1.2706	1.2958	1.3368	1.2927	Ave		1.3350			0.0100	3.8		20.0			
	1.3317	1.3599	1.3621	1.4308													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	RRF					CURVE TYPE	COEFFICIENT B	COEFFICIENT M1	COEFFICIENT M2	#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5												
Fluoranthene	1.2531 1.1117	1.0970 1.1218	1.1413 1.1285	1.1636 1.1766	1.1065	Ave		1.1445			0.6000	4.2		20.0			
Benzidine	0.6411	0.5094 0.6796	0.6033 0.6914	0.5914 0.7668	0.7180	Ave		0.6501				13.0		20.0			
Pyrene	1.4028 1.1726	1.1905 1.2038	1.2154 1.1872	1.2438 1.2550	1.1922	Ave		1.2293			0.6000	5.7		20.0			
Butyl benzyl phthalate	0.5832	0.5679 0.5881	0.5675 0.5887	0.5920 0.6213	0.5730	Ave		0.5852			0.0100	3.0		20.0			
3,3'-Dimethoxybenzidine	0.2241	0.2244 0.2241	0.2597 0.2508	0.2827 0.2679	0.2907	Ave		0.2531				11.0		20.0			
Bis(2-ethylhexyl) phthalate	0.8324	0.8121 0.8553	0.8136 0.8531	0.8494 0.8966	0.8152	Ave		0.8410			0.0100	3.4		20.0			
4,4'-Methylene bis(2-chloroaniline)	0.2039	0.1917 0.2079	0.1982 0.2062	0.2171 0.2229	0.2153	Ave		0.2079				5.0		20.0			
3,3'-Dichlorobenzidine	0.4142	0.3936 0.4246	0.4074 0.4135	0.4421 0.4431	0.4215	Ave		0.4200			0.0100	4.0		20.0			
Benzo[a]anthracene	1.3445 1.0770	1.1241 1.0923	1.0917 1.0873	1.1454 1.1451	1.0767	Ave		1.1316			0.8000	7.4		20.0			
Chrysene	1.2534 1.0493	1.0525 1.0468	1.0837 1.0445	1.1034 1.1028	1.0349	Ave		1.0857			0.7000	6.3		20.0			
Di-n-octyl phthalate	1.5792	1.5280 1.6522	1.5190 1.6538	1.5767 1.7651	1.5204	Ave		1.5993			0.0100	5.4		20.0			
Benzo[b]fluoranthene	1.5306 1.1608	1.1855 1.2295	1.1270 1.1801	1.1947 1.3648	1.2144	Ave		1.2430			0.7000	10.0		20.0			
Benzo[k]fluoranthene	1.4946 1.2883	1.2601 1.2834	1.3650 1.3155	1.3027 1.3167	1.2265	Ave		1.3170			0.7000	5.8		20.0			
Benzo[a]pyrene	1.3819 1.1411	1.1326 1.1643	1.1194 1.1457	1.1624 1.2222	1.1196	Ave		1.1766			0.7000	7.1		20.0			
Indeno[1,2,3-cd]pyrene	1.2529 1.2025	1.1647 1.2336	1.2000 1.2162	1.1973 1.2981	1.1858	Ave		1.2168			0.5000	3.3		20.0			
Dibenzo(a,h)anthracene	1.0779 1.0163	0.9680 1.0306	0.9717 1.0249	0.9915 1.1011	0.9884	Ave		1.0189			0.4000	4.5		20.0			
Benzo[g,h,i]perylene	1.2090 0.9817	0.9328 1.0096	0.9679 1.0012	0.9844 1.0715	0.9654	Ave		1.0137			0.5000	8.1		20.0			
2-Fluorophenol (Surr)	1.2607	1.2873 1.3075	1.3148 1.2871	1.3124 1.3599	1.2658	Ave		1.2995				2.4		20.0			
Phenol-d5 (Surr)	1.7130	1.6825 1.7663	1.7103 1.7483	1.7492 1.8212	1.6720	Ave		1.7328				2.8		20.0			
Nitrobenzene-d5 (Surr)	0.4676 0.4098	0.4120 0.4210	0.4140 0.4181	0.4270 0.4408	0.4054	Ave		0.4240				4.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Fluorobiphenyl (Surr)	1.3308 1.2397	1.2882 1.2603	1.2768 1.2545	1.3240 1.3278	1.2342	Ave		1.2818				3.0		20.0			
2,4,6-Tribromophenol (Surr)	0.1169	0.1057 0.1217	0.1130 0.1187	0.1229 0.1284	0.1209	Ave		0.1185				5.8		20.0			
Terphenyl-d14 (Surr)	0.8320 0.6891	0.7148 0.6938	0.7205 0.6813	0.7391 0.7189	0.6895	Ave		0.7199				6.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6156/6	0627006.D
Level 2	STD2 240-6156/5	0627005.D
Level 3	STD3 240-6156/4	0627004.D
Level 4	STD4 240-6156/3	0627003.D
Level 5	STD5 240-6156/2	0627002.D
Level 6	STD6 240-6156/10	0627010.D
Level 7	STD7 240-6156/9	0627009.D
Level 8	STD8 240-6156/8	0627008.D
Level 9	STD9 240-6156/7	0627007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8	LVL 9		LVL 6	LVL 7	LVL 8	LVL 9	
1,4-Dioxane	DCB	Ave		14944	26351	50158	131647		0.500	1.00	2.00	5.00
			298856	478766	584370	641422		10.0	15.0	20.0	25.0	
N-Nitrosodimethylamine	DCB	Ave		25353	44236	87816	221077		0.500	1.00	2.00	5.00
			527246	813496	1030098	1088464		10.0	15.0	20.0	25.0	
Pyridine	DCB	Ave		37939	69841	141884	368268		0.500	1.00	2.00	5.00
			862595	1347280	1713663	1826275		10.0	15.0	20.0	25.0	
Ethyl methacrylate	DCB	Ave		33196	59159	115961	302163		0.500	1.00	2.00	5.00
			691335	1083156	1348353	1463829		10.0	15.0	20.0	25.0	
3-Chloropropionitrile	DCB	Ave		19228	31977	63504	163285		0.500	1.00	2.00	5.00
			394157	589909	743516	806146		10.0	15.0	20.0	25.0	
Malononitrile	DCB	Ave		43698	78410	154630	389686		0.500	1.00	2.00	5.00
			929540	1440530	1789291	1800415		10.0	15.0	20.0	25.0	
Benzoic acid	NPT	Qua		+++++	+++++	107303	398244		+++++	+++++	4.00	10.0
			944009	1801767	2466999	2560076		20.0	30.0	40.0	50.0	
Benzaldehyde	DCB	Ave		33161	57434	112207	262166		0.500	1.00	2.00	5.00
			600820	808173	948083	810985		10.0	15.0	20.0	25.0	
Phenol	DCB	Ave		47251	85510	169040	437130		0.500	1.00	2.00	5.00
			1021935	1604844	2057352	2163858		10.0	15.0	20.0	25.0	
Aniline	DCB	Ave		58116	104976	211126	568461		0.500	1.00	2.00	5.00
			1324035	2139121	2657222	2853343		10.0	15.0	20.0	25.0	
Bis(2-chloroethyl)ether	DCB	Ave		42622	70316	141781	332568		0.500	1.00	2.00	5.00
			823063	1220456	1631620	1671545		10.0	15.0	20.0	25.0	
2-Chlorophenol	DCB	Ave		39619	67868	135237	350886		0.500	1.00	2.00	5.00
			817493	1272724	1643866	1726453		10.0	15.0	20.0	25.0	
1,3-Dichlorobenzene	DCB	Ave		40487	71313	136436	344982		0.500	1.00	2.00	5.00
			812528	1265738	1593752	1683020		10.0	15.0	20.0	25.0	
1,4-Dichlorobenzene	DCB	Ave		39415	72235	141437	364289		0.500	1.00	2.00	5.00
			854903	1320226	1673520	1771743		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Benzyl alcohol	DCB	Ave		22744	42604	86134	221525		0.500	1.00	2.00	5.00
			496416	767988	1011419	1037239		10.0	15.0	20.0	25.0	
1,2-Dichlorobenzene	DCB	Ave		36577	66740	130955	338401		0.500	1.00	2.00	5.00
			783554	1218823	1556310	1644538		10.0	15.0	20.0	25.0	
2-Methylphenol	DCB	Ave		35507	62207	126884	322528		0.500	1.00	2.00	5.00
			749131	1187096	1539105	1619946		10.0	15.0	20.0	25.0	
2,2'-oxybis[1-chloropropane]	DCB	Ave		39905	71900	144887	352186		0.500	1.00	2.00	5.00
			865015	1306953	1680046	1756715		10.0	15.0	20.0	25.0	
3 & 4 Methylphenol	DCB	Ave		34841	65119	131062	333701		0.500	1.00	2.00	5.00
			775040	1199313	1553119	1619703		10.0	15.0	20.0	25.0	
N-Nitrosodi-n-propylamine	DCB	Ave		28028	51473	97426	257698		0.500	1.00	2.00	5.00
			603434	933457	1207415	1254111		10.0	15.0	20.0	25.0	
Acetophenone	DCB	Ave		49547	89655	175152	449700		0.500	1.00	2.00	5.00
			1086550	1670364	2157252	2253534		10.0	15.0	20.0	25.0	
Hexachloroethane	DCB	Ave		15126	25173	50969	129867		0.500	1.00	2.00	5.00
			304326	469412	602381	635926		10.0	15.0	20.0	25.0	
Nitrobenzene	NPT	Ave		38879	70520	141594	363322		0.500	1.00	2.00	5.00
			858323	1298418	1668745	1748249		10.0	15.0	20.0	25.0	
2,4-Toluene diamine	NPT	Ave		26100	41727	44400	201852		0.500	1.00	2.00	5.00
			344952	528764	+++++	+++++		10.0	15.0	+++++	+++++	
Isophorone	NPT	Ave		73224	133011	267268	679360		0.500	1.00	2.00	5.00
			1608302	2469702	3139613	3269146		10.0	15.0	20.0	25.0	
2,4-Dimethylphenol	NPT	Ave		35956	66910	130757	333899		0.500	1.00	2.00	5.00
			796516	1221778	1597750	1669089		10.0	15.0	20.0	25.0	
2-Nitrophenol	NPT	Ave		18179	34547	72568	187591		0.500	1.00	2.00	5.00
			454938	693209	905541	940249		10.0	15.0	20.0	25.0	
1,3,5-Trichlorobenzene	NPT	Ave		30066	56093	109254	282180		0.500	1.00	2.00	5.00
			660119	1003187	1291930	1337230		10.0	15.0	20.0	25.0	
Bis(2-chloroethoxy)methane	NPT	Ave		42294	75823	146379	386295		0.500	1.00	2.00	5.00
			914341	1389964	1784559	1895583		10.0	15.0	20.0	25.0	
2,4-Dichlorophenol	NPT	Ave		25481	50420	101032	262634		0.500	1.00	2.00	5.00
			611952	943933	1222368	1252025		10.0	15.0	20.0	25.0	
1,2,4-Trichlorobenzene	NPT	Ave		31142	55744	103983	272830		0.500	1.00	2.00	5.00
			649245	983541	1243336	1290533		10.0	15.0	20.0	25.0	
Naphthalene	NPT	Ave	25494	111388	204817	398334	1020087	0.100	0.500	1.00	2.00	5.00
			2412205	3661352	4692776	4885832		10.0	15.0	20.0	25.0	
4-Chloroaniline	NPT	Ave		47265	85584	174814	467549		0.500	1.00	2.00	5.00
			1002022	1589449	2068027	2149078		10.0	15.0	20.0	25.0	
Hexachlorobutadiene	NPT	Ave		14531	26394	51182	133731		0.500	1.00	2.00	5.00
			311388	472922	600591	624541		10.0	15.0	20.0	25.0	
1,2,3-Trichlorobenzene	NPT	Ave		27402	50692	99435	254195		0.500	1.00	2.00	5.00
			598802	908400	1169139	1220800		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Caprolactam	NPT	Ave		10143	22072	43327	112516		0.500	1.00	2.00	5.00
			264195	411510	518273	533069		10.0	15.0	20.0	25.0	
4-Chloro-3-methylphenol	NPT	Ave		29496	55263	107996	277196		0.500	1.00	2.00	5.00
			667517	1009159	1280967	1376648		10.0	15.0	20.0	25.0	
2-Methylnaphthalene	NPT	Ave	12834	57876	107083	207745	533605	0.100	0.500	1.00	2.00	5.00
			1249315	1924927	2465445	2575656		10.0	15.0	20.0	25.0	
1-Methylnaphthalene	NPT	Ave	15717	66489	121621	234247	607464	0.100	0.500	1.00	2.00	5.00
			1443077	2198460	2827500	2936025		10.0	15.0	20.0	25.0	
4-Nitrophenol	ANT	Ave		+++++	13211	29281	79524		+++++	1.00	2.00	5.00
			148524	236565	370983	395650		10.0	15.0	20.0	25.0	
1,2,3,5-Tetrachlorobenzene	ANT	Ave		27561	49021	98940	248842		0.500	1.00	2.00	5.00
			586520	889680	1119937	1157395		10.0	15.0	20.0	25.0	
Hexachlorocyclopentadiene	ANT	Ave		13333	27220	58502	157409		0.500	1.00	2.00	5.00
			348559	537606	688982	723032		10.0	15.0	20.0	25.0	
2,4,6-Trichlorophenol	ANT	Ave		17789	34078	67950	180193		0.500	1.00	2.00	5.00
			403709	635318	813654	859211		10.0	15.0	20.0	25.0	
2,4,5-Trichlorophenol	ANT	Ave		19520	36488	74720	185596		0.500	1.00	2.00	5.00
			442638	676632	831093	931231		10.0	15.0	20.0	25.0	
1,1'-Biphenyl	ANT	Ave	17656	82874	152269	301213	767641	0.100	0.500	1.00	2.00	5.00
			1841749	2812372	3585904	3735824		10.0	15.0	20.0	25.0	
1,2,3,4 -Tetrachlorobenzene	ANT	Ave		26019	47842	93824	246519		0.500	1.00	2.00	5.00
			560158	847663	1064223	1092129		10.0	15.0	20.0	25.0	
2-Chloronaphthalene	ANT	Ave	14557	63004	114124	219160	569332	0.100	0.500	1.00	2.00	5.00
			1358977	2087954	2652403	2777126		10.0	15.0	20.0	25.0	
4,6-Dinitro-2-methylphenol	PHN	Ave		+++++	17016	44317	126467		+++++	1.00	2.00	5.00
			284042	455130	596848	640341		10.0	15.0	20.0	25.0	
2-Nitroaniline	ANT	Ave		18994	35237	66944	176242		0.500	1.00	2.00	5.00
			423791	660884	826910	864603		10.0	15.0	20.0	25.0	
Dimethyl phthalate	ANT	Ave		71261	132644	256765	643721		0.500	1.00	2.00	5.00
			1531825	2418320	3003585	3123596		10.0	15.0	20.0	25.0	
2,6-Dinitrotoluene	ANT	Ave		15208	27084	56496	148459		0.500	1.00	2.00	5.00
			363313	561156	716782	751415		10.0	15.0	20.0	25.0	
1,2-Dinitrobenzene	ANT	Ave		7492	14259	29626	77597		0.500	1.00	2.00	5.00
			185037	291233	372435	380412		10.0	15.0	20.0	25.0	
Acenaphthylene	ANT	Ave	23695	106973	191320	377976	957553	0.100	0.500	1.00	2.00	5.00
			2281775	3505758	4442846	4610673		10.0	15.0	20.0	25.0	
3-Nitroaniline	ANT	Ave		18990	34409	69138	177994		0.500	1.00	2.00	5.00
			421102	656712	843584	877513		10.0	15.0	20.0	25.0	
2,4-Dinitrophenol	ANT	Qua		8943	27498	73750	224323		1.00	2.00	4.00	10.0
			510112	875096	1136223	1179612		20.0	30.0	40.0	50.0	
Acenaphthene	ANT	Ave	14977	66688	119244	236523	595460	0.100	0.500	1.00	2.00	5.00
			1420713	2216631	2769396	2867259		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
2,4-Dinitrotoluene	ANT	Ave		19159	38665	75592	194638		0.500	1.00	2.00	5.00
			478065	745015	935796	977131		10.0	15.0	20.0	25.0	
Dibenzofuran	ANT	Ave	19959	90826	162350	320119	807615	0.100	0.500	1.00	2.00	5.00
			1921991	2970754	3743937	3880624		10.0	15.0	20.0	25.0	
2,3,5,6-Tetrachlorophenol	ANT	Ave		13509	25576	54733	142896		0.500	1.00	2.00	5.00
			336966	526588	672931	701948		10.0	15.0	20.0	25.0	
Diethyl phthalate	ANT	Ave		71679	129057	249887	630301		0.500	1.00	2.00	5.00
			1516196	2382299	2978622	3088401		10.0	15.0	20.0	25.0	
4-Chlorophenyl phenyl ether	ANT	Ave		33141	59490	119323	295842		0.500	1.00	2.00	5.00
			691417	1063808	1341448	1387368		10.0	15.0	20.0	25.0	
4-Nitroaniline	ANT	Ave		19013	37452	75252	190517		0.500	1.00	2.00	5.00
			440505	728763	925193	961251		10.0	15.0	20.0	25.0	
Fluorene	ANT	Ave	17228	76097	135654	267384	686621	0.100	0.500	1.00	2.00	5.00
			1609081	2499261	3172054	3272521		10.0	15.0	20.0	25.0	
N-Nitrosodiphenylamine	PHN	Ave		54456	98780	186855	474575		0.500	1.00	2.00	5.00
			1180792	1865434	2299549	2393902		10.0	15.0	20.0	25.0	
Azobenzene	PHN	Ave		79902	144071	286879	724390		0.500	1.00	2.00	5.00
			1730729	2675336	3357753	3526274		10.0	15.0	20.0	25.0	
4-Bromophenyl phenyl ether	PHN	Ave		17868	31984	62718	154514		0.500	1.00	2.00	5.00
			369958	569260	706137	734591		10.0	15.0	20.0	25.0	
Hexachlorobenzene	PHN	Ave	3848	17749	30695	59706	149296	0.100	0.500	1.00	2.00	5.00
			347271	539635	668949	696013		10.0	15.0	20.0	25.0	
Atrazine	PHN	Ave		19580	33872	66535	165965		0.500	1.00	2.00	5.00
			385605	591098	687918	709408		10.0	15.0	20.0	25.0	
Pentachlorophenol	PHN	Qua		12296	27562	69184	212971		1.00	2.00	4.00	10.0
			499488	821657	1060020	1086978		20.0	30.0	40.0	50.0	
Phenanthrene	PHN	Ave	23046	102182	181650	366333	909474	0.100	0.500	1.00	2.00	5.00
			2132204	3343019	4151439	4327944		10.0	15.0	20.0	25.0	
Anthracene	PHN	Ave	23252	100331	183326	364336	943128	0.100	0.500	1.00	2.00	5.00
			2188814	3401048	4287654	4409962		10.0	15.0	20.0	25.0	
Carbazole	PHN	Ave		99162	183162	359301	915571		0.500	1.00	2.00	5.00
			2132733	3343201	4164540	4323370		10.0	15.0	20.0	25.0	
Di-n-butyl phthalate	PHN	Ave		115430	213220	420337	1072630		0.500	1.00	2.00	5.00
			2589659	4061972	5069228	5295880		10.0	15.0	20.0	25.0	
Fluoranthene	PHN	Ave	21975	99662	187803	365866	918185	0.100	0.500	1.00	2.00	5.00
			2161788	3350785	4199929	4355134		10.0	15.0	20.0	25.0	
Benzidine	CRY	Ave		44931	98014	183738	596481		0.500	1.00	2.00	5.00
			1254996	2040501	2594570	2830303		10.0	15.0	20.0	25.0	
Pyrene	CRY	Ave	24349	105001	197477	386454	990421	0.100	0.500	1.00	2.00	5.00
			2295539	3614554	4455161	4632478		10.0	15.0	20.0	25.0	
Butyl benzyl phthalate	CRY	Ave		50088	92202	183944	476049		0.500	1.00	2.00	5.00
			1141581	1765775	2209095	2293317		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6156

SDG No.:

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 17:56 Calibration End Date: 06/27/2011 20:25 Calibration ID: 1822

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dimethoxybenzidine	CRY	Ave		19789	42201	87843	241520		0.500	1.00	2.00	5.00
			438711	672858	941260	988742		10.0	15.0	20.0	25.0	
Bis(2-ethylhexyl) phthalate	CRY	Ave		71627	132185	263895	677180		0.500	1.00	2.00	5.00
			1629598	2568093	3201420	3309447		10.0	15.0	20.0	25.0	
4,4'-Methylene bis(2-chloroaniline)	CRY	Ave		16904	32209	67467	178858		0.500	1.00	2.00	5.00
			399094	624297	773817	822867		10.0	15.0	20.0	25.0	
3,3'-Dichlorobenzidine	CRY	Ave		34717	66196	137349	350179		0.500	1.00	2.00	5.00
			810857	1274801	1551761	1635666		10.0	15.0	20.0	25.0	
Benzo[a]anthracene	CRY	Ave	23337	99138	177372	355871	894460	0.100	0.500	1.00	2.00	5.00
			2108402	3279653	4080264	4226709		10.0	15.0	20.0	25.0	
Chrysene	CRY	Ave	21756	92823	176076	342820	859731	0.100	0.500	1.00	2.00	5.00
			2054140	3143270	3919474	4070666		10.0	15.0	20.0	25.0	
Di-n-octyl phthalate	PRY	Ave		117860	213712	433018	1112993		0.500	1.00	2.00	5.00
			2656946	4228181	5282091	5494939		10.0	15.0	20.0	25.0	
Benzo[b]fluoranthene	PRY	Ave	22841	91441	158566	328102	888966	0.100	0.500	1.00	2.00	5.00
			1953025	3146503	3769127	4248789		10.0	15.0	20.0	25.0	
Benzo[k]fluoranthene	PRY	Ave	22303	97198	192053	357778	897884	0.100	0.500	1.00	2.00	5.00
			2167568	3284338	4201714	4099093		10.0	15.0	20.0	25.0	
Benzo[a]pyrene	PRY	Ave	20622	87362	157497	319225	819598	0.100	0.500	1.00	2.00	5.00
			1919769	2979549	3659215	3805072		10.0	15.0	20.0	25.0	
Indeno[1,2,3-cd]pyrene	PRY	Ave	18697	89837	168835	328827	868050	0.100	0.500	1.00	2.00	5.00
			2023103	3156852	3884404	4041237		10.0	15.0	20.0	25.0	
Dibenzo(a,h)anthracene	PRY	Ave	16085	74668	136709	272297	723525	0.100	0.500	1.00	2.00	5.00
			1709799	2637312	3273343	3428014		10.0	15.0	20.0	25.0	
Benzo[g,h,i]perylene	PRY	Ave	18042	71951	136180	270342	706692	0.100	0.500	1.00	2.00	5.00
			1651704	2583606	3197632	3335688		10.0	15.0	20.0	25.0	
2-Fluorophenol (Surr)	DCB	Ave		33641	61234	118830	308980		0.500	1.00	2.00	5.00
			708725	1118490	1409145	1511623		10.0	15.0	20.0	25.0	
Phenol-d5 (Surr)	DCB	Ave		43967	79654	158373	408145		0.500	1.00	2.00	5.00
			963005	1510873	1913963	2024279		10.0	15.0	20.0	25.0	
Nitrobenzene-d5 (Surr)	NPT	Ave	8948	40737	74103	146013	372781	0.100	0.500	1.00	2.00	5.00
			884768	1363261	1744391	1818825		10.0	15.0	20.0	25.0	
2-Fluorobiphenyl (Surr)	ANT	Ave	14779	73995	132572	258935	659050	0.100	0.500	1.00	2.00	5.00
			1547611	2385850	3021071	3153679		10.0	15.0	20.0	25.0	
2,4,6-Tribromophenol (Surr)	ANT	Ave		6072	11732	24029	64566		0.500	1.00	2.00	5.00
			145973	230334	285840	304947		10.0	15.0	20.0	25.0	
Terphenyl-d14 (Surr)	CRY	Ave	14441	63046	117067	229623	572833	0.100	0.500	1.00	2.00	5.00
			1348971	2083304	2556688	2653723		10.0	15.0	20.0	25.0	

Curve Type Legend:
Ave = Average ISTD
Qua = Quadratic ISTD

Second Source

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-6156/13 Calibration Date: 06/27/2011 21:21

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0627013.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5541	0.5452		9.84	10.0	-1.6	30.0
N-Nitrosodimethylamine	Ave	0.9506	0.9496		9.99	10.0	-0.1	30.0
Pyridine	Ave	1.543	1.537		9.96	10.0	-0.4	30.0
Ethyl methacrylate	Ave	1.263	1.260		9.97	10.0	-0.3	30.0
3-Chloropropionitrile	Ave	0.6985	0.7011		10.0	10.0	0.4	30.0
Malononitrile	Ave	1.656	1.671		10.1	10.0	0.9	30.0
Benzaldehyde	Ave	1.053	1.068	0.0100	10.1	10.0	1.4	30.0
Phenol	Ave	1.853	1.839	0.8000	9.93	10.0	-0.7	30.0
Aniline	Ave	2.374	2.316		9.76	10.0	-2.4	30.0
Bis(2-chloroethyl)ether	Ave	1.494	1.484	0.7000	9.93	10.0	-0.7	30.0
2-Chlorophenol	Ave	1.488	1.455	0.8000	9.78	10.0	-2.2	30.0
1,3-Dichlorobenzene	Ave	1.487	1.448		9.74	10.0	-2.6	30.0
1,4-Dichlorobenzene	Ave	1.538	1.521		9.89	10.0	-1.1	30.0
Benzyl alcohol	Ave	0.9102	0.9028		9.92	10.0	-0.8	30.0
1,2-Dichlorobenzene	Ave	1.423	1.395		9.80	10.0	-2.0	30.0
2-Methylphenol	Ave	1.375	1.354	0.7000	9.85	10.0	-1.5	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.537	1.513		9.84	10.0	-1.6	30.0
3 & 4 Methylphenol	Ave	1.400	1.389		9.92	10.0	-0.8	30.0
N-Nitrosodi-n-propylamine	Ave	1.088	1.086	0.5000	9.98	10.0	-0.2	30.0
Acetophenone	Ave	1.935	1.908	0.0100	9.86	10.0	-1.4	30.0
Hexachloroethane	Ave	0.5533	0.5401	0.3000	9.76	10.0	-2.4	30.0
Nitrobenzene	Ave	0.4023	0.3922	0.2000	9.75	10.0	-2.5	30.0
Isophorone	Ave	0.7571	0.7495	0.4000	9.90	10.0	-1.0	30.0
2,4-Dimethylphenol	Ave	0.3771	0.3669	0.2000	9.73	10.0	-2.7	30.0
2-Nitrophenol	Ave	0.2078	0.2058	0.1000	9.90	10.0	-1.0	30.0
1,3,5-Trichlorobenzene	Ave	0.3116	0.3039		9.75	10.0	-2.5	30.0
Bis(2-chloroethoxy)methane	Ave	0.4299	0.4266	0.3000	9.92	10.0	-0.8	30.0
Benzoic acid	Qua		0.2585		21.0	20.0	5.0	30.0
2,4-Dichlorophenol	Ave	0.2865	0.2868	0.2000	10.0	10.0	0.1	30.0
1,2,4-Trichlorobenzene	Ave	0.3053	0.2940		9.63	10.0	-3.7	30.0
Naphthalene	Ave	1.159	1.100	0.7000	9.49	10.0	-5.1	30.0
4-Chloroaniline	Ave	0.4934	0.4621	0.0100	9.37	10.0	-6.3	30.0
Hexachlorobutadiene	Ave	0.1469	0.1437	0.0100	9.78	10.0	-2.2	30.0
1,2,3-Trichlorobenzene	Ave	0.2827	0.2733		9.67	10.0	-3.3	30.0
Caprolactam	Ave	0.1222	0.1233	0.0100	10.1	10.0	0.9	30.0
4-Chloro-3-methylphenol	Ave	0.3107	0.3164	0.2000	10.2	10.0	1.8	30.0
2-Methylnaphthalene	Ave	0.6034	0.5801	0.4000	9.61	10.0	-3.9	30.0
1-Methylnaphthalene	Ave	0.6950	0.6642		9.56	10.0	-4.4	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4770	0.4609		9.66	10.0	-3.4	30.0
Hexachlorocyclopentadiene	Ave	0.2802	0.2726	0.0500	9.73	10.0	-2.7	30.0
2,4,6-Trichlorophenol	Ave	0.3352	0.3226	0.2000	9.63	10.0	-3.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-6156/13 Calibration Date: 06/27/2011 21:21

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0627013.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3588	0.3524	0.2000	9.82	10.0	-1.8	30.0
2,4-Toluene diamine	Ave	0.1949	0.2053		10.5	10.0	5.3	30.0
1,1'-Biphenyl	Ave	1.500	1.454	0.0100	9.70	10.0	-3.0	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4567	0.4361		9.55	10.0	-4.5	30.0
2-Chloronaphthalene	Ave	1.128	1.068	0.8000	9.47	10.0	-5.3	30.0
2-Nitroaniline	Ave	0.3423	0.3408	0.0100	9.96	10.0	-0.4	30.0
Dimethyl phthalate	Ave	1.263	1.243	0.0100	9.84	10.0	-1.6	30.0
2,6-Dinitrotoluene	Ave	0.2867	0.2912		10.2	10.0	1.6	30.0
1,2-Dinitrobenzene	Ave	0.1477	0.1498		10.1	10.0	1.4	30.0
Acenaphthylene	Ave	1.892	1.789	0.9000	9.45	10.0	-5.5	30.0
3-Nitroaniline	Ave	0.3441	0.3364	0.0100	9.78	10.0	-2.2	30.0
2,4-Dinitrophenol	Qua		0.1960	0.0100	18.5	20.0	-7.5	30.0
Acenaphthene	Ave	1.183	1.127	0.9000	9.52	10.0	-4.8	30.0
4-Nitrophenol	Ave	0.1415	0.1351		9.55	10.0	-4.5	30.0
2,4-Dinitrotoluene	Ave	0.3792	0.3795	0.2000	10.0	10.0	0.0	30.0
Dibenzofuran	Ave	1.599	1.541	0.8000	9.64	10.0	-3.6	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.2690	0.2678		9.95	10.0	-0.5	30.0
Diethyl phthalate	Ave	1.245	1.228	0.0100	9.87	10.0	-1.3	30.0
4-Chlorophenyl phenyl ether	Ave	0.5714	0.5601	0.4000	9.80	10.0	-2.0	30.0
4-Nitroaniline	Ave	0.3700	0.3630	0.0100	9.81	10.0	-1.9	30.0
Fluorene	Ave	1.349	1.294	0.9000	9.59	10.0	-4.1	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1469	0.1400	0.0100	9.53	10.0	-4.7	30.0
N-Nitrosodiphenylamine	Ave	0.6078	0.6059	0.0100	9.97	10.0	-0.3	30.0
Azobenzene	Ave	0.8976	0.8861		9.87	10.0	-1.3	30.0
4-Bromophenyl phenyl ether	Ave	0.1932	0.1904	0.1000	9.85	10.0	-1.5	30.0
Hexachlorobenzene	Ave	0.1887	0.1782	0.1000	9.44	10.0	-5.6	30.0
Atrazine	Ave	0.2007	0.1957	0.0100	9.75	10.0	-2.5	30.0
Pentachlorophenol	Qua		0.1317	0.0500	20.1	20.0	0.5	30.0
Phenanthrene	Ave	1.145	1.103	0.7000	9.63	10.0	-3.7	30.0
Anthracene	Ave	1.161	1.113	0.7000	9.59	10.0	-4.1	30.0
Carbazole	Ave	1.119	1.102	0.0100	9.85	10.0	-1.5	30.0
Di-n-butyl phthalate	Ave	1.335	1.337	0.0100	10.0	10.0	0.2	30.0
Fluoranthene	Ave	1.144	1.112	0.6000	9.72	10.0	-2.8	30.0
Benzidine	Ave	0.6501	0.6273		9.65	10.0	-3.5	30.0
Pyrene	Ave	1.229	1.190	0.6000	9.68	10.0	-3.2	30.0
Butyl benzyl phthalate	Ave	0.5852	0.5769	0.0100	9.86	10.0	-1.4	30.0
3,3'-Dimethoxybenzidine	Ave	0.2531	0.2237		8.84	10.0	-11.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8410	0.8348	0.0100	9.93	10.0	-0.7	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2079	0.2061		9.91	10.0	-0.9	30.0
3,3'-Dichlorobenzidine	Ave	0.4200	0.4173	0.0100	9.93	10.0	-0.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-6156/13 Calibration Date: 06/27/2011 21:21

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0627013.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.132	1.088	0.8000	9.61	10.0	-3.9	30.0
Chrysene	Ave	1.086	1.029	0.7000	9.48	10.0	-5.2	30.0
Di-n-octyl phthalate	Ave	1.599	1.600	0.0100	10.0	10.0	0.0	30.0
Benzo[b]fluoranthene	Ave	1.243	1.176	0.7000	9.46	10.0	-5.4	30.0
Benzo[k]fluoranthene	Ave	1.317	1.263	0.7000	9.59	10.0	-4.1	30.0
Benzo[a]pyrene	Ave	1.177	1.126	0.7000	9.57	10.0	-4.3	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.217	1.192	0.5000	9.80	10.0	-2.0	30.0
Dibenzo(a,h)anthracene	Ave	1.019	1.011	0.4000	9.92	10.0	-0.8	30.0
Benzo[g,h,i]perylene	Ave	1.014	0.9922	0.5000	9.79	10.0	-2.1	30.0
2-Fluorophenol (Surr)	Ave	1.299	1.274		9.81	10.0	-1.9	30.0
Phenol-d5 (Surr)	Ave	1.733	1.734		10.0	10.0	0.0	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4240	0.4135		9.75	10.0	-2.5	30.0
2-Fluorobiphenyl (Surr)	Ave	1.282	1.226		9.57	10.0	-4.3	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1185	0.1186		10.0	10.0	0.0	30.0
Terphenyl-d14 (Surr)	Ave	0.7199	0.6824		9.48	10.0	-5.2	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: 0701001.D DFTPP Injection Date: 07/01/2011

Instrument ID: A4HP10 DFTPP Injection Time: 09:05

Analysis Batch No.: 6847

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	34.9	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	45.1	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	55.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	24.3	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	10.7	
442	40.0 - 110.0% of mass 198	67.2	
443	15.0 - 24.0% of mass 442	13.0	(19.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-6847/2	0701002.D	07/01/2011	09:24
	CCV 240-6847/3	0701003.D	07/01/2011	09:42
	MB 240-4642/23-A	0701008.D	07/01/2011	11:53
	LCS 240-4642/24-A	0701009.D	07/01/2011	12:11
GSP-SB-107-6-8	240-742-10	0701010.D	07/01/2011	12:30
GSP-SB-107-6-8 MS	240-742-10 MS	0701011.D	07/01/2011	12:49
GSP-SB-107-6-8 MSD	240-742-10 MSD	0701012.D	07/01/2011	13:07

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-6847/2 Calibration Date: 07/01/2011 09:24

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0701002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.5541	0.5680		10.3	10.0	2.5	20.0
N-Nitrosodimethylamine	Ave	0.9506	0.9582		10.1	10.0	0.8	20.0
Pyridine	Ave	1.543	1.604		10.4	10.0	3.9	20.0
Ethyl methacrylate	Ave	1.263	1.250		9.90	10.0	-1.0	20.0
3-Chloropropionitrile	Ave	0.6985	0.6995		10.0	10.0	0.1	20.0
Malononitrile	Ave	1.656	1.670		10.1	10.0	0.8	20.0
Benzaldehyde	Ave	1.053	0.9407	0.0100	8.93	10.0	-10.7	20.0
Phenol	Ave	1.853	1.844	0.8000	9.95	10.0	-0.5	20.0
Aniline	Ave	2.374	2.337		9.85	10.0	-1.5	20.0
Bis(2-chloroethyl)ether	Ave	1.494	1.453	0.7000	9.72	10.0	-2.8	20.0
2-Chlorophenol	Ave	1.488	1.475	0.8000	9.92	10.0	-0.8	20.0
1,3-Dichlorobenzene	Ave	1.487	1.484		9.98	10.0	-0.2	20.0
1,4-Dichlorobenzene	Ave	1.538	1.525		9.92	10.0	-0.8	20.0
Benzyl alcohol	Ave	0.9102	0.8896		9.77	10.0	-2.3	20.0
1,2-Dichlorobenzene	Ave	1.423	1.410		9.91	10.0	-0.9	20.0
2-Methylphenol	Ave	1.375	1.322	0.7000	9.61	10.0	-3.9	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.537	1.473		9.58	10.0	-4.2	20.0
3 & 4 Methylphenol	Ave	1.400	1.395		9.96	10.0	-0.4	20.0
N-Nitrosodi-n-propylamine	Ave	1.088	1.030	0.5000	9.46	10.0	-5.4	20.0
Acetophenone	Ave	1.935	1.900	0.0100	9.82	10.0	-1.8	20.0
Hexachloroethane	Ave	0.5533	0.5470	0.3000	9.88	10.0	-1.2	20.0
Nitrobenzene	Ave	0.4023	0.3959	0.2000	9.84	10.0	-1.6	20.0
Isophorone	Ave	0.7571	0.7303	0.4000	9.65	10.0	-3.5	20.0
2-Nitrophenol	Ave	0.2078	0.2122	0.1000	10.2	10.0	2.1	20.0
2,4-Dimethylphenol	Ave	0.3771	0.3884	0.2000	10.3	10.0	3.0	20.0
1,3,5-Trichlorobenzene	Ave	0.3116	0.3129		10.0	10.0	0.4	20.0
Bis(2-chloroethoxy)methane	Ave	0.4299	0.4246	0.3000	9.88	10.0	-1.2	20.0
Benzoic acid	Qua		0.2046		17.4	20.0	-13.0	20.0
2,4-Dichlorophenol	Ave	0.2865	0.2953	0.2000	10.3	10.0	3.1	20.0
1,2,4-Trichlorobenzene	Ave	0.3053	0.3053		10.0	10.0	0.0	20.0
Naphthalene	Ave	1.159	1.127	0.7000	9.72	10.0	-2.8	20.0
4-Chloroaniline	Ave	0.4934	0.4846	0.0100	9.82	10.0	-1.8	20.0
Hexachlorobutadiene	Ave	0.1469	0.1487	0.0100	10.1	10.0	1.2	20.0
1,2,3-Trichlorobenzene	Ave	0.2827	0.2864		10.1	10.0	1.3	20.0
Caprolactam	Ave	0.1222	0.1220	0.0100	9.98	10.0	-0.2	20.0
4-Chloro-3-methylphenol	Ave	0.3107	0.3192	0.2000	10.3	10.0	2.7	20.0
2-Methylnaphthalene	Ave	0.6034	0.5930	0.4000	9.83	10.0	-1.7	20.0
1-Methylnaphthalene	Ave	0.6950	0.6693		9.63	10.0	-3.7	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4567	0.4832		10.6	10.0	5.8	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4770	0.4832		10.1	10.0	1.3	20.0
Hexachlorocyclopentadiene	Ave	0.2802	0.2834	0.0500	10.1	10.0	1.1	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-6847/2 Calibration Date: 07/01/2011 09:24

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0701002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,6-Trichlorophenol	Ave	0.3352	0.3414	0.2000	10.2	10.0	1.9	20.0
2,4,5-Trichlorophenol	Ave	0.3588	0.3812	0.2000	10.6	10.0	6.3	20.0
2,4-Toluene diamine	Ave	0.1949	0.2057		10.6	10.0	5.5	20.0
1,1'-Biphenyl	Ave	1.500	1.489	0.0100	9.93	10.0	-0.7	20.0
2-Chloronaphthalene	Ave	1.128	1.115	0.8000	9.88	10.0	-1.2	20.0
2-Nitroaniline	Ave	0.3423	0.3422	0.0100	10.0	10.0	-0.0	20.0
4-Nitroaniline	Ave	0.3700	0.4149	0.0100	11.2	10.0	12.1	20.0
Dimethyl phthalate	Ave	1.263	1.260	0.0100	9.98	10.0	-0.2	20.0
2,6-Dinitrotoluene	Ave	0.2867	0.2917		10.2	10.0	1.7	20.0
1,2-Dinitrobenzene	Ave	0.1477	0.1496		10.1	10.0	1.3	20.0
Acenaphthylene	Ave	1.892	1.862	0.9000	9.84	10.0	-1.6	20.0
3-Nitroaniline	Ave	0.3441	0.3481	0.0100	10.1	10.0	1.2	20.0
2,4-Dinitrophenol	Qua		0.2169	0.0100	20.2	20.0	1.0	20.0
Acenaphthene	Ave	1.183	1.153	0.9000	9.75	10.0	-2.5	20.0
4-Nitrophenol	Ave	0.1415	0.1503		10.6	10.0	6.2	20.0
2,4-Dinitrotoluene	Ave	0.3792	0.3909	0.2000	10.3	10.0	3.1	20.0
Dibenzofuran	Ave	1.599	1.584	0.8000	9.91	10.0	-0.9	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.2690	0.2736		10.2	10.0	1.7	20.0
Diethyl phthalate	Ave	1.245	1.232	0.0100	9.90	10.0	-1.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.5714	0.5670	0.4000	9.92	10.0	-0.8	20.0
Fluorene	Ave	1.349	1.316	0.9000	9.76	10.0	-2.4	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1469	0.1494	0.0100	10.2	10.0	1.7	20.0
N-Nitrosodiphenylamine	Ave	0.6078	0.6087	0.0100	10.0	10.0	0.2	20.0
Azobenzene	Ave	0.8976	0.8805		9.81	10.0	-1.9	20.0
4-Bromophenyl phenyl ether	Ave	0.1932	0.1914	0.1000	9.90	10.0	-1.0	20.0
Hexachlorobenzene	Ave	0.1887	0.1830	0.1000	9.70	10.0	-3.0	20.0
Atrazine	Ave	0.2007	0.2091	0.0100	10.4	10.0	4.2	20.0
Pentachlorophenol	Qua		0.1277	0.0500	19.5	20.0	-2.5	20.0
Phenanthrene	Ave	1.145	1.142	0.7000	9.97	10.0	-0.3	20.0
Anthracene	Ave	1.161	1.164	0.7000	10.0	10.0	0.3	20.0
Carbazole	Ave	1.119	1.136	0.0100	10.2	10.0	1.5	20.0
Di-n-butyl phthalate	Ave	1.335	1.329	0.0100	9.96	10.0	-0.4	20.0
Fluoranthene	Ave	1.144	1.155	0.6000	10.1	10.0	0.9	20.0
Benzidine	Ave	0.6501	0.6700		10.3	10.0	3.1	20.0
Pyrene	Ave	1.229	1.227	0.6000	9.98	10.0	-0.2	20.0
Butyl benzyl phthalate	Ave	0.5852	0.5824	0.0100	9.95	10.0	-0.5	20.0
3,3'-Dimethoxybenzidine	Ave	0.2531	0.2650		10.5	10.0	4.7	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8410	0.8328	0.0100	9.90	10.0	-1.0	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2079	0.2151		10.3	10.0	3.5	20.0
3,3'-Dichlorobenzidine	Ave	0.4200	0.4269	0.0100	10.2	10.0	1.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-6847/2 Calibration Date: 07/01/2011 09:24

Instrument ID: A4HP10 Calib Start Date: 06/27/2011 17:56

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/27/2011 20:25

Lab File ID: 0701002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.132	1.155	0.8000	10.2	10.0	2.0	20.0
Chrysene	Ave	1.086	1.065	0.7000	9.81	10.0	-1.9	20.0
Di-n-octyl phthalate	Ave	1.599	1.598	0.0100	10.0	10.0	-0.0	20.0
Benzo[b]fluoranthene	Ave	1.243	1.458	0.7000	11.7	10.0	17.3	20.0
Benzo[k]fluoranthene	Ave	1.317	1.193	0.7000	9.06	10.0	-9.4	20.0
Benzo[a]pyrene	Ave	1.177	1.187	0.7000	10.1	10.0	0.9	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.217	1.236	0.5000	10.2	10.0	1.6	20.0
Dibenzo(a,h)anthracene	Ave	1.019	1.032	0.4000	10.1	10.0	1.2	20.0
Benzo[g,h,i]perylene	Ave	1.014	1.016	0.5000	10.0	10.0	0.3	20.0
2-Fluorophenol (Surr)	Ave	1.299	1.321		10.2	10.0	1.7	20.0
Phenol-d5 (Surr)	Ave	1.733	1.730		9.98	10.0	-0.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4240	0.4182		9.86	10.0	-1.4	20.0
2-Fluorobiphenyl (Surr)	Ave	1.282	1.272		9.92	10.0	-0.8	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1185	0.1218		10.3	10.0	2.7	20.0
Terphenyl-d14 (Surr)	Ave	0.7199	0.6980		9.70	10.0	-3.0	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: 9DF0705.D DFTPP Injection Date: 07/05/2011

Instrument ID: A4HP9 DFTPP Injection Time: 14:49

Analysis Batch No.: 7248

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	46.8	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	74.1	
70	Less than 2.0% of mass 69	0.4	(0.5)1
127	25.0 - 75.0% of mass 198	57.6	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	24.0	
365	Greater than 0.75% of mass 198	3.2	
441	Present, but less than mass 443	11.6	
442	40.0 - 110.0% of mass 198	69.2	
443	15.0 - 24.0% of mass 442	13.1	(18.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-7248/10	9SMH0705.D	07/05/2011	15:06
	STD5 240-7248/2	9SMM0705.D	07/05/2011	15:25
	STD4 240-7248/3	9SM0705.D	07/05/2011	15:44
	STD3 240-7248/4	9SML0705.D	07/05/2011	16:03
	STD1 240-7248/6	9SLL0705.D	07/05/2011	16:42
	STD2 240-7248/5	9SL0705.D	07/05/2011	17:01
	STD7 240-7248/9	9SH0705.D	07/05/2011	17:20
	STD8 240-7248/8	9SHH0705.D	07/05/2011	17:40
	STD9 240-7248/7	9HHH0705.D	07/05/2011	17:59
	ICV 240-7248/11	9TCLICV.D	07/05/2011	18:18

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7248

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2011 15:06 Calibration End Date: 07/05/2011 17:59 Calibration ID: 2120

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-7248/6	9SLL0705.D
Level 2	STD2 240-7248/5	9SL0705.D
Level 3	STD3 240-7248/4	9SML0705.D
Level 4	STD4 240-7248/3	9SM0705.D
Level 5	STD5 240-7248/2	9SMM0705.D
Level 6	STD6 240-7248/10	9SMH0705.D
Level 7	STD7 240-7248/9	9SH0705.D
Level 8	STD8 240-7248/8	9SHH0705.D
Level 9	STD9 240-7248/7	9HHH0705.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.8152	0.8787 0.7861	0.9001 0.7517	0.9109 0.8098	0.8337	Ave		0.8358				6.7		20.0			
N-Nitrosodimethylamine	1.5473	1.5922 1.5028	1.6609 1.4580	1.6339 1.5294	1.5204	Ave		1.5556				4.4		20.0			
Pyridine	2.4082	2.1994 2.4058	2.4840 2.2699	2.5407 2.4590	2.3771	Ave		2.3930				4.7		20.0			
Ethyl methacrylate	2.1461	2.2792 2.0715	2.3376 2.0331	2.3803 2.1928	2.1790	Ave		2.2024				5.6		20.0			
3-Chloropropionitrile	0.8849	0.8810 0.8660	0.9507 0.8328	0.9557 0.9227	0.8878	Ave		0.8977				4.7		20.0			
Malononitrile	2.6380	2.6937 2.5342	2.8029 2.3702	2.7718 2.4570	2.5860	Ave		2.6067				5.8		20.0			
Benzaldehyde	1.6121	2.0788 1.1960	2.0880 +++++	2.0377 +++++	1.8687	Ave		1.8135			0.0100	19.0		20.0			
Phenol	2.5224	2.4682 2.5061	2.7011 2.3872	2.7274 2.5703	2.5158	Ave		2.5498			0.8000	4.5		20.0			
2,4-Toluene diamine	0.2479	0.3182 +++++	0.3639 +++++	0.3710 +++++	0.2775	Ave		0.3157				17.0		20.0			
Aniline	3.1668	3.0796 3.2136	3.2924 3.0866	3.3281 3.2972	3.1780	Ave		3.2053				3.0		20.0			
Bis(2-chloroethyl)ether	1.9611	2.1103 1.9685	2.1525 1.8520	2.0941 2.0824	1.9783	Ave		2.0249			0.7000	5.0		20.0			
2-Chlorophenol	1.4297	1.4116 1.4101	1.5310 1.3473	1.5274 1.4554	1.4397	Ave		1.4440			0.8000	4.3		20.0			
1,3-Dichlorobenzene	1.3848	1.4468 1.3638	1.4858 1.2996	1.4606 1.4063	1.4182	Ave		1.4082				4.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7248

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2011 15:06 Calibration End Date: 07/05/2011 17:59 Calibration ID: 2120

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dichlorobenzene	1.4269	1.5004 1.4190	1.5636 1.3571	1.5241 1.4727	1.4475	Ave		1.4639				4.5		20.0			
Benzyl alcohol	1.1320	1.0935 1.1523	1.2034 1.1257	1.2041 1.1839	1.1477	Ave		1.1553				3.4		20.0			
1,2-Dichlorobenzene	1.3013	1.3342 1.2886	1.3777 1.2352	1.3899 1.3511	1.3208	Ave		1.3249				3.8		20.0			
2-Methylphenol	1.5965	1.6634 1.6147	1.6668 1.5013	1.6960 1.7028	1.6127	Ave		1.6318			0.7000	4.0		20.0			
2,2'-oxybis[1-chloropropane]	1.7793	1.8963 1.8060	1.9098 1.7055	1.9252 1.8372	1.8320	Ave		1.8364				4.0		20.0			
Benzoic acid	0.3022	+++++ 0.3108	0.1298 0.3081	0.1905 0.3380	0.2495	Qua	-0.329	0.2821	0.0012						0.9980		0.9900
3 & 4 Methylphenol	1.7079	1.6622 1.7036	1.8128 1.6165	1.8079 1.7336	1.7255	Ave		1.7212				3.9		20.0			
N-Nitrosodi-n-propylamine	1.7190	1.7848 1.7360	1.8355 1.6400	1.8904 1.7628	1.7816	Ave		1.7687			0.5000	4.3		20.0			
Acetophenone	2.3942	2.4262 2.3666	2.5234 2.2686	2.4911 2.4659	2.4062	Ave		2.4178			0.0100	3.3		20.0			
Hexachloroethane	0.6505	0.6594 0.6410	0.6998 0.6248	0.6839 0.6722	0.6602	Ave		0.6615			0.3000	3.6		20.0			
Nitrobenzene	0.6409	0.6701 0.6485	0.6877 0.6474	0.6909 0.6796	0.6563	Ave		0.6652			0.2000	2.9		20.0			
Isophorone	1.1452	1.1616 1.1502	1.2144 1.1653	1.2259 1.2189	1.1593	Ave		1.1801			0.4000	2.8		20.0			
2-Nitrophenol	0.1959	0.1672 0.1928	0.1986 0.1923	0.2050 0.1997	0.1983	Ave		0.1937			0.1000	5.9		20.0			
2,4-Dimethylphenol	0.4730	0.4789 0.4712	0.5001 0.4702	0.5168 0.4951	0.4829	Ave		0.4860			0.2000	3.4		20.0			
1,3,5-Trichlorobenzene	0.2840	0.3168 0.2849	0.3030 0.2913	0.3104 0.3086	0.2909	Ave		0.2987				4.2		20.0			
Bis(2-chloroethoxy)methane	0.5699	0.6011 0.5747	0.6158 0.5807	0.6233 0.5923	0.5942	Ave		0.5940			0.3000	3.2		20.0			
2,4-Dichlorophenol	0.2764	0.2516 0.2709	0.2686 0.2714	0.2897 0.2773	0.2777	Ave		0.2730			0.2000	4.0		20.0			
1,2,4-Trichlorobenzene	0.2904	0.3235 0.2860	0.3007 0.2899	0.3140 0.3015	0.2917	Ave		0.2997				4.4		20.0			
Naphthalene	1.3854 1.0858	1.1352 1.0882	1.1433 1.0868	1.1690 1.1357	1.1061	Ave		1.1484			0.7000	8.2		20.0			
4-Chloroaniline	0.4640	0.4340 0.4659	0.4938 0.4612	0.4968 0.4865	0.4891	Ave		0.4739			0.0100	4.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7248

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2011 15:06 Calibration End Date: 07/05/2011 17:59 Calibration ID: 2120

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 / LVL 6	LVL 2 / LVL 7	LVL 3 / LVL 8	LVL 4 / LVL 9	LVL 5		B	M1	M2								
Hexachlorobutadiene		0.1778	0.1684	0.1742	0.1668	Ave		0.1715			0.0100	3.1		20.0			
	0.1685	0.1649	0.1716	0.1796													
1,2,3-Trichlorobenzene		0.2692	0.2721	0.2935	0.2725	Ave		0.2748				3.1		20.0			
	0.2690	0.2704	0.2705	0.2811													
1,1'-Biphenyl	+++++	1.5715	1.5657	1.5995	1.4510	Ave		1.5298			0.0100	4.8		20.0			
	1.4426	1.4684	1.5052	1.6347													
2-Chloronaphthalene	+++++	1.1493	1.1092	1.1496	1.0562	Ave		1.0991			0.8000	3.4		20.0			
	1.0679	1.0636	1.0834	1.1139													
Caprolactam		0.1061	0.1436	0.1516	0.1519	Ave		0.1443			0.0100	11.0		20.0			
	0.1483	0.1518	0.1498	0.1509													
4-Chloro-3-methylphenol		0.3613	0.4198	0.4406	0.4213	Ave		0.4139			0.2000	5.7		20.0			
	0.4113	0.4103	0.4162	0.4303													
2-Methylnaphthalene	0.6500	0.5801	0.5698	0.6032	0.5670	Ave		0.5829			0.4000	4.9		20.0			
	0.5668	0.5614	0.5645	0.5830													
2,4-Dinitrophenol		+++++	0.1388	0.1955	0.2195	Ave		0.2226			0.0100	19.0		20.0			
	0.2444	0.2456	0.2502	0.2644													
4-Nitrophenol		+++++	0.2595	0.2873	0.3063	Ave		0.2974				6.2		20.0			
	0.3071	0.3080	0.3045	0.3091													
1-Methylnaphthalene	0.7794	0.6652	0.6729	0.6883	0.6500	Ave		0.6716				6.5		20.0			
	0.6403	0.6424	0.6382	0.6677													
1,2,3,5-Tetrachlorobenzene		0.5010	0.5110	0.5415	0.4751	Ave		0.5098				5.4		20.0			
	0.4891	0.4917	0.5113	0.5572													
Hexachlorocyclopentadiene		0.2904	0.3301	0.3497	0.3484	Ave		0.3542			0.0500	10.0		20.0			
	0.3551	0.3648	0.3795	0.4152													
2,4,6-Trichlorophenol		0.3149	0.3429	0.3694	0.3642	Ave		0.3522			0.2000	4.9		20.0			
	0.3508	0.3545	0.3564	0.3640													
2,4,5-Trichlorophenol		0.3541	0.3983	0.3972	0.3730	Ave		0.3844			0.2000	4.4		20.0			
	0.3927	0.3728	0.3834	0.4038													
Dibenzofuran	+++++	1.6632	1.6957	1.7819	1.6071	Ave		1.6751			0.8000	3.7		20.0			
	1.6119	1.6408	1.6544	1.7461													
1,2,3,4 -Tetrachlorobenzene		0.4898	0.4678	0.4938	0.4632	Ave		0.4816				4.6		20.0			
	0.4568	0.4691	0.4867	0.5256													
4,6-Dinitro-2-methylphenol		+++++	0.1099	0.1327	0.1417	Ave		0.1432			0.0100	12.0		20.0			
	0.1508	0.1497	0.1550	0.1626													
2-Nitroaniline		0.5537	0.6177	0.6311	0.5983	Ave		0.6044			0.0100	3.9		20.0			
	0.5956	0.6126	0.6072	0.6188													
Dimethyl phthalate		1.2752	1.3110	1.3352	1.2564	Ave		1.2984			0.0100	2.5		20.0			
	1.2741	1.2954	1.2869	1.3533													
2,6-Dinitrotoluene		0.2433	0.2663	0.2941	0.2797	Ave		0.2813				6.6		20.0			
	0.2901	0.2883	0.2881	0.3006													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7248

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2011 15:06 Calibration End Date: 07/05/2011 17:59 Calibration ID: 2120

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,2-Dinitrobenzene		0.1363	0.1498	0.1579	0.1496	Ave		0.1534				5.4		20.0			
	0.1540	0.1573	0.1596	0.1624													
Acenaphthylene	2.2517	1.9247	1.9327	2.0113	1.8816	Ave		1.9748			0.9000	5.8		20.0			
	1.9007	1.9142	1.9320	2.0240													
3-Nitroaniline		0.3314	0.3499	0.3661	0.3538	Ave		0.3555			0.0100	3.2		20.0			
	0.3554	0.3611	0.3585	0.3679													
Acenaphthene	1.4414	1.1856	1.2333	1.2455	1.1430	Ave		1.2121			0.9000	7.9		20.0			
	1.1331	1.1359	1.1660	1.2247													
2,4-Dinitrotoluene		0.3456	0.3784	0.4067	0.3874	Ave		0.3880			0.2000	5.2		20.0			
	0.3844	0.3961	0.3963	0.4094													
2,3,5,6-Tetrachlorophenol		0.2740	0.2777	0.3113	0.3118	Ave		0.3068				6.7		20.0			
	0.3118	0.3161	0.3180	0.3338													
Diethyl phthalate		1.3266	1.3868	1.4720	1.3758	Ave		1.4103			0.0100	3.6		20.0			
	1.3969	1.4209	1.4195	1.4835													
4-Chlorophenyl phenyl ether		0.6323	0.6269	0.6381	0.6139	Ave		0.6265			0.4000	2.7		20.0			
	0.6079	0.6135	0.6195	0.6597													
4-Nitroaniline		0.3493	0.4036	0.4093	0.3682	Ave		0.3812			0.0100	5.2		20.0			
	0.3726	0.3786	0.3755	0.3927													
Fluorene	1.4484	1.3005	1.3156	1.2931	1.2328	Ave		1.2964			0.9000	5.3		20.0			
	1.2213	1.2526	1.2679	1.3357													
N-Nitrosodiphenylamine		0.5966	0.6233	0.5913	0.5681	Ave		0.5930			0.0100	3.4		20.0			
	0.5742	0.5814	0.5882	0.6205													
1,2-Diphenylhydrazine(as Azobenzene)		1.4976	1.5336	1.5657	1.4616	Ave		1.4950				3.0		20.0			
	1.4969	1.5024	1.4773	1.4179													
Azobenzene		1.4976	1.5414	1.5621	1.4619	Ave		1.4950				3.0		20.0			
	1.4969	1.5039	1.4784	1.4179													
4-Bromophenyl phenyl ether		0.1741	0.1899	0.1979	0.1885	Ave		0.1922			0.1000	4.8		20.0			
	0.1944	0.1944	0.1917	0.2066													
Hexachlorobenzene	0.2370	0.1924	0.1888	0.1991	0.1787	Ave		0.1949			0.1000	8.9		20.0			
	0.1858	0.1842	0.1857	0.2025													
Atrazine		0.1812	0.2087	0.2119	0.2020	Ave		0.1969			0.0100	5.3		20.0			
	0.1997	0.1916	0.1876	0.1927													
Pentachlorophenol		0.0852	0.1135	0.1276	0.1418	Ave		0.1339			0.0500	18.0		20.0			
	0.1472	0.1459	0.1502	0.1597													
Phenanthrene	1.3541	1.1646	1.1284	1.1176	1.0495	Ave		1.1316			0.7000	8.2		20.0			
	1.0614	1.0765	1.0841	1.1484													
Anthracene	1.1893	1.1020	1.1304	1.1072	1.0686	Ave		1.1176			0.7000	3.4		20.0			
	1.0903	1.0948	1.1138	1.1621													
Carbazole		1.0629	1.1385	1.1211	1.0679	Ave		1.1004			0.0100	3.0		20.0			
	1.0814	1.0872	1.0923	1.1523													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7248

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2011 15:06 Calibration End Date: 07/05/2011 17:59 Calibration ID: 2120

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Di-n-butyl phthalate		1.3316	1.3726	1.4098	1.3885	Ave		1.3901			0.0100	2.1		20.0			
	1.3940	1.4179	1.4219	1.3845													
3,3'-Dimethoxybenzidine		+++++	0.2694	0.2953	0.2979	Ave		0.2790				4.9		20.0			
	0.2713	0.2642	0.2698	0.2851													
Fluoranthene	1.3295	1.1192	1.1681	1.1885	1.1264	Ave		1.1869			0.6000	5.4		20.0			
	1.1609	1.1606	1.1943	1.2346													
Benzidine		0.5467	0.6460	0.7179	0.6924	Ave		0.6841				9.0		20.0			
	0.7146	0.7016	0.7166	0.7369													
Pyrene	1.4711	1.2555	1.2590	1.2508	1.2133	Ave		1.2783			0.6000	6.1		20.0			
	1.2394	1.2448	1.2474	1.3229													
Butyl benzyl phthalate		0.5472	0.5853	0.7099	0.6201	Ave		0.6131			0.0100	7.5		20.0			
	0.6092	0.6062	0.6032	0.6236													
Bis(2-ethylhexyl) phthalate		0.7530	0.8284	0.8650	0.8546	Ave		0.8393			0.0100	4.6		20.0			
	0.8445	0.8441	0.8407	0.8840													
4,4'-Methylene bis(2-chloroaniline)		0.1993	0.2111	0.2317	0.2181	Ave		0.2243				7.0		20.0			
	0.2234	0.2259	0.2334	0.2518													
3,3'-Dichlorobenzidine		0.3808	0.4209	0.4428	0.4180	Ave		0.4296			0.0100	6.3		20.0			
	0.4219	0.4322	0.4457	0.4747													
Benzo[a]anthracene	1.5048	1.1362	1.1887	1.2102	1.1357	Ave		1.2285			0.8000	9.4		20.0			
	1.1952	1.2057	1.1746	1.3058													
Chrysene	1.3639	1.1439	1.1195	1.1282	1.1002	Ave		1.1543			0.7000	7.5		20.0			
	1.0852	1.0886	1.1696	1.1894													
Di-n-octyl phthalate		1.2680	1.5125	1.6417	1.6591	Ave		1.6249			0.0100	10.0		20.0			
	1.6733	1.7151	1.7190	1.8106													
Benzo[b]fluoranthene	1.1758	1.1336	1.3757	1.3609	1.3870	Ave		1.3477			0.7000	9.2		20.0			
	1.3671	1.3925	1.3859	1.5507													
Benzo[k]fluoranthene	1.6463	1.2668	1.3033	1.3488	1.2000	Ave		1.3174			0.7000	9.8		20.0			
	1.2625	1.2771	1.2811	1.2704													
Benzo[a]pyrene	1.1888	1.0885	1.1422	1.2042	1.1509	Ave		1.1784			0.7000	3.9		20.0			
	1.1860	1.1998	1.1956	1.2493													
Indeno[1,2,3-cd]pyrene	1.1831	1.1827	1.1914	1.2873	1.2740	Ave		1.2589			0.5000	4.8		20.0			
	1.2670	1.3005	1.2858	1.3579													
Dibenzo(a,h)anthracene	1.0061	0.8990	1.0032	1.0638	1.0242	Ave		1.0359			0.4000	6.2		20.0			
	1.0494	1.0805	1.0734	1.1237													
Benzo[g,h,i]perylene	1.0249	0.9471	1.0131	1.0924	1.0498	Ave		1.0420			0.5000	4.3		20.0			
	1.0477	1.0618	1.0468	1.0945													
2-Fluorophenol (Surr)		1.5117	1.6823	1.6534	1.5908	Ave		1.5730				4.6		20.0			
	1.5576	1.5085	1.4793	1.6004													
Phenol-d5 (Surr)		2.1877	2.3405	2.3967	2.2194	Ave		2.2298				4.4		20.0			
	2.1876	2.1901	2.0839	2.2324													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7248

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2011 15:06 Calibration End Date: 07/05/2011 17:59 Calibration ID: 2120

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Nitrobenzene-d5 (Surr)	0.7415 0.6513	0.6096 0.5938	0.6882 0.5970	0.7082 0.6228	0.6579	Ave		0.6523				8.0		20.0			
2-Fluorobiphenyl (Surr)	1.6149 1.2767	1.3545 1.2912	1.3455 1.3009	1.3654 1.3683	1.2812	Ave		1.3554				7.7		20.0			
2,4,6-Tribromophenol (Surr)	0.1463	0.1296 0.1564	0.1379 0.1563	0.1507 0.1625	0.1402	Ave		0.1475				7.5		20.0			
Terphenyl-d14 (Surr)	0.8206 0.7264	0.7177 0.7320	0.7158 0.7424	0.7373 0.8058	0.7198	Ave		0.7464				5.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7248

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2011 15:06 Calibration End Date: 07/05/2011 17:59 Calibration ID: 2120

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-7248/6	9SLL0705.D
Level 2	STD2 240-7248/5	9SL0705.D
Level 3	STD3 240-7248/4	9SML0705.D
Level 4	STD4 240-7248/3	9SM0705.D
Level 5	STD5 240-7248/2	9SMM0705.D
Level 6	STD6 240-7248/10	9SMH0705.D
Level 7	STD7 240-7248/9	9SH0705.D
Level 8	STD8 240-7248/8	9SHH0705.D
Level 9	STD9 240-7248/7	9HHH0705.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave		17931	45375	88566	188575		0.500	1.00	2.00	5.00
			387259	589049	841609	1105314		10.0	15.0	20.0	25.0	
N-Nitrosodimethylamine	DCB	Ave		32490	83727	158861	343917		0.500	1.00	2.00	5.00
			735030	1126153	1632345	2087609		10.0	15.0	20.0	25.0	
Pyridine	DCB	Ave		44880	125215	247023	537696		0.500	1.00	2.00	5.00
			1143994	1802823	2541326	3356421		10.0	15.0	20.0	25.0	
Ethyl methacrylate	DCB	Ave		46508	117839	231427	492880		0.500	1.00	2.00	5.00
			1019470	1552327	2276214	2993049		10.0	15.0	20.0	25.0	
3-Chloropropionitrile	DCB	Ave		17978	47922	92924	200812		0.500	1.00	2.00	5.00
			420368	648948	932423	1259432		10.0	15.0	20.0	25.0	
Malononitrile	DCB	Ave		54966	141293	269497	584950		0.500	1.00	2.00	5.00
			1253146	1899055	2653728	3353710		10.0	15.0	20.0	25.0	
Benzaldehyde	DCB	Ave		42419	105253	198116	422699		0.500	1.00	2.00	5.00
			765785	896269	+++++	+++++		10.0	15.0	+++++	+++++	
Phenol	DCB	Ave		50364	136158	265181	569072		0.500	1.00	2.00	5.00
			1198223	1878004	2672738	3508359		10.0	15.0	20.0	25.0	
2,4-Toluene diamine	NPT	Ave		24283	70820	137367	242740		0.500	1.00	2.00	5.00
			456839	+++++	+++++	+++++		10.0	+++++	+++++	+++++	
Aniline	DCB	Ave		62840	165967	323583	718859		0.500	1.00	2.00	5.00
			1504338	2408205	3455800	4500594		10.0	15.0	20.0	25.0	
Bis(2-chloroethyl)ether	DCB	Ave		43061	108507	203608	447481		0.500	1.00	2.00	5.00
			931574	1475160	2073473	2842425		10.0	15.0	20.0	25.0	
2-Chlorophenol	DCB	Ave		28805	77179	148506	325659		0.500	1.00	2.00	5.00
			679166	1056722	1508425	1986601		10.0	15.0	20.0	25.0	
1,3-Dichlorobenzene	DCB	Ave		29522	74897	142015	320785		0.500	1.00	2.00	5.00
			657849	1022028	1454988	1919594		10.0	15.0	20.0	25.0	
1,4-Dichlorobenzene	DCB	Ave		30616	78818	148181	327408		0.500	1.00	2.00	5.00
			677831	1063386	1519459	2010193		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7248

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2011 15:06 Calibration End Date: 07/05/2011 17:59 Calibration ID: 2120

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Benzyl alcohol	DCB	Ave		22314	60663	117069	259608		0.500	1.00	2.00	5.00
			537739	863521	1260301	1616039		10.0	15.0	20.0	25.0	
1,2-Dichlorobenzene	DCB	Ave		27226	69450	135136	298751		0.500	1.00	2.00	5.00
			618180	965670	1382967	1844236		10.0	15.0	20.0	25.0	
2-Methylphenol	DCB	Ave		33943	84020	164900	364789		0.500	1.00	2.00	5.00
			758404	1210052	1680810	2324229		10.0	15.0	20.0	25.0	
2,2'-oxybis[1-chloropropane]	DCB	Ave		38694	96274	187185	414400		0.500	1.00	2.00	5.00
			845228	1353405	1909479	2507771		10.0	15.0	20.0	25.0	
Benzoic acid	NPT	Qua		+++++	50519	141084	436595		+++++	2.00	4.00	10.0
			1113953	1841814	2614071	3641755		20.0	30.0	40.0	50.0	
3 & 4 Methylphenol	DCB	Ave		33918	91382	175775	390291		0.500	1.00	2.00	5.00
			811305	1276652	1809809	2366250		10.0	15.0	20.0	25.0	
N-Nitrosodi-n-propylamine	DCB	Ave		36419	92525	183797	402985		0.500	1.00	2.00	5.00
			816567	1300940	1836159	2406089		10.0	15.0	20.0	25.0	
Acetophenone	DCB	Ave		49507	127202	242207	544267		0.500	1.00	2.00	5.00
			1137324	1773493	2539902	3365829		10.0	15.0	20.0	25.0	
Hexachloroethane	DCB	Ave		13456	35275	66495	149345		0.500	1.00	2.00	5.00
			309026	480314	699535	917475		10.0	15.0	20.0	25.0	
Nitrobenzene	NPT	Ave		51144	133827	255812	574130		0.500	1.00	2.00	5.00
			1181319	1921202	2746267	3660998		10.0	15.0	20.0	25.0	
Isophorone	NPT	Ave		88662	236337	453944	1014178		0.500	1.00	2.00	5.00
			2110674	3407622	4943648	6566324		10.0	15.0	20.0	25.0	
2-Nitrophenol	NPT	Ave		12763	38649	75895	173457		0.500	1.00	2.00	5.00
			361082	571217	815877	1075868		10.0	15.0	20.0	25.0	
2,4-Dimethylphenol	NPT	Ave		36551	97325	191364	422472		0.500	1.00	2.00	5.00
			871758	1395952	1994843	2667241		10.0	15.0	20.0	25.0	
1,3,5-Trichlorobenzene	NPT	Ave		24177	58962	114948	254496		0.500	1.00	2.00	5.00
			523476	844075	1235827	1662176		10.0	15.0	20.0	25.0	
Bis(2-chloroethoxy)methane	NPT	Ave		45882	119830	230799	519801		0.500	1.00	2.00	5.00
			1050385	1702434	2463651	3190671		10.0	15.0	20.0	25.0	
2,4-Dichlorophenol	NPT	Ave		19204	52275	107287	242961		0.500	1.00	2.00	5.00
			509488	802477	1151428	1493840		10.0	15.0	20.0	25.0	
1,2,4-Trichlorobenzene	NPT	Ave		24694	58515	116256	255141		0.500	1.00	2.00	5.00
			535273	847195	1229738	1623939		10.0	15.0	20.0	25.0	
Naphthalene	NPT	Ave	25829	86646	222496	432861	967653	0.100	0.500	1.00	2.00	5.00
			2001290	3223720	4610373	6118313		10.0	15.0	20.0	25.0	
4-Chloroaniline	NPT	Ave		33125	96104	183943	427834		0.500	1.00	2.00	5.00
			855242	1380294	1956497	2621069		10.0	15.0	20.0	25.0	
Hexachlorobutadiene	NPT	Ave		13569	32768	64508	145914		0.500	1.00	2.00	5.00
			310487	488553	728074	967425		10.0	15.0	20.0	25.0	
1,2,3-Trichlorobenzene	NPT	Ave		20547	52961	108687	238345		0.500	1.00	2.00	5.00
			495805	800980	1147548	1514104		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7248

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2011 15:06 Calibration End Date: 07/05/2011 17:59 Calibration ID: 2120

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,1'-Biphenyl	ANT	Ave	+++++	66293	169795	328530	716238	+++++	0.500	1.00	2.00	5.00
			1485018	2436771	3575860	4949938		10.0	15.0	20.0	25.0	
2-Chloronaphthalene	ANT	Ave	+++++	48481	120285	236124	521376	+++++	0.500	1.00	2.00	5.00
			1099260	1765007	2573788	3373172		10.0	15.0	20.0	25.0	
Caprolactam	NPT	Ave		8101	27944	56147	132909		0.500	1.00	2.00	5.00
			273244	449691	635579	812675		10.0	15.0	20.0	25.0	
4-Chloro-3-methylphenol	NPT	Ave		27579	81700	163146	368556		0.500	1.00	2.00	5.00
			758118	1215652	1765593	2317941		10.0	15.0	20.0	25.0	
2-Methylnaphthalene	NPT	Ave	12118	44273	110880	223342	496011	0.100	0.500	1.00	2.00	5.00
			1044686	1663288	2394578	3140743		10.0	15.0	20.0	25.0	
2,4-Dinitrophenol	ANT	Ave		+++++	30104	80310	216695		+++++	2.00	4.00	10.0
			503160	815060	1188957	1601276		20.0	30.0	40.0	50.0	
4-Nitrophenol	ANT	Ave		+++++	28140	59009	151188		+++++	1.00	2.00	5.00
			316134	511077	723518	935925		10.0	15.0	20.0	25.0	
1-Methylnaphthalene	NPT	Ave	14531	50773	130947	254860	568621	0.100	0.500	1.00	2.00	5.00
			1180085	1902997	2707343	3597054		10.0	15.0	20.0	25.0	
1,2,3,5-Tetrachlorobenzene	ANT	Ave		21134	55419	111214	234514		0.500	1.00	2.00	5.00
			503472	816015	1214807	1687383		10.0	15.0	20.0	25.0	
Hexachlorocyclopentadiene	ANT	Ave		12252	35802	71827	171975		0.500	1.00	2.00	5.00
			365554	605446	901543	1257255		10.0	15.0	20.0	25.0	
2,4,6-Trichlorophenol	ANT	Ave		13285	37186	75876	179769		0.500	1.00	2.00	5.00
			361114	588359	846822	1102315		10.0	15.0	20.0	25.0	
2,4,5-Trichlorophenol	ANT	Ave		14937	43194	81587	184110		0.500	1.00	2.00	5.00
			404204	618607	910896	1222888		10.0	15.0	20.0	25.0	
Dibenzofuran	ANT	Ave	+++++	70161	183882	365977	793309	+++++	0.500	1.00	2.00	5.00
			1659308	2723020	3930446	5287305		10.0	15.0	20.0	25.0	
1,2,3,4 -Tetrachlorobenzene	ANT	Ave		20663	50729	101426	228663		0.500	1.00	2.00	5.00
			470181	778477	1156375	1591508		10.0	15.0	20.0	25.0	
4,6-Dinitro-2-methylphenol	PHN	Ave		+++++	19877	46772	119546		+++++	1.00	2.00	5.00
			262548	431967	638898	848060		10.0	15.0	20.0	25.0	
2-Nitroaniline	ANT	Ave		23355	66982	129619	295344		0.500	1.00	2.00	5.00
			613049	1016682	1442525	1873930		10.0	15.0	20.0	25.0	
Dimethyl phthalate	ANT	Ave		53792	142164	274233	620153		0.500	1.00	2.00	5.00
			1311528	2149722	3057331	4097885		10.0	15.0	20.0	25.0	
2,6-Dinitrotoluene	ANT	Ave		10264	28878	60410	138048		0.500	1.00	2.00	5.00
			298652	478465	684335	910306		10.0	15.0	20.0	25.0	
1,2-Dinitrobenzene	ANT	Ave		5749	16240	32427	73829		0.500	1.00	2.00	5.00
			158497	261037	379276	491896		10.0	15.0	20.0	25.0	
Acenaphthylene	ANT	Ave	22809	81190	209584	413101	928795	0.100	0.500	1.00	2.00	5.00
			1956570	3176697	4589812	6128874		10.0	15.0	20.0	25.0	
3-Nitroaniline	ANT	Ave		13980	37941	75203	174657		0.500	1.00	2.00	5.00
			365893	599277	851760	1114172		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7248

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2011 15:06 Calibration End Date: 07/05/2011 17:59 Calibration ID: 2120

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Acenaphthene	ANT	Ave	14601	50012	133743	255818	564205	0.100	0.500	1.00	2.00	5.00
			1166428	1885018	2770190	3708567		10.0	15.0	20.0	25.0	
2,4-Dinitrotoluene	ANT	Ave		14579	41032	83530	191210		0.500	1.00	2.00	5.00
			395700	657341	941482	1239573		10.0	15.0	20.0	25.0	
2,3,5,6-Tetrachlorophenol	ANT	Ave		11557	30119	63936	153900		0.500	1.00	2.00	5.00
			320981	524635	755439	1010756		10.0	15.0	20.0	25.0	
Diethyl phthalate	ANT	Ave		55962	150392	302332	679116		0.500	1.00	2.00	5.00
			1437927	2357995	3372391	4492175		10.0	15.0	20.0	25.0	
4-Chlorophenyl phenyl ether	ANT	Ave		26671	67985	131053	303026		0.500	1.00	2.00	5.00
			625743	1018132	1471768	1997721		10.0	15.0	20.0	25.0	
4-Nitroaniline	ANT	Ave		14736	43765	84060	181760		0.500	1.00	2.00	5.00
			383532	628369	892051	1189051		10.0	15.0	20.0	25.0	
Fluorene	ANT	Ave	14672	54860	142669	265582	608504	0.100	0.500	1.00	2.00	5.00
			1257207	2078685	3012292	4044767		10.0	15.0	20.0	25.0	
N-Nitrosodiphenylamine	PHN	Ave		41857	112726	208351	479232		0.500	1.00	2.00	5.00
			999800	1677947	2423836	3235746		10.0	15.0	20.0	25.0	
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave		105068	277356	551675	1233027		0.500	1.00	2.00	5.00
			2606255	4335921	6087741	7393666		10.0	15.0	20.0	25.0	
Azobenzene	PHN	Ave		105068	278770	550397	1233243		0.500	1.00	2.00	5.00
			2606274	4340197	6092289	7393666		10.0	15.0	20.0	25.0	
4-Bromophenyl phenyl ether	PHN	Ave		12214	34344	69743	158982		0.500	1.00	2.00	5.00
			338416	561132	789872	1077229		10.0	15.0	20.0	25.0	
Hexachlorobenzene	PHN	Ave	4118	13496	34151	70145	150769	0.100	0.500	1.00	2.00	5.00
			323442	531735	765338	1056113		10.0	15.0	20.0	25.0	
Atrazine	PHN	Ave		12714	37738	74667	170392		0.500	1.00	2.00	5.00
			347730	552901	773051	1004944		10.0	15.0	20.0	25.0	
Pentachlorophenol	PHN	Ave		11958	41042	89912	239327		1.00	2.00	4.00	10.0
			512422	842263	1238254	1665118		20.0	30.0	40.0	50.0	
Phenanthrene	PHN	Ave	23529	81707	204079	393769	885336	0.100	0.500	1.00	2.00	5.00
			1848013	3106780	4467286	5988279		10.0	15.0	20.0	25.0	
Anthracene	PHN	Ave	20665	77313	204438	390094	901494	0.100	0.500	1.00	2.00	5.00
			1898436	3159526	4590024	6060012		10.0	15.0	20.0	25.0	
Carbazole	PHN	Ave		74571	205901	395020	900874		0.500	1.00	2.00	5.00
			1882802	3137619	4501036	6008649		10.0	15.0	20.0	25.0	
Di-n-butyl phthalate	PHN	Ave		93421	248233	496742	1171385		0.500	1.00	2.00	5.00
			2427196	4092082	5859555	7219467		10.0	15.0	20.0	25.0	
3,3'-Dimethoxybenzidine	CRY	Ave		+++++	49645	103803	248789		+++++	1.00	2.00	5.00
			472409	764769	1131160	1533362		10.0	15.0	20.0	25.0	
Fluoranthene	PHN	Ave	23102	78518	211248	418762	950196	0.100	0.500	1.00	2.00	5.00
			2021351	3349421	4921589	6437967		10.0	15.0	20.0	25.0	
Benzidine	CRY	Ave		38816	119071	252372	578167		0.500	1.00	2.00	5.00
			1244166	2031006	3004704	3962933		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7248

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2011 15:06 Calibration End Date: 07/05/2011 17:59 Calibration ID: 2120

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Pyrene	CRY	Ave	25333	89136	232058	439715	1013126	0.100	0.500	1.00	2.00	5.00
			2157856	3603649	5230289	7114532		10.0	15.0	20.0	25.0	
Butyl benzyl phthalate	CRY	Ave		38846	107883	249547	517766		0.500	1.00	2.00	5.00
			1060695	1754989	2529323	3353974		10.0	15.0	20.0	25.0	
Bis(2-ethylhexyl) phthalate	CRY	Ave		53460	152693	304086	713611		0.500	1.00	2.00	5.00
			1470375	2443767	3524984	4754359		10.0	15.0	20.0	25.0	
4,4'-Methylene bis(2-chloroaniline)	CRY	Ave		14150	38902	81450	182100		0.500	1.00	2.00	5.00
			388881	653903	978781	1354143		10.0	15.0	20.0	25.0	
3,3'-Dichlorobenzidine	CRY	Ave		27034	77574	155655	348997		0.500	1.00	2.00	5.00
			734542	1251220	1868933	2553157		10.0	15.0	20.0	25.0	
Benzo[a]anthracene	CRY	Ave	25912	80667	219085	425423	948310	0.100	0.500	1.00	2.00	5.00
			2080848	3490567	4924770	7022820		10.0	15.0	20.0	25.0	
Chrysene	CRY	Ave	23487	81215	206346	396615	918673	0.100	0.500	1.00	2.00	5.00
			1889343	3151546	4903972	6396758		10.0	15.0	20.0	25.0	
Di-n-octyl phthalate	PRY	Ave		75301	234873	488547	1186792		0.500	1.00	2.00	5.00
			2485878	4137394	6044917	8185711		10.0	15.0	20.0	25.0	
Benzo[b]fluoranthene	PRY	Ave	17329	67319	213624	404995	992130	0.100	0.500	1.00	2.00	5.00
			2030944	3359168	4873617	7010478		10.0	15.0	20.0	25.0	
Benzo[k]fluoranthene	PRY	Ave	24264	75233	202375	401382	858398	0.100	0.500	1.00	2.00	5.00
			1875587	3080708	4505017	5743233		10.0	15.0	20.0	25.0	
Benzo[a]pyrene	PRY	Ave	17522	64642	177366	358355	823245	0.100	0.500	1.00	2.00	5.00
			1762010	2894227	4204484	5647842		10.0	15.0	20.0	25.0	
Indeno[1,2,3-cd]pyrene	PRY	Ave	17437	70240	184998	383090	911315	0.100	0.500	1.00	2.00	5.00
			1882267	3137319	4521554	6139096		10.0	15.0	20.0	25.0	
Dibenzo(a,h)anthracene	PRY	Ave	14829	53389	155780	316575	732637	0.100	0.500	1.00	2.00	5.00
			1558965	2606441	3774628	5080279		10.0	15.0	20.0	25.0	
Benzo[g,h,i]perylene	PRY	Ave	15105	56247	157315	325080	750956	0.100	0.500	1.00	2.00	5.00
			1556512	2561465	3681276	4948231		10.0	15.0	20.0	25.0	
2-Fluorophenol (Surr)	DCB	Ave		30847	84804	160756	359821		0.500	1.00	2.00	5.00
			739910	1130471	1656195	2184428		10.0	15.0	20.0	25.0	
Phenol-d5 (Surr)	DCB	Ave		44641	117985	233025	502006		0.500	1.00	2.00	5.00
			1039175	1641205	2333103	3047205		10.0	15.0	20.0	25.0	
Nitrobenzene-d5 (Surr)	NPT	Ave	13825	46529	133920	262243	575492	0.100	0.500	1.00	2.00	5.00
			1200337	1759254	2532859	3354983		10.0	15.0	20.0	25.0	
2-Fluorobiphenyl (Surr)	ANT	Ave	16358	57139	145912	280449	632416	0.100	0.500	1.00	2.00	5.00
			1314204	2142828	3090519	4143423		10.0	15.0	20.0	25.0	
2,4,6-Tribromophenol (Surr)	ANT	Ave		5466	14955	30949	69182		0.500	1.00	2.00	5.00
			150573	259552	371313	492126		10.0	15.0	20.0	25.0	
Terphenyl-d14 (Surr)	CRY	Ave	14130	50954	131938	259195	601029	0.100	0.500	1.00	2.00	5.00
			1264596	2119236	3112707	4333883		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7248

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2011 15:06 Calibration End Date: 07/05/2011 17:59 Calibration ID: 2120

Curve Type Legend:
Ave = Average ISTD
Qua = Quadratic ISTD

Second Source

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-7248/11 Calibration Date: 07/05/2011 18:18

Instrument ID: A4HP9 Calib Start Date: 07/05/2011 15:06

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/05/2011 17:59

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8358	0.7921		9.48	10.0	-5.2	30.0
N-Nitrosodimethylamine	Ave	1.556	1.486		9.55	10.0	-4.5	30.0
Pyridine	Ave	2.393	2.317		9.68	10.0	-3.2	30.0
Ethyl methacrylate	Ave	2.202	2.109		9.58	10.0	-4.2	30.0
3-Chloropropionitrile	Ave	0.8977	0.8621		9.60	10.0	-4.0	30.0
Malononitrile	Ave	2.607	2.532		9.71	10.0	-2.9	30.0
Benzaldehyde	Ave	1.814	1.404	0.0100	7.74	10.0	-22.6	30.0
Phenol	Ave	2.550	2.417	0.8000	9.48	10.0	-5.2	30.0
Aniline	Ave	3.205	3.039		9.48	10.0	-5.2	30.0
Bis(2-chloroethyl)ether	Ave	2.025	1.852	0.7000	9.14	10.0	-8.6	30.0
2-Chlorophenol	Ave	1.444	1.370	0.8000	9.49	10.0	-5.1	30.0
1,3-Dichlorobenzene	Ave	1.408	1.329		9.43	10.0	-5.7	30.0
1,4-Dichlorobenzene	Ave	1.464	1.361		9.30	10.0	-7.0	30.0
Benzyl alcohol	Ave	1.155	1.089		9.42	10.0	-5.8	30.0
1,2-Dichlorobenzene	Ave	1.325	1.264		9.54	10.0	-4.6	30.0
2-Methylphenol	Ave	1.632	1.546	0.7000	9.47	10.0	-5.3	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.836	1.720		9.37	10.0	-6.3	30.0
3 & 4 Methylphenol	Ave	1.721	1.608		9.34	10.0	-6.6	30.0
N-Nitrosodi-n-propylamine	Ave	1.769	1.649	0.5000	9.32	10.0	-6.8	30.0
Acetophenone	Ave	2.418	2.310	0.0100	9.55	10.0	-4.5	30.0
Hexachloroethane	Ave	0.6615	0.6307	0.3000	9.53	10.0	-4.7	30.0
Nitrobenzene	Ave	0.6652	0.6379	0.2000	9.59	10.0	-4.1	30.0
Isophorone	Ave	1.180	1.130	0.4000	9.58	10.0	-4.2	30.0
2-Nitrophenol	Ave	0.1937	0.1921	0.1000	9.91	10.0	-0.9	30.0
1,3,5-Trichlorobenzene	Ave	0.2987	0.2828		9.47	10.0	-5.3	30.0
2,4-Dimethylphenol	Ave	0.4860	0.4649	0.2000	9.56	10.0	-4.4	30.0
Bis(2-chloroethoxy)methane	Ave	0.5940	0.5646	0.3000	9.51	10.0	-4.9	30.0
Benzoic acid	Qua		0.3034		20.9	20.0	4.5	30.0
2,4-Dichlorophenol	Ave	0.2730	0.2623	0.2000	9.61	10.0	-3.9	30.0
1,2,4-Trichlorobenzene	Ave	0.2997	0.2828		9.44	10.0	-5.6	30.0
Naphthalene	Ave	1.148	1.066	0.7000	9.28	10.0	-7.2	30.0
4-Chloroaniline	Ave	0.4739	0.4495	0.0100	9.49	10.0	-5.1	30.0
Hexachlorobutadiene	Ave	0.1715	0.1630	0.0100	9.50	10.0	-5.0	30.0
1,2,3-Trichlorobenzene	Ave	0.2748	0.2656		9.67	10.0	-3.3	30.0
Caprolactam	Ave	0.1443	0.1489	0.0100	10.3	10.0	3.2	30.0
4-Chloro-3-methylphenol	Ave	0.4139	0.4065	0.2000	9.82	10.0	-1.8	30.0
2-Methylnaphthalene	Ave	0.5829	0.5484	0.4000	9.41	10.0	-5.9	30.0
1-Methylnaphthalene	Ave	0.6716	0.6224		9.27	10.0	-7.3	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5098	0.4779		9.37	10.0	-6.3	30.0
Hexachlorocyclopentadiene	Ave	0.3542	0.3466	0.0500	9.78	10.0	-2.2	30.0
2,4,6-Trichlorophenol	Ave	0.3522	0.3451	0.2000	9.80	10.0	-2.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-7248/11 Calibration Date: 07/05/2011 18:18

Instrument ID: A4HP9 Calib Start Date: 07/05/2011 15:06

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/05/2011 17:59

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3844	0.3640	0.2000	9.47	10.0	-5.3	30.0
2,4-Toluene diamine	Ave	0.3157	0.1730		5.48	10.0	-45.2*	30.0
1,1'-Biphenyl	Ave	1.530	1.427	0.0100	9.33	10.0	-6.7	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4816	0.4547		9.44	10.0	-5.6	30.0
2-Chloronaphthalene	Ave	1.099	1.035	0.8000	9.41	10.0	-5.9	30.0
2-Nitroaniline	Ave	0.6044	0.5952	0.0100	9.85	10.0	-1.5	30.0
Dimethyl phthalate	Ave	1.298	1.264	0.0100	9.73	10.0	-2.7	30.0
2,6-Dinitrotoluene	Ave	0.2813	0.2846		10.1	10.0	1.2	30.0
1,2-Dinitrobenzene	Ave	0.1534	0.1524		9.93	10.0	-0.7	30.0
Acenaphthylene	Ave	1.975	1.879	0.9000	9.52	10.0	-4.8	30.0
3-Nitroaniline	Ave	0.3555	0.3485	0.0100	9.80	10.0	-2.0	30.0
Acenaphthene	Ave	1.212	1.114	0.9000	9.19	10.0	-8.1	30.0
2,4-Dinitrophenol	Ave	0.2226	0.2361	0.0100	21.2	20.0	6.1	30.0
4-Nitrophenol	Ave	0.2974	0.2581		8.68	10.0	-13.2	30.0
2,4-Dinitrotoluene	Ave	0.3880	0.3842	0.2000	9.90	10.0	-1.0	30.0
Dibenzofuran	Ave	1.675	1.625	0.8000	9.70	10.0	-3.0	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3068	0.3090		10.1	10.0	0.7	30.0
Diethyl phthalate	Ave	1.410	1.388	0.0100	9.84	10.0	-1.6	30.0
4-Chlorophenyl phenyl ether	Ave	0.6265	0.6045	0.4000	9.65	10.0	-3.5	30.0
4-Nitroaniline	Ave	0.3812	0.3662	0.0100	9.60	10.0	-4.0	30.0
Fluorene	Ave	1.296	1.208	0.9000	9.31	10.0	-6.9	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1432	0.1455	0.0100	10.2	10.0	1.6	30.0
N-Nitrosodiphenylamine	Ave	0.5930	0.5795	0.0100	9.77	10.0	-2.3	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.495	1.483		9.92	10.0	-0.8	30.0
Azobenzene	Ave	1.495	1.484		9.93	10.0	-0.7	30.0
4-Bromophenyl phenyl ether	Ave	0.1922	0.1903	0.1000	9.90	10.0	-1.0	30.0
Hexachlorobenzene	Ave	0.1949	0.1827	0.1000	9.37	10.0	-6.3	30.0
Atrazine	Ave	0.1969	0.1951	0.0100	9.91	10.0	-0.9	30.0
Pentachlorophenol	Ave	0.1339	0.1398	0.0500	20.9	20.0	4.4	30.0
Phenanthrene	Ave	1.132	1.054	0.7000	9.31	10.0	-6.9	30.0
Anthracene	Ave	1.118	1.071	0.7000	9.58	10.0	-4.2	30.0
Carbazole	Ave	1.100	1.070	0.0100	9.73	10.0	-2.7	30.0
Di-n-butyl phthalate	Ave	1.390	1.384	0.0100	9.95	10.0	-0.5	30.0
Fluoranthene	Ave	1.187	1.155	0.6000	9.73	10.0	-2.7	30.0
Benzidine	Ave	0.6841	0.6808		9.95	10.0	-0.5	30.0
Pyrene	Ave	1.278	1.224	0.6000	9.58	10.0	-4.2	30.0
Butyl benzyl phthalate	Ave	0.6131	0.6100	0.0100	9.95	10.0	-0.5	30.0
3,3'-Dimethoxybenzidine	Ave	0.2790	0.2822		10.1	10.0	1.1	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8393	0.8266	0.0100	9.85	10.0	-1.5	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2243	0.2207		9.84	10.0	-1.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-7248/11 Calibration Date: 07/05/2011 18:18

Instrument ID: A4HP9 Calib Start Date: 07/05/2011 15:06

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/05/2011 17:59

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4296	0.4232	0.0100	9.85	10.0	-1.5	30.0
Benzo[a]anthracene	Ave	1.229	1.178	0.8000	9.59	10.0	-4.1	30.0
Chrysene	Ave	1.154	1.067	0.7000	9.24	10.0	-7.6	30.0
Di-n-octyl phthalate	Ave	1.625	1.642	0.0100	10.1	10.0	1.1	30.0
Benzo[b]fluoranthene	Ave	1.348	1.316	0.7000	9.76	10.0	-2.4	30.0
Benzo[k]fluoranthene	Ave	1.317	1.213	0.7000	9.21	10.0	-7.9	30.0
Benzo[a]pyrene	Ave	1.178	1.142	0.7000	9.69	10.0	-3.1	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.259	1.249	0.5000	9.93	10.0	-0.7	30.0
Dibenzo(a,h)anthracene	Ave	1.036	1.024	0.4000	9.88	10.0	-1.2	30.0
Benzo[g,h,i]perylene	Ave	1.042	1.024	0.5000	9.83	10.0	-1.7	30.0
2-Fluorophenol (Surr)	Ave	1.573	1.513		9.62	10.0	-3.8	30.0
Phenol-d5 (Surr)	Ave	2.230	2.126		9.53	10.0	-4.7	30.0
Nitrobenzene-d5 (Surr)	Ave	0.6523	0.5887		9.03	10.0	-9.7	30.0
2-Fluorobiphenyl (Surr)	Ave	1.355	1.237		9.13	10.0	-8.7	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1475	0.1443		9.78	10.0	-2.2	30.0
Terphenyl-d14 (Surr)	Ave	0.7464	0.7131		9.55	10.0	-4.5	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: 9DF0707.D DFTPP Injection Date: 07/07/2011

Instrument ID: A4HP9 DFTPP Injection Time: 12:05

Analysis Batch No.: 7724

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.0	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	65.5	
70	Less than 2.0% of mass 69	0.4	(0.6)1
127	25.0 - 75.0% of mass 198	54.2	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	26.5	
365	Greater than 0.75% of mass 198	3.6	
441	Present, but less than mass 443	14.0	
442	40.0 - 110.0% of mass 198	85.8	
443	15.0 - 24.0% of mass 442	16.2	(18.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-7724/2	9SMH0707.D	07/07/2011	12:37
	CCV 240-7724/3	9AMH0707.D	07/07/2011	12:56
	MB 240-4656/24-A	MB4656.D	07/07/2011	13:16
	LCS 240-4656/23-A	LCS4656.D	07/07/2011	13:35
GSP-SB-103-6-8	240-741-2	741F2B.D	07/07/2011	15:31
GSP-SB-101-6-8	240-741-6	741G6B.D	07/07/2011	15:50
GSP-SB-99-6-8	240-741-8	741F8A.D	07/07/2011	16:10
GSP-SB-100-2-4	240-741-9	741G9A.D	07/07/2011	16:29
GSP-SB-100-6-8	240-741-10	741F10B.D	07/07/2011	16:48
GSP-SB-108-6-8	240-742-4	742G4C.D	07/07/2011	17:27
GSP-SB-107-0-2	240-742-9	742G9A.D	07/07/2011	17:46
GSP-SB-103-0-2	240-741-1	741F1A.D	07/07/2011	18:06
GSP-SB-99-0-2	240-741-7	741F7D.D	07/07/2011	18:25
GSP-SB-109-6-8	240-742-2	742G2C.D	07/07/2011	18:44
GSP-SB-109-0-2	240-742-1	742G1C.D	07/07/2011	19:04
GSP-SB-110-6-8	240-742-6	742G6B.D	07/07/2011	19:23
GSP-SB-110-6-8 MS	240-742-6 MS	742G6CS.D	07/07/2011	19:42
GSP-SB-110-6-8 MSD	240-742-6 MSD	742G6DD.D	07/07/2011	20:02
GSP-SB-102-0-2	240-742-7	742G7A.D	07/07/2011	21:38
GSP-SB-105-0-2	240-741-3	741F3B.D	07/07/2011	21:57
GSP-SB-101-0-2	240-741-5	741G5B.D	07/07/2011	22:16
GSP-SB-102-6-8	240-742-8	742G8A.D	07/07/2011	22:36

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-7724/2 Calibration Date: 07/07/2011 12:37

Instrument ID: A4HP9 Calib Start Date: 07/05/2011 15:06

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/05/2011 17:59

Lab File ID: 9SMH0707.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8358	0.8129		9.73	10.0	-2.7	20.0
N-Nitrosodimethylamine	Ave	1.556	1.526		9.81	10.0	-1.9	20.0
Pyridine	Ave	2.393	2.394		10.0	10.0	0.0	20.0
Ethyl methacrylate	Ave	2.202	2.114		9.60	10.0	-4.0	20.0
3-Chloropropionitrile	Ave	0.8977	0.8577		9.55	10.0	-4.5	20.0
Malononitrile	Ave	2.607	2.583		9.91	10.0	-0.9	20.0
Benzaldehyde	Ave	1.814	1.501	0.0100	8.28	10.0	-17.2	20.0
Phenol	Ave	2.550	2.468	0.8000	9.68	10.0	-3.2	20.0
Aniline	Ave	3.205	3.126		9.75	10.0	-2.5	20.0
Bis(2-chloroethyl)ether	Ave	2.025	1.944	0.7000	9.60	10.0	-4.0	20.0
2-Chlorophenol	Ave	1.444	1.379	0.8000	9.55	10.0	-4.5	20.0
1,3-Dichlorobenzene	Ave	1.408	1.379		9.80	10.0	-2.0	20.0
1,4-Dichlorobenzene	Ave	1.464	1.411		9.64	10.0	-3.6	20.0
Benzyl alcohol	Ave	1.155	1.005		8.70	10.0	-13.0	20.0
1,2-Dichlorobenzene	Ave	1.325	1.289		9.73	10.0	-2.7	20.0
2-Methylphenol	Ave	1.632	1.553	0.7000	9.52	10.0	-4.8	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.836	1.765		9.61	10.0	-3.9	20.0
3 & 4 Methylphenol	Ave	1.721	1.603		9.31	10.0	-6.9	20.0
N-Nitrosodi-n-propylamine	Ave	1.769	1.705	0.5000	9.64	10.0	-3.6	20.0
Acetophenone	Ave	2.418	2.370	0.0100	9.80	10.0	-2.0	20.0
Hexachloroethane	Ave	0.6615	0.6274	0.3000	9.48	10.0	-5.2	20.0
Nitrobenzene	Ave	0.6652	0.6334	0.2000	9.52	10.0	-4.8	20.0
Isophorone	Ave	1.180	1.149	0.4000	9.74	10.0	-2.6	20.0
2-Nitrophenol	Ave	0.1937	0.1952	0.1000	10.1	10.0	0.8	20.0
1,3,5-Trichlorobenzene	Ave	0.2987	0.2870		9.61	10.0	-3.9	20.0
2,4-Dimethylphenol	Ave	0.4860	0.4710	0.2000	9.69	10.0	-3.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.5940	0.5796	0.3000	9.76	10.0	-2.4	20.0
Benzoic acid	Qua		0.3065		21.1	20.0	5.5	20.0
2,4-Dichlorophenol	Ave	0.2730	0.2708	0.2000	9.92	10.0	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.2997	0.2899		9.67	10.0	-3.3	20.0
Naphthalene	Ave	1.148	1.082	0.7000	9.43	10.0	-5.7	20.0
4-Chloroaniline	Ave	0.4739	0.4673	0.0100	9.86	10.0	-1.4	20.0
Hexachlorobutadiene	Ave	0.1715	0.1648	0.0100	9.61	10.0	-3.9	20.0
1,2,3-Trichlorobenzene	Ave	0.2748	0.2731		9.94	10.0	-0.6	20.0
Caprolactam	Ave	0.1443	0.1536	0.0100	10.6	10.0	6.5	20.0
4-Chloro-3-methylphenol	Ave	0.4139	0.4078	0.2000	9.85	10.0	-1.5	20.0
2-Methylnaphthalene	Ave	0.5829	0.5612	0.4000	9.63	10.0	-3.7	20.0
1-Methylnaphthalene	Ave	0.6716	0.6439		9.59	10.0	-4.1	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5098	0.4835		9.48	10.0	-5.2	20.0
Hexachlorocyclopentadiene	Ave	0.3542	0.3523	0.0500	9.95	10.0	-0.5	20.0
2,4,6-Trichlorophenol	Ave	0.3522	0.3481	0.2000	9.88	10.0	-1.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-7724/2 Calibration Date: 07/07/2011 12:37

Instrument ID: A4HP9 Calib Start Date: 07/05/2011 15:06

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/05/2011 17:59

Lab File ID: 9SMH0707.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3844	0.3689	0.2000	9.60	10.0	-4.0	20.0
2,4-Toluene diamine	Ave	0.3157	0.1838		5.82	10.0	-41.8*	20.0
1,1'-Biphenyl	Ave	1.530	1.473	0.0100	9.63	10.0	-3.7	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4816	0.4620		9.59	10.0	-4.1	20.0
2-Chloronaphthalene	Ave	1.099	1.069	0.8000	9.73	10.0	-2.7	20.0
2-Nitroaniline	Ave	0.6044	0.5889	0.0100	9.74	10.0	-2.6	20.0
Dimethyl phthalate	Ave	1.298	1.292	0.0100	9.95	10.0	-0.5	20.0
2,6-Dinitrotoluene	Ave	0.2813	0.2864		10.2	10.0	1.8	20.0
1,2-Dinitrobenzene	Ave	0.1534	0.1577		10.3	10.0	2.8	20.0
Acenaphthylene	Ave	1.975	1.929	0.9000	9.77	10.0	-2.3	20.0
3-Nitroaniline	Ave	0.3555	0.3574	0.0100	10.1	10.0	0.5	20.0
2,4-Dinitrophenol	Ave	0.2226	0.2357	0.0100	21.2	20.0	5.9	20.0
Acenaphthene	Ave	1.212	1.141	0.9000	9.42	10.0	-5.8	20.0
4-Nitrophenol	Ave	0.2974	0.2928		9.85	10.0	-1.5	20.0
2,4-Dinitrotoluene	Ave	0.3880	0.3883	0.2000	10.0	10.0	0.0	20.0
Dibenzofuran	Ave	1.675	1.650	0.8000	9.85	10.0	-1.5	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3068	0.3042		9.91	10.0	-0.9	20.0
Diethyl phthalate	Ave	1.410	1.390	0.0100	9.86	10.0	-1.4	20.0
4-Chlorophenyl phenyl ether	Ave	0.6265	0.6071	0.4000	9.69	10.0	-3.1	20.0
4-Nitroaniline	Ave	0.3812	0.3672	0.0100	9.63	10.0	-3.7	20.0
Fluorene	Ave	1.296	1.243	0.9000	9.59	10.0	-4.1	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1432	0.1510	0.0100	10.5	10.0	5.4	20.0
N-Nitrosodiphenylamine	Ave	0.5930	0.5790	0.0100	9.76	10.0	-2.4	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.495	1.471		9.84	10.0	-1.6	20.0
Azobenzene	Ave	1.495	1.471		9.84	10.0	-1.6	20.0
4-Bromophenyl phenyl ether	Ave	0.1922	0.1895	0.1000	9.86	10.0	-1.4	20.0
Hexachlorobenzene	Ave	0.1949	0.1870	0.1000	9.60	10.0	-4.0	20.0
Atrazine	Ave	0.1969	0.1932	0.0100	9.81	10.0	-1.9	20.0
Pentachlorophenol	Ave	0.1339	0.1456	0.0500	21.7	20.0	8.7	20.0
Phenanthrene	Ave	1.132	1.053	0.7000	9.30	10.0	-7.0	20.0
Anthracene	Ave	1.118	1.081	0.7000	9.67	10.0	-3.3	20.0
Carbazole	Ave	1.100	1.091	0.0100	9.91	10.0	-0.9	20.0
Di-n-butyl phthalate	Ave	1.390	1.396	0.0100	10.0	10.0	0.4	20.0
Fluoranthene	Ave	1.187	1.152	0.6000	9.71	10.0	-2.9	20.0
Benzidine	Ave	0.6841	0.6876		10.1	10.0	0.5	20.0
Pyrene	Ave	1.278	1.244	0.6000	9.73	10.0	-2.7	20.0
Butyl benzyl phthalate	Ave	0.6131	0.5998	0.0100	9.78	10.0	-2.2	20.0
3,3'-Dimethoxybenzidine	Ave	0.2790	0.2790		10.0	10.0	-0.0	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8393	0.8391	0.0100	10.0	10.0	-0.0	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2243	0.2158		9.62	10.0	-3.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-7724/2 Calibration Date: 07/07/2011 12:37

Instrument ID: A4HP9 Calib Start Date: 07/05/2011 15:06

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/05/2011 17:59

Lab File ID: 9SMH0707.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4296	0.4215	0.0100	9.81	10.0	-1.9	20.0
Benzo[a]anthracene	Ave	1.229	1.160	0.8000	9.44	10.0	-5.6	20.0
Chrysene	Ave	1.154	1.091	0.7000	9.45	10.0	-5.5	20.0
Di-n-octyl phthalate	Ave	1.625	1.702	0.0100	10.5	10.0	4.8	20.0
Benzo[b]fluoranthene	Ave	1.348	1.338	0.7000	9.93	10.0	-0.7	20.0
Benzo[k]fluoranthene	Ave	1.317	1.273	0.7000	9.66	10.0	-3.4	20.0
Benzo[a]pyrene	Ave	1.178	1.181	0.7000	10.0	10.0	0.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.259	1.287	0.5000	10.2	10.0	2.2	20.0
Dibenzo(a,h)anthracene	Ave	1.036	1.070	0.4000	10.3	10.0	3.3	20.0
Benzo[g,h,i]perylene	Ave	1.042	1.054	0.5000	10.1	10.0	1.1	20.0
2-Fluorophenol (Surr)	Ave	1.573	1.531		9.73	10.0	-2.7	20.0
Phenol-d5 (Surr)	Ave	2.230	2.155		9.66	10.0	-3.4	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6523	0.5988		9.18	10.0	-8.2	20.0
2-Fluorobiphenyl (Surr)	Ave	1.355	1.299		9.58	10.0	-4.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1475	0.1446		9.80	10.0	-2.0	20.0
Terphenyl-d14 (Surr)	Ave	0.7464	0.7200		9.65	10.0	-3.5	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: 9DF0710.D DFTPP Injection Date: 07/10/2011

Instrument ID: A4HP9 DFTPP Injection Time: 12:53

Analysis Batch No.: 7869

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	76.4	
70	Less than 2.0% of mass 69	0.2	(0.3)1
127	25.0 - 75.0% of mass 198	57.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.6	
275	10.0- 30.0% of mass 198	25.5	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	12.6	
442	40.0 - 110.0% of mass 198	71.9	
443	15.0 - 24.0% of mass 442	13.4	(18.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-7869/10	9SMH0710.D	07/10/2011	13:15
	STD5 240-7869/2	9SMM0710.D	07/10/2011	13:34
	STD4 240-7869/3	9SM0710.D	07/10/2011	14:13
	STD3 240-7869/4	9SML0710.D	07/10/2011	14:32
	STD2 240-7869/5	9SL0710.D	07/10/2011	14:51
	STD1 240-7869/6	9SLL0710.D	07/10/2011	15:11
	STD7 240-7869/9	9SH0710.D	07/10/2011	15:30
	STD8 240-7869/8	9SHH0710.D	07/10/2011	15:49
	STD9 240-7869/7	9HHH0710.D	07/10/2011	16:08
	ICV 240-7869/11	9TCLICV.D	07/10/2011	16:27

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7869

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2011 13:15 Calibration End Date: 07/10/2011 16:08 Calibration ID: 2236

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-7869/6	9SLL0710.D
Level 2	STD2 240-7869/5	9SL0710.D
Level 3	STD3 240-7869/4	9SML0710.D
Level 4	STD4 240-7869/3	9SM0710.D
Level 5	STD5 240-7869/2	9SMM0710.D
Level 6	STD6 240-7869/10	9SMH0710.D
Level 7	STD7 240-7869/9	9SH0710.D
Level 8	STD8 240-7869/8	9SHH0710.D
Level 9	STD9 240-7869/7	9HHH0710.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.8009	0.9006 0.7706	0.8786 0.7235	0.8794 0.7796	0.8218	Ave		0.8194				7.6		20.0			
N-Nitrosodimethylamine	1.4917	1.5027 1.4717	1.6050 1.4418	1.6102 1.5222	1.5302	Ave		1.5219				3.9		20.0			
Pyridine	2.3264	1.8463 2.3640	2.2447 2.2302	2.2561 2.3534	2.3289	Ave		2.2437				7.5		20.0			
Ethyl methacrylate	2.1534	2.2851 2.1240	2.3095 2.0394	2.3223 2.1437	2.2351	Ave		2.2016				4.6		20.0			
3-Chloropropionitrile	0.8985	0.9280 0.9076	0.9355 0.8745	0.9494 0.9075	0.9243	Ave		0.9157				2.6		20.0			
Malononitrile	2.5083	2.5547 2.5596	2.7158 2.4535	2.7541 2.4817	2.6225	Ave		2.5813				4.2		20.0			
Benzaldehyde	1.4023	2.0942 1.3734	2.1138 1.2635	2.1127 1.1167	1.8440	Qua	0.6209	1.6653	-0.023		0.0100				0.9970		0.9900
Phenol	2.4337	2.5970 2.5289	2.6041 2.4418	2.6216 2.5092	2.5604	Ave		2.5371			0.8000	2.8		20.0			
Aniline	3.1185	2.8743 3.2441	3.1224 3.1167	3.2646 3.1975	3.1634	Ave		3.1377				3.8		20.0			
Bis(2-chloroethyl)ether	1.8910	2.2156 1.9989	2.2067 1.9101	2.1172 2.0419	2.0880	Ave		2.0587			0.7000	5.9		20.0			
2-Chlorophenol	1.4099	1.4383 1.4201	1.4946 1.3817	1.5507 1.4366	1.4652	Ave		1.4496			0.8000	3.7		20.0			
1,3-Dichlorobenzene	1.3618	1.4451 1.3679	1.4893 1.3423	1.4972 1.3940	1.4341	Ave		1.4165				4.2		20.0			
1,4-Dichlorobenzene	1.4113	1.5084 1.4298	1.5050 1.3857	1.5349 1.4617	1.4680	Ave		1.4631				3.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7869

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2011 13:15 Calibration End Date: 07/10/2011 16:08 Calibration ID: 2236

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzyl alcohol		1.0970	1.1679	1.1405	1.1703	Ave		1.1334				2.6		20.0			
	1.1165	1.1536	1.0998	1.1219													
1,2-Dichlorobenzene		1.4589	1.4013	1.4214	1.3505	Ave		1.3527				5.0		20.0			
	1.2826	1.3135	1.2729	1.3203													
2-Methylphenol		1.6045	1.6634	1.6626	1.6545	Ave		1.6184			0.7000	2.8		20.0			
	1.5724	1.6382	1.5411	1.6109													
2,2'-oxybis[1-chloropropane]		1.9047	1.9031	1.9150	1.8775	Ave		1.8371				4.1		20.0			
	1.7423	1.8437	1.7353	1.7752													
Benzoic acid		+++++	0.1244	0.1770	0.2539	Qua	-0.477	0.2969	0.0009						0.9990		0.9900
	0.2751	0.3113	0.3269	0.3273													
3 & 4 Methylphenol		1.5923	1.7527	1.7688	1.7435	Ave		1.6974				3.7		20.0			
	1.6606	1.7289	1.6374	1.6945													
N-Nitrosodi-n-propylamine		1.7672	1.8569	1.8868	1.8617	Ave		1.8175			0.5000	3.1		20.0			
	1.7795	1.8614	1.7321	1.7942													
Acetophenone		2.4640	2.5010	2.5127	2.5229	Ave		2.4601			0.0100	2.6		20.0			
	2.3481	2.4994	2.3790	2.4534													
Hexachloroethane		0.6632	0.6916	0.7091	0.6645	Ave		0.6695			0.3000	3.2		20.0			
	0.6515	0.6635	0.6427	0.6700													
Nitrobenzene		0.7374	0.7147	0.7130	0.6770	Ave		0.6917			0.2000	4.0		20.0			
	0.6660	0.6678	0.6612	0.6964													
Isophorone		1.1405	1.1894	1.2116	1.1727	Ave		1.1861			0.4000	2.5		20.0			
	1.1681	1.1925	1.1763	1.2377													
2-Nitrophenol		0.1883	0.1971	0.2078	0.1991	Ave		0.1970			0.1000	3.4		20.0			
	0.1954	0.1925	0.1913	0.2042													
2,4-Dimethylphenol		0.4704	0.4997	0.5240	0.4935	Ave		0.4948			0.2000	3.4		20.0			
	0.4937	0.4846	0.4817	0.5111													
1,3,5-Trichlorobenzene		0.3282	0.3232	0.3186	0.3027	Ave		0.3102				4.8		20.0			
	0.2967	0.2896	0.2984	0.3241													
Bis(2-chloroethoxy)methane		0.5918	0.6111	0.6179	0.5995	Ave		0.5921			0.3000	2.9		20.0			
	0.5706	0.5815	0.5707	0.5934													
2,4-Dichlorophenol		0.2555	0.2645	0.2826	0.2773	Ave		0.2732			0.2000	3.4		20.0			
	0.2750	0.2750	0.2726	0.2829													
1,2,4-Trichlorobenzene		0.3230	0.3054	0.3149	0.2998	Ave		0.3028				3.9		20.0			
	0.2948	0.2906	0.2883	0.3056													
Naphthalene	1.2035	1.1698	1.1697	1.1620	1.1187	Ave		1.1347			0.7000	4.3		20.0			
	1.0856	1.0606	1.0829	1.1592													
4-Chloroaniline		0.4477	0.4566	0.4512	0.4724	Ave		0.4606			0.0100	2.5		20.0			
	0.4572	0.4658	0.4534	0.4808													
Hexachlorobutadiene		0.1825	0.1800	0.1880	0.1807	Ave		0.1803			0.0100	3.2		20.0			
	0.1729	0.1753	0.1748	0.1884													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7869

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2011 13:15 Calibration End Date: 07/10/2011 16:08 Calibration ID: 2236

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,2,3-Trichlorobenzene	0.2738	0.3044 0.2713	0.2950 0.2687	0.2987 0.2858	0.2832	Ave		0.2851				4.7		20.0			
1,1'-Biphenyl	+++++ 1.4874	1.5743 1.5307	1.6186 1.5450	1.6088 1.6806	1.4729	Ave		1.5648			0.0100	4.5		20.0			
Caprolactam	0.1496	0.1091 0.1496	0.1354 0.1456	0.1452 0.1526	0.1484	Ave		0.1419			0.0100	10.0		20.0			
4-Chloro-3-methylphenol	0.4279	0.4209 0.4336	0.4389 0.4204	0.4473 0.4386	0.4312	Ave		0.4324			0.2000	2.1		20.0			
2-Methylnaphthalene	0.5680 0.5664	0.5976 0.5652	0.5975 0.5671	0.6103 0.5935	0.5824	Ave		0.5831			0.4000	2.9		20.0			
1-Methylnaphthalene	0.6875 0.6422	0.7172 0.6513	0.6907 0.6537	0.6913 0.6775	0.6545	Ave		0.6740				3.7		20.0			
1,2,3,5-Tetrachlorobenzene	0.5139	0.5277 0.5078	0.5310 0.5293	0.5517 0.5632	0.4960	Ave		0.5276				4.2		20.0			
Hexachlorocyclopentadiene	0.3805	0.3208 0.3740	0.3261 0.3929	0.3675 0.4167	0.3586	Ave		0.3671			0.0500	8.8		20.0			
2,4,6-Trichlorophenol	0.3665	0.2913 0.3558	0.3288 0.3423	0.3607 0.3654	0.3704	Ave		0.3476			0.2000	7.7		20.0			
Dibenzofuran	+++++ 1.6848	1.7603 1.6928	1.8012 1.6418	1.7766 1.7302	1.6509	Ave		1.7173			0.8000	3.4		20.0			
2,4,5-Trichlorophenol	0.3943	0.3771 0.3851	0.4334 0.3754	0.4141 0.3971	0.3776	Ave		0.3943			0.2000	5.2		20.0			
2,4-Toluene diamine	0.1802	0.2223	0.3034	0.2996	0.2280	Ave		0.2467				22.0	*	20.0			
1,2,3,4 -Tetrachlorobenzene	0.4828	0.5030 0.4845	0.5072 0.4998	0.5087 0.5380	0.4773	Ave		0.5002				3.9		20.0			
2-Chloronaphthalene	1.2353 1.0956	1.1445 1.0925	1.1385 1.0473	1.1791 1.1212	1.0779	Ave		1.1258			0.8000	5.0		20.0			
4,6-Dinitro-2-methylphenol	0.1511	+++++ 0.1483	0.1088 0.1517	0.1285 0.1603	0.1480	Ave		0.1424			0.0100	12.0		20.0			
2-Nitroaniline	0.6410	0.5752 0.6423	0.6521 0.6144	0.6788 0.6445	0.6174	Ave		0.6332			0.0100	4.9		20.0			
Dimethyl phthalate	1.3370	1.3848 1.3375	1.3890 1.3002	1.4159 1.3590	1.2969	Ave		1.3525			0.0100	3.2		20.0			
2,6-Dinitrotoluene	0.3050	0.2933 0.2992	0.2983 0.2851	0.2955 0.2997	0.2927	Ave		0.2961				2.0		20.0			
1,2-Dinitrobenzene	0.1626	0.1426 0.1575	0.1412 0.1567	0.1746 0.1610	0.1598	Ave		0.1570				6.9		20.0			
Acenaphthylene	1.9407 1.9570	1.9794 1.9449	1.9877 1.9107	2.0466 2.0303	1.9003	Ave		1.9664			0.9000	2.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7869

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2011 13:15 Calibration End Date: 07/10/2011 16:08 Calibration ID: 2236

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
3-Nitroaniline		0.3512	0.3657	0.3732	0.3528	Ave		0.3587			0.0100	2.8		20.0			
	0.3662	0.3601	0.3421	0.3585													
2,4-Dinitrophenol		0.0635	0.1403	0.1989	0.2281	Qua	-0.150	0.2338	0.0008		0.0100				0.9990		0.9900
	0.2512	0.2521	0.2566	0.2735													
Acenaphthene	1.3605	1.2648	1.2801	1.2861	1.1773	Ave		1.2417			0.9000	5.4		20.0			
	1.1845	1.1688	1.1816	1.2714													
4-Nitrophenol		0.1650	0.2713	0.2971	0.3081	Ave		0.2848				18.0		20.0			
	0.3260	0.3235	0.3005	0.2867													
2,4-Dinitrotoluene		0.3662	0.4000	0.4150	0.3969	Ave		0.4006			0.2000	4.1		20.0			
	0.4063	0.4162	0.3928	0.4112													
2,3,5,6-Tetrachlorophenol		0.2530	0.2946	0.3095	0.3053	Ave		0.3085				8.4		20.0			
	0.3231	0.3258	0.3209	0.3360													
Diethyl phthalate		1.4926	1.5138	1.5485	1.4309	Ave		1.4840			0.0100	2.8		20.0			
	1.4690	1.4764	1.4283	1.5125													
4-Chlorophenyl phenyl ether		0.6803	0.6753	0.6771	0.6359	Ave		0.6507			0.4000	3.8		20.0			
	0.6315	0.6303	0.6175	0.6574													
4-Nitroaniline		0.3641	0.3841	0.3884	0.3797	Ave		0.3823			0.0100	2.5		20.0			
	0.3900	0.3887	0.3736	0.3900													
Fluorene	1.4020	1.3509	1.3849	1.3510	1.2736	Ave		1.3302			0.9000	3.6		20.0			
	1.2823	1.2956	1.2815	1.3496													
N-Nitrosodiphenylamine		0.6252	0.6151	0.6176	0.5731	Ave		0.5993			0.0100	3.9		20.0			
	0.5714	0.5789	0.5905	0.6228													
1,2-Diphenylhydrazine(as Azobenzene)		1.5736	1.4953	1.5958	1.5201	Ave		1.5179				4.0		20.0			
	1.5014	1.5175	1.4979	1.3963													
Azobenzene		1.5736	1.5345	1.6001	1.5206	Ave		1.5179				4.0		20.0			
	1.5026	1.5175	1.4979	1.3963													
4-Bromophenyl phenyl ether		0.2027	0.1969	0.2104	0.1953	Ave		0.2001			0.1000	3.2		20.0			
	0.2006	0.1916	0.1956	0.2076													
Hexachlorobenzene	0.2009	0.2023	0.2061	0.1968	0.1920	Ave		0.1965			0.1000	3.6		20.0			
	0.1906	0.1859	0.1903	0.2039													
Atrazine		0.1996	0.2030	0.2180	0.2056	Ave		0.1965			0.0100	7.8		20.0			
	0.2046	0.1850	0.1686	0.1874													
Pentachlorophenol		0.0843	0.0950	0.1211	0.1361	Qua	-0.082	0.1408	0.0004		0.0500				1.0000		0.9900
	0.1445	0.1476	0.1582	0.1583													
Phenanthrene	1.1061	1.1358	1.1150	1.1582	1.0713	Ave		1.1121			0.7000	3.4		20.0			
	1.0752	1.0756	1.0959	1.1756													
Anthracene	1.0736	1.1268	1.1502	1.1634	1.1081	Ave		1.1243			0.7000	3.5		20.0			
	1.0848	1.0948	1.1204	1.1967													
Carbazole		1.1082	1.1367	1.1497	1.0957	Ave		1.1126			0.0100	3.1		20.0			
	1.0829	1.0819	1.0790	1.1669													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7869

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2011 13:15 Calibration End Date: 07/10/2011 16:08 Calibration ID: 2236

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Di-n-butyl phthalate		1.4159	1.3915	1.4597	1.4252	Ave		1.4350			0.0100	1.8		20.0			
	1.4374	1.4319	1.4751	1.4429													
Fluoranthene	1.1724	1.2079	1.1952	1.2525	1.1743	Ave		1.2132			0.6000	3.6		20.0			
	1.1907	1.1841	1.2346	1.3070													
Benzidine		0.5950	0.6443	0.6688	0.7107	Ave		0.6838				7.0		20.0			
	0.7176	0.6775	0.7087	0.7473													
Pyrene	1.1878	1.2100	1.2768	1.3056	1.2139	Ave		1.2473			0.6000	3.6		20.0			
	1.2386	1.2189	1.2576	1.3164													
Butyl benzyl phthalate		0.8267	0.6137	0.6307	0.6084	Ave		0.6420			0.0100	12.0		20.0			
	0.6284	0.6025	0.6031	0.6224													
3,3'-Dimethoxybenzidine		0.2392	0.2589	0.2814	0.2833	Ave		0.2616				6.5		20.0			
	0.2770	0.2454	0.2536	0.2539													
Bis(2-ethylhexyl) phthalate		0.8247	0.8621	0.9151	0.8554	Ave		0.8748			0.0100	3.5		20.0			
	0.8933	0.8615	0.8750	0.9113													
4,4'-Methylene bis(2-chloroaniline)		0.1964	0.2233	0.2377	0.2304	Ave		0.2301				7.6		20.0			
	0.2279	0.2274	0.2401	0.2578													
3,3'-Dichlorobenzidine		0.4001	0.4278	0.4497	0.4447	Ave		0.4418			0.0100	5.6		20.0			
	0.4316	0.4406	0.4543	0.4859													
Benzo[a]anthracene	1.2711	1.1529	1.2121	1.2449	1.2010	Ave		1.2041			0.8000	3.7		20.0			
	1.1949	1.1440	1.1650	1.2511													
Chrysene	1.1622	1.1203	1.1482	1.1520	1.0910	Ave		1.1380			0.7000	3.2		20.0			
	1.1044	1.0999	1.1661	1.1983													
Di-n-octyl phthalate		1.4849	1.5965	1.7040	1.6664	Ave		1.6766			0.0100	6.2		20.0			
	1.6856	1.7113	1.7177	1.8462													
Benzo[b]fluoranthene	1.1240	1.3217	1.3987	1.3440	1.3539	Ave		1.3246			0.7000	6.9		20.0			
	1.3047	1.2851	1.3290	1.4603													
Benzo[k]fluoranthene	1.2483	1.3192	1.2764	1.4242	1.2281	Ave		1.2957			0.7000	4.4		20.0			
	1.2616	1.2900	1.2892	1.3245													
Benzo[a]pyrene	1.1240	1.1426	1.1997	1.2099	1.1664	Ave		1.1821			0.7000	3.1		20.0			
	1.1832	1.1737	1.1912	1.2485													
Indeno[1,2,3-cd]pyrene	1.1288	1.1869	1.2512	1.3293	1.2982	Ave		1.2768			0.5000	6.1		20.0			
	1.2920	1.3060	1.3102	1.3883													
Dibenzo(a,h)anthracene	0.8639	0.9608	1.0235	1.1060	1.0593	Ave		1.0476			0.4000	8.4		20.0			
	1.0745	1.0810	1.0979	1.1611													
Benzo[g,h,i]perylene	0.9941	0.9358	1.0506	1.1085	1.0649	Ave		1.0509			0.5000	5.4		20.0			
	1.0554	1.0663	1.0612	1.1213													
2-Fluorophenol (Surr)		1.4932	1.6599	1.6395	1.5871	Ave		1.5623				4.5		20.0			
	1.5558	1.5744	1.4496	1.5390													
Phenol-d5 (Surr)		2.1968	2.2448	2.2899	2.2295	Ave		2.2026				2.5		20.0			
	2.1319	2.2080	2.1257	2.1945													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7869

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2011 13:15 Calibration End Date: 07/10/2011 16:08 Calibration ID: 2236

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Nitrobenzene-d5 (Surr)	0.6293 0.6761	0.7018 0.6186	0.7076 0.6100	0.7284 0.6421	0.6899	Ave		0.6671				6.5		20.0			
2-Fluorobiphenyl (Surr)	1.4411 1.3233	1.3608 1.3261	1.3830 1.2797	1.4179 1.3672	1.2957	Ave		1.3550				4.0		20.0			
2,4,6-Tribromophenol (Surr)	 0.1604	0.1388 0.1588	0.1459 0.1526	0.1598 0.1654	0.1517	Ave		0.1542				5.6		20.0			
Terphenyl-d14 (Surr)	0.7212 0.7382	0.7270 0.7243	0.7440 0.7618	0.7542 0.8020	0.7267	Ave		0.7444				3.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7869

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2011 13:15 Calibration End Date: 07/10/2011 16:08 Calibration ID: 2236

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-7869/6	9SLL0710.D
Level 2	STD2 240-7869/5	9SL0710.D
Level 3	STD3 240-7869/4	9SML0710.D
Level 4	STD4 240-7869/3	9SM0710.D
Level 5	STD5 240-7869/2	9SMM0710.D
Level 6	STD6 240-7869/10	9SMH0710.D
Level 7	STD7 240-7869/9	9SH0710.D
Level 8	STD8 240-7869/8	9SHH0710.D
Level 9	STD9 240-7869/7	9HHH0710.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave		19786	38953	78094	179944		0.500	1.00	2.00	5.00
			349914	518028	743093	933931		10.0	15.0	20.0	25.0	
N-Nitrosodimethylamine	DCB	Ave		33014	71157	142985	335068		0.500	1.00	2.00	5.00
			651702	989314	1480866	1823579		10.0	15.0	20.0	25.0	
Pyridine	DCB	Ave		40563	99517	200342	509968		0.500	1.00	2.00	5.00
			1016376	1589067	2290637	2819224		10.0	15.0	20.0	25.0	
Ethyl methacrylate	DCB	Ave		50204	102393	206223	489415		0.500	1.00	2.00	5.00
			940768	1427751	2094754	2568091		10.0	15.0	20.0	25.0	
3-Chloropropionitrile	DCB	Ave		20388	41476	84311	202397		0.500	1.00	2.00	5.00
			392542	610072	898168	1087139		10.0	15.0	20.0	25.0	
Malononitrile	DCB	Ave		56128	120405	244562	574246		0.500	1.00	2.00	5.00
			1095828	1720604	2520053	2972958		10.0	15.0	20.0	25.0	
Benzaldehyde	DCB	Qua		46011	93717	187610	403775		0.500	1.00	2.00	5.00
			612630	923217	1297814	1337698		10.0	15.0	20.0	25.0	
Phenol	DCB	Ave		57057	115454	232800	560650		0.500	1.00	2.00	5.00
			1063228	1699919	2508050	3005969		10.0	15.0	20.0	25.0	
Aniline	DCB	Ave		63150	138433	289898	692688		0.500	1.00	2.00	5.00
			1362423	2180671	3201202	3830445		10.0	15.0	20.0	25.0	
Bis(2-chloroethyl)ether	DCB	Ave		48677	97833	188011	457211		0.500	1.00	2.00	5.00
			826132	1343645	1961900	2446106		10.0	15.0	20.0	25.0	
2-Chlorophenol	DCB	Ave		31601	66263	137706	320833		0.500	1.00	2.00	5.00
			615960	954588	1419137	1720942		10.0	15.0	20.0	25.0	
1,3-Dichlorobenzene	DCB	Ave		31749	66026	132954	314029		0.500	1.00	2.00	5.00
			594951	919534	1378711	1669930		10.0	15.0	20.0	25.0	
1,4-Dichlorobenzene	DCB	Ave		33140	66722	136296	321456		0.500	1.00	2.00	5.00
			616551	961139	1423263	1751088		10.0	15.0	20.0	25.0	
Benzyl alcohol	DCB	Ave		24102	51779	101278	256263		0.500	1.00	2.00	5.00
			487780	775428	1129668	1343975		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7869

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2011 13:15 Calibration End Date: 07/10/2011 16:08 Calibration ID: 2236

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,2-Dichlorobenzene	DCB	Ave		32053	62126	126223	295723		0.500	1.00	2.00	5.00
			560325	882917	1307418	1581658		10.0	15.0	20.0	25.0	
2-Methylphenol	DCB	Ave		35251	73745	147641	362294		0.500	1.00	2.00	5.00
			686958	1101213	1582853	1929786		10.0	15.0	20.0	25.0	
2,2'-oxybis[1-chloropropane]	DCB	Ave		41847	84373	170050	411110		0.500	1.00	2.00	5.00
			761174	1239330	1782321	2126586		10.0	15.0	20.0	25.0	
Benzoic acid	NPT	Qua		+++++	42509	119185	434723		+++++	2.00	4.00	10.0
			914896	1690050	2609201	2984020		20.0	30.0	40.0	50.0	
3 & 4 Methylphenol	DCB	Ave		34984	77708	157072	381768		0.500	1.00	2.00	5.00
			725480	1162190	1681812	2029995		10.0	15.0	20.0	25.0	
N-Nitrosodi-n-propylamine	DCB	Ave		38827	82326	167548	407654		0.500	1.00	2.00	5.00
			777424	1251245	1779037	2149399		10.0	15.0	20.0	25.0	
Acetophenone	DCB	Ave		54134	110881	223128	552444		0.500	1.00	2.00	5.00
			1025843	1680105	2443528	2939102		10.0	15.0	20.0	25.0	
Hexachloroethane	DCB	Ave		14570	30661	62969	145503		0.500	1.00	2.00	5.00
			284649	446030	660084	802598		10.0	15.0	20.0	25.0	
Nitrobenzene	NPT	Ave		60395	122145	240060	579447		0.500	1.00	2.00	5.00
			1107486	1812653	2638947	3174751		10.0	15.0	20.0	25.0	
Isophorone	NPT	Ave		93413	203280	407930	1003737		0.500	1.00	2.00	5.00
			1942290	3236855	4694882	5642812		10.0	15.0	20.0	25.0	
2-Nitrophenol	NPT	Ave		15424	33689	69979	170394		0.500	1.00	2.00	5.00
			324969	522426	763659	931172		10.0	15.0	20.0	25.0	
2,4-Dimethylphenol	NPT	Ave		38528	85404	176415	422405		0.500	1.00	2.00	5.00
			820896	1315441	1922342	2329913		10.0	15.0	20.0	25.0	
1,3,5-Trichlorobenzene	NPT	Ave		26884	55234	107287	259087		0.500	1.00	2.00	5.00
			493358	786163	1190753	1477770		10.0	15.0	20.0	25.0	
Bis(2-chloroethoxy)methane	NPT	Ave		48474	104447	208045	513172		0.500	1.00	2.00	5.00
			948722	1578427	2277686	2705467		10.0	15.0	20.0	25.0	
2,4-Dichlorophenol	NPT	Ave		20931	45201	95156	237363		0.500	1.00	2.00	5.00
			457307	746470	1088090	1289680		10.0	15.0	20.0	25.0	
1,2,4-Trichlorobenzene	NPT	Ave		26454	52188	106036	256649		0.500	1.00	2.00	5.00
			490191	788935	1150720	1393148		10.0	15.0	20.0	25.0	
Naphthalene	NPT	Ave	21369	95813	199914	391248	957561	0.100	0.500	1.00	2.00	5.00
			1805141	2878888	4322064	5284756		10.0	15.0	20.0	25.0	
4-Chloroaniline	NPT	Ave		36670	78040	151915	404384		0.500	1.00	2.00	5.00
			760177	1264376	1809453	2191850		10.0	15.0	20.0	25.0	
Hexachlorobutadiene	NPT	Ave		14947	30771	63307	154646		0.500	1.00	2.00	5.00
			287436	475807	697804	858727		10.0	15.0	20.0	25.0	
1,2,3-Trichlorobenzene	NPT	Ave		24930	50410	100560	242371		0.500	1.00	2.00	5.00
			455262	736488	1072214	1302994		10.0	15.0	20.0	25.0	
1,1'-Biphenyl	ANT	Ave	+++++	72540	153382	301669	717612	+++++	0.500	1.00	2.00	5.00
			1359759	2342202	3528110	4412668		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7869

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2011 13:15 Calibration End Date: 07/10/2011 16:08 Calibration ID: 2236

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Caprolactam	NPT	Ave		8938	23133	48877	127005		0.500	1.00	2.00	5.00
			248705	406067	580930	695873		10.0	15.0	20.0	25.0	
4-Chloro-3-methylphenol	NPT	Ave		34476	75015	150601	369083		0.500	1.00	2.00	5.00
			711562	1177006	1677790	1999773		10.0	15.0	20.0	25.0	
2-Methylnaphthalene	NPT	Ave	10086	48945	102116	205495	498478	0.100	0.500	1.00	2.00	5.00
			941790	1534343	2263507	2705909		10.0	15.0	20.0	25.0	
1-Methylnaphthalene	NPT	Ave	12207	58742	118052	232758	560180	0.100	0.500	1.00	2.00	5.00
			1067891	1768030	2609013	3088950		10.0	15.0	20.0	25.0	
1,2,3,5-Tetrachlorobenzene	ANT	Ave		24316	50315	103448	241685		0.500	1.00	2.00	5.00
			469822	776996	1208780	1478841		10.0	15.0	20.0	25.0	
Hexachlorocyclopentadiene	ANT	Ave		14784	30905	68916	174707		0.500	1.00	2.00	5.00
			347830	572250	897177	1094030		10.0	15.0	20.0	25.0	
2,4,6-Trichlorophenol	ANT	Ave		13421	31160	67635	180456		0.500	1.00	2.00	5.00
			335039	544415	781662	959327		10.0	15.0	20.0	25.0	
Dibenzofuran	ANT	Ave	+++++	81112	170689	333120	804377	+++++	0.500	1.00	2.00	5.00
			1540144	2590378	3749066	4542861		10.0	15.0	20.0	25.0	
2,4,5-Trichlorophenol	ANT	Ave		17375	41069	77648	183970		0.500	1.00	2.00	5.00
			360463	589237	857309	1042703		10.0	15.0	20.0	25.0	
2,4-Toluene diamine	NPT	Ave		18204	51850	100876	195121		0.500	1.00	2.00	5.00
			299714					10.0				
1,2,3,4 -Tetrachlorobenzene	ANT	Ave		23177	48066	95387	232543		0.500	1.00	2.00	5.00
			441339	741421	1141427	1412649		10.0	15.0	20.0	25.0	
2-Chloronaphthalene	ANT	Ave	11988	52736	107883	221099	525190	0.100	0.500	1.00	2.00	5.00
			1001557	1671784	2391662	2943962		10.0	15.0	20.0	25.0	
4,6-Dinitro-2-methylphenol	PHN	Ave		+++++	18086	41586	122994		+++++	1.00	2.00	5.00
			242988	405295	594956	719821		10.0	15.0	20.0	25.0	
2-Nitroaniline	ANT	Ave		26505	61797	127272	300792		0.500	1.00	2.00	5.00
			585956	982860	1402924	1692225		10.0	15.0	20.0	25.0	
Dimethyl phthalate	ANT	Ave		63809	131625	265495	631893		0.500	1.00	2.00	5.00
			1222273	2046677	2969014	3568329		10.0	15.0	20.0	25.0	
2,6-Dinitrotoluene	ANT	Ave		13513	28267	55405	142612		0.500	1.00	2.00	5.00
			278813	457840	650972	786844		10.0	15.0	20.0	25.0	
1,2-Dinitrobenzene	ANT	Ave		6572	13378	32748	77843		0.500	1.00	2.00	5.00
			148679	240996	357886	422700		10.0	15.0	20.0	25.0	
Acenaphthylene	ANT	Ave	18833	91209	188358	383748	925874	0.100	0.500	1.00	2.00	5.00
			1788998	2976113	4363188	5330814		10.0	15.0	20.0	25.0	
3-Nitroaniline	ANT	Ave		16184	34651	69981	171875		0.500	1.00	2.00	5.00
			334788	550971	781152	941309		10.0	15.0	20.0	25.0	
2,4-Dinitrophenol	ANT	Qua		5852	26581	74574	222286		1.00	2.00	4.00	10.0
			459244	771515	1171805	1436454		20.0	30.0	40.0	50.0	
Acenaphthene	ANT	Ave	13203	58283	121309	241146	573627	0.100	0.500	1.00	2.00	5.00
			1082780	1788507	2698149	3338321		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7869

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2011 13:15 Calibration End Date: 07/10/2011 16:08 Calibration ID: 2236

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Nitrophenol	ANT	Ave		7603	25708	55715	150125		0.500	1.00	2.00	5.00
			298036	495075	686121	752715		10.0	15.0	20.0	25.0	
2,4-Dinitrotoluene	ANT	Ave		16875	37907	77818	193391		0.500	1.00	2.00	5.00
			371462	636916	897031	1079553		10.0	15.0	20.0	25.0	
2,3,5,6-Tetrachlorophenol	ANT	Ave		11660	27913	58029	148740		0.500	1.00	2.00	5.00
			295396	498516	732844	882274		10.0	15.0	20.0	25.0	
Diethyl phthalate	ANT	Ave		68777	143456	290364	697185		0.500	1.00	2.00	5.00
			1342938	2259131	3261639	3971372		10.0	15.0	20.0	25.0	
4-Chlorophenyl phenyl ether	ANT	Ave		31349	63990	126971	309847		0.500	1.00	2.00	5.00
			577302	964533	1410133	1726114		10.0	15.0	20.0	25.0	
4-Nitroaniline	ANT	Ave		16776	36400	72820	184990		0.500	1.00	2.00	5.00
			356535	594786	853224	1024088		10.0	15.0	20.0	25.0	
Fluorene	ANT	Ave	13606	62249	131235	253324	620544	0.100	0.500	1.00	2.00	5.00
			1172235	1982478	2926283	3543524		10.0	15.0	20.0	25.0	
N-Nitrosodiphenylamine	PHN	Ave		49262	102250	199813	476285		0.500	1.00	2.00	5.00
			918941	1582091	2315699	2797177		10.0	15.0	20.0	25.0	
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave		123985	248566	516269	1263393		0.500	1.00	2.00	5.00
			2414503	4147133	5873936	6271425		10.0	15.0	20.0	25.0	
Azobenzene	PHN	Ave		123985	255078	517682	1263810		0.500	1.00	2.00	5.00
			2416498	4147133	5874242	6271425		10.0	15.0	20.0	25.0	
4-Bromophenyl phenyl ether	PHN	Ave		15969	32733	68070	162327		0.500	1.00	2.00	5.00
			322537	523696	767156	932277		10.0	15.0	20.0	25.0	
Hexachlorobenzene	PHN	Ave	3445	15937	34268	63684	159571	0.100	0.500	1.00	2.00	5.00
			306489	508030	746152	915744		10.0	15.0	20.0	25.0	
Atrazine	PHN	Ave		15726	33749	70542	170843		0.500	1.00	2.00	5.00
			328996	505521	661344	841844		10.0	15.0	20.0	25.0	
Pentachlorophenol	PHN	Qua		13291	31600	78329	226167		1.00	2.00	4.00	10.0
			464789	806467	1240934	1422064		20.0	30.0	40.0	50.0	
Phenanthrene	PHN	Ave	18967	89494	185353	374703	890358	0.100	0.500	1.00	2.00	5.00
			1729123	2939449	4297685	5279959		10.0	15.0	20.0	25.0	
Anthracene	PHN	Ave	18410	88783	191194	376383	920988	0.100	0.500	1.00	2.00	5.00
			1744534	2991905	4393731	5374781		10.0	15.0	20.0	25.0	
Carbazole	PHN	Ave		87321	188961	371941	910648		0.500	1.00	2.00	5.00
			1741552	2956635	4231409	5240923		10.0	15.0	20.0	25.0	
Di-n-butyl phthalate	PHN	Ave		111566	231310	472247	1184528		0.500	1.00	2.00	5.00
			2311643	3913114	5784587	6480846		10.0	15.0	20.0	25.0	
Fluoranthene	PHN	Ave	20104	95171	198678	405210	976012	0.100	0.500	1.00	2.00	5.00
			1914820	3235944	4841691	5870183		10.0	15.0	20.0	25.0	
Benzidine	CRY	Ave		49042	109097	223490	611576		0.500	1.00	2.00	5.00
			1184141	1936609	2911882	3600978		10.0	15.0	20.0	25.0	
Pyrene	CRY	Ave	20829	99731	216179	436258	1044523	0.100	0.500	1.00	2.00	5.00
			2043792	3483963	5167484	6343648		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7869

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2011 13:15 Calibration End Date: 07/10/2011 16:08 Calibration ID: 2236

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Butyl benzyl phthalate	CRY	Ave		68133	103910	210750	523528		0.500	1.00	2.00	5.00
			1036831	1722183	2477964	2999239		10.0	15.0	20.0	25.0	
3,3'-Dimethoxybenzidine	CRY	Ave		19718	43831	94042	243795		0.500	1.00	2.00	5.00
			457047	701294	1042234	1223273		10.0	15.0	20.0	25.0	
Bis(2-ethylhexyl) phthalate	CRY	Ave		67973	145960	305782	736087		0.500	1.00	2.00	5.00
			1474054	2462353	3595477	4391454		10.0	15.0	20.0	25.0	
4,4'-Methylene bis(2-chloroaniline)	CRY	Ave		16185	37811	79431	198233		0.500	1.00	2.00	5.00
			376114	649980	986471	1242195		10.0	15.0	20.0	25.0	
3,3'-Dichlorobenzidine	CRY	Ave		32977	72440	150278	382642		0.500	1.00	2.00	5.00
			712104	1259447	1866837	2341527		10.0	15.0	20.0	25.0	
Benzo[a]anthracene	CRY	Ave	22289	95023	205229	415976	1033429	0.100	0.500	1.00	2.00	5.00
			1971668	3269959	4786893	6028957		10.0	15.0	20.0	25.0	
Chrysene	CRY	Ave	20379	92332	194411	384941	938730	0.100	0.500	1.00	2.00	5.00
			1822295	3143868	4791663	5774688		10.0	15.0	20.0	25.0	
Di-n-octyl phthalate	PRY	Ave		103048	232257	479298	1246143		0.500	1.00	2.00	5.00
			2468034	4176431	6063227	7515226		10.0	15.0	20.0	25.0	
Benzo[b]fluoranthene	PRY	Ave	16968	91722	203487	378052	1012498	0.100	0.500	1.00	2.00	5.00
			1910442	3136147	4691262	5944428		10.0	15.0	20.0	25.0	
Benzo[k]fluoranthene	PRY	Ave	18843	91552	185691	400596	918399	0.100	0.500	1.00	2.00	5.00
			1847280	3148227	4550746	5391822		10.0	15.0	20.0	25.0	
Benzo[a]pyrene	PRY	Ave	16967	79294	174531	340332	872271	0.100	0.500	1.00	2.00	5.00
			1732402	2864423	4204949	5082330		10.0	15.0	20.0	25.0	
Indeno[1,2,3-cd]pyrene	PRY	Ave	17040	82370	182023	373909	970858	0.100	0.500	1.00	2.00	5.00
			1891855	3187207	4624979	5651165		10.0	15.0	20.0	25.0	
Dibenzo(a,h)anthracene	PRY	Ave	13041	66675	148893	311109	792179	0.100	0.500	1.00	2.00	5.00
			1573375	2638119	3875310	4726659		10.0	15.0	20.0	25.0	
Benzo[g,h,i]perylene	PRY	Ave	15006	64946	152834	311798	796393	0.100	0.500	1.00	2.00	5.00
			1545372	2602314	3745914	4564664		10.0	15.0	20.0	25.0	
2-Fluorophenol (Surr)	DCB	Ave		32807	73592	145585	347524		0.500	1.00	2.00	5.00
			679702	1058291	1488942	1843655		10.0	15.0	20.0	25.0	
Phenol-d5 (Surr)	DCB	Ave		48264	99521	203344	488198		0.500	1.00	2.00	5.00
			931377	1484217	2183380	2628953		10.0	15.0	20.0	25.0	
Nitrobenzene-d5 (Surr)	NPT	Ave	11174	57482	120932	245238	590545	0.100	0.500	1.00	2.00	5.00
			1124193	1679233	2434629	2927487		10.0	15.0	20.0	25.0	
2-Fluorobiphenyl (Surr)	ANT	Ave	13985	62702	131059	265862	631306	0.100	0.500	1.00	2.00	5.00
			1209722	2029161	2922201	3589681		10.0	15.0	20.0	25.0	
2,4,6-Tribromophenol (Surr)	ANT	Ave		6398	13830	29958	73934		0.500	1.00	2.00	5.00
			146628	242931	348486	434164		10.0	15.0	20.0	25.0	
Terphenyl-d14 (Surr)	CRY	Ave	12647	59921	125972	252009	625336	0.100	0.500	1.00	2.00	5.00
			1218098	2070384	3130267	3864847		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 7869

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2011 13:15 Calibration End Date: 07/10/2011 16:08 Calibration ID: 2236

Curve Type Legend:
Ave = Average ISTD
Qua = Quadratic ISTD

Second Source

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-7869/11 Calibration Date: 07/10/2011 16:27

Instrument ID: A4HP9 Calib Start Date: 07/10/2011 13:15

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/10/2011 16:08

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8194	0.7750		9.46	10.0	-5.4	30.0
N-Nitrosodimethylamine	Ave	1.522	1.452		9.54	10.0	-4.6	30.0
Pyridine	Ave	2.244	2.281		10.2	10.0	1.7	30.0
Ethyl methacrylate	Ave	2.202	2.128		9.67	10.0	-3.3	30.0
3-Chloropropionitrile	Ave	0.9157	0.8917		9.74	10.0	-2.6	30.0
Malononitrile	Ave	2.581	2.556		9.90	10.0	-1.0	30.0
Benzaldehyde	Qua		1.703	0.0100	11.7	10.0	17.0	30.0
Phenol	Ave	2.537	2.445	0.8000	9.64	10.0	-3.6	30.0
Aniline	Ave	3.138	3.111		9.92	10.0	-0.8	30.0
Bis(2-chloroethyl)ether	Ave	2.059	1.932	0.7000	9.39	10.0	-6.1	30.0
2-Chlorophenol	Ave	1.450	1.420	0.8000	9.80	10.0	-2.0	30.0
1,3-Dichlorobenzene	Ave	1.416	1.378		9.73	10.0	-2.7	30.0
1,4-Dichlorobenzene	Ave	1.463	1.442		9.85	10.0	-1.5	30.0
Benzyl alcohol	Ave	1.133	1.070		9.44	10.0	-5.6	30.0
1,2-Dichlorobenzene	Ave	1.353	1.311		9.69	10.0	-3.1	30.0
2-Methylphenol	Ave	1.618	1.566	0.7000	9.68	10.0	-3.2	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.837	1.751		9.53	10.0	-4.7	30.0
3 & 4 Methylphenol	Ave	1.697	1.647		9.70	10.0	-3.0	30.0
N-Nitrosodi-n-propylamine	Ave	1.817	1.762	0.5000	9.69	10.0	-3.1	30.0
Acetophenone	Ave	2.460	2.397	0.0100	9.74	10.0	-2.6	30.0
Hexachloroethane	Ave	0.6695	0.6445	0.3000	9.63	10.0	-3.7	30.0
Nitrobenzene	Ave	0.6917	0.6603	0.2000	9.55	10.0	-4.5	30.0
Isophorone	Ave	1.186	1.163	0.4000	9.80	10.0	-2.0	30.0
2-Nitrophenol	Ave	0.1970	0.1936	0.1000	9.83	10.0	-1.7	30.0
2,4-Dimethylphenol	Ave	0.4948	0.4711	0.2000	9.52	10.0	-4.8	30.0
1,3,5-Trichlorobenzene	Ave	0.3102	0.2928		9.44	10.0	-5.6	30.0
Bis(2-chloroethoxy)methane	Ave	0.5921	0.5728	0.3000	9.68	10.0	-3.2	30.0
Benzoic acid	Qua		0.2886		19.9	20.0	-0.5	30.0
2,4-Dichlorophenol	Ave	0.2732	0.2723	0.2000	9.97	10.0	-0.3	30.0
1,2,4-Trichlorobenzene	Ave	0.3028	0.2875		9.49	10.0	-5.1	30.0
Naphthalene	Ave	1.135	1.075	0.7000	9.48	10.0	-5.2	30.0
4-Chloroaniline	Ave	0.4606	0.4553	0.0100	9.88	10.0	-1.2	30.0
Hexachlorobutadiene	Ave	0.1803	0.1707	0.0100	9.47	10.0	-5.3	30.0
1,2,3-Trichlorobenzene	Ave	0.2851	0.2722		9.55	10.0	-4.5	30.0
Caprolactam	Ave	0.1419	0.1508	0.0100	10.6	10.0	6.2	30.0
4-Chloro-3-methylphenol	Ave	0.4324	0.4285	0.2000	9.91	10.0	-0.9	30.0
2-Methylnaphthalene	Ave	0.5831	0.5644	0.4000	9.68	10.0	-3.2	30.0
1-Methylnaphthalene	Ave	0.6740	0.6399		9.49	10.0	-5.1	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5276	0.4924		9.33	10.0	-6.7	30.0
Hexachlorocyclopentadiene	Ave	0.3671	0.3591	0.0500	9.78	10.0	-2.2	30.0
2,4,6-Trichlorophenol	Ave	0.3476	0.3471	0.2000	9.99	10.0	-0.1	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-7869/11 Calibration Date: 07/10/2011 16:27

Instrument ID: A4HP9 Calib Start Date: 07/10/2011 13:15

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/10/2011 16:08

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3943	0.3711	0.2000	9.41	10.0	-5.9	30.0
2,4-Toluene diamine	Ave	0.2467	0.1868		7.57	10.0	-24.3	30.0
1,1'-Biphenyl	Ave	1.565	1.455	0.0100	9.30	10.0	-7.0	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5002	0.4693		9.38	10.0	-6.2	30.0
2-Chloronaphthalene	Ave	1.126	1.053	0.8000	9.36	10.0	-6.4	30.0
2-Nitroaniline	Ave	0.6332	0.6175	0.0100	9.75	10.0	-2.5	30.0
Dimethyl phthalate	Ave	1.353	1.325	0.0100	9.80	10.0	-2.0	30.0
2,6-Dinitrotoluene	Ave	0.2961	0.2911		9.83	10.0	-1.7	30.0
1,2-Dinitrobenzene	Ave	0.1570	0.1595		10.2	10.0	1.6	30.0
Acenaphthylene	Ave	1.966	1.892	0.9000	9.62	10.0	-3.8	30.0
3-Nitroaniline	Ave	0.3587	0.3513	0.0100	9.79	10.0	-2.1	30.0
2,4-Dinitrophenol	Qua		0.2368	0.0100	19.6	20.0	-2.0	30.0
Acenaphthene	Ave	1.242	1.139	0.9000	9.18	10.0	-8.2	30.0
4-Nitrophenol	Ave	0.2848	0.2839		9.97	10.0	-0.3	30.0
2,4-Dinitrotoluene	Ave	0.4006	0.4026	0.2000	10.1	10.0	0.5	30.0
Dibenzofuran	Ave	1.717	1.639	0.8000	9.54	10.0	-4.6	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3085	0.3109		10.1	10.0	0.8	30.0
Diethyl phthalate	Ave	1.484	1.435	0.0100	9.67	10.0	-3.3	30.0
4-Chlorophenyl phenyl ether	Ave	0.6507	0.6181	0.4000	9.50	10.0	-5.0	30.0
4-Nitroaniline	Ave	0.3823	0.3813	0.0100	9.97	10.0	-0.3	30.0
Fluorene	Ave	1.330	1.246	0.9000	9.37	10.0	-6.3	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1424	0.1487	0.0100	10.4	10.0	4.4	30.0
N-Nitrosodiphenylamine	Ave	0.5993	0.5759	0.0100	9.61	10.0	-3.9	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.518	1.507		9.93	10.0	-0.7	30.0
Azobenzene	Ave	1.518	1.507		9.93	10.0	-0.7	30.0
4-Bromophenyl phenyl ether	Ave	0.2001	0.1899	0.1000	9.49	10.0	-5.1	30.0
Hexachlorobenzene	Ave	0.1965	0.1886	0.1000	9.60	10.0	-4.0	30.0
Atrazine	Ave	0.1965	0.1990	0.0100	10.1	10.0	1.3	30.0
Pentachlorophenol	Qua		0.1404	0.0500	19.4	20.0	-3.0	30.0
Phenanthrene	Ave	1.112	1.057	0.7000	9.50	10.0	-5.0	30.0
Anthracene	Ave	1.124	1.076	0.7000	9.57	10.0	-4.3	30.0
Carbazole	Ave	1.113	1.060	0.0100	9.53	10.0	-4.7	30.0
Di-n-butyl phthalate	Ave	1.435	1.418	0.0100	9.88	10.0	-1.2	30.0
Fluoranthene	Ave	1.213	1.182	0.6000	9.74	10.0	-2.6	30.0
Benzidine	Ave	0.6838	0.7111		10.4	10.0	4.0	30.0
Pyrene	Ave	1.247	1.210	0.6000	9.70	10.0	-3.0	30.0
Butyl benzyl phthalate	Ave	0.6420	0.6036	0.0100	9.40	10.0	-6.0	30.0
3,3'-Dimethoxybenzidine	Ave	0.2616	0.2597		9.93	10.0	-0.7	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8748	0.8520	0.0100	9.74	10.0	-2.6	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2301	0.2298		9.98	10.0	-0.2	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-7869/11 Calibration Date: 07/10/2011 16:27

Instrument ID: A4HP9 Calib Start Date: 07/10/2011 13:15

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/10/2011 16:08

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4418	0.4344	0.0100	9.83	10.0	-1.7	30.0
Benzo[a]anthracene	Ave	1.204	1.134	0.8000	9.42	10.0	-5.8	30.0
Chrysene	Ave	1.138	1.107	0.7000	9.73	10.0	-2.7	30.0
Di-n-octyl phthalate	Ave	1.677	1.700	0.0100	10.1	10.0	1.4	30.0
Benzo[b]fluoranthene	Ave	1.325	1.271	0.7000	9.60	10.0	-4.0	30.0
Benzo[k]fluoranthene	Ave	1.296	1.299	0.7000	10.0	10.0	0.3	30.0
Benzo[a]pyrene	Ave	1.182	1.181	0.7000	10.0	10.0	-0.0	30.0
Dibenzo(a,h)anthracene	Ave	1.048	1.069	0.4000	10.2	10.0	2.1	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.277	1.297	0.5000	10.2	10.0	1.6	30.0
Benzo[g,h,i]perylene	Ave	1.051	1.055	0.5000	10.0	10.0	0.4	30.0
2-Fluorophenol (Surr)	Ave	1.562	1.546		9.89	10.0	-1.1	30.0
Phenol-d5 (Surr)	Ave	2.203	2.126		9.65	10.0	-3.5	30.0
Nitrobenzene-d5 (Surr)	Ave	0.6671	0.6220		9.32	10.0	-6.8	30.0
2-Fluorobiphenyl (Surr)	Ave	1.355	1.272		9.38	10.0	-6.2	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1542	0.1508		9.78	10.0	-2.2	30.0
Terphenyl-d14 (Surr)	Ave	0.7444	0.7123		9.57	10.0	-4.3	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab File ID: 9DF0711.D DFTPP Injection Date: 07/11/2011

Instrument ID: A4HP9 DFTPP Injection Time: 14:31

Analysis Batch No.: 8069

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	44.3	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	71.5	
70	Less than 2.0% of mass 69	0.4	(0.5)1
127	25.0 - 75.0% of mass 198	55.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	25.0	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	12.1	
442	40.0 - 110.0% of mass 198	72.9	
443	15.0 - 24.0% of mass 442	14.1	(19.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-8069/2	9SMH0711.D	07/11/2011	14:52
	CCV 240-8069/3	9AMH0711.D	07/11/2011	15:15
GSP-SB-108-0-2	240-742-3	742G3C.D	07/12/2011	00:59
GSP-SB-110-0-2	240-742-5	742F5B.D	07/12/2011	01:18
GSP-SB-105-6-8	240-741-4	741G4B.D	07/12/2011	01:37

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-8069/2 Calibration Date: 07/11/2011 14:52

Instrument ID: A4HP9 Calib Start Date: 07/10/2011 13:15

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/10/2011 16:08

Lab File ID: 9SMH0711.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8194	0.8120		9.91	10.0	-0.9	20.0
N-Nitrosodimethylamine	Ave	1.522	1.520		9.98	10.0	-0.2	20.0
Pyridine	Ave	2.244	2.350		10.5	10.0	4.7	20.0
Ethyl methacrylate	Ave	2.202	2.144		9.74	10.0	-2.6	20.0
3-Chloropropionitrile	Ave	0.9157	0.8915		9.74	10.0	-2.6	20.0
Malononitrile	Ave	2.581	2.608		10.1	10.0	1.0	20.0
Benzaldehyde	Qua		1.503	0.0100	10.0	10.0	0.0	20.0
Phenol	Ave	2.537	2.493	0.8000	9.83	10.0	-1.7	20.0
Aniline	Ave	3.138	3.178		10.1	10.0	1.3	20.0
Bis(2-chloroethyl)ether	Ave	2.059	1.952	0.7000	9.48	10.0	-5.2	20.0
2-Chlorophenol	Ave	1.450	1.411	0.8000	9.73	10.0	-2.7	20.0
1,3-Dichlorobenzene	Ave	1.416	1.350		9.53	10.0	-4.7	20.0
1,4-Dichlorobenzene	Ave	1.463	1.401		9.57	10.0	-4.3	20.0
Benzyl alcohol	Ave	1.133	1.107		9.77	10.0	-2.3	20.0
1,2-Dichlorobenzene	Ave	1.353	1.281		9.47	10.0	-5.3	20.0
2-Methylphenol	Ave	1.618	1.586	0.7000	9.80	10.0	-2.0	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.837	1.750		9.53	10.0	-4.7	20.0
3 & 4 Methylphenol	Ave	1.697	1.651		9.73	10.0	-2.7	20.0
N-Nitrosodi-n-propylamine	Ave	1.817	1.756	0.5000	9.66	10.0	-3.4	20.0
Acetophenone	Ave	2.460	2.366	0.0100	9.62	10.0	-3.8	20.0
Hexachloroethane	Ave	0.6695	0.6322	0.3000	9.44	10.0	-5.6	20.0
Nitrobenzene	Ave	0.6917	0.6576	0.2000	9.51	10.0	-4.9	20.0
Isophorone	Ave	1.186	1.181	0.4000	9.96	10.0	-0.4	20.0
2-Nitrophenol	Ave	0.1970	0.1995	0.1000	10.1	10.0	1.3	20.0
1,3,5-Trichlorobenzene	Ave	0.3102	0.2909		9.38	10.0	-6.2	20.0
2,4-Dimethylphenol	Ave	0.4948	0.4869	0.2000	9.84	10.0	-1.6	20.0
Bis(2-chloroethoxy)methane	Ave	0.5921	0.5789	0.3000	9.78	10.0	-2.2	20.0
Benzoic acid	Qua		0.2759		19.1	20.0	-4.5	20.0
2,4-Dichlorophenol	Ave	0.2732	0.2769	0.2000	10.1	10.0	1.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3028	0.2925		9.66	10.0	-3.4	20.0
Naphthalene	Ave	1.135	1.088	0.7000	9.59	10.0	-4.1	20.0
4-Chloroaniline	Ave	0.4606	0.4608	0.0100	10.0	10.0	0.0	20.0
Hexachlorobutadiene	Ave	0.1803	0.1708	0.0100	9.47	10.0	-5.3	20.0
1,2,3-Trichlorobenzene	Ave	0.2851	0.2737		9.60	10.0	-4.0	20.0
Caprolactam	Ave	0.1419	0.1531	0.0100	10.8	10.0	7.8	20.0
4-Chloro-3-methylphenol	Ave	0.4324	0.4203	0.2000	9.72	10.0	-2.8	20.0
2-Methylnaphthalene	Ave	0.5831	0.5721	0.4000	9.81	10.0	-1.9	20.0
1-Methylnaphthalene	Ave	0.6740	0.6442		9.56	10.0	-4.4	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5276	0.4903		9.29	10.0	-7.1	20.0
Hexachlorocyclopentadiene	Ave	0.3671	0.3583	0.0500	9.76	10.0	-2.4	20.0
2,4,6-Trichlorophenol	Ave	0.3476	0.3609	0.2000	10.4	10.0	3.8	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-8069/2 Calibration Date: 07/11/2011 14:52

Instrument ID: A4HP9 Calib Start Date: 07/10/2011 13:15

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/10/2011 16:08

Lab File ID: 9SMH0711.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3943	0.3816	0.2000	9.68	10.0	-3.2	20.0
2,4-Toluene diamine	Ave	0.2467	0.2117		8.58	10.0	-14.2	20.0
1,1'-Biphenyl	Ave	1.565	1.460	0.0100	9.33	10.0	-6.7	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5002	0.4683		9.36	10.0	-6.4	20.0
2-Chloronaphthalene	Ave	1.126	1.070	0.8000	9.51	10.0	-4.9	20.0
2-Nitroaniline	Ave	0.6332	0.6203	0.0100	9.80	10.0	-2.0	20.0
Dimethyl phthalate	Ave	1.353	1.312	0.0100	9.70	10.0	-3.0	20.0
2,6-Dinitrotoluene	Ave	0.2961	0.2967		10.0	10.0	0.2	20.0
1,2-Dinitrobenzene	Ave	0.1570	0.1604		10.2	10.0	2.2	20.0
Acenaphthylene	Ave	1.966	1.934	0.9000	9.83	10.0	-1.7	20.0
3-Nitroaniline	Ave	0.3587	0.3606	0.0100	10.1	10.0	0.5	20.0
2,4-Dinitrophenol	Qua		0.2341	0.0100	19.4	20.0	-3.0	20.0
Acenaphthene	Ave	1.242	1.155	0.9000	9.30	10.0	-7.0	20.0
4-Nitrophenol	Ave	0.2848	0.3045		10.7	10.0	6.9	20.0
2,4-Dinitrotoluene	Ave	0.4006	0.4019	0.2000	10.0	10.0	0.3	20.0
Dibenzofuran	Ave	1.717	1.645	0.8000	9.58	10.0	-4.2	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3085	0.3047		9.88	10.0	-1.2	20.0
Diethyl phthalate	Ave	1.484	1.432	0.0100	9.65	10.0	-3.5	20.0
4-Chlorophenyl phenyl ether	Ave	0.6507	0.6236	0.4000	9.58	10.0	-4.2	20.0
4-Nitroaniline	Ave	0.3823	0.3806	0.0100	9.95	10.0	-0.5	20.0
Fluorene	Ave	1.330	1.257	0.9000	9.45	10.0	-5.5	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1424	0.1493	0.0100	10.5	10.0	4.8	20.0
N-Nitrosodiphenylamine	Ave	0.5993	0.5722	0.0100	9.55	10.0	-4.5	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.518	1.504		9.91	10.0	-0.9	20.0
Azobenzene	Ave	1.518	1.505		9.91	10.0	-0.9	20.0
4-Bromophenyl phenyl ether	Ave	0.2001	0.1960	0.1000	9.79	10.0	-2.1	20.0
Hexachlorobenzene	Ave	0.1965	0.1870	0.1000	9.51	10.0	-4.9	20.0
Atrazine	Ave	0.1965	0.2040	0.0100	10.4	10.0	3.8	20.0
Pentachlorophenol	Qua		0.1290	0.0500	18.0	20.0	-10.0	20.0
Phenanthrene	Ave	1.112	1.064	0.7000	9.56	10.0	-4.4	20.0
Anthracene	Ave	1.124	1.083	0.7000	9.63	10.0	-3.7	20.0
Carbazole	Ave	1.113	1.082	0.0100	9.72	10.0	-2.8	20.0
Di-n-butyl phthalate	Ave	1.435	1.413	0.0100	9.85	10.0	-1.5	20.0
Fluoranthene	Ave	1.213	1.163	0.6000	9.59	10.0	-4.1	20.0
Benzidine	Ave	0.6838	0.5116		7.48	10.0	-25.2*	20.0
Pyrene	Ave	1.247	1.234	0.6000	9.89	10.0	-1.1	20.0
Butyl benzyl phthalate	Ave	0.6420	0.6225	0.0100	9.70	10.0	-3.0	20.0
3,3'-Dimethoxybenzidine	Ave	0.2616	0.2681		10.2	10.0	2.5	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8748	0.8775	0.0100	10.0	10.0	0.3	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2301	0.2217		9.64	10.0	-3.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-8069/2 Calibration Date: 07/11/2011 14:52

Instrument ID: A4HP9 Calib Start Date: 07/10/2011 13:15

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/10/2011 16:08

Lab File ID: 9SMH0711.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4418	0.4296	0.0100	9.72	10.0	-2.8	20.0
Benzo[a]anthracene	Ave	1.204	1.218	0.8000	10.1	10.0	1.1	20.0
Chrysene	Ave	1.138	1.084	0.7000	9.52	10.0	-4.8	20.0
Di-n-octyl phthalate	Ave	1.677	1.727	0.0100	10.3	10.0	3.0	20.0
Benzo[b]fluoranthene	Ave	1.325	1.371	0.7000	10.4	10.0	3.5	20.0
Benzo[k]fluoranthene	Ave	1.296	1.182	0.7000	9.13	10.0	-8.7	20.0
Benzo[a]pyrene	Ave	1.182	1.156	0.7000	9.78	10.0	-2.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.277	1.303	0.5000	10.2	10.0	2.1	20.0
Dibenzo(a,h)anthracene	Ave	1.048	1.080	0.4000	10.3	10.0	3.1	20.0
Benzo[g,h,i]perylene	Ave	1.051	1.063	0.5000	10.1	10.0	1.1	20.0
2-Fluorophenol (Surr)	Ave	1.562	1.551		9.93	10.0	-0.7	20.0
Phenol-d5 (Surr)	Ave	2.203	2.182		9.91	10.0	-0.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6671	0.6301		9.45	10.0	-5.5	20.0
2-Fluorobiphenyl (Surr)	Ave	1.355	1.285		9.48	10.0	-5.2	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1542	0.1505		9.76	10.0	-2.4	20.0
Terphenyl-d14 (Surr)	Ave	0.7444	0.7310		9.82	10.0	-1.8	20.0

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: STD6 240-6156/10 Date Analyzed: 06/27/2011 20:25

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 0627010.D Heated Purge: (Y/N) N

Calibration ID: 1822

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		224864	3.54	863634	4.44	499368	5.70
UPPER LIMIT.		449728	4.04	1727268	4.94	998736	6.20
LOWER LIMIT		112432	3.04	431817	3.94	249684	5.20
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-6156/13		250980	3.54	956057	4.44	565740	5.70
CCV 240-6847/2 CCVIS		164518	3.37	611138	4.26	346396	5.52
CCV 240-6847/3		183476	3.37	672825	4.26	401617	5.52

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: STD6 240-6156/10 Date Analyzed: 06/27/2011 20:25

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 0627010.D Heated Purge: (Y/N) N

Calibration ID: 1822

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		777854	6.79	783039	8.77	672976	10.19
UPPER LIMIT		1555708	7.29	1566078	9.27	1345952	10.69
LOWER LIMIT		388927	6.29	391520	8.27	336488	9.69
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-6156/13		886965	6.79	888893	8.76	761645	10.18
CCV 240-6847/2 CCVIS		536691	6.59	536253	8.56	449334	9.85
CCV 240-6847/3		641668	6.59	626107	8.55	524156	9.84

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: CCV 240-6847/2 Date Analyzed: 07/01/2011 09:24

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 0701002.D Heated Purge: (Y/N) N

Calibration ID: 1830

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		164518	3.37	611138	4.26	346396	5.52
UPPER LIMIT		329036	3.87	1222276	4.76	692792	6.02
LOWER LIMIT		82259	2.87	305569	3.76	173198	5.02
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-6847/3		183476	3.37	672825	4.26	401617	5.52
MB 240-4642/23-A		206056	3.37	774128	4.26	467374	5.52
LCS 240-4642/24-A		220879	3.37	829993	4.26	494298	5.52
240-742-10	GSP-SB-107-6-8	192175	3.37	746860	4.25	430782	5.52
240-742-10 MS	GSP-SB-107-6-8 MS	174822	3.37	667873	4.26	404432	5.52
240-742-10 MSD	GSP-SB-107-6-8 MSD	198612	3.37	767803	4.26	459138	5.52

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: CCV 240-6847/2 Date Analyzed: 07/01/2011 09:24

Instrument ID: A4HP10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 0701002.D Heated Purge: (Y/N) N

Calibration ID: 1830

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		536691	6.59	536253	8.56	449334	9.85
UPPER LIMIT		1073382	7.09	1072506	9.06	898668	10.35
LOWER LIMIT		268346	6.09	268127	8.06	224667	9.35
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-6847/3		641668	6.59	626107	8.55	524156	9.84
MB 240-4642/23-A		748469	6.59	730684	8.57	622968	9.87
LCS 240-4642/24-A		799304	6.59	779720	8.56	672940	9.86
240-742-10	GSP-SB-107-6-8	712490	6.59	689720	8.56	598634	9.87
240-742-10 MS	GSP-SB-107-6-8 MS	641679	6.59	637424	8.56	549481	9.86
240-742-10 MSD	GSP-SB-107-6-8 MSD	735857	6.60	730469	8.56	633598	9.86

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: STD6 240-7248/10 Date Analyzed: 07/05/2011 15:06

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0705.D Heated Purge: (Y/N) N

Calibration ID: 2120

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		190014	3.75	737239	4.72	411752	6.01
UPPER LIMIT		380028	4.25	1474478	5.22	823504	6.51
LOWER LIMIT		95007	3.25	368620	4.22	205876	5.51
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-7248/11		237601	3.76	903858	4.72	506122	6.02
CCV 240-7724/2 CCVIS		217077	3.76	832557	4.72	462734	6.02

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: STD6 240-7248/10 Date Analyzed: 07/05/2011 15:06

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0705.D Heated Purge: (Y/N) N

Calibration ID: 2120

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		696455	7.10	696410	9.05	594252	10.37
UPPER LIMIT		1392910	7.60	1392820	9.55	1188504	10.87
LOWER LIMIT		348228	6.60	348205	8.55	297126	9.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-7248/11		866941	7.10	873599	9.06	747106	10.37
CCV 240-7724/2 CCVIS		788622	7.10	785787	9.09	666592	10.42

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: CCV 240-7724/2 Date Analyzed: 07/07/2011 12:37

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0707.D Heated Purge: (Y/N) N

Calibration ID: 2116

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		217077	3.76	832557	4.72	462734	6.02
UPPER LIMIT		434154	4.26	1665114	5.22	925468	6.52
LOWER LIMIT		108539	3.26	416279	4.22	231367	5.52
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-7724/3		209400	3.76	819359	4.72	461182	6.01
MB 240-4656/24-A		162885	3.76	628248	4.72	355442	6.01
LCS 240-4656/23-A		165382	3.76	642578	4.72	364811	6.02
240-741-2	GSP-SB-103-6-8	135747	3.76	534573	4.74	296146	6.02
240-741-6	GSP-SB-101-6-8	129807	3.76	521096	4.74	285920	6.02
240-741-8	GSP-SB-99-6-8	150518	3.76	596086	4.74	319799	6.02
240-741-9	GSP-SB-100-2-4	141427	3.76	547059	4.74	297186	6.02
240-741-10	GSP-SB-100-6-8	167590	3.76	643070	4.73	339014	6.03
240-742-4	GSP-SB-108-6-8	162240	3.76	599120	4.73	350951	6.02
240-742-9	GSP-SB-107-0-2	148202	3.76	536614	4.73	331862	6.02
240-741-1	GSP-SB-103-0-2	137346	3.76	524100	4.73	318774	6.02
240-741-7	GSP-SB-99-0-2	123267	3.76	446181	4.73	266242	6.02
240-742-2	GSP-SB-109-6-8	160168	3.76	611339	4.74	363831	6.02
240-742-1	GSP-SB-109-0-2	110496	3.77	425136	4.75	237350	6.03
240-742-6	GSP-SB-110-6-8	108240*	3.77	434943	4.74	286332	6.03
240-742-6 MS	GSP-SB-110-6-8 MS	140649	3.77	537065	4.74	325811	6.03
240-742-6 MSD	GSP-SB-110-6-8 MSD	113762	3.77	443177	4.74	262521	6.03
240-742-7	GSP-SB-102-0-2	109603	3.77	441171	4.74	275085	6.03
240-741-3	GSP-SB-105-0-2	141131	3.77	617762	4.74	374391	6.03
240-741-5	GSP-SB-101-0-2	139464	3.77	591599	4.74	372753	6.03
240-742-8	GSP-SB-102-6-8	112509	3.77	452000	4.74	284166	6.03

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: CCV 240-7724/2 Date Analyzed: 07/07/2011 12:37

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0707.D Heated Purge: (Y/N) N

Calibration ID: 2116

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		788622	7.10	785787	9.09	666592	10.42
UPPER LIMIT		1577244	7.60	1571574	9.59	1333184	10.92
LOWER LIMIT		394311	6.60	392894	8.59	333296	9.92
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-7724/3		809495	7.10	799625	9.05	677897	10.36
MB 240-4656/24-A		611088	7.10	598899	9.05	508669	10.36
LCS 240-4656/23-A		630443	7.10	636578	9.05	542583	10.36
240-741-2	GSP-SB-103-6-8	528708	7.11	565642	9.06	478583	10.39
240-741-6	GSP-SB-101-6-8	525552	7.11	566682	9.06	474914	10.38
240-741-8	GSP-SB-99-6-8	601276	7.11	619384	9.07	532736	10.40
240-741-9	GSP-SB-100-2-4	540026	7.11	560566	9.07	474558	10.39
240-741-10	GSP-SB-100-6-8	645642	7.11	646796	9.06	548847	10.39
240-742-4	GSP-SB-108-6-8	625202	7.11	647265	9.06	548496	10.39
240-742-9	GSP-SB-107-0-2	611962	7.10	622271	9.07	540957	10.39
240-741-1	GSP-SB-103-0-2	575908	7.10	590629	9.06	518878	10.38
240-741-7	GSP-SB-99-0-2	473251	7.11	525610	9.06	489546	10.38
240-742-2	GSP-SB-109-6-8	618171	7.11	659047	9.05	600487	10.38
240-742-1	GSP-SB-109-0-2	420860	7.12	423756	9.07	383023	10.40
240-742-6	GSP-SB-110-6-8	556007	7.12	612757	9.06	561381	10.40
240-742-6 MS	GSP-SB-110-6-8 MS	568705	7.12	596968	9.07	550124	10.40
240-742-6 MSD	GSP-SB-110-6-8 MSD	456145	7.12	506310	9.06	479072	10.39
240-742-7	GSP-SB-102-0-2	510486	7.12	553386	9.07	480583	10.41
240-741-3	GSP-SB-105-0-2	685098	7.12	729857	9.07	637330	10.43
240-741-5	GSP-SB-101-0-2	684115	7.12	731880	9.07	606295	10.43
240-742-8	GSP-SB-102-6-8	537625	7.12	567623	9.08	493055	10.45

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: STD6 240-7869/10 Date Analyzed: 07/10/2011 13:15

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0710.D Heated Purge: (Y/N) N

Calibration ID: 2236

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		174753	3.85	665125	4.81	365664	6.11
UPPER LIMIT		349506	4.35	1330250	5.31	731328	6.61
LOWER LIMIT		87377	3.35	332563	4.31	182832	5.61
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-7869/11		208926	3.84	812434	4.81	461215	6.11
CCV 240-8069/2 CCVIS		193716	3.85	734418	4.81	413312	6.11

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: STD6 240-7869/10 Date Analyzed: 07/10/2011 13:15

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0710.D Heated Purge: (Y/N) N

Calibration ID: 2236

	PHN		CRY		PRY	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	643269	7.20	660016	9.17	585691	10.55
UPPER LIMIT	1286538	7.70	1320032	9.67	1171382	11.05
LOWER LIMIT	321635	6.70	330008	8.67	292846	10.05
LAB SAMPLE ID CLIENT SAMPLE ID						
ICV 240-7869/11	807266	7.19	841611	9.15	726049	10.54
CCV 240-8069/2 CCVIS	716176	7.20	724315	9.19	647639	10.58

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: CCV 240-8069/2 Date Analyzed: 07/11/2011 14:52

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0711.D Heated Purge: (Y/N) N

Calibration ID: 2232

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		193716	3.85	734418	4.81	413312	6.11
UPPER LIMIT		387432	4.35	1468836	5.31	826624	6.61
LOWER LIMIT		96858	3.35	367209	4.31	206656	5.61
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-8069/3		193628	3.84	748388	4.80	426536	6.11
240-742-3	GSP-SB-108-0-2	141250	3.84	595788	4.81	390097	6.11
240-742-5	GSP-SB-110-0-2	146124	3.84	602932	4.81	391534	6.11
240-741-4	GSP-SB-105-6-8	130499	3.85	555928	4.81	354865	6.11

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Sample No.: CCV 240-8069/2 Date Analyzed: 07/11/2011 14:52

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0711.D Heated Purge: (Y/N) N

Calibration ID: 2232

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		716176	7.20	724315	9.19	647639	10.58
UPPER LIMIT		1432352	7.70	1448630	9.69	1295278	11.08
LOWER LIMIT		358088	6.70	362158	8.69	323820	10.08
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-8069/3		741929	7.19	757429	9.17	657629	10.56
240-742-3	GSP-SB-108-0-2	719103	7.20	767859	9.16	644165	10.56
240-742-5	GSP-SB-110-0-2	742538	7.20	757307	9.16	633657	10.57
240-741-4	GSP-SB-105-6-8	662014	7.20	643963	9.16	553932	10.57

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Batch Number: 4642 Batch Start Date: 06/14/11 14:20 Batch Analyst: Robbins, Alex

Batch Method: 3540C Batch End Date: 06/15/11 06:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXBNALCS1 00003	EXBNASURRW 00002	EXRESTEKSPKW 00002
240-742-G-10	GSP-SB-107-6-8	3540C, 8270D	T	29.98 g	2.00 mL		1 mL	
240-742-G-10 MS	GSP-SB-107-6-8	3540C, 8270D	T	30.02 g	2.00 mL	1 mL	1 mL	1 mL
240-742-G-10 MSD	GSP-SB-107-6-8	3540C, 8270D	T	29.96 g	2.00 mL	1 mL	1 mL	1 mL
MB 240-4642/23		3540C, 8270D		30.00 g	2.00 mL		1 mL	
LCS 240-4642/24		3540C, 8270D		30.00 g	2.00 mL	1 mL	1 mL	1 mL

Batch Notes	
Balance ID	b037
Batch Comment	SS: AR/SM
Na2SO4 Lot Number	010351
Prep Solvent Name	016820

Basis	Basis Description
T	Total/NA

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Batch Number: 4656 Batch Start Date: 06/14/11 14:20 Batch Analyst: Robbins, Alex

Batch Method: 3540C Batch End Date: 06/15/11 06:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXBNALCS1 00003	EXBNASURRW 00002	EXRESTEKSPKW 00002
240-741-F-1	GSP-SB-103-0-2	3540C, 8270D	T	30.02 g	2.00 mL		1 mL	
240-741-F-2	GSP-SB-103-6-8	3540C, 8270D	T	29.91 g	2.00 mL		1 mL	
240-741-F-3	GSP-SB-105-0-2	3540C, 8270D	T	30.08 g	2.00 mL		1 mL	
240-741-G-4	GSP-SB-105-6-8	3540C, 8270D	T	30.14 g	2.00 mL		1 mL	
240-741-G-5	GSP-SB-101-0-2	3540C, 8270D	T	29.97 g	2.00 mL		1 mL	
240-741-G-6	GSP-SB-101-6-8	3540C, 8270D	T	29.95 g	2.00 mL		1 mL	
240-741-F-7	GSP-SB-99-0-2	3540C, 8270D	T	30.12 g	2.00 mL		1 mL	
240-741-F-8	GSP-SB-99-6-8	3540C, 8270D	T	29.95 g	2.00 mL		1 mL	
240-741-G-9	GSP-SB-100-2-4	3540C, 8270D	T	30.06 g	2.00 mL		1 mL	
240-741-F-10	GSP-SB-100-6-8	3540C, 8270D	T	30.03 g	2.00 mL		1 mL	
240-742-G-1	GSP-SB-109-0-2	3540C, 8270D	T	30.01 g	2.00 mL		1 mL	
240-742-G-2	GSP-SB-109-6-8	3540C, 8270D	T	30.15 g	2.00 mL		1 mL	
240-742-G-3	GSP-SB-108-0-2	3540C, 8270D	T	30.00 g	2.00 mL		1 mL	
240-742-G-4	GSP-SB-108-6-8	3540C, 8270D	T	30.09 g	2.00 mL		1 mL	
240-742-F-5	GSP-SB-110-0-2	3540C, 8270D	T	30.19 g	2.00 mL		1 mL	
240-742-G-6	GSP-SB-110-6-8	3540C, 8270D	T	29.93 g	2.00 mL		1 mL	
240-742-G-7	GSP-SB-102-0-2	3540C, 8270D	T	30.17 g	2.00 mL		1 mL	
240-742-G-8	GSP-SB-102-6-8	3540C, 8270D	T	30.01 g	2.00 mL		1 mL	
240-742-G-9	GSP-SB-107-0-2	3540C, 8270D	T	30.16 g	2.00 mL		1 mL	
240-742-G-6 MS	GSP-SB-110-6-8	3540C, 8270D	T	30.03 g	2.00 mL	1 mL	1 mL	1 mL
240-742-G-6 MSD	GSP-SB-110-6-8	3540C, 8270D	T	30.00 g	2.00 mL	1 mL	1 mL	1 mL
LCS 240-4656/23		3540C, 8270D		30.00 g	2.00 mL	1 mL	1 mL	1 mL
MB 240-4656/24		3540C, 8270D		30.00 g	2.00 mL		1 mL	

Batch Notes	
Balance ID	b037
Batch Comment	SS: AR/SM srf 1380 and 741
Na2SO4 Lot Number	010351
Prep Solvent Name	016820

SAMPLE ID GSP-SB-103-0-2

SAMPLE CALC IS AREA	DILUTION	COMPOUND OF INTEREST	IS AMOUNT (NG)	Final Extract Volume (UL)	AVE RRF	CONCENTRATION PPB
590629	1	27187	4	2000	1.1540	12.52
		% Solids		**Sample Volume (Grams)**		
		0.849		30.02		

Chrysene = 13 ug/kg

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-741-1

SDG No.:

Client Sample ID: GSP-SB-103-0-2 | Lab Sample ID: 240-741-1

Matrix: Solid | Lab File ID: 741F1A.D

Analysis Method: 8270D | Date Collected: 06/02/2011 08:55

Extract. Method: 3540C | Date Extracted: 06/14/2011 10:52

Sample wt/vol: 30.02(g) | Date Analyzed: 07/07/2011 18:06

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7724 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	26
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.4
117-81-7	Bis(2-ethylhexyl) phthalate	59	U	59	22
85-68-7	Butyl benzyl phthalate	59	U	59	12
105-60-2	Caprolactam	390	U	390	44
86-74-8	Carbazole	59	U	59	32
218-01-9	Chrysene	13		7.9	1.3
84-74-2	Di-n-butyl phthalate	59	U	59	18
117-84-0	Di-n-octyl phthalate	59	U	59	32
53-70-3	Dibenzo(a,h)anthracene	7.9	U	7.9	3.9
132-64-9	Dibenzofuran	59	U	59	3.9
84-66-2	Diethyl phthalate	59	U	59	19
131-11-3	Dimethyl phthalate	59	U	59	20
206-44-0	Fluoranthene	21		7.9	3.9
86-73-7	Fluorene	7.9	U	7.9	3.9
118-74-1	Hexachlorobenzene	7.9	U	7.9	2.5
87-68-3	Hexachlorobutadiene	59	U	59	32
77-47-4	Hexachlorocyclopentadiene	390	U	390	32
67-72-1	Hexachloroethane	59	U	59	11
193-39-5	Indeno[1,2,3-cd]pyrene	7.9	U	7.9	3.9
78-59-1	Isophorone	59	U	59	15
621-64-7	N-Nitrosodi-n-propylamine	59	U	59	32
62-75-9	N-Nitrosodimethylamine	120	U	120	19
86-30-6	N-Nitrosodiphenylamine	59	U	59	25
91-20-3	Naphthalene	7.9	U	7.9	3.9
98-95-3	Nitrobenzene	120	U	120	2.6
87-86-5	Pentachlorophenol	180	U	180	94
85-01-8	Phenanthrene	8.1		7.9	3.9
108-95-2	Phenol	59	U	59	32
129-00-0	Pyrene	17		7.9	3.9
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	11
606-20-2	2,6-Dinitrotoluene	240	U	240	25
100-02-7	4-Nitrophenol	390	U	390	94

Report Date: 09-Jul-2011 12:46:31 Chrom Revision: 1.2 30-Jun-2011 15:02:28

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\Ncchrom\ChromData\A4HP9\20110708-1740.b\741F1A.D
Lims ID: 240-741-F-1-A Client ID: GSP-SB-103-0-2
Inject. Date: 07-Jul-2011 18:06:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 741f1a,10707a.b,8270c-625,1-827042d.sub
Misc. Info.:
Operator: 001574 Instrument ID: A4HP9
Vol. Injected: 1.0000 ALS Bottle#: 19
Lims Batch ID: 7724 Lims Sample ID: 19
Detector: MS SCAN

Method: \\Ncchrom\ChromData\A4HP9\20110708-1740.b\8270 _9.m
Last Update: 09-Jul-2011 12:46:29 Calib Date: 05-Jul-2011 20:52:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A4HP9\20110706-1638.b\9AHHH705.D
Limit Group: MSS 8270D ICAL
Integrator: RTE ID Type: Deconvolution ID
Process Host: CORP-CTX-15

First Level Reviewer: ulmanm Date: 09-Jul-2011 10:49:09

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.760	3.760	0.0	94	137346	4.00	
* 2 Naphthalene-d8	136	4.732	4.722	0.010	98	524100	4.00	
* 3 Acenaphthene-d10	164	6.019	6.020	-0.001	85	318774	4.00	
* 4 Phenanthrene-d10	188	7.104	7.104	0.0	97	575908	4.00	
* 5 Chrysene-d12	240	9.059	9.091	-0.032	79	590629	4.00	
* 6 Perylene-d12	264	10.384	10.416	-0.032	95	518878	4.00	
$ 7 2-Fluorophenol	112	2.782	2.761	0.021	92	619185	11.5	
$ 8 Phenol-d5	99	3.498	3.450	0.048	0	743030	9.70	M
$ 9 Nitrobenzene-d5	82	4.176	4.177	-0.001	83	553228	6.47	M
$ 10 2-Fluorobiphenyl (Surr)	172	5.517	5.507	0.010	98	708461	6.56	
$ 11 2,4,6-Tribromophenol	330	6.660	6.591	0.069	67	114191	9.72	M
$ 12 Terphenyl-d14	244	8.242	8.253	-0.011	98	908218	8.24	
25 1,4-Dioxane	88		1.671					
26 N-Nitrosodimethylamine	74		1.853					
41 Benzaldehyde	77		3.429					
43 Phenol	94		3.461					
69 Bis(2-chloroethyl)ether	93		3.541					
46 2-Chlorophenol	128		3.605					
51 2-Methylphenol	108		3.926					
53 2,2'-oxybis[1-chloropropane]	45		3.947					
21 3 & 4 Methylphenol	108		4.038					
57 N-Nitrosodi-n-propylamine	70		4.048					
58 Acetophenone	105		4.059					
61 Hexachloroethane	117		4.155					
62 Nitrobenzene	77		4.193					
64 Isophorone	82		4.364					
66 2-Nitrophenol	139		4.433					
65 2,4-Dimethylphenol	107		4.444					
70 Bis(2-chloroethoxy)methane	93		4.508					
73 2,4-Dichlorophenol	162		4.609					
75 Naphthalene	128		4.743					

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
76 4-Chloroaniline	127		4.764					
79 Hexachlorobutadiene	225		4.828					
84 Caprolactam	113		5.026					
86 4-Chloro-3-methylphenol	107		5.112					
87 2-Methylnaphthalene	142		5.250					
89 Hexachlorocyclopentadiene	237		5.368					
92 2,4,6-Trichlorophenol	196		5.453					
93 2,4,5-Trichlorophenol	196		5.480					
98 1,1'-Biphenyl	154		5.587					
100 2-Chloronaphthalene	162		5.614					
102 2-Nitroaniline	65		5.672					
105 Dimethyl phthalate	163		5.790					
107 2,6-Dinitrotoluene	165		5.838					
109 Acenaphthylene	152		5.918					
110 3-Nitroaniline	138		5.972					
112 Acenaphthene	153		6.046					
111 2,4-Dinitrophenol	184		6.046					
113 4-Nitrophenol	109		6.073					
114 2,4-Dinitrotoluene	165		6.137					
116 Dibenzofuran	168		6.169					
121 Diethyl phthalate	149		6.298					
123 4-Chlorophenyl phenyl ether	204		6.399					
125 4-Nitroaniline	138		6.415					
126 Fluorene	166		6.420					
128 4,6-Dinitro-2-methylphenol	198		6.436					
131 N-Nitrosodiphenylamine	169		6.484					
139 4-Bromophenyl phenyl ether	248		6.757					
141 Hexachlorobenzene	284		6.826					
142 Atrazine	200		6.853					
143 Pentachlorophenol	266		6.953					
148 Phenanthrene	178	7.125	7.120	0.005	70	16912	0.1038	
149 Anthracene	178		7.158					
151 Carbazole	167		7.264					
154 Di-n-butyl phthalate	149		7.473					
159 Fluoranthene	202	7.991	7.996	-0.005	94	46583	0.2726	
161 Pyrene	202	8.162	8.167	-0.005	87	40811	0.2162	
168 Butyl benzyl phthalate	149		8.595					
173 Bis(2-ethylhexyl) phthalate	149		9.022					
175 3,3'-Dichlorobenzidine	252		9.038					
177 Benzo[a]anthracene	228	9.054	9.081	-0.027	70	26380	0.1454	
178 Chrysene	228	9.080	9.113	-0.033	44	27187	0.1595	
180 Di-n-octyl phthalate	149		9.530					
182 Benzo[b]fluoranthene	252	9.978	10.016	-0.038	83	31077	0.1778	M
183 Benzo[k]fluoranthene	252		10.037					M
184 Benzo[a]pyrene	252	10.325	10.363	-0.038	50	22110	0.1446	
188 Indeno[1,2,3-cd]pyrene	276		11.837					
189 Dibenz(a,h)anthracene	278		11.843					
190 Benzo[g,h,i]perylene	276	12.227	12.270	-0.043	53	13542	0.1002	

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): CLP-2 ID: 0.53 (mm) GC Column (2): CLP-1 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX1	#	TCX2	#	DCB1	#	DCB2	#
GSP-SB-103-0-2	240-741-1	73		74		69		71	
GSP-SB-103-6-8	240-741-2	79		83		79		80	
GSP-SB-105-0-2	240-741-3	71		74		64		54	
GSP-SB-105-6-8	240-741-4	89		92		76		67	
GSP-SB-101-0-2	240-741-5	68		68		62		55	
GSP-SB-101-6-8	240-741-6	84		84		71		66	
GSP-SB-99-0-2	240-741-7	73		70		62		63	
GSP-SB-99-6-8	240-741-8	80		78		76		80	
GSP-SB-100-2-4	240-741-9	69		69		64		62	
GSP-SB-100-6-8	240-741-10	78		78		74		73	
GSP-SB-109-0-2	240-742-1	78		75		63		57	
GSP-SB-109-6-8	240-742-2	80		75		67		66	
GSP-SB-108-0-2	240-742-3	72		78		62		54	
GSP-SB-108-6-8	240-742-4	83		88		66		72	
GSP-SB-110-0-2	240-742-5	92		92		80		73	
GSP-SB-110-6-8	240-742-6	82		81		69		81	
GSP-SB-102-0-2	240-742-7	80		78		68		68	
GSP-SB-102-6-8	240-742-8	74		66		72		70	
GSP-SB-107-0-2	240-742-9	76		79		66		62	
GSP-SB-107-6-8	240-742-10	85		88		77		73	
	MB 240-4340/23-A	84		84		82		67	
	MB 240-4687/17-A	81		88		79		87	
	LCS 240-4340/24-A	80		89		80		71	
	LCS 240-4687/18-A	82		92		85		91	
GSP-SB-101-0-2 MS	240-741-5 MS	78		84		73		62	
GSP-SB-107-6-8 MS	240-742-10 MS	71		84		74		72	
GSP-SB-101-0-2 MSD	240-741-5 MSD	81		88		73		62	
GSP-SB-107-6-8 MSD	240-742-10 MSD	81		93		79		81	

	QC LIMITS
TCX = Tetrachloro-m-xylene	29-151
DCB = Decachlorobiphenyl	14-163

Column to be used to flag recovery values

FORM II 8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP12 Start Date: 05/07/2011 10:37

Analysis Batch Number: 1720 End Date: 05/07/2011 22:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD005 240-1720/1 IC		05/07/2011 10:37	1	P1250702.D	CLP-1 0.53(mm)
STD005 240-1720/1 IC		05/07/2011 10:37	1	P1250702.D	CLP-2 0.53(mm)
STD01 240-1720/2 IC		05/07/2011 10:52	1	P1250703.D	CLP-1 0.53(mm)
STD01 240-1720/2 IC		05/07/2011 10:52	1	P1250703.D	CLP-2 0.53(mm)
STD02 240-1720/3 IC		05/07/2011 11:06	1	P1250704.D	CLP-1 0.53(mm)
STD02 240-1720/3 IC		05/07/2011 11:06	1	P1250704.D	CLP-2 0.53(mm)
STD05 240-1720/4 IC		05/07/2011 11:21	1	P1250705.D	CLP-1 0.53(mm)
STD05 240-1720/4 IC		05/07/2011 11:21	1	P1250705.D	CLP-2 0.53(mm)
STD1 240-1720/5 IC		05/07/2011 11:35	1	P1250706.D	CLP-1 0.53(mm)
STD1 240-1720/5 IC		05/07/2011 11:35	1	P1250706.D	CLP-2 0.53(mm)
STD2 240-1720/6 IC		05/07/2011 11:50	1	P1250707.D	CLP-1 0.53(mm)
STD2 240-1720/6 IC		05/07/2011 11:50	1	P1250707.D	CLP-2 0.53(mm)
STD005 240-1720/7 IC		05/07/2011 12:05	1	P1250708.D	CLP-1 0.53(mm)
STD005 240-1720/7 IC		05/07/2011 12:05	1	P1250708.D	CLP-2 0.53(mm)
STD01 240-1720/8 IC		05/07/2011 12:19	1	P1250709.D	CLP-1 0.53(mm)
STD01 240-1720/8 IC		05/07/2011 12:19	1	P1250709.D	CLP-2 0.53(mm)
STD02 240-1720/9 IC		05/07/2011 12:34	1	P1250710.D	CLP-1 0.53(mm)
STD02 240-1720/9 IC		05/07/2011 12:34	1	P1250710.D	CLP-2 0.53(mm)
STD05 240-1720/10 IC		05/07/2011 12:48	1	P1250711.D	CLP-1 0.53(mm)
STD05 240-1720/10 IC		05/07/2011 12:48	1	P1250711.D	CLP-2 0.53(mm)
STD1 240-1720/11 IC		05/07/2011 13:02	1	P1250712.D	CLP-1 0.53(mm)
STD1 240-1720/11 IC		05/07/2011 13:02	1	P1250712.D	CLP-2 0.53(mm)
STD2 240-1720/12 IC		05/07/2011 13:17	1	P1250713.D	CLP-1 0.53(mm)
STD2 240-1720/12 IC		05/07/2011 13:17	1	P1250713.D	CLP-2 0.53(mm)
STD005 240-1720/13 IC		05/07/2011 13:32	1	P1250714.D	CLP-1 0.53(mm)
STD005 240-1720/13 IC		05/07/2011 13:32	1	P1250714.D	CLP-2 0.53(mm)
STD01 240-1720/14 IC		05/07/2011 13:46	1	P1250715.D	CLP-1 0.53(mm)
STD01 240-1720/14 IC		05/07/2011 13:46	1	P1250715.D	CLP-2 0.53(mm)
STD02 240-1720/15 IC		05/07/2011 14:01	1	P1250716.D	CLP-1 0.53(mm)
STD02 240-1720/15 IC		05/07/2011 14:01	1	P1250716.D	CLP-2 0.53(mm)
STD05 240-1720/16 IC		05/07/2011 14:15	1	P1250717.D	CLP-1 0.53(mm)
STD05 240-1720/16 IC		05/07/2011 14:15	1	P1250717.D	CLP-2 0.53(mm)
STD1 240-1720/17 IC		05/07/2011 14:30	1	P1250718.D	CLP-1 0.53(mm)
STD1 240-1720/17 IC		05/07/2011 14:30	1	P1250718.D	CLP-2 0.53(mm)
STD2 240-1720/18 IC		05/07/2011 14:44	1	P1250719.D	CLP-1 0.53(mm)
STD2 240-1720/18 IC		05/07/2011 14:44	1	P1250719.D	CLP-2 0.53(mm)
STD005 240-1720/19 IC		05/07/2011 14:59	1	P1250720.D	CLP-1 0.53(mm)
STD005 240-1720/19 IC		05/07/2011 14:59	1	P1250720.D	CLP-2 0.53(mm)
STD01 240-1720/20 IC		05/07/2011 15:14	1	P1250721.D	CLP-1 0.53(mm)
STD01 240-1720/20 IC		05/07/2011 15:14	1	P1250721.D	CLP-2 0.53(mm)
STD02 240-1720/21 IC		05/07/2011 15:28	1	P1250722.D	CLP-1 0.53(mm)
STD02 240-1720/21 IC		05/07/2011 15:28	1	P1250722.D	CLP-2 0.53(mm)
STD05 240-1720/22 IC		05/07/2011 15:42	1	P1250723.D	CLP-1 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP12 Start Date: 05/07/2011 10:37

Analysis Batch Number: 1720 End Date: 05/07/2011 22:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD05 240-1720/22 IC		05/07/2011 15:42	1	P1250723.D	CLP-2 0.53(mm)
STD1 240-1720/23 IC		05/07/2011 15:56	1	P1250724.D	CLP-1 0.53(mm)
STD1 240-1720/23 IC		05/07/2011 15:56	1	P1250724.D	CLP-2 0.53(mm)
STD2 240-1720/24 IC		05/07/2011 16:11	1	P1250725.D	CLP-1 0.53(mm)
STD2 240-1720/24 IC		05/07/2011 16:11	1	P1250725.D	CLP-2 0.53(mm)
STD005 240-1720/25 IC		05/07/2011 16:26	1	P1250726.D	CLP-1 0.53(mm)
STD005 240-1720/25 IC		05/07/2011 16:26	1	P1250726.D	CLP-2 0.53(mm)
STD01 240-1720/26 IC		05/07/2011 16:40	1	P1250727.D	CLP-1 0.53(mm)
STD01 240-1720/26 IC		05/07/2011 16:40	1	P1250727.D	CLP-2 0.53(mm)
STD02 240-1720/27 IC		05/07/2011 16:54	1	P1250728.D	CLP-1 0.53(mm)
STD02 240-1720/27 IC		05/07/2011 16:54	1	P1250728.D	CLP-2 0.53(mm)
STD05 240-1720/28 ICRT		05/07/2011 17:09	1	P1250729.D	CLP-1 0.53(mm)
STD05 240-1720/28 ICRT		05/07/2011 17:09	1	P1250729.D	CLP-2 0.53(mm)
STD1 240-1720/29 IC		05/07/2011 17:24	1	P1250730.D	CLP-1 0.53(mm)
STD1 240-1720/29 IC		05/07/2011 17:24	1	P1250730.D	CLP-2 0.53(mm)
STD2 240-1720/30 IC		05/07/2011 17:38	1	P1250731.D	CLP-1 0.53(mm)
STD2 240-1720/30 IC		05/07/2011 17:38	1	P1250731.D	CLP-2 0.53(mm)
STD005 240-1720/31 IC		05/07/2011 17:53	1		CLP-1 0.53(mm)
STD005 240-1720/31 IC		05/07/2011 17:53	1		CLP-2 0.53(mm)
STD01 240-1720/32 IC		05/07/2011 18:07	1		CLP-1 0.53(mm)
STD01 240-1720/32 IC		05/07/2011 18:07	1		CLP-2 0.53(mm)
STD02 240-1720/33 IC		05/07/2011 18:22	1		CLP-1 0.53(mm)
STD02 240-1720/33 IC		05/07/2011 18:22	1		CLP-2 0.53(mm)
STD05 240-1720/34 IC		05/07/2011 18:36	1		CLP-1 0.53(mm)
STD05 240-1720/34 IC		05/07/2011 18:36	1		CLP-2 0.53(mm)
STD1 240-1720/35 IC		05/07/2011 18:51	1		CLP-1 0.53(mm)
STD1 240-1720/35 IC		05/07/2011 18:51	1		CLP-2 0.53(mm)
STD2 240-1720/36 IC		05/07/2011 19:05	1		CLP-1 0.53(mm)
STD2 240-1720/36 IC		05/07/2011 19:05	1		CLP-2 0.53(mm)
STD005 240-1720/37 IC		05/07/2011 19:19	1		CLP-1 0.53(mm)
STD005 240-1720/37 IC		05/07/2011 19:19	1		CLP-2 0.53(mm)
STD01 240-1720/38 IC		05/07/2011 19:34	1		CLP-1 0.53(mm)
STD01 240-1720/38 IC		05/07/2011 19:34	1		CLP-2 0.53(mm)
STD02 240-1720/39 IC		05/07/2011 19:48	1		CLP-1 0.53(mm)
STD02 240-1720/39 IC		05/07/2011 19:48	1		CLP-2 0.53(mm)
STD05 240-1720/40 IC		05/07/2011 20:03	1		CLP-1 0.53(mm)
STD05 240-1720/40 IC		05/07/2011 20:03	1		CLP-2 0.53(mm)
STD1 240-1720/41 IC		05/07/2011 20:18	1		CLP-1 0.53(mm)
STD1 240-1720/41 IC		05/07/2011 20:18	1		CLP-2 0.53(mm)
STD2 240-1720/42 IC		05/07/2011 20:32	1		CLP-1 0.53(mm)
STD2 240-1720/42 IC		05/07/2011 20:32	1		CLP-2 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP12 Start Date: 05/07/2011 10:37

Analysis Batch Number: 1720 End Date: 05/07/2011 22:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 240-1720/43		05/07/2011 20:46	1	P1250744.D	CLP-1 0.53(mm)
ICV 240-1720/43		05/07/2011 20:46	1	P1250744.D	CLP-2 0.53(mm)
ICV 240-1720/44		05/07/2011 21:01	1	P1250745.D	CLP-1 0.53(mm)
ICV 240-1720/44		05/07/2011 21:01	1	P1250745.D	CLP-2 0.53(mm)
ICV 240-1720/45		05/07/2011 21:15	1	P1250746.D	CLP-1 0.53(mm)
ICV 240-1720/45		05/07/2011 21:15	1	P1250746.D	CLP-2 0.53(mm)
ICV 240-1720/46		05/07/2011 21:30	1	P1250747.D	CLP-1 0.53(mm)
ICV 240-1720/46		05/07/2011 21:30	1	P1250747.D	CLP-2 0.53(mm)
ICV 240-1720/47		05/07/2011 21:44	1	P1250748.D	CLP-1 0.53(mm)
ICV 240-1720/47		05/07/2011 21:44	1	P1250748.D	CLP-2 0.53(mm)
ICV 240-1720/48		05/07/2011 21:59	1	P1250749.D	CLP-1 0.53(mm)
ICV 240-1720/48		05/07/2011 21:59	1	P1250749.D	CLP-2 0.53(mm)
ICV 240-1720/49		05/07/2011 22:13	1		CLP-1 0.53(mm)
ICV 240-1720/49		05/07/2011 22:13	1		CLP-2 0.53(mm)
ICV 240-1720/50		05/07/2011 22:28	1		CLP-1 0.53(mm)
ICV 240-1720/50		05/07/2011 22:28	1		CLP-2 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP12 Start Date: 06/14/2011 12:58

Analysis Batch Number: 4691 End Date: 06/14/2011 20:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-4691/3 CCVRT		06/14/2011 12:58	1	P1261403.D	CLP-1 0.53(mm)
CCV 240-4691/3 CCVRT		06/14/2011 12:58	1	P1261403.D	CLP-2 0.53(mm)
240-741-1	GSP-SB-103-0-2	06/14/2011 15:24	1	P1261413.D	CLP-1 0.53(mm)
240-741-1	GSP-SB-103-0-2	06/14/2011 15:24	1	P1261413.D	CLP-2 0.53(mm)
240-741-2	GSP-SB-103-6-8	06/14/2011 15:39	1	P1261414.D	CLP-1 0.53(mm)
240-741-2	GSP-SB-103-6-8	06/14/2011 15:39	1	P1261414.D	CLP-2 0.53(mm)
240-741-3	GSP-SB-105-0-2	06/14/2011 15:53	1	P1261415.D	CLP-1 0.53(mm)
240-741-3	GSP-SB-105-0-2	06/14/2011 15:53	1	P1261415.D	CLP-2 0.53(mm)
240-741-4	GSP-SB-105-6-8	06/14/2011 16:08	1	P1261416.D	CLP-1 0.53(mm)
240-741-4	GSP-SB-105-6-8	06/14/2011 16:08	1	P1261416.D	CLP-2 0.53(mm)
MB 240-4340/23-A		06/14/2011 16:22	1	P1261417.D	CLP-1 0.53(mm)
MB 240-4340/23-A		06/14/2011 16:22	1	P1261417.D	CLP-2 0.53(mm)
CCV 240-4691/18 CCVRT		06/14/2011 16:37	1	P1261418.D	CLP-1 0.53(mm)
CCV 240-4691/18 CCVRT		06/14/2011 16:37	1	P1261418.D	CLP-2 0.53(mm)
240-741-5	GSP-SB-101-0-2	06/14/2011 16:51	1	P1261419.D	CLP-1 0.53(mm)
240-741-5	GSP-SB-101-0-2	06/14/2011 16:51	1	P1261419.D	CLP-2 0.53(mm)
240-741-6	GSP-SB-101-6-8	06/14/2011 17:05	1	P1261420.D	CLP-1 0.53(mm)
240-741-6	GSP-SB-101-6-8	06/14/2011 17:05	1	P1261420.D	CLP-2 0.53(mm)
240-741-7	GSP-SB-99-0-2	06/14/2011 17:20	1	P1261421.D	CLP-1 0.53(mm)
240-741-7	GSP-SB-99-0-2	06/14/2011 17:20	1	P1261421.D	CLP-2 0.53(mm)
240-741-8	GSP-SB-99-6-8	06/14/2011 17:35	1	P1261422.D	CLP-1 0.53(mm)
240-741-8	GSP-SB-99-6-8	06/14/2011 17:35	1	P1261422.D	CLP-2 0.53(mm)
240-741-5 MS	GSP-SB-101-0-2 MS	06/14/2011 17:49	1	P1261423.D	CLP-1 0.53(mm)
240-741-5 MS	GSP-SB-101-0-2 MS	06/14/2011 17:49	1	P1261423.D	CLP-2 0.53(mm)
240-741-5 MSD	GSP-SB-101-0-2 MSD	06/14/2011 18:04	1	P1261424.D	CLP-1 0.53(mm)
240-741-5 MSD	GSP-SB-101-0-2 MSD	06/14/2011 18:04	1	P1261424.D	CLP-2 0.53(mm)
CCV 240-4691/25 CCVRT		06/14/2011 18:18	1	P1261425.D	CLP-1 0.53(mm)
CCV 240-4691/25 CCVRT		06/14/2011 18:18	1	P1261425.D	CLP-2 0.53(mm)
240-741-9	GSP-SB-100-2-4	06/14/2011 18:33	1	P1261426.D	CLP-1 0.53(mm)
240-741-9	GSP-SB-100-2-4	06/14/2011 18:33	1	P1261426.D	CLP-2 0.53(mm)
240-741-10	GSP-SB-100-6-8	06/14/2011 18:47	1	P1261427.D	CLP-1 0.53(mm)
240-741-10	GSP-SB-100-6-8	06/14/2011 18:47	1	P1261427.D	CLP-2 0.53(mm)
240-742-1	GSP-SB-109-0-2	06/14/2011 19:02	1	P1261428.D	CLP-1 0.53(mm)
240-742-1	GSP-SB-109-0-2	06/14/2011 19:02	1	P1261428.D	CLP-2 0.53(mm)
240-742-2	GSP-SB-109-6-8	06/14/2011 19:16	1	P1261429.D	CLP-1 0.53(mm)
240-742-2	GSP-SB-109-6-8	06/14/2011 19:16	1	P1261429.D	CLP-2 0.53(mm)
240-742-3	GSP-SB-108-0-2	06/14/2011 19:31	1	P1261430.D	CLP-1 0.53(mm)
240-742-3	GSP-SB-108-0-2	06/14/2011 19:31	1	P1261430.D	CLP-2 0.53(mm)
240-742-4	GSP-SB-108-6-8	06/14/2011 19:46	1	P1261431.D	CLP-1 0.53(mm)
240-742-4	GSP-SB-108-6-8	06/14/2011 19:46	1	P1261431.D	CLP-2 0.53(mm)
240-742-5	GSP-SB-110-0-2	06/14/2011 20:00	1	P1261432.D	CLP-1 0.53(mm)
240-742-5	GSP-SB-110-0-2	06/14/2011 20:00	1	P1261432.D	CLP-2 0.53(mm)
LCS 240-4340/24-A		06/14/2011 20:14	1	P1261433.D	CLP-1 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP12 Start Date: 06/14/2011 12:58

Analysis Batch Number: 4691 End Date: 06/14/2011 20:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
LCS 240-4340/24-A		06/14/2011 20:14	1	P1261433.D	CLP-2 0.53(mm)
CCV 240-4691/34 CCVRT		06/14/2011 20:29	1	P1261434.D	CLP-1 0.53(mm)
CCV 240-4691/34 CCVRT		06/14/2011 20:29	1	P1261434.D	CLP-2 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP12 Start Date: 06/17/2011 12:53

Analysis Batch Number: 5117 End Date: 06/17/2011 18:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-5117/3 CCVRT		06/17/2011 12:53	1	P1261703.D	CLP-1 0.53(mm)
CCV 240-5117/3 CCVRT		06/17/2011 12:53	1	P1261703.D	CLP-2 0.53(mm)
ZZZZZ		06/17/2011 14:06	1		CLP-1 0.53(mm)
ZZZZZ		06/17/2011 14:06	1		CLP-2 0.53(mm)
240-742-6	GSP-SB-110-6-8	06/17/2011 14:20	1	P1261709.D	CLP-1 0.53(mm)
240-742-6	GSP-SB-110-6-8	06/17/2011 14:20	1	P1261709.D	CLP-2 0.53(mm)
240-742-7	GSP-SB-102-0-2	06/17/2011 14:34	1	P1261710.D	CLP-1 0.53(mm)
240-742-7	GSP-SB-102-0-2	06/17/2011 14:34	1	P1261710.D	CLP-2 0.53(mm)
240-742-8	GSP-SB-102-6-8	06/17/2011 14:49	1	P1261711.D	CLP-1 0.53(mm)
240-742-8	GSP-SB-102-6-8	06/17/2011 14:49	1	P1261711.D	CLP-2 0.53(mm)
240-742-9	GSP-SB-107-0-2	06/17/2011 15:03	1	P1261712.D	CLP-1 0.53(mm)
240-742-9	GSP-SB-107-0-2	06/17/2011 15:03	1	P1261712.D	CLP-2 0.53(mm)
240-742-10	GSP-SB-107-6-8	06/17/2011 15:18	1	P1261713.D	CLP-1 0.53(mm)
240-742-10	GSP-SB-107-6-8	06/17/2011 15:18	1	P1261713.D	CLP-2 0.53(mm)
240-742-10 MS	GSP-SB-107-6-8 MS	06/17/2011 15:33	1	P1261714.D	CLP-1 0.53(mm)
240-742-10 MS	GSP-SB-107-6-8 MS	06/17/2011 15:33	1	P1261714.D	CLP-2 0.53(mm)
240-742-10 MSD	GSP-SB-107-6-8 MSD	06/17/2011 15:47	1	P1261715.D	CLP-1 0.53(mm)
240-742-10 MSD	GSP-SB-107-6-8 MSD	06/17/2011 15:47	1	P1261715.D	CLP-2 0.53(mm)
MB 240-4687/17-A		06/17/2011 16:02	1	P1261716.D	CLP-1 0.53(mm)
MB 240-4687/17-A		06/17/2011 16:02	1	P1261716.D	CLP-2 0.53(mm)
CCV 240-5117/17 CCVRT		06/17/2011 16:17	1	P1261717.D	CLP-1 0.53(mm)
CCV 240-5117/17 CCVRT		06/17/2011 16:17	1	P1261717.D	CLP-2 0.53(mm)
ZZZZZ		06/17/2011 16:31	1		CLP-1 0.53(mm)
ZZZZZ		06/17/2011 16:31	1		CLP-2 0.53(mm)
ZZZZZ		06/17/2011 16:46	1		CLP-1 0.53(mm)
ZZZZZ		06/17/2011 16:46	1		CLP-2 0.53(mm)
ZZZZZ		06/17/2011 17:01	1		CLP-1 0.53(mm)
ZZZZZ		06/17/2011 17:01	1		CLP-2 0.53(mm)
ZZZZZ		06/17/2011 17:15	1		CLP-1 0.53(mm)
ZZZZZ		06/17/2011 17:15	1		CLP-2 0.53(mm)
ZZZZZ		06/17/2011 17:29	1		CLP-1 0.53(mm)
ZZZZZ		06/17/2011 17:29	1		CLP-2 0.53(mm)
ZZZZZ		06/17/2011 17:44	1		CLP-1 0.53(mm)
ZZZZZ		06/17/2011 17:44	1		CLP-2 0.53(mm)
ZZZZZ		06/17/2011 17:59	1		CLP-1 0.53(mm)
ZZZZZ		06/17/2011 17:59	1		CLP-2 0.53(mm)
ZZZZZ		06/17/2011 18:13	1		CLP-1 0.53(mm)
ZZZZZ		06/17/2011 18:13	1		CLP-2 0.53(mm)
LCS 240-4687/18-A		06/17/2011 18:27	1	P1261726.D	CLP-1 0.53(mm)
LCS 240-4687/18-A		06/17/2011 18:27	1	P1261726.D	CLP-2 0.53(mm)
CCV 240-5117/27 CCVRT		06/17/2011 18:42	1	P1261727.D	CLP-1 0.53(mm)
CCV 240-5117/27 CCVRT		06/17/2011 18:42	1	P1261727.D	CLP-2 0.53(mm)

8082A

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 10:37 Calibration End Date: 05/07/2011 11:50 Calibration ID: 864

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/1	P1250702.D
Level 2	STD01 240-1720/2	P1250703.D
Level 3	STD02 240-1720/3	P1250704.D
Level 4	STD05 240-1720/4	P1250705.D
Level 5	STD1 240-1720/5	P1250706.D
Level 6	STD2 240-1720/6	P1250707.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1232 Peak 1	1.666	1.666	1.666	1.665	1.666	1.666	1.616 - 1.716	1.666
PCB-1232 Peak 2	1.965	1.965	1.964	1.964	1.965	1.966	1.915 - 2.015	1.965
PCB-1232 Peak 3	2.373	2.374	2.373	2.373	2.375	2.375	2.323 - 2.423	2.374
PCB-1232 Peak 4	2.498	2.499	2.497	2.498	2.499	2.499	2.448 - 2.548	2.498
PCB-1232 Peak 5	3.320	3.318	3.319	3.319	3.318	3.319	3.270 - 3.370	3.319

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 10:37 Calibration End Date: 05/07/2011 11:50 Calibration ID: 864

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/1	P1250702.D
Level 2	STD01 240-1720/2	P1250703.D
Level 3	STD02 240-1720/3	P1250704.D
Level 4	STD05 240-1720/4	P1250705.D
Level 5	STD1 240-1720/5	P1250706.D
Level 6	STD2 240-1720/6	P1250707.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT		#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2							
PCB-1232 Peak 1	37106640 29154709	35392550 25552061	32128895	29847634	Ave		31530414.8			13.0		20.0			
PCB-1232 Peak 2	27348860 22025070	26227640 19774002	24324390	22280006	Ave		23663328.0			12.0		20.0			
PCB-1232 Peak 3	53229600 45744791	52000320 42330855	48321525	42529454	Ave		47359424.1			9.8		20.0			
PCB-1232 Peak 4	21005740 18085619	20940870 16663106	19521910	17702622	Ave		18986644.4			9.4		20.0			
PCB-1232 Peak 5	28182140 26403924	29035950 23973701	27566025	26195350	Ave		26892848.3			6.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 10:37 Calibration End Date: 05/07/2011 11:50 Calibration ID: 864

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/1	P1250702.D
Level 2	STD01 240-1720/2	P1250703.D
Level 3	STD02 240-1720/3	P1250704.D
Level 4	STD05 240-1720/4	P1250705.D
Level 5	STD1 240-1720/5	P1250706.D
Level 6	STD2 240-1720/6	P1250707.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	Ave	1855332	3539255	6425779	14923817	29154709	0.0500	0.100	0.200	0.500	1.00
		51104121					2.00				
PCB-1232 Peak 2	Ave	1367443	2622764	4864878	11140003	22025070	0.0500	0.100	0.200	0.500	1.00
		39548004					2.00				
PCB-1232 Peak 3	Ave	2661480	5200032	9664305	21264727	45744791	0.0500	0.100	0.200	0.500	1.00
		84661709					2.00				
PCB-1232 Peak 4	Ave	1050287	2094087	3904382	8851311	18085619	0.0500	0.100	0.200	0.500	1.00
		33326211					2.00				
PCB-1232 Peak 5	Ave	1409107	2903595	5513205	13097675	26403924	0.0500	0.100	0.200	0.500	1.00
		47947401					2.00				

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 10:37 Calibration End Date: 05/07/2011 11:50 Calibration ID: 865

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/1	P1250702.D
Level 2	STD01 240-1720/2	P1250703.D
Level 3	STD02 240-1720/3	P1250704.D
Level 4	STD05 240-1720/4	P1250705.D
Level 5	STD1 240-1720/5	P1250706.D
Level 6	STD2 240-1720/6	P1250707.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1232 Peak 1	2.323	2.323	2.323	2.323	2.324	2.324	2.273 - 2.373	2.323
PCB-1232 Peak 2	2.736	2.736	2.736	2.734	2.737	2.736	2.686 - 2.786	2.736
PCB-1232 Peak 3	3.203	3.203	3.203	3.204	3.205	3.204	3.153 - 3.253	3.204
PCB-1232 Peak 4	3.343	3.344	3.344	3.344	3.346	3.345	3.293 - 3.393	3.344
PCB-1232 Peak 5	3.449	3.448	3.449	3.449	3.450	3.450	3.399 - 3.499	3.449

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 10:37 Calibration End Date: 05/07/2011 11:50 Calibration ID: 865

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/1	P1250702.D
Level 2	STD01 240-1720/2	P1250703.D
Level 3	STD02 240-1720/3	P1250704.D
Level 4	STD05 240-1720/4	P1250705.D
Level 5	STD1 240-1720/5	P1250706.D
Level 6	STD2 240-1720/6	P1250707.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1232 Peak 1	22443580 16994989	21246420 15268434	19530855	18179418	Ave		18943949.4				14.0		20.0			
PCB-1232 Peak 2	19289460 12967389	15677270 11627236	15052185	13904828	Ave		14753061.3				18.0		20.0			
PCB-1232 Peak 3	33246060 25768620	31220020 23851844	28859765	27253366	Ave		28366612.5				12.0		20.0			
PCB-1232 Peak 4	14224240 11213272	13662140 10422343	12297200	12026412	Ave		12307601.1				12.0		20.0			
PCB-1232 Peak 5	11074480 8749438	10454190 8253236	9617285	9336314	Ave		9580823.75				11.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 10:37 Calibration End Date: 05/07/2011 11:50 Calibration ID: 865

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/1	P1250702.D
Level 2	STD01 240-1720/2	P1250703.D
Level 3	STD02 240-1720/3	P1250704.D
Level 4	STD05 240-1720/4	P1250705.D
Level 5	STD1 240-1720/5	P1250706.D
Level 6	STD2 240-1720/6	P1250707.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	Ave	1122179 30536869	2124642	3906171	9089709	16994989	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	Ave	964473 23254472	1567727	3010437	6952414	12967389	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	Ave	1662303 47703688	3122002	5771953	13626683	25768620	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	Ave	711212 20844685	1366214	2459440	6013206	11213272	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	Ave	553724 16506471	1045419	1923457	4668157	8749438	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 12:05 Calibration End Date: 05/07/2011 13:17 Calibration ID: 870

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/7	P1250708.D
Level 2	STD01 240-1720/8	P1250709.D
Level 3	STD02 240-1720/9	P1250710.D
Level 4	STD05 240-1720/10	P1250711.D
Level 5	STD1 240-1720/11	P1250712.D
Level 6	STD2 240-1720/12	P1250713.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1242 Peak 1	1.666	1.666	1.665	1.665	1.666	1.666	1.616 - 1.716	1.666
PCB-1242 Peak 2	1.965	1.965	1.964	1.963	1.966	1.965	1.915 - 2.015	1.965
PCB-1242 Peak 3	2.373	2.374	2.373	2.373	2.375	2.374	2.324 - 2.424	2.374
PCB-1242 Peak 4	2.498	2.499	2.498	2.498	2.499	2.498	2.448 - 2.548	2.498
PCB-1242 Peak 5	2.888	2.889	2.889	2.888	2.890	2.889	2.839 - 2.939	2.889

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 12:05 Calibration End Date: 05/07/2011 13:17 Calibration ID: 870

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/7	P1250708.D
Level 2	STD01 240-1720/8	P1250709.D
Level 3	STD02 240-1720/9	P1250710.D
Level 4	STD05 240-1720/10	P1250711.D
Level 5	STD1 240-1720/11	P1250712.D
Level 6	STD2 240-1720/12	P1250713.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			# MIN CF	%RSD	# MAX %RSD	R^2 OR COD	# MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2					
PCB-1242 Peak 1	25507740 20427645	24551550 18517727	23357115	21698950	Ave		22343454.4			12.0	20.0		
PCB-1242 Peak 2	47008720 37915517	45013400 34701999	43020160	40669136	Ave		41388155.3			11.0	20.0		
PCB-1242 Peak 3	98094440 85505307	94045830 80194740	91836830	88882988	Ave		89760022.5			7.1	20.0		
PCB-1242 Peak 4	40845520 33806501	38143330 31773537	37020645	35225618	Ave		36135858.4			8.9	20.0		
PCB-1242 Peak 5	40143640 34700700	38709450 32720607	38054950	36610870	Ave		36823369.4			7.4	20.0		

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 12:05 Calibration End Date: 05/07/2011 13:17 Calibration ID: 870

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/7	P1250708.D
Level 2	STD01 240-1720/8	P1250709.D
Level 3	STD02 240-1720/9	P1250710.D
Level 4	STD05 240-1720/10	P1250711.D
Level 5	STD1 240-1720/11	P1250712.D
Level 6	STD2 240-1720/12	P1250713.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6					LVL 6				
PCB-1242 Peak 1	Ave	1275387	2455155	4671423	10849475	20427645	0.0500	0.100	0.200	0.500	1.00
		37035453					2.00				
PCB-1242 Peak 2	Ave	2350436	4501340	8604032	20334568	37915517	0.0500	0.100	0.200	0.500	1.00
		69403998					2.00				
PCB-1242 Peak 3	Ave	4904722	9404583	18367366	44441494	85505307	0.0500	0.100	0.200	0.500	1.00
		160389480					2.00				
PCB-1242 Peak 4	Ave	2042276	3814333	7404129	17612809	33806501	0.0500	0.100	0.200	0.500	1.00
		63547073					2.00				
PCB-1242 Peak 5	Ave	2007182	3870945	7610990	18305435	34700700	0.0500	0.100	0.200	0.500	1.00
		65441213					2.00				

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 12:05 Calibration End Date: 05/07/2011 13:17 Calibration ID: 871

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/7	P1250708.D
Level 2	STD01 240-1720/8	P1250709.D
Level 3	STD02 240-1720/9	P1250710.D
Level 4	STD05 240-1720/10	P1250711.D
Level 5	STD1 240-1720/11	P1250712.D
Level 6	STD2 240-1720/12	P1250713.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1242 Peak 1	2.323	2.324	2.323	2.323	2.323	2.322	2.273 - 2.373	2.323
PCB-1242 Peak 2	2.735	2.736	2.736	2.736	2.736	2.737	2.685 - 2.785	2.736
PCB-1242 Peak 3	3.203	3.204	3.204	3.204	3.204	3.203	3.153 - 3.253	3.204
PCB-1242 Peak 4	3.345	3.345	3.344	3.345	3.345	3.344	3.295 - 3.395	3.345
PCB-1242 Peak 5	3.840	3.839	3.839	3.839	3.839	3.840	3.790 - 3.890	3.839

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 12:05 Calibration End Date: 05/07/2011 13:17 Calibration ID: 871

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/7	P1250708.D
Level 2	STD01 240-1720/8	P1250709.D
Level 3	STD02 240-1720/9	P1250710.D
Level 4	STD05 240-1720/10	P1250711.D
Level 5	STD1 240-1720/11	P1250712.D
Level 6	STD2 240-1720/12	P1250713.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1242 Peak 1	16005320 12196983	15021730 11237429	14164405	13194406	Ave		13636712.2				13.0		20.0			
PCB-1242 Peak 2	29970200 23577483	27374250 21865573	27648880	25634632	Ave		26011836.3				11.0		20.0			
PCB-1242 Peak 3	59713920 47702346	55316730 45033825	52786570	50486030	Ave		51839903.5				10.0		20.0			
PCB-1242 Peak 4	25656540 20710812	23659930 19400343	22459450	22199450	Ave		22347754.1				9.8		20.0			
PCB-1242 Peak 5	22415660 15746402	19753290 14650093	18700825	17126606	Ave		18065479.3				16.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 12:05 Calibration End Date: 05/07/2011 13:17 Calibration ID: 871

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/7	P1250708.D
Level 2	STD01 240-1720/8	P1250709.D
Level 3	STD02 240-1720/9	P1250710.D
Level 4	STD05 240-1720/10	P1250711.D
Level 5	STD1 240-1720/11	P1250712.D
Level 6	STD2 240-1720/12	P1250713.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6					LVL 6				
PCB-1242 Peak 1	Ave	800266	1502173	2832881	6597203	12196983	0.0500	0.100	0.200	0.500	1.00
		22474858					2.00				
PCB-1242 Peak 2	Ave	1498510	2737425	5529776	12817316	23577483	0.0500	0.100	0.200	0.500	1.00
		43731146					2.00				
PCB-1242 Peak 3	Ave	2985696	5531673	10557314	25243015	47702346	0.0500	0.100	0.200	0.500	1.00
		90067650					2.00				
PCB-1242 Peak 4	Ave	1282827	2365993	4491890	11099725	20710812	0.0500	0.100	0.200	0.500	1.00
		38800685					2.00				
PCB-1242 Peak 5	Ave	1120783	1975329	3740165	8563303	15746402	0.0500	0.100	0.200	0.500	1.00
		29300186					2.00				

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 13:32 Calibration End Date: 05/07/2011 14:44 Calibration ID: 876

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/13	P1250714.D
Level 2	STD01 240-1720/14	P1250715.D
Level 3	STD02 240-1720/15	P1250716.D
Level 4	STD05 240-1720/16	P1250717.D
Level 5	STD1 240-1720/17	P1250718.D
Level 6	STD2 240-1720/18	P1250719.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1248 Peak 1	1.966	1.963	1.963	1.965	1.964	1.964	1.916 - 2.016	1.964
PCB-1248 Peak 2	2.374	2.372	2.372	2.372	2.372	2.372	2.324 - 2.424	2.372
PCB-1248 Peak 3	2.891	2.889	2.888	2.889	2.889	2.889	2.841 - 2.941	2.889
PCB-1248 Peak 4	3.317	3.313	3.316	3.313	3.314	3.312	3.267 - 3.367	3.314
PCB-1248 Peak 5	3.917	3.916	3.916	3.916	3.917	3.916	3.867 - 3.967	3.916

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 13:32 Calibration End Date: 05/07/2011 14:44 Calibration ID: 876

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/13	P1250714.D
Level 2	STD01 240-1720/14	P1250715.D
Level 3	STD02 240-1720/15	P1250716.D
Level 4	STD05 240-1720/16	P1250717.D
Level 5	STD1 240-1720/17	P1250718.D
Level 6	STD2 240-1720/18	P1250719.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4		B	M1	M2								
	LVL 5	LVL 6														
PCB-1248 Peak 1	21556540	22152190	20438310	18941828	Ave		19849291.1				9.6		20.0			
	18946840	17060039														
PCB-1248 Peak 2	66455880	57675930	53138635	50483052	Ave		54682466.5				12.0		20.0			
	52238458	48102844														
PCB-1248 Peak 3	65685680	63285810	58857920	55435136	Ave		58807581.3				8.4		20.0			
	57155881	52425061														
PCB-1248 Peak 4	111523760	108535980	102029635	95978532	Ave		101897404				7.1		20.0			
	100944727	92371788														
PCB-1248 Peak 5	28478160	26570820	27068980	25997932	Ave		27042612.8				4.2		20.0			
	28325813	25813972														

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 13:32 Calibration End Date: 05/07/2011 14:44 Calibration ID: 876

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/13	P1250714.D
Level 2	STD01 240-1720/14	P1250715.D
Level 3	STD02 240-1720/15	P1250716.D
Level 4	STD05 240-1720/16	P1250717.D
Level 5	STD1 240-1720/17	P1250718.D
Level 6	STD2 240-1720/18	P1250719.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6					LVL 6				
PCB-1248 Peak 1	Ave	1077827	2215219	4087662	9470914	18946840	0.0500	0.100	0.200	0.500	1.00
		34120077					2.00				
PCB-1248 Peak 2	Ave	3322794	5767593	10627727	25241526	52238458	0.0500	0.100	0.200	0.500	1.00
		96205688					2.00				
PCB-1248 Peak 3	Ave	3284284	6328581	11771584	27717568	57155881	0.0500	0.100	0.200	0.500	1.00
		104850122					2.00				
PCB-1248 Peak 4	Ave	5576188	10853598	20405927	47989266	100944727	0.0500	0.100	0.200	0.500	1.00
		184743576					2.00				
PCB-1248 Peak 5	Ave	1423908	2657082	5413796	12998966	28325813	0.0500	0.100	0.200	0.500	1.00
		51627944					2.00				

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 13:32 Calibration End Date: 05/07/2011 14:44 Calibration ID: 877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/13	P1250714.D
Level 2	STD01 240-1720/14	P1250715.D
Level 3	STD02 240-1720/15	P1250716.D
Level 4	STD05 240-1720/16	P1250717.D
Level 5	STD1 240-1720/17	P1250718.D
Level 6	STD2 240-1720/18	P1250719.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1248 Peak 1	2.737	2.735	2.735	2.735	2.734	2.734	2.684 - 2.784	2.735
PCB-1248 Peak 2	3.204	3.202	3.203	3.203	3.202	3.203	3.154 - 3.254	3.203
PCB-1248 Peak 3	3.841	3.840	3.840	3.840	3.840	3.839	3.791 - 3.891	3.840
PCB-1248 Peak 4	4.526	4.526	4.524	4.525	4.525	4.525	4.476 - 4.576	4.525
PCB-1248 Peak 5	4.978	4.978	4.977	4.978	4.978	4.978	4.928 - 5.028	4.978

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 13:32 Calibration End Date: 05/07/2011 14:44 Calibration ID: 877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/13	P1250714.D
Level 2	STD01 240-1720/14	P1250715.D
Level 3	STD02 240-1720/15	P1250716.D
Level 4	STD05 240-1720/16	P1250717.D
Level 5	STD1 240-1720/17	P1250718.D
Level 6	STD2 240-1720/18	P1250719.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1248 Peak 1	14125020 11811781	14169260 10520549	12862905	12010334	Ave		12583308.2				11.0		20.0			
PCB-1248 Peak 2	38630520 31683490	37189090 28864674	33918125	31488912	Ave		33629135.2				11.0		20.0			
PCB-1248 Peak 3	32929540 26343806	32688830 23806367	29416175	26388774	Ave		28595582.0				13.0		20.0			
PCB-1248 Peak 4	59130920 48863072	57092780 44287786	50281160	48443972	Ave		51349948.3				11.0		20.0			
PCB-1248 Peak 5	21747160 17827134	21204890 16054229	19212200	17157684	Ave		18867216.1				12.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 13:32 Calibration End Date: 05/07/2011 14:44 Calibration ID: 877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/13	P1250714.D
Level 2	STD01 240-1720/14	P1250715.D
Level 3	STD02 240-1720/15	P1250716.D
Level 4	STD05 240-1720/16	P1250717.D
Level 5	STD1 240-1720/17	P1250718.D
Level 6	STD2 240-1720/18	P1250719.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	Ave	706251 21041098	1416926	2572581	6005167	11811781	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	Ave	1931526 57729348	3718909	6783625	15744456	31683490	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	Ave	1646477 47612734	3268883	5883235	13194387	26343806	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	Ave	2956546 88575572	5709278	10056232	24221986	48863072	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	Ave	1087358 32108457	2120489	3842440	8578842	17827134	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 14:59 Calibration End Date: 05/07/2011 16:11 Calibration ID: 882

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/19	P1250720.D
Level 2	STD01 240-1720/20	P1250721.D
Level 3	STD02 240-1720/21	P1250722.D
Level 4	STD05 240-1720/22	P1250723.D
Level 5	STD1 240-1720/23	P1250724.D
Level 6	STD2 240-1720/24	P1250725.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1221 Peak 1	1.519	1.518	1.517	1.517	1.517	1.518	1.469 - 1.569	1.518
PCB-1221 Peak 2	1.634	1.633	1.633	1.633	1.633	1.634	1.584 - 1.684	1.633
PCB-1221 Peak 3	1.666	1.665	1.665	1.665	1.665	1.666	1.616 - 1.716	1.665
PCB-1254 Peak 1	3.260	3.260	3.260	3.259	3.260	3.260	3.210 - 3.310	3.260
PCB-1254 Peak 2	3.526	3.525	3.525	3.525	3.524	3.525	3.476 - 3.576	3.525
PCB-1254 Peak 3	3.917	3.916	3.917	3.915	3.915	3.917	3.867 - 3.967	3.916
PCB-1254 Peak 4	4.202	4.201	4.201	4.200	4.200	4.201	4.152 - 4.252	4.201
PCB-1254 Peak 5	4.678	4.677	4.677	4.677	4.677	4.677	4.628 - 4.728	4.677

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 14:59 Calibration End Date: 05/07/2011 16:11 Calibration ID: 882

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/19	P1250720.D
Level 2	STD01 240-1720/20	P1250721.D
Level 3	STD02 240-1720/21	P1250722.D
Level 4	STD05 240-1720/22	P1250723.D
Level 5	STD1 240-1720/23	P1250724.D
Level 6	STD2 240-1720/24	P1250725.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1221 Peak 1	16604720 13382342	15906010 13062850	15523490	14225530	Ave		14784156.9				9.7		20.0			
PCB-1221 Peak 2	7478320 6492806	7982530 5993438	7896875	6956158	Ave		7133354.50				11.0		20.0			
PCB-1221 Peak 3	44094960 33522143	40407020 31565560	40016835	36140418	Ave		37624489.3				13.0		20.0			
PCB-1254 Peak 1	50526340 42103459	48201220 39878558	52421590	42826348	Ave		45992919.2				11.0		20.0			
PCB-1254 Peak 2	98084140 84793555	95547640 81010806	96349730	88473336	Ave		90709867.8				7.7		20.0			
PCB-1254 Peak 3	92018660 88945125	92194810 84049301	94596235	91296782	Ave		90516818.8				4.0		20.0			
PCB-1254 Peak 4	75285640 71087245	74869060 66396279	76518655	71609142	Ave		72627670.2				5.1		20.0			
PCB-1254 Peak 5	110459480 86944350	97299340 80625678	95261285	87697034	Ave		93047861.1				11.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 14:59 Calibration End Date: 05/07/2011 16:11 Calibration ID: 882

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/19	P1250720.D
Level 2	STD01 240-1720/20	P1250721.D
Level 3	STD02 240-1720/21	P1250722.D
Level 4	STD05 240-1720/22	P1250723.D
Level 5	STD1 240-1720/23	P1250724.D
Level 6	STD2 240-1720/24	P1250725.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6					LVL 6				
PCB-1221 Peak 1	Ave	830236	1590601	3104698	7112765	13382342	0.0500	0.100	0.200	0.500	1.00
		26125699					2.00				
PCB-1221 Peak 2	Ave	373916	798253	1579375	3478079	6492806	0.0500	0.100	0.200	0.500	1.00
		11986876					2.00				
PCB-1221 Peak 3	Ave	2204748	4040702	8003367	18070209	33522143	0.0500	0.100	0.200	0.500	1.00
		63131120					2.00				
PCB-1254 Peak 1	Ave	2526317	4820122	10484318	21413174	42103459	0.0500	0.100	0.200	0.500	1.00
		79757116					2.00				
PCB-1254 Peak 2	Ave	4904207	9554764	19269946	44236668	84793555	0.0500	0.100	0.200	0.500	1.00
		162021612					2.00				
PCB-1254 Peak 3	Ave	4600933	9219481	18919247	45648391	88945125	0.0500	0.100	0.200	0.500	1.00
		168098602					2.00				
PCB-1254 Peak 4	Ave	3764282	7486906	15303731	35804571	71087245	0.0500	0.100	0.200	0.500	1.00
		132792558					2.00				
PCB-1254 Peak 5	Ave	5522974	9729934	19052257	43848517	86944350	0.0500	0.100	0.200	0.500	1.00
		161251355					2.00				

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 14:59 Calibration End Date: 05/07/2011 16:11 Calibration ID: 883

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/19	P1250720.D
Level 2	STD01 240-1720/20	P1250721.D
Level 3	STD02 240-1720/21	P1250722.D
Level 4	STD05 240-1720/22	P1250723.D
Level 5	STD1 240-1720/23	P1250724.D
Level 6	STD2 240-1720/24	P1250725.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1221 Peak 1	2.128	2.128	2.126	2.126	2.126	2.127	2.078 - 2.178	2.127
PCB-1221 Peak 2	2.265	2.264	2.264	2.264	2.264	2.264	2.215 - 2.315	2.264
PCB-1221 Peak 3	2.324	2.323	2.322	2.323	2.324	2.324	2.274 - 2.374	2.323
PCB-1254 Peak 1	4.286	4.285	4.285	4.285	4.285	4.285	4.236 - 4.336	4.285
PCB-1254 Peak 2	4.498	4.498	4.498	4.498	4.499	4.498	4.448 - 4.548	4.498
PCB-1254 Peak 3	4.978	4.978	4.977	4.977	4.977	4.977	4.928 - 5.028	4.977
PCB-1254 Peak 4	5.226	5.225	5.226	5.225	5.225	5.226	5.176 - 5.276	5.226
PCB-1254 Peak 5	5.793	5.793	5.792	5.791	5.793	5.792	5.743 - 5.843	5.792

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 14:59 Calibration End Date: 05/07/2011 16:11 Calibration ID: 883

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/19	P1250720.D
Level 2	STD01 240-1720/20	P1250721.D
Level 3	STD02 240-1720/21	P1250722.D
Level 4	STD05 240-1720/22	P1250723.D
Level 5	STD1 240-1720/23	P1250724.D
Level 6	STD2 240-1720/24	P1250725.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4		B	M1	M2								
	LVL 5	LVL 6														
PCB-1221 Peak 1	11303740	10719710	10105815	9260444	Ave		9643461.17				13.0		20.0			
	8536279	7934779														
PCB-1221 Peak 2	7359240	7116120	6625695	6142192	Ave		6337691.42				14.0		20.0			
	5628968	5153934														
PCB-1221 Peak 3	26865560	25212840	23862055	21876248	Ave		22804338.6				13.0		20.0			
	20189505	18819824														
PCB-1254 Peak 1	38376260	36292740	33237660	30576320	Ave		32506722.5				13.0		20.0			
	29099686	27457669														
PCB-1254 Peak 2	42928800	39416100	36629095	34248412	Ave		35923622.3				13.0		20.0			
	32265538	30053789														
PCB-1254 Peak 3	63505380	60877970	57588735	53082870	Ave		55626789.1				11.0		20.0			
	51021552	47684228														
PCB-1254 Peak 4	44594360	42874110	40930890	37442266	Ave		39198440.8				11.0		20.0			
	36009733	33339286														
PCB-1254 Peak 5	60688660	56651350	52755060	47864530	Ave		51212818.7				13.0		20.0			
	46533092	42784220														

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 14:59 Calibration End Date: 05/07/2011 16:11 Calibration ID: 883

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/19	P1250720.D
Level 2	STD01 240-1720/20	P1250721.D
Level 3	STD02 240-1720/21	P1250722.D
Level 4	STD05 240-1720/22	P1250723.D
Level 5	STD1 240-1720/23	P1250724.D
Level 6	STD2 240-1720/24	P1250725.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	Ave	565187	1071971	2021163	4630222	8536279	0.0500	0.100	0.200	0.500	1.00
		15869558					2.00				
PCB-1221 Peak 2	Ave	367962	711612	1325139	3071096	5628968	0.0500	0.100	0.200	0.500	1.00
		10307867					2.00				
PCB-1221 Peak 3	Ave	1343278	2521284	4772411	10938124	20189505	0.0500	0.100	0.200	0.500	1.00
		37639647					2.00				
PCB-1254 Peak 1	Ave	1918813	3629274	6647532	15288160	29099686	0.0500	0.100	0.200	0.500	1.00
		54915338					2.00				
PCB-1254 Peak 2	Ave	2146440	3941610	7325819	17124206	32265538	0.0500	0.100	0.200	0.500	1.00
		60107577					2.00				
PCB-1254 Peak 3	Ave	3175269	6087797	11517747	26541435	51021552	0.0500	0.100	0.200	0.500	1.00
		95368455					2.00				
PCB-1254 Peak 4	Ave	2229718	4287411	8186178	18721133	36009733	0.0500	0.100	0.200	0.500	1.00
		66678572					2.00				
PCB-1254 Peak 5	Ave	3034433	5665135	10551012	23932265	46533092	0.0500	0.100	0.200	0.500	1.00
		85568440					2.00				

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 16:26 Calibration End Date: 05/07/2011 17:38 Calibration ID: 888

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/25	P1250726.D
Level 2	STD01 240-1720/26	P1250727.D
Level 3	STD02 240-1720/27	P1250728.D
Level 4	STD05 240-1720/28	P1250729.D
Level 5	STD1 240-1720/29	P1250730.D
Level 6	STD2 240-1720/30	P1250731.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1016 Peak 1	1.665	1.666	1.666	1.666	1.666	1.666	1.615 - 1.715	1.666
PCB-1016 Peak 2	1.963	1.965	1.966	1.965	1.964	1.965	1.914 - 2.014	1.965
PCB-1016 Peak 3	2.372	2.374	2.375	2.374	2.373	2.374	2.324 - 2.424	2.374
PCB-1016 Peak 4	2.498	2.499	2.499	2.499	2.498	2.499	2.449 - 2.549	2.499
PCB-1016 Peak 5	2.888	2.889	2.890	2.890	2.889	2.889	2.839 - 2.939	2.889
PCB-1260 Peak 1	4.107	4.106	4.107	4.106	4.107	4.106	4.056 - 4.156	4.107
PCB-1260 Peak 2	4.395	4.396	4.396	4.396	4.396	4.396	4.346 - 4.446	4.396
PCB-1260 Peak 3	4.677	4.677	4.677	4.677	4.677	4.677	4.627 - 4.727	4.677
PCB-1260 Peak 4	5.377	5.377	5.378	5.379	5.379	5.378	5.329 - 5.429	5.378
PCB-1260 Peak 5	5.662	5.661	5.661	5.662	5.662	5.661	5.612 - 5.712	5.662
Tetrachloro-m-xylene	1.377	1.376	1.377	1.377	1.377	1.377	1.327 - 1.427	1.377
Decachlorobiphenyl	6.815	6.814	6.814	6.815	6.815	6.815	6.765 - 6.865	6.815

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 16:26 Calibration End Date: 05/07/2011 17:38 Calibration ID: 888

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/25	P1250726.D
Level 2	STD01 240-1720/26	P1250727.D
Level 3	STD02 240-1720/27	P1250728.D
Level 4	STD05 240-1720/28	P1250729.D
Level 5	STD1 240-1720/29	P1250730.D
Level 6	STD2 240-1720/30	P1250731.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4		B	M1	M2								
	LVL 5	LVL 6														
PCB-1016 Peak 1	31185180	30569200	29261115	25736218	Ave		27446979.8				12.0		20.0			
	23587032	24343134														
PCB-1016 Peak 2	57177920	54670480	52253045	47011626	Ave		49677426.8				12.0		20.0			
	43567867	43383623														
PCB-1016 Peak 3	113937940	114042600	112490970	103574370	Ave		106846216				7.0		20.0			
	98806812	98224606														
PCB-1016 Peak 4	46401000	46210470	45196025	41672972	Ave		42962230.1				7.9		20.0			
	39312760	38980154														
PCB-1016 Peak 5	49292820	47206590	46102820	42287656	Ave		44016472.5				9.3		20.0			
	39993341	39215608														
PCB-1260 Peak 1	74242980	68746770	67854700	62777944	Ave		65277667.8				9.3		20.0			
	58856941	59186672														
PCB-1260 Peak 2	139964240	131235800	129928275	119863628	Ave		124322996				9.0		20.0			
	112415060	112530974														
PCB-1260 Peak 3	138365340	123471540	120717690	111405652	Ave		117330359				11.0		20.0			
	104474213	105547720														
PCB-1260 Peak 4	184401920	179169110	182484050	175631438	Ave		175672428				4.6		20.0			
	164268724	168079328														
PCB-1260 Peak 5	78461860	75831450	77206770	74021980	Ave		74584339.7				4.4		20.0			
	69725302	72258676														
Tetrachloro-m-xylene	1602893200	1622869000	1542661300	1485944280	Ave		1504132137				7.0		20.0			
	1403985080	1366439960														
Decachlorobiphenyl	1528204800	1529682000	1524026700	1548242760	Ave		1494671088				4.0		20.0			
	1401061420	1436808850														

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 16:26 Calibration End Date: 05/07/2011 17:38 Calibration ID: 888

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/25	P1250726.D
Level 2	STD01 240-1720/26	P1250727.D
Level 3	STD02 240-1720/27	P1250728.D
Level 4	STD05 240-1720/28	P1250729.D
Level 5	STD1 240-1720/29	P1250730.D
Level 6	STD2 240-1720/30	P1250731.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	1559259 48686268	3056920	5852223	12868109	23587032	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	2858896 86767245	5467048	10450609	23505813	43567867	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	5696897 196449211	11404260	22498194	51787185	98806812	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	2320050 77960307	4621047	9039205	20836486	39312760	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	2464641 78431216	4720659	9220564	21143828	39993341	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	3712149 118373344	6874677	13570940	31388972	58856941	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	6998212 225061948	13123580	25985655	59931814	112415060	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	6918267 211095439	12347154	24143538	55702826	104474213	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	9220096 336158655	17916911	36496810	87815719	164268724	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	3923093 144517352	7583145	15441354	37010990	69725302	0.0500 2.00	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	Ave	4007233 136643996	8114345	15426613	37148607	70199254	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
Decachlorobiphenyl	Ave	3820512 143680885	7648410	15240267	38706069	70053071	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 16:26 Calibration End Date: 05/07/2011 17:38 Calibration ID: 889

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/25	P1250726.D
Level 2	STD01 240-1720/26	P1250727.D
Level 3	STD02 240-1720/27	P1250728.D
Level 4	STD05 240-1720/28	P1250729.D
Level 5	STD1 240-1720/29	P1250730.D
Level 6	STD2 240-1720/30	P1250731.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1016 Peak 1	2.322	2.323	2.324	2.323	2.322	2.323	2.273 - 2.373	2.323
PCB-1016 Peak 2	2.735	2.737	2.736	2.736	2.736	2.736	2.686 - 2.786	2.736
PCB-1016 Peak 3	3.203	3.205	3.204	3.205	3.204	3.204	3.155 - 3.255	3.204
PCB-1016 Peak 4	3.344	3.346	3.346	3.345	3.345	3.345	3.295 - 3.395	3.345
PCB-1016 Peak 5	3.449	3.450	3.450	3.450	3.450	3.449	3.400 - 3.500	3.450
PCB-1260 Peak 1	5.187	5.188	5.189	5.189	5.189	5.189	5.139 - 5.239	5.189
PCB-1260 Peak 2	5.421	5.421	5.421	5.421	5.422	5.422	5.371 - 5.471	5.421
PCB-1260 Peak 3	5.895	5.895	5.895	5.895	5.895	5.895	5.845 - 5.945	5.895
PCB-1260 Peak 4	6.478	6.480	6.479	6.480	6.480	6.480	6.430 - 6.530	6.480
PCB-1260 Peak 5	6.860	6.860	6.860	6.860	6.861	6.861	6.810 - 6.910	6.860
Tetrachloro-m-xylene	1.838	1.840	1.840	1.840	1.839	1.839	1.790 - 1.890	1.839
Decachlorobiphenyl	8.100	8.100	8.100	8.100	8.101	8.101	8.050 - 8.150	8.100

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 16:26 Calibration End Date: 05/07/2011 17:38 Calibration ID: 889

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/25	P1250726.D
Level 2	STD01 240-1720/26	P1250727.D
Level 3	STD02 240-1720/27	P1250728.D
Level 4	STD05 240-1720/28	P1250729.D
Level 5	STD1 240-1720/29	P1250730.D
Level 6	STD2 240-1720/30	P1250731.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1016 Peak 1	19293900 13962036	17727260 13643931	17139565	15113100	Ave		16146632.0				14.0		20.0			
PCB-1016 Peak 2	37853700 27366554	35208780 26583196	33657715	29799692	Ave		31744939.5				14.0		20.0			
PCB-1016 Peak 3	71620200 55596050	66911640 55144366	65101810	59337196	Ave		62285210.3				11.0		20.0			
PCB-1016 Peak 4	30855900 24196974	28491560 23670933	28503095	26117014	Ave		26972579.3				10.0		20.0			
PCB-1016 Peak 5	24685360 19496466	22725550 19202212	22495740	21007644	Ave		21602161.9				9.7		20.0			
PCB-1260 Peak 1	45622980 33806518	42403080 33525969	40478040	36180682	Ave		38669544.8				13.0		20.0			
PCB-1260 Peak 2	53687440 40537827	50524710 39815058	47983705	43571932	Ave		46020111.9				12.0		20.0			
PCB-1260 Peak 3	43478700 34197841	42481920 33946963	40649460	36828202	Ave		38597181.0				11.0		20.0			
PCB-1260 Peak 4	90776400 78942668	92009040 80611241	90648385	84561440	Ave		86258195.6				6.6		20.0			
PCB-1260 Peak 5	69542900 54114536	64985470 55089670	63105620	59068634	Ave		60984471.7				9.8		20.0			
Tetrachloro-m-xylene	1064272400 854215820	1021974600 851563710	961174100	909245400	Ave		943741005				9.3		20.0			
Decachlorobiphenyl	774807200 647123480	748105800 658048170	736997500	729973960	Ave		715842685				7.2		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 16:26 Calibration End Date: 05/07/2011 17:38 Calibration ID: 889

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/25	P1250726.D
Level 2	STD01 240-1720/26	P1250727.D
Level 3	STD02 240-1720/27	P1250728.D
Level 4	STD05 240-1720/28	P1250729.D
Level 5	STD1 240-1720/29	P1250730.D
Level 6	STD2 240-1720/30	P1250731.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	964695 27287862	1772726	3427913	7556550	13962036	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	1892685 53166392	3520878	6731543	14899846	27366554	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	3581010 110288731	6691164	13020362	29668598	55596050	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	1542795 47341865	2849156	5700619	13058507	24196974	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	1234268 38404423	2272555	4499148	10503822	19496466	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	2281149 67051937	4240308	8095608	18090341	33806518	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	2684372 79630115	5052471	9596741	21785966	40537827	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	2173935 67893926	4248192	8129892	18414101	34197841	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	4538820 161222481	9200904	18129677	42280720	78942668	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	3477145 110179340	6498547	12621124	29534317	54114536	0.0500 2.00	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	Ave	2660681 85156371	5109873	9611741	22731135	42710791	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
Decachlorobiphenyl	Ave	1937018 65804817	3740529	7369975	18249349	32356174	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Ave = Average

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/43 Calibration Date: 05/07/2011 20:46

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250744.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	14784157	13149702		0.889	1.00	-11.1	20.0
PCB-1221 Peak 2	Ave	7133355	6744677		0.946	1.00	-5.4	20.0
PCB-1221 Peak 3	Ave	37624489	31854991		0.847	1.00	-15.3	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/43 Calibration Date: 05/07/2011 20:46

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250744.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1221 Peak 1	1.52	1.47	1.57
PCB-1221 Peak 2	1.63	1.58	1.68
PCB-1221 Peak 3	1.66	1.62	1.72

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/43 Calibration Date: 05/07/2011 20:46

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250744.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	9643461	8297060		0.860	1.00	-14.0	20.0
PCB-1221 Peak 2	Ave	6337691	5483105		0.865	1.00	-13.5	20.0
PCB-1221 Peak 3	Ave	22804339	19633246		0.861	1.00	-13.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/43 Calibration Date: 05/07/2011 20:46

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250744.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1221 Peak 1	2.13	2.08	2.18
PCB-1221 Peak 2	2.26	2.22	2.32
PCB-1221 Peak 3	2.32	2.27	2.37

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/44 Calibration Date: 05/07/2011 21:01

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 10:37

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 11:50

Lab File ID: P1250745.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	31530415	28426271		0.902	1.00	-9.8	20.0
PCB-1232 Peak 2	Ave	23663328	24613686		1.04	1.00	4.0	20.0
PCB-1232 Peak 3	Ave	47359424	51117011		1.08	1.00	7.9	20.0
PCB-1232 Peak 4	Ave	18986644	20348425		1.07	1.00	7.2	20.0
PCB-1232 Peak 5	Ave	26892848	29191544		1.09	1.00	8.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/44 Calibration Date: 05/07/2011 21:01

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 10:37

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 11:50

Lab File ID: P1250745.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1232 Peak 1	1.67	1.62	1.72
PCB-1232 Peak 2	1.96	1.92	2.02
PCB-1232 Peak 3	2.37	2.32	2.42
PCB-1232 Peak 4	2.50	2.45	2.55
PCB-1232 Peak 5	3.32	3.27	3.37

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/44 Calibration Date: 05/07/2011 21:01

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 10:37

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 11:50

Lab File ID: P1250745.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	18943949	17470862		0.922	1.00	-7.8	20.0
PCB-1232 Peak 2	Ave	14753061	14708592		1.00	1.00	-0.3	20.0
PCB-1232 Peak 3	Ave	28366613	29413015		1.04	1.00	3.7	20.0
PCB-1232 Peak 4	Ave	12307601	13003823		1.06	1.00	5.7	20.0
PCB-1232 Peak 5	Ave	9580824	10358533		1.08	1.00	8.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/44 Calibration Date: 05/07/2011 21:01

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 10:37

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 11:50

Lab File ID: P1250745.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1232 Peak 1	2.32	2.27	2.37
PCB-1232 Peak 2	2.74	2.69	2.79
PCB-1232 Peak 3	3.20	3.15	3.25
PCB-1232 Peak 4	3.35	3.29	3.39
PCB-1232 Peak 5	3.45	3.40	3.50

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/45 Calibration Date: 05/07/2011 21:15

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 12:05

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 13:17

Lab File ID: P1250746.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	22343454	18828812		0.843	1.00	-15.7	20.0
PCB-1242 Peak 2	Ave	41388155	36683068		0.886	1.00	-11.4	20.0
PCB-1242 Peak 3	Ave	89760023	80404272		0.896	1.00	-10.4	20.0
PCB-1242 Peak 4	Ave	36135858	32432114		0.898	1.00	-10.2	20.0
PCB-1242 Peak 5	Ave	36823369	34102288		0.926	1.00	-7.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/45 Calibration Date: 05/07/2011 21:15

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 12:05

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 13:17

Lab File ID: P1250746.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1242 Peak 1	1.67	1.62	1.72
PCB-1242 Peak 2	1.96	1.92	2.02
PCB-1242 Peak 3	2.37	2.32	2.42
PCB-1242 Peak 4	2.50	2.45	2.55
PCB-1242 Peak 5	2.89	2.84	2.94

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/45 Calibration Date: 05/07/2011 21:15

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 12:05

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 13:17

Lab File ID: P1250746.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	13636712	11627515		0.853	1.00	-14.7	20.0
PCB-1242 Peak 2	Ave	26011836	22842923		0.878	1.00	-12.2	20.0
PCB-1242 Peak 3	Ave	51839904	45230115		0.873	1.00	-12.8	20.0
PCB-1242 Peak 4	Ave	22347754	19759867		0.884	1.00	-11.6	20.0
PCB-1242 Peak 5	Ave	18065479	15649944		0.866	1.00	-13.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/45 Calibration Date: 05/07/2011 21:15

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 12:05

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 13:17

Lab File ID: P1250746.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1242 Peak 1	2.32	2.27	2.37
PCB-1242 Peak 2	2.74	2.69	2.79
PCB-1242 Peak 3	3.20	3.15	3.25
PCB-1242 Peak 4	3.34	3.30	3.40
PCB-1242 Peak 5	3.84	3.79	3.89

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/46 Calibration Date: 05/07/2011 21:30

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 13:32

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 14:44

Lab File ID: P1250747.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	19849291	19750560		1.00	1.00	-0.5	20.0
PCB-1248 Peak 2	Ave	54682467	50544267		0.924	1.00	-7.6	20.0
PCB-1248 Peak 3	Ave	58807581	52026586		0.885	1.00	-11.5	20.0
PCB-1248 Peak 4	Ave	101897404	88963516		0.873	1.00	-12.7	20.0
PCB-1248 Peak 5	Ave	27042613	25819381		0.955	1.00	-4.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/46 Calibration Date: 05/07/2011 21:30

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 13:32

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 14:44

Lab File ID: P1250747.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1248 Peak 1	1.97	1.92	2.02
PCB-1248 Peak 2	2.37	2.32	2.42
PCB-1248 Peak 3	2.89	2.84	2.94
PCB-1248 Peak 4	3.31	3.27	3.37
PCB-1248 Peak 5	3.92	3.87	3.97

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/46 Calibration Date: 05/07/2011 21:30

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 13:32

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 14:44

Lab File ID: P1250747.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	12583308	12300498		0.978	1.00	-2.2	20.0
PCB-1248 Peak 2	Ave	33629135	30773353		0.915	1.00	-8.5	20.0
PCB-1248 Peak 3	Ave	28595582	24561984		0.859	1.00	-14.1	20.0
PCB-1248 Peak 4	Ave	51349948	44366191		0.864	1.00	-13.6	20.0
PCB-1248 Peak 5	Ave	18867216	16310269		0.865	1.00	-13.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/46 Calibration Date: 05/07/2011 21:30

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 13:32

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 14:44

Lab File ID: P1250747.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1248 Peak 1	2.74	2.68	2.78
PCB-1248 Peak 2	3.20	3.15	3.25
PCB-1248 Peak 3	3.84	3.79	3.89
PCB-1248 Peak 4	4.53	4.48	4.58
PCB-1248 Peak 5	4.98	4.93	5.03

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/47 Calibration Date: 05/07/2011 21:44

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250748.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1254 Peak 1	Ave	45992919	41246054		0.897	1.00	-10.3	20.0
PCB-1254 Peak 2	Ave	90709868	84862221		0.936	1.00	-6.4	20.0
PCB-1254 Peak 3	Ave	90516819	85079440		0.940	1.00	-6.0	20.0
PCB-1254 Peak 4	Ave	72627670	67649164		0.932	1.00	-6.9	20.0
PCB-1254 Peak 5	Ave	93047861	86842356		0.933	1.00	-6.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/47 Calibration Date: 05/07/2011 21:44

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250748.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1254 Peak 1	3.26	3.21	3.31
PCB-1254 Peak 2	3.52	3.48	3.58
PCB-1254 Peak 3	3.92	3.87	3.97
PCB-1254 Peak 4	4.20	4.15	4.25
PCB-1254 Peak 5	4.68	4.63	4.73

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/47 Calibration Date: 05/07/2011 21:44

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250748.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1254 Peak 1	Ave	32506723	28233611		0.869	1.00	-13.1	20.0
PCB-1254 Peak 2	Ave	35923622	31329176		0.872	1.00	-12.8	20.0
PCB-1254 Peak 3	Ave	55626789	48807048		0.877	1.00	-12.3	20.0
PCB-1254 Peak 4	Ave	39198441	34046999		0.869	1.00	-13.1	20.0
PCB-1254 Peak 5	Ave	51212819	46737712		0.913	1.00	-8.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/47 Calibration Date: 05/07/2011 21:44

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250748.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1254 Peak 1	4.29	4.24	4.34
PCB-1254 Peak 2	4.50	4.45	4.55
PCB-1254 Peak 3	4.98	4.93	5.03
PCB-1254 Peak 4	5.23	5.18	5.28
PCB-1254 Peak 5	5.79	5.74	5.84

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/48 Calibration Date: 05/07/2011 21:59

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1250749.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	27446980	25811508		0.940	1.00	-6.0	20.0
PCB-1016 Peak 2	Ave	49677427	50902326		1.02	1.00	2.5	20.0
PCB-1016 Peak 3	Ave	106846216	113419200		1.06	1.00	6.2	20.0
PCB-1016 Peak 4	Ave	42962230	45027515		1.05	1.00	4.8	20.0
PCB-1016 Peak 5	Ave	44016473	45696419		1.04	1.00	3.8	20.0
PCB-1260 Peak 1	Ave	65277668	65594736		1.00	1.00	0.5	20.0
PCB-1260 Peak 2	Ave	124322996	123348411		0.990	1.00	-0.8	20.0
PCB-1260 Peak 3	Ave	117330359	111942283		0.954	1.00	-4.6	20.0
PCB-1260 Peak 4	Ave	175672428	182602040		1.04	1.00	3.9	20.0
PCB-1260 Peak 5	Ave	74584340	77969888		1.05	1.00	4.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/48 Calibration Date: 05/07/2011 21:59

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1250749.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.67	1.62	1.72
PCB-1016 Peak 2	1.96	1.91	2.01
PCB-1016 Peak 3	2.37	2.32	2.42
PCB-1016 Peak 4	2.50	2.45	2.55
PCB-1016 Peak 5	2.89	2.84	2.94
PCB-1260 Peak 1	4.11	4.06	4.16
PCB-1260 Peak 2	4.40	4.35	4.45
PCB-1260 Peak 3	4.68	4.63	4.73
PCB-1260 Peak 4	5.38	5.33	5.43
PCB-1260 Peak 5	5.66	5.61	5.71

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/48 Calibration Date: 05/07/2011 21:59

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1250749.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	16146632	16364401		1.01	1.00	1.3	20.0
PCB-1016 Peak 2	Ave	31744940	31646983		1.00	1.00	-0.3	20.0
PCB-1016 Peak 3	Ave	62285210	63860078		1.03	1.00	2.5	20.0
PCB-1016 Peak 4	Ave	26972579	27769813		1.03	1.00	3.0	20.0
PCB-1016 Peak 5	Ave	21602162	22296101		1.03	1.00	3.2	20.0
PCB-1260 Peak 1	Ave	38669545	37119686		0.960	1.00	-4.0	20.0
PCB-1260 Peak 2	Ave	46020112	44427171		0.965	1.00	-3.5	20.0
PCB-1260 Peak 3	Ave	38597181	38237663		0.990	1.00	-0.9	20.0
PCB-1260 Peak 4	Ave	86258196	88129700		1.02	1.00	2.2	20.0
PCB-1260 Peak 5	Ave	60984472	58919886		0.966	1.00	-3.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-1720/48 Calibration Date: 05/07/2011 21:59

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1250749.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.32	2.27	2.37
PCB-1016 Peak 2	2.74	2.69	2.79
PCB-1016 Peak 3	3.20	3.15	3.25
PCB-1016 Peak 4	3.34	3.29	3.39
PCB-1016 Peak 5	3.45	3.40	3.50
PCB-1260 Peak 1	5.19	5.14	5.24
PCB-1260 Peak 2	5.42	5.37	5.47
PCB-1260 Peak 3	5.89	5.84	5.94
PCB-1260 Peak 4	6.48	6.43	6.53
PCB-1260 Peak 5	6.86	6.81	6.91

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/3 Calibration Date: 06/14/2011 12:58

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261403.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	27446980	27141122		0.494	0.500	-1.1	20.0
PCB-1016 Peak 2	Ave	49677427	48676128		0.490	0.500	-2.0	20.0
PCB-1016 Peak 3	Ave	106846216	94468342		0.442	0.500	-11.6	20.0
PCB-1016 Peak 4	Ave	42962230	39866576		0.464	0.500	-7.2	20.0
PCB-1016 Peak 5	Ave	44016473	43339778		0.492	0.500	-1.5	20.0
PCB-1260 Peak 1	Ave	65277668	60562144		0.464	0.500	-7.2	20.0
PCB-1260 Peak 2	Ave	124322996	113536404		0.457	0.500	-8.7	20.0
PCB-1260 Peak 3	Ave	117330359	102912960		0.439	0.500	-12.3	20.0
PCB-1260 Peak 4	Ave	175672428	158917016		0.452	0.500	-9.5	20.0
PCB-1260 Peak 5	Ave	74584340	68499402		0.459	0.500	-8.2	20.0
Tetrachloro-m-xylene	Ave	1504132137	1511978680		0.0251	0.0250	0.5	20.0
Decachlorobiphenyl	Ave	1494671088	1298505480		0.0217	0.0250	-13.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/3 Calibration Date: 06/14/2011 12:58

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261403.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.64	1.59	1.69
PCB-1016 Peak 2	1.94	1.89	1.99
PCB-1016 Peak 3	2.34	2.29	2.39
PCB-1016 Peak 4	2.47	2.42	2.52
PCB-1016 Peak 5	2.85	2.80	2.90
PCB-1260 Peak 1	4.07	4.02	4.12
PCB-1260 Peak 2	4.36	4.31	4.41
PCB-1260 Peak 3	4.63	4.58	4.68
PCB-1260 Peak 4	5.33	5.28	5.38
PCB-1260 Peak 5	5.62	5.57	5.67
Tetrachloro-m-xylene	1.35	1.30	1.40
Decachlorobiphenyl	6.77	6.72	6.82

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/3 Calibration Date: 06/14/2011 12:58

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261403.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	16146632	15052744		0.466	0.500	-6.8	20.0
PCB-1016 Peak 2	Ave	31744940	29910284		0.471	0.500	-5.8	20.0
PCB-1016 Peak 3	Ave	62285210	58222786		0.467	0.500	-6.5	20.0
PCB-1016 Peak 4	Ave	26972579	25582042		0.474	0.500	-5.2	20.0
PCB-1016 Peak 5	Ave	21602162	20513152		0.475	0.500	-5.0	20.0
PCB-1260 Peak 1	Ave	38669545	35378226		0.457	0.500	-8.5	20.0
PCB-1260 Peak 2	Ave	46020112	44976676		0.489	0.500	-2.3	20.0
PCB-1260 Peak 3	Ave	38597181	38978094		0.505	0.500	1.0	20.0
PCB-1260 Peak 4	Ave	86258196	81326066		0.471	0.500	-5.7	20.0
PCB-1260 Peak 5	Ave	60984472	54189790		0.444	0.500	-11.1	20.0
Tetrachloro-m-xylene	Ave	943741005	875748840		0.0232	0.0250	-7.2	20.0
Decachlorobiphenyl	Ave	715842685	549498080		0.0192	0.0250	-23.2*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/3 Calibration Date: 06/14/2011 12:58

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261403.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.29	2.24	2.34
PCB-1016 Peak 2	2.70	2.65	2.75
PCB-1016 Peak 3	3.17	3.12	3.22
PCB-1016 Peak 4	3.31	3.26	3.36
PCB-1016 Peak 5	3.41	3.36	3.46
PCB-1260 Peak 1	5.15	5.10	5.20
PCB-1260 Peak 2	5.38	5.33	5.43
PCB-1260 Peak 3	5.85	5.80	5.90
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.82	6.77	6.87
Tetrachloro-m-xylene	1.81	1.76	1.86
Decachlorobiphenyl	8.06	8.01	8.11

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/18 Calibration Date: 06/14/2011 16:37

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261418.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	27446980	27840840		0.507	0.500	1.4	20.0
PCB-1016 Peak 2	Ave	49677427	48856918		0.492	0.500	-1.7	20.0
PCB-1016 Peak 3	Ave	106846216	99001250		0.463	0.500	-7.3	20.0
PCB-1016 Peak 4	Ave	42962230	41159754		0.479	0.500	-4.2	20.0
PCB-1016 Peak 5	Ave	44016473	44885476		0.510	0.500	2.0	20.0
PCB-1260 Peak 1	Ave	65277668	57253996		0.439	0.500	-12.3	20.0
PCB-1260 Peak 2	Ave	124322996	105664972		0.425	0.500	-15.0	20.0
PCB-1260 Peak 3	Ave	117330359	97257900		0.415	0.500	-17.1	20.0
PCB-1260 Peak 4	Ave	175672428	163855092		0.466	0.500	-6.7	20.0
PCB-1260 Peak 5	Ave	74584340	69432964		0.466	0.500	-6.9	20.0
Tetrachloro-m-xylene	Ave	1504132137	1504639360		0.0250	0.0250	0.0	20.0
Decachlorobiphenyl	Ave	1494671088	1191167920		0.0199	0.0250	-20.3*	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/18 Calibration Date: 06/14/2011 16:37

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261418.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.64	1.59	1.69
PCB-1016 Peak 2	1.94	1.89	1.99
PCB-1016 Peak 3	2.34	2.29	2.39
PCB-1016 Peak 4	2.47	2.42	2.52
PCB-1016 Peak 5	2.85	2.80	2.90
PCB-1260 Peak 1	4.07	4.02	4.12
PCB-1260 Peak 2	4.35	4.30	4.40
PCB-1260 Peak 3	4.63	4.58	4.68
PCB-1260 Peak 4	5.33	5.28	5.38
PCB-1260 Peak 5	5.62	5.57	5.67
Tetrachloro-m-xylene	1.35	1.30	1.40
Decachlorobiphenyl	6.77	6.72	6.82

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/18 Calibration Date: 06/14/2011 16:37

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261418.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	16146632	15559994		0.482	0.500	-3.6	20.0
PCB-1016 Peak 2	Ave	31744940	28345908		0.447	0.500	-10.7	20.0
PCB-1016 Peak 3	Ave	62285210	60071892		0.482	0.500	-3.6	20.0
PCB-1016 Peak 4	Ave	26972579	25891466		0.480	0.500	-4.0	20.0
PCB-1016 Peak 5	Ave	21602162	20595536		0.477	0.500	-4.7	20.0
PCB-1260 Peak 1	Ave	38669545	35017630		0.453	0.500	-9.4	20.0
PCB-1260 Peak 2	Ave	46020112	46049630		0.500	0.500	0.0	20.0
PCB-1260 Peak 3	Ave	38597181	39018644		0.506	0.500	1.1	20.0
PCB-1260 Peak 4	Ave	86258196	84829332		0.492	0.500	-1.7	20.0
PCB-1260 Peak 5	Ave	60984472	55994162		0.459	0.500	-8.2	20.0
Tetrachloro-m-xylene	Ave	943741005	870709040		0.0231	0.0250	-7.7	20.0
Decachlorobiphenyl	Ave	715842685	578559040		0.0202	0.0250	-19.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/18 Calibration Date: 06/14/2011 16:37

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261418.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.29	2.24	2.34
PCB-1016 Peak 2	2.70	2.65	2.75
PCB-1016 Peak 3	3.17	3.12	3.22
PCB-1016 Peak 4	3.31	3.26	3.36
PCB-1016 Peak 5	3.41	3.36	3.46
PCB-1260 Peak 1	5.15	5.10	5.20
PCB-1260 Peak 2	5.38	5.33	5.43
PCB-1260 Peak 3	5.85	5.80	5.90
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.82	6.77	6.87
Tetrachloro-m-xylene	1.81	1.76	1.86
Decachlorobiphenyl	8.06	8.01	8.11

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/25 Calibration Date: 06/14/2011 18:18

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261425.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	27446980	28433398		0.518	0.500	3.6	20.0
PCB-1016 Peak 2	Ave	49677427	49344910		0.497	0.500	-0.7	20.0
PCB-1016 Peak 3	Ave	106846216	100787292		0.472	0.500	-5.7	20.0
PCB-1016 Peak 4	Ave	42962230	41636030		0.485	0.500	-3.1	20.0
PCB-1016 Peak 5	Ave	44016473	43846366		0.498	0.500	-0.4	20.0
PCB-1260 Peak 1	Ave	65277668	58089740		0.445	0.500	-11.0	20.0
PCB-1260 Peak 2	Ave	124322996	112692910		0.453	0.500	-9.4	20.0
PCB-1260 Peak 3	Ave	117330359	104697444		0.446	0.500	-10.8	20.0
PCB-1260 Peak 4	Ave	175672428	147160858		0.419	0.500	-16.2	20.0
PCB-1260 Peak 5	Ave	74584340	63419688		0.425	0.500	-15.0	20.0
Tetrachloro-m-xylene	Ave	1504132137	1525068680		0.0253	0.0250	1.4	20.0
Decachlorobiphenyl	Ave	1494671088	1119996800		0.0187	0.0250	-25.1*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/25 Calibration Date: 06/14/2011 18:18

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261425.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.64	1.59	1.69
PCB-1016 Peak 2	1.94	1.89	1.99
PCB-1016 Peak 3	2.34	2.29	2.39
PCB-1016 Peak 4	2.47	2.42	2.52
PCB-1016 Peak 5	2.86	2.81	2.91
PCB-1260 Peak 1	4.07	4.02	4.12
PCB-1260 Peak 2	4.36	4.31	4.41
PCB-1260 Peak 3	4.64	4.59	4.69
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.62	5.57	5.67
Tetrachloro-m-xylene	1.35	1.30	1.40
Decachlorobiphenyl	6.77	6.72	6.82

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/25 Calibration Date: 06/14/2011 18:18

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261425.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	16146632	15416652		0.477	0.500	-4.5	20.0
PCB-1016 Peak 2	Ave	31744940	29708078		0.468	0.500	-6.4	20.0
PCB-1016 Peak 3	Ave	62285210	59558494		0.478	0.500	-4.4	20.0
PCB-1016 Peak 4	Ave	26972579	25598412		0.475	0.500	-5.1	20.0
PCB-1016 Peak 5	Ave	21602162	20365514		0.471	0.500	-5.7	20.0
PCB-1260 Peak 1	Ave	38669545	34536052		0.447	0.500	-10.7	20.0
PCB-1260 Peak 2	Ave	46020112	45941140		0.499	0.500	-0.2	20.0
PCB-1260 Peak 3	Ave	38597181	38444440		0.498	0.500	-0.4	20.0
PCB-1260 Peak 4	Ave	86258196	83057220		0.481	0.500	-3.7	20.0
PCB-1260 Peak 5	Ave	60984472	54508654		0.447	0.500	-10.6	20.0
Tetrachloro-m-xylene	Ave	943741005	881839640		0.0234	0.0250	-6.6	20.0
Decachlorobiphenyl	Ave	715842685	579915640		0.0203	0.0250	-19.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/25 Calibration Date: 06/14/2011 18:18

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261425.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.29	2.24	2.34
PCB-1016 Peak 2	2.70	2.65	2.75
PCB-1016 Peak 3	3.17	3.12	3.22
PCB-1016 Peak 4	3.31	3.26	3.36
PCB-1016 Peak 5	3.41	3.36	3.46
PCB-1260 Peak 1	5.15	5.10	5.20
PCB-1260 Peak 2	5.38	5.33	5.43
PCB-1260 Peak 3	5.85	5.80	5.90
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.82	6.77	6.87
Tetrachloro-m-xylene	1.81	1.76	1.86
Decachlorobiphenyl	8.06	8.01	8.11

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/34 Calibration Date: 06/14/2011 20:29

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261434.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	27446980	26983360		0.492	0.500	-1.7	20.0
PCB-1016 Peak 2	Ave	49677427	50557238		0.509	0.500	1.8	20.0
PCB-1016 Peak 3	Ave	106846216	103100442		0.483	0.500	-3.5	20.0
PCB-1016 Peak 4	Ave	42962230	44940566		0.523	0.500	4.6	20.0
PCB-1016 Peak 5	Ave	44016473	44812910		0.509	0.500	1.8	20.0
PCB-1260 Peak 1	Ave	65277668	62509126		0.479	0.500	-4.2	20.0
PCB-1260 Peak 2	Ave	124322996	117654248		0.473	0.500	-5.4	20.0
PCB-1260 Peak 3	Ave	117330359	106205550		0.453	0.500	-9.5	20.0
PCB-1260 Peak 4	Ave	175672428	145575360		0.414	0.500	-17.1	20.0
PCB-1260 Peak 5	Ave	74584340	62678318		0.420	0.500	-16.0	20.0
Tetrachloro-m-xylene	Ave	1504132137	1527851040		0.0254	0.0250	1.6	20.0
Decachlorobiphenyl	Ave	1494671088	1137853800		0.0190	0.0250	-23.9*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/34 Calibration Date: 06/14/2011 20:29

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261434.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.64	1.59	1.69
PCB-1016 Peak 2	1.93	1.88	1.98
PCB-1016 Peak 3	2.34	2.29	2.39
PCB-1016 Peak 4	2.47	2.42	2.52
PCB-1016 Peak 5	2.85	2.80	2.90
PCB-1260 Peak 1	4.07	4.02	4.12
PCB-1260 Peak 2	4.36	4.31	4.41
PCB-1260 Peak 3	4.64	4.59	4.69
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.62	5.57	5.67
Tetrachloro-m-xylene	1.35	1.30	1.40
Decachlorobiphenyl	6.77	6.72	6.82

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/34 Calibration Date: 06/14/2011 20:29

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261434.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	16146632	15206352		0.471	0.500	-5.8	20.0
PCB-1016 Peak 2	Ave	31744940	28381818		0.447	0.500	-10.6	20.0
PCB-1016 Peak 3	Ave	62285210	60183220		0.483	0.500	-3.4	20.0
PCB-1016 Peak 4	Ave	26972579	26072926		0.483	0.500	-3.3	20.0
PCB-1016 Peak 5	Ave	21602162	20818384		0.482	0.500	-3.6	20.0
PCB-1260 Peak 1	Ave	38669545	34132894		0.441	0.500	-11.7	20.0
PCB-1260 Peak 2	Ave	46020112	43814702		0.476	0.500	-4.8	20.0
PCB-1260 Peak 3	Ave	38597181	36831484		0.477	0.500	-4.6	20.0
PCB-1260 Peak 4	Ave	86258196	78825756		0.457	0.500	-8.6	20.0
PCB-1260 Peak 5	Ave	60984472	51606344		0.423	0.500	-15.4	20.0
Tetrachloro-m-xylene	Ave	943741005	874925280		0.0232	0.0250	-7.3	20.0
Decachlorobiphenyl	Ave	715842685	547315600		0.0191	0.0250	-23.5*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-4691/34 Calibration Date: 06/14/2011 20:29

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261434.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.29	2.24	2.34
PCB-1016 Peak 2	2.70	2.65	2.75
PCB-1016 Peak 3	3.17	3.12	3.22
PCB-1016 Peak 4	3.31	3.26	3.36
PCB-1016 Peak 5	3.41	3.36	3.46
PCB-1260 Peak 1	5.15	5.10	5.20
PCB-1260 Peak 2	5.38	5.33	5.43
PCB-1260 Peak 3	5.85	5.80	5.90
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.82	6.77	6.87
Tetrachloro-m-xylene	1.81	1.76	1.86
Decachlorobiphenyl	8.06	8.01	8.11

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5117/3 Calibration Date: 06/17/2011 12:53

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261703.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	27446980	27022064		0.492	0.500	-1.5	20.0
PCB-1016 Peak 2	Ave	49677427	50525118		0.509	0.500	1.7	20.0
PCB-1016 Peak 3	Ave	106846216	105954448		0.496	0.500	-0.8	20.0
PCB-1016 Peak 4	Ave	42962230	46083460		0.536	0.500	7.3	20.0
PCB-1016 Peak 5	Ave	44016473	46015020		0.523	0.500	4.5	20.0
PCB-1260 Peak 1	Ave	65277668	67324574		0.516	0.500	3.1	20.0
PCB-1260 Peak 2	Ave	124322996	128614440		0.517	0.500	3.5	20.0
PCB-1260 Peak 3	Ave	117330359	119508508		0.509	0.500	1.9	20.0
PCB-1260 Peak 4	Ave	175672428	188292848		0.536	0.500	7.2	20.0
PCB-1260 Peak 5	Ave	74584340	82179942		0.551	0.500	10.2	20.0
Tetrachloro-m-xylene	Ave	1504132137	1527550520		0.0254	0.0250	1.6	20.0
Decachlorobiphenyl	Ave	1494671088	1579915040		0.0264	0.0250	5.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5117/3 Calibration Date: 06/17/2011 12:53

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261703.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.64	1.59	1.69
PCB-1016 Peak 2	1.94	1.89	1.99
PCB-1016 Peak 3	2.34	2.29	2.39
PCB-1016 Peak 4	2.47	2.42	2.52
PCB-1016 Peak 5	2.86	2.81	2.91
PCB-1260 Peak 1	4.07	4.02	4.12
PCB-1260 Peak 2	4.36	4.31	4.41
PCB-1260 Peak 3	4.64	4.59	4.69
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.62	5.57	5.67
Tetrachloro-m-xylene	1.35	1.30	1.40
Decachlorobiphenyl	6.77	6.72	6.82

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5117/3 Calibration Date: 06/17/2011 12:53

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261703.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	16146632	15121844		0.468	0.500	-6.3	20.0
PCB-1016 Peak 2	Ave	31744940	28364742		0.447	0.500	-10.6	20.0
PCB-1016 Peak 3	Ave	62285210	61622198		0.495	0.500	-1.1	20.0
PCB-1016 Peak 4	Ave	26972579	26774840		0.496	0.500	-0.7	20.0
PCB-1016 Peak 5	Ave	21602162	21424496		0.496	0.500	-0.8	20.0
PCB-1260 Peak 1	Ave	38669545	38273412		0.495	0.500	-1.0	20.0
PCB-1260 Peak 2	Ave	46020112	50450558		0.548	0.500	9.6	20.0
PCB-1260 Peak 3	Ave	38597181	43221278		0.560	0.500	12.0	20.0
PCB-1260 Peak 4	Ave	86258196	96385828		0.559	0.500	11.7	20.0
PCB-1260 Peak 5	Ave	60984472	63923622		0.524	0.500	4.8	20.0
Tetrachloro-m-xylene	Ave	943741005	869887960		0.0230	0.0250	-7.8	20.0
Decachlorobiphenyl	Ave	715842685	614725200		0.0215	0.0250	-14.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5117/3 Calibration Date: 06/17/2011 12:53

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261703.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.29	2.24	2.34
PCB-1016 Peak 2	2.70	2.65	2.75
PCB-1016 Peak 3	3.17	3.12	3.22
PCB-1016 Peak 4	3.31	3.26	3.36
PCB-1016 Peak 5	3.41	3.36	3.46
PCB-1260 Peak 1	5.15	5.10	5.20
PCB-1260 Peak 2	5.38	5.33	5.43
PCB-1260 Peak 3	5.86	5.81	5.91
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.82	6.77	6.87
Tetrachloro-m-xylene	1.81	1.76	1.86
Decachlorobiphenyl	8.06	8.01	8.11

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5117/17 Calibration Date: 06/17/2011 16:17

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261717.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	27446980	28652438		0.522	0.500	4.4	20.0
PCB-1016 Peak 2	Ave	49677427	52974556		0.533	0.500	6.6	20.0
PCB-1016 Peak 3	Ave	106846216	110026702		0.515	0.500	3.0	20.0
PCB-1016 Peak 4	Ave	42962230	47858694		0.557	0.500	11.4	20.0
PCB-1016 Peak 5	Ave	44016473	47826302		0.543	0.500	8.7	20.0
PCB-1260 Peak 1	Ave	65277668	68406642		0.524	0.500	4.8	20.0
PCB-1260 Peak 2	Ave	124322996	129824578		0.522	0.500	4.4	20.0
PCB-1260 Peak 3	Ave	117330359	118906154		0.507	0.500	1.3	20.0
PCB-1260 Peak 4	Ave	175672428	175215206		0.499	0.500	-0.3	20.0
PCB-1260 Peak 5	Ave	74584340	73996308		0.496	0.500	-0.8	20.0
Tetrachloro-m-xylene	Ave	1504132137	1598988920		0.0266	0.0250	6.3	20.0
Decachlorobiphenyl	Ave	1494671088	1441073280		0.0241	0.0250	-3.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5117/17 Calibration Date: 06/17/2011 16:17

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261717.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.64	1.59	1.69
PCB-1016 Peak 2	1.94	1.89	1.99
PCB-1016 Peak 3	2.34	2.29	2.39
PCB-1016 Peak 4	2.47	2.42	2.52
PCB-1016 Peak 5	2.86	2.81	2.91
PCB-1260 Peak 1	4.07	4.02	4.12
PCB-1260 Peak 2	4.36	4.31	4.41
PCB-1260 Peak 3	4.64	4.59	4.69
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.62	5.57	5.67
Tetrachloro-m-xylene	1.35	1.30	1.40
Decachlorobiphenyl	6.77	6.72	6.82

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5117/17 Calibration Date: 06/17/2011 16:17

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261717.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	16146632	16005240		0.496	0.500	-0.9	20.0
PCB-1016 Peak 2	Ave	31744940	31138156		0.490	0.500	-1.9	20.0
PCB-1016 Peak 3	Ave	62285210	63230928		0.508	0.500	1.5	20.0
PCB-1016 Peak 4	Ave	26972579	27760920		0.515	0.500	2.9	20.0
PCB-1016 Peak 5	Ave	21602162	22519698		0.521	0.500	4.2	20.0
PCB-1260 Peak 1	Ave	38669545	37830994		0.489	0.500	-2.2	20.0
PCB-1260 Peak 2	Ave	46020112	48470938		0.527	0.500	5.3	20.0
PCB-1260 Peak 3	Ave	38597181	40472304		0.524	0.500	4.9	20.0
PCB-1260 Peak 4	Ave	86258196	89107562		0.517	0.500	3.3	20.0
PCB-1260 Peak 5	Ave	60984472	58274136		0.478	0.500	-4.4	20.0
Tetrachloro-m-xylene	Ave	943741005	907255680		0.0240	0.0250	-3.9	20.0
Decachlorobiphenyl	Ave	715842685	595474480		0.0208	0.0250	-16.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5117/17 Calibration Date: 06/17/2011 16:17

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261717.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.29	2.24	2.34
PCB-1016 Peak 2	2.70	2.65	2.75
PCB-1016 Peak 3	3.17	3.12	3.22
PCB-1016 Peak 4	3.31	3.26	3.36
PCB-1016 Peak 5	3.41	3.36	3.46
PCB-1260 Peak 1	5.15	5.10	5.20
PCB-1260 Peak 2	5.38	5.33	5.43
PCB-1260 Peak 3	5.86	5.81	5.91
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.82	6.77	6.87
Tetrachloro-m-xylene	1.81	1.76	1.86
Decachlorobiphenyl	8.06	8.01	8.11

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5117/27 Calibration Date: 06/17/2011 18:42

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261727.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	27446980	27280758		0.497	0.500	-0.6	20.0
PCB-1016 Peak 2	Ave	49677427	51091606		0.514	0.500	2.8	20.0
PCB-1016 Peak 3	Ave	106846216	105019476		0.492	0.500	-1.7	20.0
PCB-1016 Peak 4	Ave	42962230	45991870		0.535	0.500	7.1	20.0
PCB-1016 Peak 5	Ave	44016473	45801886		0.520	0.500	4.1	20.0
PCB-1260 Peak 1	Ave	65277668	64965584		0.498	0.500	-0.5	20.0
PCB-1260 Peak 2	Ave	124322996	122644290		0.493	0.500	-1.4	20.0
PCB-1260 Peak 3	Ave	117330359	112644868		0.480	0.500	-4.0	20.0
PCB-1260 Peak 4	Ave	175672428	178526148		0.508	0.500	1.6	20.0
PCB-1260 Peak 5	Ave	74584340	77315134		0.518	0.500	3.7	20.0
Tetrachloro-m-xylene	Ave	1504132137	1552381440		0.0258	0.0250	3.2	20.0
Decachlorobiphenyl	Ave	1494671088	1396168360		0.0234	0.0250	-6.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5117/27 Calibration Date: 06/17/2011 18:42

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261727.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.64	1.59	1.69
PCB-1016 Peak 2	1.94	1.89	1.99
PCB-1016 Peak 3	2.34	2.29	2.39
PCB-1016 Peak 4	2.47	2.42	2.52
PCB-1016 Peak 5	2.85	2.81	2.91
PCB-1260 Peak 1	4.07	4.02	4.12
PCB-1260 Peak 2	4.36	4.31	4.41
PCB-1260 Peak 3	4.64	4.59	4.69
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.62	5.57	5.67
Tetrachloro-m-xylene	1.35	1.30	1.40
Decachlorobiphenyl	6.77	6.72	6.82

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5117/27 Calibration Date: 06/17/2011 18:42

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261727.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	16146632	15369186		0.476	0.500	-4.8	20.0
PCB-1016 Peak 2	Ave	31744940	28227554		0.445	0.500	-11.1	20.0
PCB-1016 Peak 3	Ave	62285210	60564102		0.486	0.500	-2.8	20.0
PCB-1016 Peak 4	Ave	26972579	26529608		0.492	0.500	-1.6	20.0
PCB-1016 Peak 5	Ave	21602162	21470770		0.497	0.500	-0.6	20.0
PCB-1260 Peak 1	Ave	38669545	36242280		0.469	0.500	-6.3	20.0
PCB-1260 Peak 2	Ave	46020112	46060092		0.500	0.500	0.0	20.0
PCB-1260 Peak 3	Ave	38597181	40323124		0.522	0.500	4.5	20.0
PCB-1260 Peak 4	Ave	86258196	86942942		0.504	0.500	0.8	20.0
PCB-1260 Peak 5	Ave	60984472	57335108		0.470	0.500	-6.0	20.0
Tetrachloro-m-xylene	Ave	943741005	868158080		0.0230	0.0250	-8.0	20.0
Decachlorobiphenyl	Ave	715842685	583209400		0.0204	0.0250	-18.5	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5117/27 Calibration Date: 06/17/2011 18:42

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1261727.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.29	2.24	2.34
PCB-1016 Peak 2	2.70	2.65	2.75
PCB-1016 Peak 3	3.17	3.12	3.22
PCB-1016 Peak 4	3.31	3.26	3.36
PCB-1016 Peak 5	3.41	3.36	3.46
PCB-1260 Peak 1	5.15	5.10	5.20
PCB-1260 Peak 2	5.38	5.33	5.43
PCB-1260 Peak 3	5.86	5.81	5.91
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.82	6.77	6.87
Tetrachloro-m-xylene	1.81	1.76	1.86
Decachlorobiphenyl	8.06	8.01	8.11

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: MB 240-4340/23-A

Matrix: Solid Date Extracted: 06/10/2011 11:23

Lab File ID:(1) P1261417.D Lab File ID:(2) P1261417.D

Date Analyzed:(1) 06/14/2011 16:22 Date Analyzed:(2) 06/14/2011 16:22

Instrument ID:(1) A2HP12 Instrument ID:(2) A2HP12

GC Column:(1) CLP-2 ID: 0.53(mm) GC Column:(2) CLP-1 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-SB-103-0-2	240-741-1	06/14/2011 15:24	06/14/2011 15:24
GSP-SB-103-6-8	240-741-2	06/14/2011 15:39	06/14/2011 15:39
GSP-SB-105-0-2	240-741-3	06/14/2011 15:53	06/14/2011 15:53
GSP-SB-105-6-8	240-741-4	06/14/2011 16:08	06/14/2011 16:08
GSP-SB-101-0-2	240-741-5	06/14/2011 16:51	06/14/2011 16:51
GSP-SB-101-6-8	240-741-6	06/14/2011 17:05	06/14/2011 17:05
GSP-SB-99-0-2	240-741-7	06/14/2011 17:20	06/14/2011 17:20
GSP-SB-99-6-8	240-741-8	06/14/2011 17:35	06/14/2011 17:35
GSP-SB-101-0-2 MS	240-741-5 MS	06/14/2011 17:49	06/14/2011 17:49
GSP-SB-101-0-2 MSD	240-741-5 MSD	06/14/2011 18:04	06/14/2011 18:04
GSP-SB-100-2-4	240-741-9	06/14/2011 18:33	06/14/2011 18:33
GSP-SB-100-6-8	240-741-10	06/14/2011 18:47	06/14/2011 18:47
GSP-SB-109-0-2	240-742-1	06/14/2011 19:02	06/14/2011 19:02
GSP-SB-109-6-8	240-742-2	06/14/2011 19:16	06/14/2011 19:16
GSP-SB-108-0-2	240-742-3	06/14/2011 19:31	06/14/2011 19:31
GSP-SB-108-6-8	240-742-4	06/14/2011 19:46	06/14/2011 19:46
GSP-SB-110-0-2	240-742-5	06/14/2011 20:00	06/14/2011 20:00
	LCS 240-4340/24-A	06/14/2011 20:14	06/14/2011 20:14

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-741-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4340/23-A

Matrix: Solid | Lab File ID: P1261417.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3540C | Date Extracted: 06/10/2011 11:23

Sample wt/vol: 30.00(g) | Date Analyzed: 06/14/2011 16:22

Con. Extract Vol.: 10.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 4691 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*33*	*U*	*33*	*21*
11104-28-2	*Aroclor-1221*	*33*	*U*	*33*	*16*
11141-16-5	*Aroclor-1232*	*33*	*U*	*33*	*14*
53469-21-9	*Aroclor-1242*	*33*	*U*	*33*	*13*
12672-29-6	*Aroclor-1248*	*33*	*U*	*33*	*17*
11097-69-1	*Aroclor-1254*	*33*	*U*	*33*	*17*
11096-82-5	*Aroclor-1260*	*33*	*U*	*33*	*17*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	84		29-151
2051-24-3	Decachlorobiphenyl	67		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-4340/23-A

Matrix: Solid Lab File ID: P1261417.D

Analysis Method: 8082A Date Collected:

Extraction Method: 3540C Date Extracted: 06/10/2011 11:23

Sample wt/vol: 30.00(g) Date Analyzed: 06/14/2011 16:22

Con. Extract Vol.: 10.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 4691 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	33	U	33	21
11104-28-2	Aroclor-1221	33	U	33	16
11141-16-5	Aroclor-1232	33	U	33	14
53469-21-9	Aroclor-1242	33	U	33	13
12672-29-6	Aroclor-1248	33	U	33	17
11097-69-1	Aroclor-1254	33	U	33	17
11096-82-5	Aroclor-1260	33	U	33	17

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	84		29-151
2051-24-3	Decachlorobiphenyl	82		14-163

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1261433.D

Lab ID: LCS 240-4340/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	333	283	85	62-120	
Aroclor-1016	333	296	89	62-120	
Aroclor-1260	333	272	82	56-122	
Aroclor-1260	333	281	84	56-122	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1261423.D

Lab ID: 240-741-5 MS Client ID: GSP-SB-101-0-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Aroclor-1016	352	35 U	265	75	22-157	
Aroclor-1016	352	35 U	288	82	22-157	
Aroclor-1260	352	35 U	214	61	13-161	
Aroclor-1260	352	35 U	243	69	13-161	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1261424.D

Lab ID: 240-741-5 MSD Client ID: GSP-SB-101-0-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Aroclor-1016	351	266	76	1	30	22-157	
Aroclor-1016	351	289	82	1	30	22-157	
Aroclor-1260	351	232	66	8	30	13-161	
Aroclor-1260	351	252	72	4	30	13-161	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: MB 240-4687/17-A

Matrix: Solid Date Extracted: 06/14/2011 12:10

Lab File ID:(1) P1261716.D Lab File ID:(2) P1261716.D

Date Analyzed:(1) 06/17/2011 16:02 Date Analyzed:(2) 06/17/2011 16:02

Instrument ID:(1) A2HP12 Instrument ID:(2) A2HP12

GC Column:(1) CLP-2 ID: 0.53(mm) GC Column:(2) CLP-1 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-SB-110-6-8	240-742-6	06/17/2011 14:20	06/17/2011 14:20
GSP-SB-102-0-2	240-742-7	06/17/2011 14:34	06/17/2011 14:34
GSP-SB-102-6-8	240-742-8	06/17/2011 14:49	06/17/2011 14:49
GSP-SB-107-0-2	240-742-9	06/17/2011 15:03	06/17/2011 15:03
GSP-SB-107-6-8	240-742-10	06/17/2011 15:18	06/17/2011 15:18
GSP-SB-107-6-8 MS	240-742-10 MS	06/17/2011 15:33	06/17/2011 15:33
GSP-SB-107-6-8 MSD	240-742-10 MSD	06/17/2011 15:47	06/17/2011 15:47
	LCS 240-4687/18-A	06/17/2011 18:27	06/17/2011 18:27

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-741-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4687/17-A

Matrix: Solid | Lab File ID: P1261716.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3540C | Date Extracted: 06/14/2011 12:10

Sample wt/vol: 30.00(g) | Date Analyzed: 06/17/2011 16:02

Con. Extract Vol.: 10.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5117 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*33*	*U*	*33*	*21*
11104-28-2	*Aroclor-1221*	*33*	*U*	*33*	*16*
11141-16-5	*Aroclor-1232*	*33*	*U*	*33*	*14*
53469-21-9	*Aroclor-1242*	*33*	*U*	*33*	*13*
12672-29-6	*Aroclor-1248*	*33*	*U*	*33*	*17*
11097-69-1	*Aroclor-1254*	*33*	*U*	*33*	*17*
11096-82-5	*Aroclor-1260*	*33*	*U*	*33*	*17*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	88		29-151
2051-24-3	Decachlorobiphenyl	87		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-741-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4687/17-A

Matrix: Solid | Lab File ID: P1261716.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3540C | Date Extracted: 06/14/2011 12:10

Sample wt/vol: 30.00(g) | Date Analyzed: 06/17/2011 16:02

Con. Extract Vol.: 10.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5117 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	33	U	33	21
11104-28-2	Aroclor-1221	33	U	33	16
11141-16-5	Aroclor-1232	33	U	33	14
53469-21-9	Aroclor-1242	33	U	33	13
12672-29-6	Aroclor-1248	33	U	33	17
11097-69-1	Aroclor-1254	33	U	33	17
11096-82-5	Aroclor-1260	33	U	33	17

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	81		29-151
2051-24-3	Decachlorobiphenyl	79		14-163

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1261726.D

Lab ID: LCS 240-4687/18-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	333	305	92	62-120	
Aroclor-1016	333	285	86	62-120	
Aroclor-1260	333	311	93	56-122	
Aroclor-1260	333	293	88	56-122	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1261714.D

Lab ID: 240-742-10 MS Client ID: GSP-SB-107-6-8 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Aroclor-1016	399	39 U	324	81	22-157	
Aroclor-1016	399	39 U	310	78	22-157	
Aroclor-1260	399	39 U	306	77	13-161	
Aroclor-1260	399	39 U	298	75	13-161	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1261715.D

Lab ID: 240-742-10 MSD Client ID: GSP-SB-107-6-8 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Aroclor-1016	398	344	86	6	30	22-157	
Aroclor-1016	398	333	84	7	30	22-157	
Aroclor-1260	398	336	84	9	30	13-161	
Aroclor-1260	398	322	81	8	30	13-161	

Column to be used to flag recovery and RPD values

FORM III 8082A

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Batch Number: 4340 Batch Start Date: 06/10/11 13:00 Batch Analyst: Robbins, Alex

Batch Method: 3540C Batch End Date: 06/11/11 05:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX10PPMSPK 00002	EX2/.2SURRW 00005
240-741-G-1	GSP-SB-103-0-2	3540C, 8082A	T	29.94 g	10.00 mL		1 mL
240-741-G-2	GSP-SB-103-6-8	3540C, 8082A	T	30.16 g	10.00 mL		1 mL
240-741-F-3	GSP-SB-105-0-2	3540C, 8082A	T	30.12 g	10.00 mL		1 mL
240-741-F-4	GSP-SB-105-6-8	3540C, 8082A	T	30.09 g	10.00 mL		1 mL
240-741-F-5	GSP-SB-101-0-2	3540C, 8082A	T	29.97 g	10.00 mL		1 mL
240-741-F-6	GSP-SB-101-6-8	3540C, 8082A	T	29.96 g	10.00 mL		1 mL
240-741-F-7	GSP-SB-99-0-2	3540C, 8082A	T	30.03 g	10.00 mL		1 mL
240-741-G-8	GSP-SB-99-6-8	3540C, 8082A	T	30.17 g	10.00 mL		1 mL
240-741-F-9	GSP-SB-100-2-4	3540C, 8082A	T	30.06 g	10.00 mL		1 mL
240-741-F-10	GSP-SB-100-6-8	3540C, 8082A	T	30.05 g	10.00 mL		1 mL
240-742-G-1	GSP-SB-109-0-2	3540C, 8082A	T	30.15 g	10.00 mL		1 mL
240-742-G-2	GSP-SB-109-6-8	3540C, 8082A	T	29.98 g	10.00 mL		1 mL
240-742-G-3	GSP-SB-108-0-2	3540C, 8082A	T	29.99 g	10.00 mL		1 mL
240-742-G-4	GSP-SB-108-6-8	3540C, 8082A	T	30.13 g	10.00 mL		1 mL
240-742-G-5	GSP-SB-110-0-2	3540C, 8082A	T	29.99 g	10.00 mL		1 mL
240-741-F-5 MS	GSP-SB-101-0-2	3540C, 8082A	T	29.99 g	10.00 mL	1 mL	1 mL
240-741-F-5 MSD	GSP-SB-101-0-2	3540C, 8082A	T	30.09 g	10.00 mL	1 mL	1 mL
MB 240-4340/23		3540C, 8082A		30.00 g	10.00 mL		1 mL
LCS 240-4340/24		3540C, 8082A		30.00 g	10.00 mL	1 mL	1 mL

Batch Notes	
Balance ID	b037
Batch Comment	SS: ar/sm srf:1272
Exchange Solvent Name	013210
Na2SO4 Lot Number	010352
Prep Solvent Name	016819

Basis	Basis Description
T	Total/NA

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Batch Number: 4687 Batch Start Date: 06/14/11 14:20 Batch Analyst: Robbins, Alex

Batch Method: 3540C Batch End Date: 06/15/11 06:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX10PPMSPK 00002	EX2/.2SURRW 00005
240-742-G-6	GSP-SB-110-6-8	3540C, 8082A	T	30.02 g	10.00 mL		1 mL
240-742-G-7	GSP-SB-102-0-2	3540C, 8082A	T	30.03 g	10.00 mL		1 mL
240-742-G-8	GSP-SB-102-6-8	3540C, 8082A	T	30.06 g	10.00 mL		1 mL
240-742-G-9	GSP-SB-107-0-2	3540C, 8082A	T	29.99 g	10.00 mL		1 mL
240-742-G-10	GSP-SB-107-6-8	3540C, 8082A	T	30.01 g	10.00 mL		1 mL
240-742-G-10 MS	GSP-SB-107-6-8	3540C, 8082A	T	29.92 g	10.00 mL	1 mL	1 mL
240-742-G-10 MSD	GSP-SB-107-6-8	3540C, 8082A	T	30.04 g	10.00 mL	1 mL	1 mL
MB 240-4687/17		3540C, 8082A		30.00 g	10.00 mL		1 mL
LCS 240-4687/18		3540C, 8082A		30.00 g	10.00 mL	1 mL	1 mL

Batch Notes	
Balance ID	b037
Batch Comment	SS: SM/AR
Exchange Solvent Name	013210
Na2SO4 Lot Number	010352
Prep Solvent Name	016819

Basis	Basis Description
T	Total/NA

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Client Sample ID: GSP-SB-109-6-8 Lab Sample ID: 240-742-2

Instrument ID (1): A2HP12 Instrument ID (2): A2HP12

Date Analyzed (1): 06/14/2011 19:16 Date Analyzed (2): 06/14/2011 19:16

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1260	1	1	5.15	5.10	5.20	71.2	64	19.1
		2	5.38	5.33	5.43	55.3		
		3	5.85	5.80	5.90	63.5		
		4	6.44	6.39	6.49	70.1		
		5	6.82	6.77	6.87	61.1		
	2	1	4.07	4.02	4.12	53.0	53	
		2	4.36	4.31	4.41	48.5		
		3	4.64	4.59	4.69	56.5		
		4	5.34	5.29	5.39	48.1		
		5	5.62	5.57	5.67	59.0		

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB624 ID: 0.2 (mm)

Client Sample ID	Lab Sample ID	TFT1	#	BFB1	#
GSP-SB-103-0-2	240-741-1	99		93	
GSP-SB-103-6-8	240-741-2	99		93	
GSP-SB-105-0-2	240-741-3	70		54	
GSP-SB-105-6-8	240-741-4	98		90	
GSP-SB-101-0-2	240-741-5	74		62	
GSP-SB-101-6-8	240-741-6	100		95	
GSP-SB-99-0-2	240-741-7	85		72	
GSP-SB-99-6-8	240-741-8	99		94	
GSP-SB-100-2-4	240-741-9	100		95	
GSP-SB-100-6-8	240-741-10	77		75	
GSP-SB-109-0-2	240-742-1	91		82	
GSP-SB-109-6-8	240-742-2	94		82	
GSP-SB-108-0-2	240-742-3	97		84	
GSP-SB-108-6-8	240-742-4	101		88	
GSP-SB-110-0-2	240-742-5	97		87	
GSP-SB-110-6-8	240-742-6	86		74	
GSP-SB-102-0-2	240-742-7	82		63	
GSP-SB-102-6-8	240-742-8	93		84	
GSP-SB-107-0-2	240-742-9	93		79	
GSP-SB-107-6-8	240-742-10	101		90	
	MB 500-116283/3	107		103	
	MB 500-116287/3	106		101	
	LCS 500-116283/4	106		104	
	LCS 500-116287/4	105		103	
GSP-SB-109-0-2 MS	240-742-1 MS	99		89	
	240-681-E-30 MS	102		94	
GSP-SB-109-0-2 MSD	240-742-1 MSD	99		89	
	240-681-E-30 MSD	101		92	

	QC LIMITS
TFT = a,a,a-Trifluorotoluene	64-116
BFB = 4-Bromofluorobenzene	51-117

Column to be used to flag recovery values

FORM II 8015C

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Instrument ID: CINST11-12 Start Date: 04/01/2011 14:56

Analysis Batch Number: 109244 End Date: 04/01/2011 18:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 500-109244/2		04/01/2011 14:56	1	04011111_010.d	DB624 0.2(mm)
IC 500-109244/3		04/01/2011 15:31	1	04011111_011.d	DB624 0.2(mm)
IC 500-109244/4		04/01/2011 16:06	1	04011111_012.d	DB624 0.2(mm)
IC 500-109244/5		04/01/2011 16:42	1	04011111_013.d	DB624 0.2(mm)
IC 500-109244/6		04/01/2011 17:17	1	04011111_014.d	DB624 0.2(mm)
IC 500-109244/7		04/01/2011 17:52	1	04011111_015.d	DB624 0.2(mm)
ICV 500-109244/8		04/01/2011 18:27	1	04011111_016.d	DB624 0.2(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Instrument ID: CINST11-12 Start Date: 06/13/2011 09:30

Analysis Batch Number: 116287 End Date: 06/13/2011 23:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/13/2011 09:30	1		DB624 0.2(mm)
CCV 500-116287/2		06/13/2011 10:05	1	06131111_002.d	DB624 0.2(mm)
MB 500-116287/3		06/13/2011 10:40	1	06131111_003.d	DB624 0.2(mm)
LCS 500-116287/4		06/13/2011 11:18	1	06131111_004.d	DB624 0.2(mm)
240-742-1	GSP-SB-109-0-2	06/13/2011 11:53	1	06131111_005.d	DB624 0.2(mm)
240-742-1 MS	GSP-SB-109-0-2 MS	06/13/2011 12:28	1	06131111_006.d	DB624 0.2(mm)
240-742-1 MSD	GSP-SB-109-0-2 MSD	06/13/2011 13:02	1	06131111_007.d	DB624 0.2(mm)
240-742-2	GSP-SB-109-6-8	06/13/2011 13:37	1	06131111_008.d	DB624 0.2(mm)
240-742-3	GSP-SB-108-0-2	06/13/2011 14:12	1	06131111_009.d	DB624 0.2(mm)
240-742-4	GSP-SB-108-6-8	06/13/2011 14:47	1	06131111_010.d	DB624 0.2(mm)
240-742-5	GSP-SB-110-0-2	06/13/2011 16:08	1	06131111_011.d	DB624 0.2(mm)
240-742-6	GSP-SB-110-6-8	06/13/2011 16:43	1	06131111_012.d	DB624 0.2(mm)
CCV 500-116287/13		06/13/2011 17:17	1	06131111_013.d	DB624 0.2(mm)
240-742-7	GSP-SB-102-0-2	06/13/2011 17:52	1	06131111_014.d	DB624 0.2(mm)
240-742-8	GSP-SB-102-6-8	06/13/2011 18:27	1	06131111_015.d	DB624 0.2(mm)
240-742-9	GSP-SB-107-0-2	06/13/2011 19:02	1	06131111_016.d	DB624 0.2(mm)
240-742-10	GSP-SB-107-6-8	06/13/2011 19:37	1	06131111_017.d	DB624 0.2(mm)
ZZZZZ		06/13/2011 20:12	1		DB624 0.2(mm)
ZZZZZ		06/13/2011 20:47	1		DB624 0.2(mm)
ZZZZZ		06/13/2011 21:22	1		DB624 0.2(mm)
ZZZZZ		06/13/2011 21:57	1		DB624 0.2(mm)
ZZZZZ		06/13/2011 22:32	1		DB624 0.2(mm)
ZZZZZ		06/13/2011 23:07	1		DB624 0.2(mm)
CCV 500-116287/24		06/13/2011 23:42	1	06131111_024.d	DB624 0.2(mm)

8015C

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-741-1 Analy Batch No.: 109244

SDG No.:

Instrument ID: CINST11-12 GC Column: DB624 ID: 0.2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2011 14:56 Calibration End Date: 04/01/2011 17:52 Calibration ID: 4239

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 500-109244/2	04011111_010.d
Level 2	IC 500-109244/3	04011111_011.d
Level 3	IC 500-109244/4	04011111_012.d
Level 4	IC 500-109244/5	04011111_013.d
Level 5	IC 500-109244/6	04011111_014.d
Level 6	IC 500-109244/7	04011111_015.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
Gasoline Range Organics (C6-C9)	14.096	14.096	14.096	14.096	14.096	14.096	6.603 - 21.589	14.096
Gasoline Range Organics (GRO)-C5-C12	15.095	15.095	15.095	15.095	15.095	15.095	4.692 - 25.499	15.095
Gasoline Range Organics (GRO)-C6-C12	16.051	16.051	16.051	16.051	16.051	16.051	6.603 - 25.499	16.051
Gasoline Range Organics (GRO)-C6-C10	16.772	16.772	16.772	16.772	16.772	16.772	6.603 - 26.941	16.772
a,a,a-Trifluorotoluene	12.367	12.367	12.367	12.375	12.375	12.367	12.267 - 12.467	12.370
4-Bromofluorobenzene	19.775	19.775	19.775	19.783	19.775	19.783	19.675 - 19.875	19.778

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Chicago Job No.: 240-741-1 Analy Batch No.: 109244

SDG No.:

Instrument ID: CINST11-12 GC Column: DB624 ID: 0.2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2011 14:56 Calibration End Date: 04/01/2011 17:52 Calibration ID: 4239

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 500-109244/2	04011111_010.d
Level 2	IC 500-109244/3	04011111_011.d
Level 3	IC 500-109244/4	04011111_012.d
Level 4	IC 500-109244/5	04011111_013.d
Level 5	IC 500-109244/6	04011111_014.d
Level 6	IC 500-109244/7	04011111_015.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Gasoline Range Organics (C6-C9)	18364 17241	17593 17308	17010	16553	Lin2	71388.0502	16866.8220							0.9990		0.9900
Gasoline Range Organics (GRO)-C5-C12	21581 19464	19840 19603	18986	18752	Lin2	121812.166	18888.7929							0.9990		0.9900
Gasoline Range Organics (GRO)-C6-C12	21581 18848	19658 18918	18562	18198	Lin2	157290.564	18241.2019							0.9990		0.9900
Gasoline Range Organics (GRO)-C6-C10	22540 19147	20077 19207	18802	18603	Lin2	190663.372	18452.9353							0.9990		0.9900
a,a,a-Trifluorotoluene	21143 19488	20404 19303	19560	19533	Lin2	185.628251	1293.20200							1.0000		0.9900
4-Bromofluorobenzene	14121 14217	13967 14372	13633	14072	Lin2	79.5179612	1157.69898							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Chicago Job No.: 240-741-1 Analy Batch No.: 109244

SDG No.:

Instrument ID: CINST11-12 GC Column: DB624 ID: 0.2(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/01/2011 14:56 Calibration End Date: 04/01/2011 17:52 Calibration ID: 4239

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 500-109244/2	04011111_010.d
Level 2	IC 500-109244/3	04011111_011.d
Level 3	IC 500-109244/4	04011111_012.d
Level 4	IC 500-109244/5	04011111_013.d
Level 5	IC 500-109244/6	04011111_014.d
Level 6	IC 500-109244/7	04011111_015.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Gasoline Range Organics (C6-C9)	Lin2	918186	1759313	3401929	6621019	10344604	50.0	100	200	400	600
		17308303					1000				
Gasoline Range Organics (GRO)-C5-C12	Lin2	1079063	1983950	3797168	7500954	11678235	50.0	100	200	400	600
		19602836					1000				
Gasoline Range Organics (GRO)-C6-C12	Lin2	1079063	1965833	3712347	7279211	11308640	50.0	100	200	400	600
		18917963					1000				
Gasoline Range Organics (GRO)-C6-C10	Lin2	1126996	2007688	3760381	7441244	11488042	50.0	100	200	400	600
		19207372					1000				
a,a,a-Trifluorotoluene	Lin2	52858	102018	195602	390668	584632	2.50	5.00	10.0	20.0	30.0
		965170					50.0				
4-Bromofluorobenzene	Lin2	35303	69833	136330	281442	426502	2.50	5.00	10.0	20.0	30.0
		718604					50.0				

Curve Type Legend:
Lin2 = Linear 1/conc^2

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 500-109244/8 Calibration Date: 04/01/2011 18:27

Instrument ID: CINST11-12 Calib Start Date: 04/01/2011 14:56

GC Column: DB624 ID: 0.20(mm) Calib End Date: 04/01/2011 17:52

Lab File ID: 04011111_016.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		17678		205	200	2.7	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		19313		198	200	-1.0	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		19293		203	200	1.5	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		19556		202	200	0.8	15.0
a,a,a-Trifluorotoluene	Lin2		19521		20.3	20.0	1.3	15.0
4-Bromofluorobenzene	Lin2		13657		20.2	20.0	0.9	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago
Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 500-109244/8
Calibration Date: 04/01/2011 18:27

Instrument ID: CINST11-12
Calib Start Date: 04/01/2011 14:56

GC Column: DB624 ID: 0.20(mm)
Calib End Date: 04/01/2011 17:52

Lab File ID: 04011111_016.d
Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Gasoline Range Organics (C6-C9)	14.10	6.60	21.59
Gasoline Range Organics (GRO)-C5-C12	15.10	4.69	25.50
Gasoline Range Organics (GRO)-C6-C12	16.05	6.60	25.50
Gasoline Range Organics (GRO)-C6-C10	16.77	6.60	26.94
a,a,a-Trifluorotoluene	12.42	12.27	12.47
4-Bromofluorobenzene	19.80	19.68	19.88

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 500-116287/2 Calibration Date: 06/13/2011 10:05

Instrument ID: CINST11-12 Calib Start Date: 04/01/2011 14:56

GC Column: DB624 ID: 0.20(mm) Calib End Date: 04/01/2011 17:52

Lab File ID: 06131111_002.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		17158		403	400	0.7	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		19327		403	400	0.7	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		18688		401	400	0.3	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		18976		401	400	0.3	15.0
a,a,a-Trifluorotoluene	Lin2		20684		21.1	20.0	5.5	15.0
4-Bromofluorobenzene	Lin2		14888		21.1	20.0	5.5	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 500-116287/2 Calibration Date: 06/13/2011 10:05

Instrument ID: CINST11-12 Calib Start Date: 04/01/2011 14:56

GC Column: DB624 ID: 0.20(mm) Calib End Date: 04/01/2011 17:52

Lab File ID: 06131111_002.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Gasoline Range Organics (C6-C9)	14.03	6.53	21.52
Gasoline Range Organics (GRO)-C5-C12	15.02	3.13	25.43
Gasoline Range Organics (GRO)-C6-C12	15.98	6.53	25.43
Gasoline Range Organics (GRO)-C6-C10	16.70	6.53	26.87
a,a,a-Trifluorotoluene	12.33	12.21	12.41
4-Bromofluorobenzene	19.72	19.60	19.80

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 500-116287/13 Calibration Date: 06/13/2011 17:17

Instrument ID: CINST11-12 Calib Start Date: 04/01/2011 14:56

GC Column: DB624 ID: 0.20(mm) Calib End Date: 04/01/2011 17:52

Lab File ID: 06131111_013.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		16922		397	400	-0.7	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		18976		395	400	-1.2	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		18314		393	400	-1.8	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		18531		391	400	-2.2	15.0
a,a,a-Trifluorotoluene	Lin2		19916		20.3	20.0	1.5	15.0
4-Bromofluorobenzene	Lin2		14526		20.5	20.0	2.5	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 500-116287/13 Calibration Date: 06/13/2011 17:17

Instrument ID: CINST11-12 Calib Start Date: 04/01/2011 14:56

GC Column: DB624 ID: 0.20(mm) Calib End Date: 04/01/2011 17:52

Lab File ID: 06131111_013.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		TO	FROM
Gasoline Range Organics (C6-C9)	14.03	6.53	21.52
Gasoline Range Organics (GRO)-C5-C12	15.02	3.13	25.43
Gasoline Range Organics (GRO)-C6-C12	15.98	6.53	25.43
Gasoline Range Organics (GRO)-C6-C10	16.70	6.53	26.87
a,a,a-Trifluorotoluene	12.33	12.21	12.41
4-Bromofluorobenzene	19.72	19.60	19.80

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 500-116287/24 Calibration Date: 06/13/2011 23:42

Instrument ID: CINST11-12 Calib Start Date: 04/01/2011 14:56

GC Column: DB624 ID: 0.20(mm) Calib End Date: 04/01/2011 17:52

Lab File ID: 06131111_024.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		16113		378	400	-5.5	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		17951		374	400	-6.6	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		17447		374	400	-6.5	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		17652		372	400	-6.9	15.0
a,a,a-Trifluorotoluene	Lin2		19516		19.9	20.0	-0.5	15.0
4-Bromofluorobenzene	Lin2		14091		20.1	20.0	0.5	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago | Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 500-116287/24 | Calibration Date: 06/13/2011 23:42

Instrument ID: CINST11-12 | Calib Start Date: 04/01/2011 14:56

GC Column: DB624 ID: 0.20(mm) | Calib End Date: 04/01/2011 17:52

Lab File ID: 06131111_024.d | Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Gasoline Range Organics (C6-C9)	14.03	6.53	21.52
Gasoline Range Organics (GRO)-C5-C12	15.02	3.13	25.43
Gasoline Range Organics (GRO)-C6-C12	15.98	6.53	25.43
Gasoline Range Organics (GRO)-C6-C10	16.70	6.53	26.87
a,a,a-Trifluorotoluene	12.38	12.21	12.41
4-Bromofluorobenzene	19.76	19.60	19.80

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: MB 500-116287/3

Matrix: Solid Date Extracted: 06/13/2011 10:40

Lab File ID:(1) 06131111_003.d Lab File ID:(2)

Date Analyzed:(1) 06/13/2011 10:40 Date Analyzed:(2)

Instrument ID:(1) CINST11-12 Instrument ID:(2)

GC Column:(1) DB624 ID: 0.2(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 500-116287/4	06/13/2011 11:18	
GSP-SB-109-0-2	240-742-1	06/13/2011 11:53	
GSP-SB-109-0-2 MS	240-742-1 MS	06/13/2011 12:28	
GSP-SB-109-0-2 MSD	240-742-1 MSD	06/13/2011 13:02	
GSP-SB-109-6-8	240-742-2	06/13/2011 13:37	
GSP-SB-108-0-2	240-742-3	06/13/2011 14:12	
GSP-SB-108-6-8	240-742-4	06/13/2011 14:47	
GSP-SB-110-0-2	240-742-5	06/13/2011 16:08	
GSP-SB-110-6-8	240-742-6	06/13/2011 16:43	
GSP-SB-102-0-2	240-742-7	06/13/2011 17:52	
GSP-SB-102-6-8	240-742-8	06/13/2011 18:27	
GSP-SB-107-0-2	240-742-9	06/13/2011 19:02	
GSP-SB-107-6-8	240-742-10	06/13/2011 19:37	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago
Job No.: 240-741-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 500-116287/3
Matrix: Solid
Lab File ID: 06131111_003.d
Analysis Method: 8015C
Date Collected:
Sample wt/vol: 5(g)
Date Analyzed: 06/13/2011 10:40
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: DB624 ID: 0.2(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 116287
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	50	U	50	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	106		64-116
460-00-4	4-Bromofluorobenzene	101		51-117

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06131111_004.d

Lab ID: LCS 500-116287/4 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	400	395	99	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06131114_006.d

Lab ID: 240-681-E-30 MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	415	52 U	357	86	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06131114_007.d

Lab ID: 240-681-E-30 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	415	366	88	8	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Instrument ID: INST13-14 Start Date: 06/03/2011 12:11

Analysis Batch Number: 115481 End Date: 06/03/2011 16:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 500-115481/2		06/03/2011 12:11	1	06031114_019.d	DB624 0.2(mm)
IC 500-115481/3		06/03/2011 12:46	1	06031114_020.d	DB624 0.2(mm)
IC 500-115481/4		06/03/2011 13:21	1	06031114_021.d	DB624 0.2(mm)
IC 500-115481/5		06/03/2011 13:55	1	06031114_022.d	DB624 0.2(mm)
IC 500-115481/6		06/03/2011 14:30	1	06031114_023.d	DB624 0.2(mm)
IC 500-115481/7		06/03/2011 15:04	1	06031114_024.d	DB624 0.2(mm)
IC 500-115481/8		06/03/2011 15:39	1	06031114_025.d	DB624 0.2(mm)
ICV 500-115481/9		06/03/2011 16:13	1	06031114_026.d	DB624 0.2(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Instrument ID: INST13-14 Start Date: 06/13/2011 08:55

Analysis Batch Number: 116283 End Date: 06/13/2011 23:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/13/2011 08:55	1		DB624 0.2(mm)
CCV 500-116283/2		06/13/2011 09:29	1	06131114_002.d	DB624 0.2(mm)
MB 500-116283/3		06/13/2011 10:04	1	06131114_003.d	DB624 0.2(mm)
LCS 500-116283/4		06/13/2011 10:38	1	06131114_004.d	DB624 0.2(mm)
ZZZZZ		06/13/2011 11:13	1		DB624 0.2(mm)
240-681-E-30 MS		06/13/2011 11:47	1	06131114_006.d	DB624 0.2(mm)
240-681-E-30 MSD		06/13/2011 12:21	1	06131114_007.d	DB624 0.2(mm)
ZZZZZ		06/13/2011 12:56	1		DB624 0.2(mm)
ZZZZZ		06/13/2011 13:30	1		DB624 0.2(mm)
ZZZZZ		06/13/2011 14:04	1		DB624 0.2(mm)
ZZZZZ		06/13/2011 14:39	1		DB624 0.2(mm)
240-741-1	GSP-SB-103-0-2	06/13/2011 15:13	1	06131114_012.d	DB624 0.2(mm)
CCV 500-116283/13		06/13/2011 15:47	1	06131114_013.d	DB624 0.2(mm)
240-741-2	GSP-SB-103-6-8	06/13/2011 16:22	1	06131114_014.d	DB624 0.2(mm)
240-741-3	GSP-SB-105-0-2	06/13/2011 16:56	1	06131114_015.d	DB624 0.2(mm)
240-741-4	GSP-SB-105-6-8	06/13/2011 17:31	1	06131114_016.d	DB624 0.2(mm)
240-741-5	GSP-SB-101-0-2	06/13/2011 18:05	1	06131114_017.d	DB624 0.2(mm)
240-741-6	GSP-SB-101-6-8	06/13/2011 18:40	1	06131114_018.d	DB624 0.2(mm)
240-741-7	GSP-SB-99-0-2	06/13/2011 19:14	1	06131114_019.d	DB624 0.2(mm)
240-741-8	GSP-SB-99-6-8	06/13/2011 19:49	1	06131114_020.d	DB624 0.2(mm)
240-741-9	GSP-SB-100-2-4	06/13/2011 20:23	1	06131114_021.d	DB624 0.2(mm)
240-741-10	GSP-SB-100-6-8	06/13/2011 20:58	1	06131114_022.d	DB624 0.2(mm)
ZZZZZ		06/13/2011 21:32	1		DB624 0.2(mm)
CCV 500-116283/24		06/13/2011 22:06	1	06131114_024.d	DB624 0.2(mm)
ZZZZZ		06/13/2011 22:41	1		DB624 0.2(mm)
CCV 500-116283/26		06/13/2011 23:15	1		DB624 0.2(mm)

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-741-1 Analy Batch No.: 115481

SDG No.:

Instrument ID: INST13-14 GC Column: DB624 ID: 0.2(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/03/2011 12:11 Calibration End Date: 06/03/2011 15:39 Calibration ID: 4716

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 500-115481/2	06031114_019.d
Level 2	IC 500-115481/3	06031114_020.d
Level 3	IC 500-115481/4	06031114_021.d
Level 4	IC 500-115481/5	06031114_022.d
Level 5	IC 500-115481/6	06031114_023.d
Level 6	IC 500-115481/7	06031114_024.d
Level 7	IC 500-115481/8	06031114_025.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT WINDOW	AVG RT
Gasoline Range Organics (C6-C9)	13.611	13.611	13.611	13.611	13.611	13.611	13.611	6.071 - 21.152	13.611
Gasoline Range Organics (GRO)-C5-C12	14.725	14.725	14.725	14.725	14.725	14.725	14.725	4.514 - 24.935	14.725
Gasoline Range Organics (GRO)-C6-C12	15.503	15.503	15.503	15.503	15.503	15.503	15.503	6.071 - 24.935	15.503
Gasoline Range Organics (GRO)-C6-C10	16.245	16.245	16.245	16.245	16.245	16.245	16.245	6.071 - 26.420	16.245
a,a,a-Trifluorotoluene	11.808	11.808	11.808	11.808	11.817	11.808	11.808	11.717 - 11.917	11.809
4-Bromofluorobenzene	19.400	19.400	19.392	19.400	19.400	19.400	19.400	19.300 - 19.500	19.399

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Chicago Job No.: 240-741-1 Analy Batch No.: 115481

SDG No.:

Instrument ID: INST13-14 GC Column: DB624 ID: 0.2(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/03/2011 12:11 Calibration End Date: 06/03/2011 15:39 Calibration ID: 4716

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 500-115481/2	06031114_019.d
Level 2	IC 500-115481/3	06031114_020.d
Level 3	IC 500-115481/4	06031114_021.d
Level 4	IC 500-115481/5	06031114_022.d
Level 5	IC 500-115481/6	06031114_023.d
Level 6	IC 500-115481/7	06031114_024.d
Level 7	IC 500-115481/8	06031114_025.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Gasoline Range Organics (C6-C9)	8882.4 7446.7	7791.0 7540.6	7587.8 7219.6	7322.1	Lin2	30936.3054	7285.80266							1.0000		0.9900
Gasoline Range Organics (GRO)-C5-C12	11032 8410.0	9084.4 8503.4	8692.9 8133.7	8253.8	Lin2	55917.2347	8152.55191							0.9990		0.9900
Gasoline Range Organics (GRO)-C6-C12	10706 8080.7	8750.3 8174.9	8387.0 7822.0	7965.0	Lin2	55653.5982	7838.30756							0.9990		0.9900
Gasoline Range Organics (GRO)-C6-C10	11136 8173.8	8876.7 8263.5	8500.1 7911.3	8060.4	Lin2	62452.3887	7898.60895							0.9990		0.9900
a,a,a-Trifluorotoluene	9950.0 8688.5	8928.4 8672.5	8699.0 8417.1	8729.6	Lin2	70.7532755	534.365942							1.0000		0.9900
4-Bromofluorobenzene	6652.0 6080.3	5808.8 6199.9	5708.6 6047.0	6045.3	Lin2	79.5610807	550.644503							0.9990		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Chicago Job No.: 240-741-1 Analy Batch No.: 115481

SDG No.:

Instrument ID: INST13-14 GC Column: DB624 ID: 0.2(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/03/2011 12:11 Calibration End Date: 06/03/2011 15:39 Calibration ID: 4716

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 500-115481/2	06031114_019.d
Level 2	IC 500-115481/3	06031114_020.d
Level 3	IC 500-115481/4	06031114_021.d
Level 4	IC 500-115481/5	06031114_022.d
Level 5	IC 500-115481/6	06031114_023.d
Level 6	IC 500-115481/7	06031114_024.d
Level 7	IC 500-115481/8	06031114_025.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Gasoline Range Organics (C6-C9)	Lin2	177647 4524334	389549 7219623	758777	1464413	2978679	20.0 600	50.0 1000	100	200	400
Gasoline Range Organics (GRO)-C5-C12	Lin2	220633 5102034	454219 8133699	869290	1650751	3363984	20.0 600	50.0 1000	100	200	400
Gasoline Range Organics (GRO)-C6-C12	Lin2	214126 4904927	437514 7822034	838698	1593008	3232296	20.0 600	50.0 1000	100	200	400
Gasoline Range Organics (GRO)-C6-C10	Lin2	222712 4958078	443836 7911298	850014	1612082	3269502	20.0 600	50.0 1000	100	200	400
a,a,a-Trifluorotoluene	Lin2	9950 260175	22321 420855	43495	87296	173770	1.00 30.0	2.50 50.0	5.00	10.0	20.0
4-Bromofluorobenzene	Lin2	6652 185996	14522 302352	28543	60453	121605	1.00 30.0	2.50 50.0	5.00	10.0	20.0

Curve Type Legend:
Lin2 = Linear 1/conc^2

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago | Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 500-115481/9 | Calibration Date: 06/03/2011 16:13

Instrument ID: INST13-14 | Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) | Calib End Date: 06/03/2011 15:39

Lab File ID: 06031114_026.d | Conc. Units: ug/L | Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7521		202	200	1.1	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8385		199	200	-0.6	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		8147		201	200	0.4	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		8223		200	200	0.2	15.0
a,a,a-Trifluorotoluene	Lin2		8451		20.4	20.0	2.0	15.0
4-Bromofluorobenzene	Lin2		5788		19.8	20.0	-1.0	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago | Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 500-115481/9 | Calibration Date: 06/03/2011 16:13

Instrument ID: INST13-14 | Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) | Calib End Date: 06/03/2011 15:39

Lab File ID: 06031114_026.d | Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Gasoline Range Organics (C6-C9)	13.61	6.07	21.15
Gasoline Range Organics (GRO)-C5-C12	14.73	4.51	24.94
Gasoline Range Organics (GRO)-C6-C12	15.50	6.07	24.94
Gasoline Range Organics (GRO)-C6-C10	16.25	6.07	26.42
a,a,a-Trifluorotoluene	11.81	11.72	11.92
4-Bromofluorobenzene	19.39	19.30	19.50

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 500-116283/2 Calibration Date: 06/13/2011 09:29

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06131114_002.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7582		412	400	3.0	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8591		415	400	3.7	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		8219		412	400	3.1	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		8319		413	400	3.4	15.0
a,a,a-Trifluorotoluene	Lin2		9032		21.2	20.0	6.0	15.0
4-Bromofluorobenzene	Lin2		6347		21.3	20.0	6.5	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago | Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 500-116283/2 | Calibration Date: 06/13/2011 09:29

Instrument ID: INST13-14 | Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) | Calib End Date: 06/03/2011 15:39

Lab File ID: 06131114_002.d | Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Gasoline Range Organics (C6-C9)	13.69	6.14	21.23
Gasoline Range Organics (GRO)-C5-C12	14.79	4.58	25.00
Gasoline Range Organics (GRO)-C6-C12	15.57	6.14	25.00
Gasoline Range Organics (GRO)-C6-C10	16.32	6.14	26.49
a,a,a-Trifluorotoluene	11.88	11.79	11.99
4-Bromofluorobenzene	19.47	19.38	19.58

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 500-116283/13 Calibration Date: 06/13/2011 15:47

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06131114_013.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7295		396	400	-0.9	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8226		397	400	-0.8	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		7910		397	400	-0.8	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		7994		397	400	-0.8	15.0
a,a,a-Trifluorotoluene	Lin2		8514		19.9	20.0	-0.5	15.0
4-Bromofluorobenzene	Lin2		5985		20.1	20.0	0.5	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 500-116283/13 Calibration Date: 06/13/2011 15:47

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06131114_013.d Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Gasoline Range Organics (C6-C9)	13.69	6.14	21.23
Gasoline Range Organics (GRO)-C5-C12	14.79	4.58	25.00
Gasoline Range Organics (GRO)-C6-C12	15.57	6.14	25.00
Gasoline Range Organics (GRO)-C6-C10	16.32	6.14	26.49
a,a,a-Trifluorotoluene	11.87	11.79	11.99
4-Bromofluorobenzene	19.46	19.38	19.58

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 500-116283/24 Calibration Date: 06/13/2011 22:06

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06131114_024.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7210		392	400	-2.1	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8140		393	400	-1.9	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		7743		388	400	-3.0	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		7816		388	400	-3.0	15.0
a,a,a-Trifluorotoluene	Lin2		8703		20.4	20.0	2.0	15.0
4-Bromofluorobenzene	Lin2		6118		20.5	20.0	2.5	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 500-116283/24 Calibration Date: 06/13/2011 22:06

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06131114_024.d Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Gasoline Range Organics (C6-C9)	13.69	6.14	21.23
Gasoline Range Organics (GRO)-C5-C12	14.79	4.58	25.00
Gasoline Range Organics (GRO)-C6-C12	15.57	6.14	25.00
Gasoline Range Organics (GRO)-C6-C10	16.32	6.14	26.49
a,a,a-Trifluorotoluene	11.86	11.79	11.99
4-Bromofluorobenzene	19.45	19.38	19.58

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Lab Sample ID: MB 500-116283/3

Matrix: Solid Date Extracted: 06/13/2011 10:04

Lab File ID:(1) 06131114_003.d Lab File ID:(2)

Date Analyzed:(1) 06/13/2011 10:04 Date Analyzed:(2)

Instrument ID:(1) INST13-14 Instrument ID:(2)

GC Column:(1) DB624 ID: 0.2(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 500-116283/4	06/13/2011 10:38	
	240-681-E-30 MS	06/13/2011 11:47	
	240-681-E-30 MSD	06/13/2011 12:21	
GSP-SB-103-0-2	240-741-1	06/13/2011 15:13	
GSP-SB-103-6-8	240-741-2	06/13/2011 16:22	
GSP-SB-105-0-2	240-741-3	06/13/2011 16:56	
GSP-SB-105-6-8	240-741-4	06/13/2011 17:31	
GSP-SB-101-0-2	240-741-5	06/13/2011 18:05	
GSP-SB-101-6-8	240-741-6	06/13/2011 18:40	
GSP-SB-99-0-2	240-741-7	06/13/2011 19:14	
GSP-SB-99-6-8	240-741-8	06/13/2011 19:49	
GSP-SB-100-2-4	240-741-9	06/13/2011 20:23	
GSP-SB-100-6-8	240-741-10	06/13/2011 20:58	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-741-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 500-116283/3

Matrix: Solid | Lab File ID: 06131114_003.d

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/13/2011 10:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 116283 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	50	U	50	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	107		64-116
460-00-4	4-Bromofluorobenzene	103		51-117

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06131114_004.d

Lab ID: LCS 500-116283/4 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	400	387	97	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06131111_006.d

Lab ID: 240-742-1 MS Client ID: GSP-SB-109-0-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	419	52 U	330	79	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06131111_007.d

Lab ID: 240-742-1 MSD Client ID: GSP-SB-109-0-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	419	342	82	4	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	C91	#
GSP-SB-103-0-2	240-741-1	45	
GSP-SB-103-6-8	240-741-2	48	
GSP-SB-105-0-2	240-741-3	41	
GSP-SB-105-6-8	240-741-4	47	
GSP-SB-101-0-2	240-741-5	45	
GSP-SB-101-6-8	240-741-6	39	
GSP-SB-99-0-2	240-741-7	42	
GSP-SB-99-6-8	240-741-8	48	
GSP-SB-100-2-4	240-741-9	48	
GSP-SB-100-6-8	240-741-10	47	
GSP-SB-109-0-2	240-742-1	41	
GSP-SB-109-6-8	240-742-2	45	
GSP-SB-108-0-2	240-742-3	45	
GSP-SB-108-6-8	240-742-4	42	
GSP-SB-110-0-2	240-742-5	41	
GSP-SB-110-6-8	240-742-6	41	
GSP-SB-102-0-2	240-742-7	49	
GSP-SB-102-6-8	240-742-8	47	
GSP-SB-107-0-2	240-742-9	43	
GSP-SB-107-6-8	240-742-10	47	
	MB 240-4516/1-A	47	
	MB 240-4675/23-A	49	
	LCS 240-4516/2-A	47	
	LCS 240-4675/24-A	54	

C9 = n-Nonane

QC LIMITS
10-110

Column to be used to flag recovery values

FORM II 8015C

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP14F Start Date: 05/19/2011 12:01

Analysis Batch Number: 2165 End Date: 05/19/2011 14:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-2165/4 IC		05/19/2011 12:01	1	P14F0000004.D	RTX-5 0.53(mm)
STD2 240-2165/5 IC		05/19/2011 12:25	1	P14F0000005.D	RTX-5 0.53(mm)
STD3 240-2165/6 IC		05/19/2011 12:49	1	P14F0000006.D	RTX-5 0.53(mm)
STD4 240-2165/7 IC		05/19/2011 13:14	1	P14F0000007.D	RTX-5 0.53(mm)
STD5 240-2165/8 IC		05/19/2011 13:38	1	P14F0000008.D	RTX-5 0.53(mm)
ICV 240-2165/9		05/19/2011 14:02	1	P14F0000009.D	RTX-5 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP14F Start Date: 06/22/2011 14:11

Analysis Batch Number: 5688 End Date: 06/22/2011 23:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-5688/4		06/22/2011 14:11	1	P14F0000004.D	RTX-5 0.53(mm)
CCV 240-5688/8		06/22/2011 15:49	1	P14F0000008.D	RTX-5 0.53(mm)
240-742-7	GSP-SB-102-0-2	06/22/2011 16:13	1	P14F0000009.D	RTX-5 0.53(mm)
240-742-8	GSP-SB-102-6-8	06/22/2011 16:38	1	P14F0000010.D	RTX-5 0.53(mm)
LCS 240-4675/24-A		06/22/2011 22:44	1	P14F0000025.D	RTX-5 0.53(mm)
CCV 240-5688/26		06/22/2011 23:08	1	P14F0000026.D	RTX-5 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP14F Start Date: 06/23/2011 15:18

Analysis Batch Number: 5878 End Date: 06/24/2011 02:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-5878/4		06/23/2011 15:18	1	P14F0000004.D	RTX-5 0.53(mm)
240-742-9	GSP-SB-107-0-2	06/23/2011 15:42	1	P14F0000005.D	RTX-5 0.53(mm)
240-742-10	GSP-SB-107-6-8	06/23/2011 16:07	1	P14F0000006.D	RTX-5 0.53(mm)
MB 240-4675/23-A		06/23/2011 16:31	1	P14F0000007.D	RTX-5 0.53(mm)
CCV 240-5878/8		06/23/2011 16:56	1	P14F0000008.D	RTX-5 0.53(mm)
ZZZZZ		06/23/2011 17:20	5		RTX-5 0.53(mm)
ZZZZZ		06/23/2011 17:45	5		RTX-5 0.53(mm)
ZZZZZ		06/23/2011 18:09	5		RTX-5 0.53(mm)
ZZZZZ		06/23/2011 18:33	5		RTX-5 0.53(mm)
ZZZZZ		06/23/2011 18:58	5		RTX-5 0.53(mm)
RINSE 240-5878/14		06/23/2011 19:23	1		RTX-5 0.53(mm)
CCV 240-5878/15		06/23/2011 19:47	1		RTX-5 0.53(mm)
CCV 240-5878/32		06/24/2011 02:40	1		RTX-5 0.53(mm)

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 2165

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1050

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2165/4	P14F0000004.D
Level 2	STD2 240-2165/5	P14F0000005.D
Level 3	STD3 240-2165/6	P14F0000006.D
Level 4	STD4 240-2165/7	P14F0000007.D
Level 5	STD5 240-2165/8	P14F0000008.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT WINDOW	AVG RT
Diesel	8.122	8.122	8.122	8.122	8.122	3.590 - 12.654	8.122
n-Nonane	1.752	1.753	1.757	1.755	1.757	1.702 - 1.802	1.755

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 2165

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1050

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2165/4	P14F0000004.D
Level 2	STD2 240-2165/5	P14F0000005.D
Level 3	STD3 240-2165/6	P14F0000006.D
Level 4	STD4 240-2165/7	P14F0000007.D
Level 5	STD5 240-2165/8	P14F0000008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	705763 336646	515461	435657	351683	Lin	44348394.0	314402.704							0.9980		0.9900
n-Nonane	413140 382989	431927	436350	381033	Ave		409087.891				6.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 2165

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1050

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2165/4	P14F0000004.D
Level 2	STD2 240-2165/5	P14F0000005.D
Level 3	STD3 240-2165/6	P14F0000006.D
Level 4	STD4 240-2165/7	P14F0000007.D
Level 5	STD5 240-2165/8	P14F0000008.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel	Lin	70576281	103092243	217828353	351682761	673292607	100	200	500	1000	2000
n-Nonane	Ave	4131403	8638546	21817505	38103250	76597851	10.0	20.0	50.0	100	200

Curve Type Legend:
Ave = Average
Lin = Linear

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-2165/9 Calibration Date: 05/19/2011 14:02

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		411800		514	500	2.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-2165/9 Calibration Date: 05/19/2011 14:02

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000009.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.12	3.59	12.65

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVRT 240-5688/4 Calibration Date: 06/22/2011 14:11

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		429849		543	500	8.5	20.0
n-Nonane	Ave	409088	423986		51.8	50.0	3.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVRT 240-5688/4 Calibration Date: 06/22/2011 14:11

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000004.D

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Diesel	8.10	3.56	12.64
n-Nonane	1.74	1.69	1.79

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5688/8 Calibration Date: 06/22/2011 15:49

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000008.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		383159		468	500	-6.3	20.0
n-Nonane	Ave	409088	428331		52.4	50.0	4.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5688/8 Calibration Date: 06/22/2011 15:49

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000008.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.10	3.56	12.64
n-Nonane	1.74	1.69	1.79

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5688/26 Calibration Date: 06/22/2011 23:08

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000026.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		371939		450	500	-9.9	20.0
n-Nonane	Ave	409088	444137		54.3	50.0	8.6	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5688/26 Calibration Date: 06/22/2011 23:08

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000026.D

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Diesel	8.10	3.56	12.64
n-Nonane	1.74	1.69	1.79

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVRT 240-5878/4 Calibration Date: 06/23/2011 15:18

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		402520		499	500	-0.2	20.0
n-Nonane	Ave	409088	405666		49.6	50.0	-0.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVRT 240-5878/4 Calibration Date: 06/23/2011 15:18

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000004.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.10	3.57	12.64
n-Nonane	1.74	1.69	1.79

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5878/8 Calibration Date: 06/23/2011 16:56

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000008.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		399860		495	500	-1.0	20.0
n-Nonane	Ave	409088	404326		49.4	50.0	-1.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5878/8 Calibration Date: 06/23/2011 16:56

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000008.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.10	3.57	12.64
n-Nonane	1.73	1.69	1.79

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP5 Start Date: 04/25/2011 10:32

Analysis Batch Number: 1563 End Date: 04/25/2011 12:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-1563/3 IC		04/25/2011 10:32	1	P5042504.D	RTX-5 0.53(mm)
STD2 240-1563/4 IC		04/25/2011 11:01	1	P5042505.D	RTX-5 0.53(mm)
STD3 240-1563/5 IC		04/25/2011 11:30	1	P5042506.D	RTX-5 0.53(mm)
STD4 240-1563/6 IC		04/25/2011 11:59	1	P5042507.D	RTX-5 0.53(mm)
STD5 240-1563/7 IC		04/25/2011 12:29	1	P5042508.D	RTX-5 0.53(mm)
ICV 240-1563/13		04/25/2011 12:58	1		RTX-5 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP5 Start Date: 06/20/2011 11:53

Analysis Batch Number: 5319 End Date: 06/21/2011 01:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED		DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-5319/4		06/20/2011	11:53	1	P5062004.D	RTX-5 0.53(mm)
CCV 240-5319/8		06/20/2011	13:45	1	P5062008.D	RTX-5 0.53(mm)
240-741-1	GSP-SB-103-0-2	06/20/2011	14:14	1	P5062009.D	RTX-5 0.53(mm)
240-741-2	GSP-SB-103-6-8	06/20/2011	14:42	1	P5062010.D	RTX-5 0.53(mm)
240-741-3	GSP-SB-105-0-2	06/20/2011	15:10	1	P5062011.D	RTX-5 0.53(mm)
240-741-4	GSP-SB-105-6-8	06/20/2011	15:38	1	P5062012.D	RTX-5 0.53(mm)
240-741-5	GSP-SB-101-0-2	06/20/2011	16:07	1	P5062013.D	RTX-5 0.53(mm)
240-741-6	GSP-SB-101-6-8	06/20/2011	16:35	1	P5062014.D	RTX-5 0.53(mm)
240-741-7	GSP-SB-99-0-2	06/20/2011	17:03	1	P5062015.D	RTX-5 0.53(mm)
240-741-8	GSP-SB-99-6-8	06/20/2011	17:31	1	P5062016.D	RTX-5 0.53(mm)
240-741-9	GSP-SB-100-2-4	06/20/2011	17:59	1	P5062017.D	RTX-5 0.53(mm)
240-741-10	GSP-SB-100-6-8	06/20/2011	18:27	1	P5062018.D	RTX-5 0.53(mm)
240-742-1	GSP-SB-109-0-2	06/20/2011	18:55	1	P5062019.D	RTX-5 0.53(mm)
ZZZZZ		06/20/2011	19:23	1		RTX-5 0.53(mm)
CCV 240-5319/21		06/20/2011	19:51	1	P5062021.D	RTX-5 0.53(mm)
240-742-3	GSP-SB-108-0-2	06/20/2011	20:47	1	P5062023.D	RTX-5 0.53(mm)
240-742-4	GSP-SB-108-6-8	06/20/2011	21:15	1	P5062024.D	RTX-5 0.53(mm)
240-742-5	GSP-SB-110-0-2	06/20/2011	21:43	1	P5062025.D	RTX-5 0.53(mm)
240-742-6	GSP-SB-110-6-8	06/20/2011	22:11	1	P5062026.D	RTX-5 0.53(mm)
LCS 240-4516/2-A		06/21/2011	01:28	1	P5062033.D	RTX-5 0.53(mm)
CCV 240-5319/34		06/21/2011	01:56	1	P5062034.D	RTX-5 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP5 Start Date: 06/21/2011 11:49

Analysis Batch Number: 5475 End Date: 06/21/2011 15:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-5475/4		06/21/2011 11:49	1	P5062104.D	RTX-5 0.53(mm)
CCV 240-5475/8		06/21/2011 13:43	1	P5062108.D	RTX-5 0.53(mm)
240-742-2	GSP-SB-109-6-8	06/21/2011 14:11	2	P5062109.D	RTX-5 0.53(mm)
CCV 240-5475/11		06/21/2011 15:08	1	P5062111.D	RTX-5 0.53(mm)

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1563

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2011 10:32 Calibration End Date: 04/25/2011 11:01 Calibration ID: 958

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-1563/3	P5042504.D
Level 2	STD2 240-1563/4	P5042505.D
Level 3	STD3 240-1563/5	P5042506.D
Level 4	STD4 240-1563/6	P5042507.D
Level 5	STD5 240-1563/7	P5042508.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT WINDOW	AVG RT
Diesel	9.064	9.064	9.064	9.064	9.064	4.838 - 13.289	9.064
n-Nonane	3.697	3.693	3.696	3.695	3.699	3.647 - 3.747	3.696

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1563

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2011 10:32 Calibration End Date: 04/25/2011 11:01 Calibration ID: 958

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-1563/3	P5042504.D
Level 2	STD2 240-1563/4	P5042505.D
Level 3	STD3 240-1563/5	P5042506.D
Level 4	STD4 240-1563/6	P5042507.D
Level 5	STD5 240-1563/7	P5042508.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	253880 183844	194912	213715	180853	Ave		205440.756				15.0		20.0			
n-Nonane	283211 249411	245446	269991	245251	Ave		258662.187				6.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 1563

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2011 10:32 Calibration End Date: 04/25/2011 11:01 Calibration ID: 958

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-1563/3	P5042504.D
Level 2	STD2 240-1563/4	P5042505.D
Level 3	STD3 240-1563/5	P5042506.D
Level 4	STD4 240-1563/6	P5042507.D
Level 5	STD5 240-1563/7	P5042508.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel	Ave	25388034	38982467	106857343	180852891	367687061	100	200	500	1000	2000
n-Nonane	Ave	2832113	4908911	13499563	24525133	49882299	10.0	20.0	50.0	100	200

Curve Type Legend:
Ave = Average

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVRT 240-5319/4 Calibration Date: 06/20/2011 11:53

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	151880		370	500	-26.1*	20.0
n-Nonane	Ave	258662	213105		41.2	50.0	-17.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVRT 240-5319/4 Calibration Date: 06/20/2011 11:53

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062004.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.96	4.75	13.18
n-Nonane	3.55	3.48	3.62

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5319/8 Calibration Date: 06/20/2011 13:45

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062008.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	186876		455	500	-9.0	20.0
n-Nonane	Ave	258662	261309		50.5	50.0	1.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5319/8 Calibration Date: 06/20/2011 13:45

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062008.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.96	4.75	13.18
n-Nonane	3.56	3.51	3.65

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5319/21 Calibration Date: 06/20/2011 19:51

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062021.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	204146		497	500	-0.6	20.0
n-Nonane	Ave	258662	301776		58.3	50.0	16.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5319/21 Calibration Date: 06/20/2011 19:51

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062021.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.96	4.75	13.18
n-Nonane	3.57	3.51	3.65

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5319/34 Calibration Date: 06/21/2011 01:56

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062034.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	218946		533	500	6.6	20.0
n-Nonane	Ave	258662	309656		59.9	50.0	19.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5319/34 Calibration Date: 06/21/2011 01:56

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062034.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.96	4.75	13.18
n-Nonane	3.58	3.51	3.65

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVRT 240-5475/4 Calibration Date: 06/21/2011 11:49

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062104.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	194076		472	500	-5.5	20.0
n-Nonane	Ave	258662	260803		50.4	50.0	0.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCVRT 240-5475/4 Calibration Date: 06/21/2011 11:49

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062104.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.99	4.78	13.20
n-Nonane	3.61	3.54	3.68

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5475/8 Calibration Date: 06/21/2011 13:43

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062108.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	196850		479	500	-4.2	20.0
n-Nonane	Ave	258662	272221		52.6	50.0	5.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5475/8 Calibration Date: 06/21/2011 13:43

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062108.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.99	4.78	13.20
n-Nonane	3.61	3.54	3.68

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5475/11 Calibration Date: 06/21/2011 15:08

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062111.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	197077		480	500	-4.1	20.0
n-Nonane	Ave	258662	269057		52.0	50.0	4.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-5475/11 Calibration Date: 06/21/2011 15:08

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062111.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.99	4.78	13.20
n-Nonane	3.61	3.54	3.68

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Instrument ID: A2HP5 Start Date: 06/27/2011 11:08

Analysis Batch Number: 6175 End Date: 06/27/2011 22:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-6175/4 IC		06/27/2011 11:08	1	P5062704.D	RTX-5 0.53(mm)
STD2 240-6175/5 IC		06/27/2011 11:36	1	P5062705.D	RTX-5 0.53(mm)
STD3 240-6175/6 IC		06/27/2011 12:04	1	P5062706.D	RTX-5 0.53(mm)
STD4 240-6175/7 IC		06/27/2011 12:32	1	P5062707.D	RTX-5 0.53(mm)
STD5 240-6175/8 IC		06/27/2011 13:00	1	P5062708.D	RTX-5 0.53(mm)
ICV 240-6175/9		06/27/2011 13:28	1	P5062709.D	RTX-5 0.53(mm)
MB 240-4516/1-A		06/27/2011 13:56	1	P5062710.D	RTX-5 0.53(mm)
CCV 240-6175/11		06/27/2011 14:24	1	P5062711.D	RTX-5 0.53(mm)
CCV 240-6175/24		06/27/2011 20:29	1	P5062724.D	RTX-5 0.53(mm)
CCV 240-6175/29		06/27/2011 22:50	1	P5062729.D	RTX-5 0.53(mm)

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6175

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 11:08 Calibration End Date: 06/27/2011 13:00 Calibration ID: 1776

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6175/4	P5062704.D
Level 2	STD2 240-6175/5	P5062705.D
Level 3	STD3 240-6175/6	P5062706.D
Level 4	STD4 240-6175/7	P5062707.D
Level 5	STD5 240-6175/8	P5062708.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT WINDOW	AVG RT
Diesel	8.772	8.772	8.772	8.772	8.772	4.492 - 13.051	8.772
n-Nonane	3.113	3.119	3.119	3.121	3.124	3.043 - 3.183	3.119

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6175

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 11:08 Calibration End Date: 06/27/2011 13:00 Calibration ID: 1776

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6175/4	P5062704.D
Level 2	STD2 240-6175/5	P5062705.D
Level 3	STD3 240-6175/6	P5062706.D
Level 4	STD4 240-6175/7	P5062707.D
Level 5	STD5 240-6175/8	P5062708.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	159484 170115	171167	187950	174295	Ave		172602.240				5.9		20.0			
n-Nonane	194827 231187	227414	244778	237482	Ave		227137.555				8.5		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-741-1 Analy Batch No.: 6175

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/27/2011 11:08 Calibration End Date: 06/27/2011 13:00 Calibration ID: 1776

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6175/4	P5062704.D
Level 2	STD2 240-6175/5	P5062705.D
Level 3	STD3 240-6175/6	P5062706.D
Level 4	STD4 240-6175/7	P5062707.D
Level 5	STD5 240-6175/8	P5062708.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel	Ave	15948379	34233465	93974977	174295424	340229413	100	200	500	1000	2000
n-Nonane	Ave	1948273	4548281	12238877	23748160	46237457	10.0	20.0	50.0	100	200

Curve Type Legend:
Ave = Average

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-6175/9 Calibration Date: 06/27/2011 13:28

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062709.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	172602	183333		531	500	6.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: ICV 240-6175/9 Calibration Date: 06/27/2011 13:28

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062709.D

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
Diesel	8.77	4.49	13.05

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-6175/11 Calibration Date: 06/27/2011 14:24

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062711.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	172602	185522		537	500	7.5	20.0
n-Nonane	Ave	227138	253932		55.9	50.0	11.8	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-6175/11 Calibration Date: 06/27/2011 14:24

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062711.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.77	4.49	13.05
n-Nonane	3.12	3.04	3.18

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-6175/24 Calibration Date: 06/27/2011 20:29

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062724.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	172602	179805		521	500	4.2	20.0
n-Nonane	Ave	227138	238853		52.6	50.0	5.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-6175/24 Calibration Date: 06/27/2011 20:29

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062724.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.77	4.49	13.05
n-Nonane	3.11	3.04	3.18

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-6175/29 Calibration Date: 06/27/2011 22:50

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062729.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	172602	193341		560	500	12.0	20.0
n-Nonane	Ave	227138	266610		58.7	50.0	17.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: CCV 240-6175/29 Calibration Date: 06/27/2011 22:50

Instrument ID: A2HP5 Calib Start Date: 06/27/2011 11:08

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 06/27/2011 13:00

Lab File ID: P5062729.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.77	4.49	13.05
n-Nonane	3.12	3.04	3.18

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: MB 240-4516/1-A

Matrix: Solid Date Extracted: 06/13/2011 10:56

Lab File ID:(1) P5062710.D Lab File ID:(2)

Date Analyzed:(1) 06/27/2011 13:56 Date Analyzed:(2)

Instrument ID:(1) A2HP5 Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-SB-103-0-2	240-741-1	06/20/2011 14:14	
GSP-SB-103-6-8	240-741-2	06/20/2011 14:42	
GSP-SB-105-0-2	240-741-3	06/20/2011 15:10	
GSP-SB-105-6-8	240-741-4	06/20/2011 15:38	
GSP-SB-101-0-2	240-741-5	06/20/2011 16:07	
GSP-SB-101-6-8	240-741-6	06/20/2011 16:35	
GSP-SB-99-0-2	240-741-7	06/20/2011 17:03	
GSP-SB-99-6-8	240-741-8	06/20/2011 17:31	
GSP-SB-100-2-4	240-741-9	06/20/2011 17:59	
GSP-SB-100-6-8	240-741-10	06/20/2011 18:27	
GSP-SB-109-0-2	240-742-1	06/20/2011 18:55	
GSP-SB-108-0-2	240-742-3	06/20/2011 20:47	
GSP-SB-108-6-8	240-742-4	06/20/2011 21:15	
GSP-SB-110-0-2	240-742-5	06/20/2011 21:43	
GSP-SB-110-6-8	240-742-6	06/20/2011 22:11	
	LCS 240-4516/2-A	06/21/2011 01:28	
GSP-SB-109-6-8	240-742-2	06/21/2011 14:11	

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-741-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4516/1-A

Matrix: Solid | Lab File ID: P5062710.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3540C | Date Extracted: 06/13/2011 10:56

Sample wt/vol: 30(g) | Date Analyzed: 06/27/2011 13:56

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6175 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	14.3	J	17	9.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	47		10-110

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P5062033.D

Lab ID: LCS 240-4516/2-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
Diesel	83.3	74.5	89	47-138	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Lab Sample ID: MB 240-4675/23-A

Matrix: Solid Date Extracted: 06/14/2011 11:36

Lab File ID:(1) P14F0000007.D Lab File ID:(2)

Date Analyzed:(1) 06/23/2011 16:31 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-SB-102-0-2	240-742-7	06/22/2011 16:13	
GSP-SB-102-6-8	240-742-8	06/22/2011 16:38	
	LCS 240-4675/24-A	06/22/2011 22:44	
GSP-SB-107-0-2	240-742-9	06/23/2011 15:42	
GSP-SB-107-6-8	240-742-10	06/23/2011 16:07	

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton	Job No.: 240-741-1
SDG No.:	
Client Sample ID:	Lab Sample ID: MB 240-4675/23-A
Matrix: Solid	Lab File ID: P14F0000007.D
Analysis Method: 8015C	Date Collected:
Extraction Method: 3540C	Date Extracted: 06/14/2011 11:36
Sample wt/vol: 30.00(g)	Date Analyzed: 06/23/2011 16:31
Con. Extract Vol.: 5.00(mL)	Dilution Factor: 1
Injection Volume: 1(uL)	GC Column: RTX-5 ID: 0.53(mm)
% Moisture:	GPC Cleanup:(Y/N) N
Analysis Batch No.: 5878	Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	17	U	17	9.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	49		10-110

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P14F0000025.D

Lab ID: LCS 240-4675/24-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
Diesel	83.3	70.1	84	47-138	

Column to be used to flag recovery and RPD values

FORM III 8015C

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Batch Number: 4516 Batch Start Date: 06/13/11 15:20 Batch Analyst: Malik, Scott

Batch Method: 3540C Batch End Date: 06/14/11 07:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXDIESELSPKW 00006	EXTPHSURR 00003
MB 240-4516/1		3540C, 8015C		30 g	5 mL		1 mL
LCS 240-4516/2		3540C, 8015C		30 g	5 mL	1 mL	1 mL
240-741-G-1	GSP-SB-103-0-2	3540C, 8015C	T	30.11 g	5 mL		1 mL
240-741-F-2	GSP-SB-103-6-8	3540C, 8015C	T	30.07 g	5 mL		1 mL
240-741-G-3	GSP-SB-105-0-2	3540C, 8015C	T	30.10 g	5 mL		1 mL
240-741-F-4	GSP-SB-105-6-8	3540C, 8015C	T	30.10 g	5 mL		1 mL
240-741-G-5	GSP-SB-101-0-2	3540C, 8015C	T	29.94 g	5 mL		1 mL
240-741-F-6	GSP-SB-101-6-8	3540C, 8015C	T	29.99 g	5 mL		1 mL
240-741-F-7	GSP-SB-99-0-2	3540C, 8015C	T	29.98 g	5 mL		1 mL
240-741-G-8	GSP-SB-99-6-8	3540C, 8015C	T	30.06 g	5 mL		1 mL
240-741-F-9	GSP-SB-100-2-4	3540C, 8015C	T	29.92 g	5 mL		1 mL
240-741-G-10	GSP-SB-100-6-8	3540C, 8015C	T	30.14 g	5 mL		1 mL
240-742-G-1	GSP-SB-109-0-2	3540C, 8015C	T	30.04 g	5 mL		1 mL
240-742-G-2	GSP-SB-109-6-8	3540C, 8015C	T	30.03 g	5 mL		1 mL
240-742-G-3	GSP-SB-108-0-2	3540C, 8015C	T	30.07 g	5 mL		1 mL
240-742-G-4	GSP-SB-108-6-8	3540C, 8015C	T	29.96 g	5 mL		1 mL
240-742-G-5	GSP-SB-110-0-2	3540C, 8015C	T	30.20 g	5 mL		1 mL
240-742-G-6	GSP-SB-110-6-8	3540C, 8015C	T	30.03 g	5 mL		1 mL

Batch Notes	
Balance ID	B-036
Batch Comment	s/s em/sm/cc
Person's name who did the concentration	cc/em
First End time	012480
Na2SO4 Lot Number	010349
Prep Solvent Lot #	016818

Basis	Basis Description
T	Total/NA

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica North Canton Job No.: 240-741-1

SDG No.:

Batch Number: 4675 Batch Start Date: 06/14/11 14:20 Batch Analyst: Robbins, Alex

Batch Method: 3540C Batch End Date: 06/15/11 06:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXDIESELSPKW 00005	EXTPHSURR 00003
240-742-G-7	GSP-SB-102-0-2	3540C, 8015C	T	30.08 g	5.00 mL		1 mL
240-742-G-8	GSP-SB-102-6-8	3540C, 8015C	T	29.98 g	5.00 mL		1 mL
240-742-G-9	GSP-SB-107-0-2	3540C, 8015C	T	30.18 g	5.00 mL		1 mL
240-742-G-10	GSP-SB-107-6-8	3540C, 8015C	T	30.11 g	5.00 mL		1 mL
MB 240-4675/23		3540C, 8015C		30.00 g	5.00 mL		1 mL
LCS 240-4675/24		3540C, 8015C		30.00 g	5.00 mL	1 mL	1 mL

Batch Notes

Balance ID	b037
Batch Comment	SS: SM/AR
Na2SO4 Lot Number	010351
Prep Solvent Name	016820

Basis	Basis Description
T	Total/NA

SDG 0I17513
SAMPLE ID E-SB-833-09

SAMPLE CALC

INITIAL CF	DILUTION	COMPOUND OF INTEREST	Final Extract Volume (UL)	CONCENTRATION PPB
205441	1	148589706	5000	139.38
		% Solids	Sample Volume (Grams)	
		0.862	30.1	

TPH DRO 140 mg/kg

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-741-1

SDG No.:

Client Sample ID: GSP-SB-105-0-2 | Lab Sample ID: 240-741-3

Matrix: Solid | Lab File ID: P5062011.D

Analysis Method: 8015C | Date Collected: 06/02/2011 09:42

Extraction Method: 3540C | Date Extracted: 06/13/2011 10:56

Sample wt/vol: 30.10(g) | Date Analyzed: 06/20/2011 15:10

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 13.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5319 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	140	B	19	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	41		10-110

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A2HP5\20110620-1207.b\P5062011.D		
Lims ID:	240-741-G-3-B	Client ID:	GSP-SB-105-0-2
Inject. Date:	20-Jun-2011 15:10:37	Dil. Factor:	1.0000
Sample Type:	Client		
Sample ID:	240-0001207-011		
Misc. Info.:			
Operator:	2398	Instrument ID:	A2HP5
Vol. Injected:	1.0000	ALS Bottle#:	11
Lims Batch ID:	5319	Lims Sample ID:	11
Detector:	GC FID1A		
Method:	\\Ncchrom\ChromData\A2HP5\20110620-1207.b\TPH5.m		
Last Update:	22-Jun-2011 15:03:21	Calib Date:	25-Apr-2011 15:26:36
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A2HP5\20110502-442.b\P5042514.D		
Limit Group:	GC 8015C TPH ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-17		

First Level Reviewer: geiss Date: 21-Jun-2011 08:18:18

RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Flags
$ 8 n-Nonane					
3.539	3.579	-0.040	10494814	40.6	
A 15 Diesel					
8.964	4.747 - 13.181		72303045	351.9	
A 17 C10-C32					
9.537	4.747 - 14.327		148589706	723.3	

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **A. APANAVAGE** **DATE:** **SEPTEMBER 7, 2011**

FROM: **J. KALINYAK** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION - VOC / SVOC / PCB / DRO (TPH) / GRO**
LOCKHEED MARTIN STATE AIRPORT – GREATER STRAWBERRY POINT
SAMPLE DELIVERY GROUP (SDG) 240-820-1

SAMPLES: 14 / Soil / VOC / SVOC / TPH / GRO

GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2
GSP-SB-124-6-8	GSP-SB-126-0-2	GSP-SB-126-20-22
GSP-SB-126-8-10	GSP-SB-127-0-2	GSP-SB-127-6-8
GSP-SB-128-0-2	GSP-SB-128-6-8	GSP-SB-130-0-2
GSP-SB-130-20-22	GSP-SB-130-6-8	

12 / Soil / PCB

GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2
GSP-SB-124-6-8	GSP-SB-126-0-2	GSP-SB-126-8-10
GSP-SB-127-0-2	GSP-SB-127-6-8	GSP-SB-128-0-2
GSP-SB-128-6-8	GSP-SB-130-0-2	GSP-SB-130-6-8

Overview

The sample set for Lockheed Martin State Airport Greater Strawberry Point, 240-820-1 consisted of fourteen (14) soil samples. All fourteen (14) soil samples were analyzed for volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), diesel range organics (DRO)/total petroleum hydrocarbons (TPH), and gasoline range organics (GRO), and twelve (12) of the samples were analyzed for polychlorinated biphenyls (PCB) as listed above. No field duplicate sample pairs were included in the sample delivery group (SDG).

The samples were collected by Tetra Tech on June 6, 2011 and analyzed by TestAmerica Inc. All analyses were conducted in accordance with SW-846 Methods 8260B VOCs, 8270D SVOCs, 8082A PCBs, and 8015C TPH & GRO, analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate results, internal standard recoveries, chromatographic resolution, compound identification, compound quantitation, and detection limits. Areas of concern are listed below.

Major Problems

- The VOC initial calibration relative response factor (RRF) was <0.05 the quality control limit for tert-butyl alcohol and vinyl acetate on instrument A3UX14 on 05/13/11, and instrument A3UX8 on 06/10/2001, and all continuing calibration verifications (CCV) for both instruments affecting all soil samples. All soil non-detected results for tert-butyl alcohol and vinyl acetate were qualified rejected, (UR).

- The VOC initial calibration RRF was <0.05 the quality control limit for 2-chloroethyl vinyl ether on instrument A3UX8 on 06/10/2001 as well as the CCV RRF on 06/16/11 @ 19:16 affecting soil samples GSP-SB-123-6-8, GSP-SB-124-0-2, GSP-SB-124-6-8, GSP-SB-126-0-2, GSP-SB-126-8-10, GSP-SB-

126-20-22, GSP-SB-127-0-2, GSP-SB-127-6-8, GSP-SB-130-0-2, GSP-SB-130-6-8, and GSP-SB-130-20-22. The aforementioned soil non-detected results for 2-chloroethyl vinyl ether were qualified rejected, (UR).

- The SVOC percent recoveries (%R) were less than the quality control limit at 0% for the analytes 2,4-dinitrophenol 4,6-dinitro-2-methylphenol, hexachlorocyclopentadiene, and pentachlorophenol for both the MS and the MSD for spiked sample GSP-SB-123-0-2. The non-detected aforementioned analyte results were qualified rejected, (UR), for sample GSP-SB-123-0-2.

Minor Problems

- The following VOC contaminants were detected in the method blanks at the following maximum concentration affecting all samples.

Analyte	Maximum Conc. µg/kg	Action Level µg/kg
Naphthalene [1]	0.448	2.240
1,2,4-Trichlorobenzene [2]	0.349	1.745
Naphthalene [2]	0.533	2.665
Acetone [3]	13.3	133.0
Methylene chloride [3]	5.88	58.8
2-Butanone [4]	1.90	19.0

(1) Method blank MB 240-5027/6 affecting samples GSP-SB-128-0-2, GSP-SB-128-6-8, and GSP-SB-123-0-2.
(2) Method blank MB-240-5087/7 affecting samples GSP-SB-123-6-8, GSP-SB-124-0-2, GSP-SB-124-6-8, GSP-SB-126-0-2, GSP-SB-126-8-10, GSP-SB-126-20-22, GSP-SB-127-0-2, GSP-SB-127-6-8, GSP-SB-130-0-2, GSP-SB-130-6-8, and GSP-SB-130-20-22.
(3) Method blank 240-5027/6 affecting all samples for the common laboratory contaminants acetone and methylene chloride.
(4) Method blank MB-240-5087/7 affecting all samples for the common laboratory contaminant 2-butanone.

An action level of ten times the maximum level for the common laboratory contaminants 2-butanone, acetone, and methylene chloride, and an action level of five times the maximum level for the other laboratory contaminants has been used to evaluate sample data for blank contamination. Sample aliquot, percent solids, and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive sample analyte results if less than the action level were qualified non-detected, (B), due to blank contamination.

- The VOC CCV percent difference (%D) was greater than the 20% and greater than 50% quality control limit for chloroethane for instrument A3UX14 on 06/16/11 @ 12:19 affecting samples GSP-SB-128-0-2, GSP-SB-128-6-8, and GSP-SB-123-0-2. The aforementioned sample non-detected results for the chloroethane were qualified estimated, (UJ).

- The VOC CCV %Ds were greater than the 20% and less than 50% quality control limit for bromomethane, trichlorofluoromethane, 1,1,2-trichlorotrifluoroethane, vinyl acetate, 1,2-dichloroethane, trichloroethene, tetrachloroethene, chlorodibromomethane, bromoform, and 1,2-dibromo-3-chloropropane for instrument A3UX8 on 06/16/11 @ 19:16 affecting samples GSP-SB-123-6-8, GSP-SB-124-0-2, GSP-SB-124-6-8, GSP-SB-126-0-2, GSP-SB-126-8-10, GSP-SB-126-20-22, GSP-SB-127-0-2, GSP-SB-127-6-8, GSP-SB-130-0-2, GSP-SB-130-6-8, and GSP-SB-130-20-22. As the samples had non-detected results for bromomethane, trichlorofluoromethane, 1,1,2-trichlorotrifluoroethane,

1,2-dichloroethane, tetrachloroethene, chlorodibromomethane, bromoform, and 1,2-dibromo-3-chloropropane, the sample results for these analytes were not qualified. The sample non-detected vinyl acetate results were rejected due to the RRF quality control limit non-compliances and no further validation action was necessary. The positive trichloroethene results for samples GSP-SB-124-6-8, GSP-SB-126-0-2, GSP-SB-126-8-10, and GSP-SB-130-20-22 were qualified estimated, (J).

- The SVOC %Rs were less than the quality control limit for 1,1'-biphenyl, acetophenone, and butyl benzyl phthalate for the laboratory control sample (LCS) LCS 240-4859/24-A affecting samples GSP-SB-126-8-10, GSP-SB-124-6-8, GSP-SB-127-6-8, GSP-SB-130-6-8, GSP-SB-126-0-2, GSP-SB-127-0-2, GSP-SB-124-0-2, and GSP-SB-130-0-2. The non-detected results for 1,1'-biphenyl, acetophenone, and butyl benzyl phthalate for the aforementioned samples were qualified estimated, (UJ).

- The spiked sample GSP-SB-123-0-2 MS had %Rs less than the quality control limit at 0% for the SVOC analytes 2,4,6-trichlorophenol, 2,4,5-trichlorophenol, 4-chloro-3-methylphenol, and 4-nitrophenol. The RPDs for the MS/MSD for the aforementioned analytes were also non-compliant. The non-detected results for the aforementioned analytes were qualified estimated, (UJ), for sample GSP-SB-123-0-2.

- The spiked sample GSP-SB-123-0-2 MSD had %Rs less than the quality control for the SVOC analytes benzaldehyde, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)-fluoranthene, and di-n-octyl phthalate (0%R with a non-compliant MS/MSD RPD). The non-detected aforementioned analytes were qualified estimated, (UJ), for sample GSP-SB-123-0-2.

- Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J).

Notes

The VOC laboratory sample Form I data for Tentatively Identified Compounds (TIC) was included in the Appendix B section for informational purposes. The compounds listed on the laboratory TIC Form I's were qualified estimated, (NJ), as they were not calibrated for by the laboratory and were not evaluated by the chemistry data evaluator. Samples GSP-SB-123-0-2 and GSP-SB-128-0-2 had TIC identifications for methyl acetate.

The VOC CCV %Ds were greater than the 20% and less than 50% quality control limit for carbon disulfide, tert-butyl alcohol, vinyl acetate, bromoform and 1,2-dibromo-3-chloropropane for instrument A3UX14 on 06/16/11 @ 12:19 affecting samples GSP-SB-128-0-2, GSP-SB-128-6-8, and GSP-SB-123-0-2. As the samples had non-detected results for carbon disulfide, bromoform, and 1,2-dibromo-3-chloropropane, the sample results were not qualified. The sample non-detected tert-butyl alcohol and vinyl acetate results were previously rejected due to the RRF quality control limit non-compliances and no further validation action was necessary.

The VOC CCV %Ds were greater than the 20% and greater than 50% quality control limit for 2-chloroethyl vinyl ether for instrument A3UX8 on 06/16/11 @ 19:1621 affecting samples GSP-SB-123-6-8, GSP-SB-124-0-2, GSP-SB-124-6-8, GSP-SB-126-0-2, GSP-SB-126-8-10, GSP-SB-126-20-22, GSP-SB-127-0-2, GSP-SB-127-6-8, GSP-SB-130-0-2, GSP-SB-130-6-8, and GSP-SB-130-20-22. The sample non-detected 2-chloroethyl vinyl ether results were previously rejected due to the RRF quality control limit non-compliance and no further validation action was necessary.

The VOC LCS %R for LCS 240-5027/5 was greater than the quality control limit for chloroethane affecting samples GSP-SB-128-0-2, GSP-SB-128-6-8, and GSP-SB-123-0-2. The aforementioned sample chloroethane results were non-detected and were not qualified.

The VOC MS and the MSD included in the SDG had %Rs for chloroethane greater than the quality control limit. No validation action was necessary as they were not spiked samples from this SDG.

The sample GSP-SB-124-0-2 was analyzed at a 20X dilution and sample GSP-SB-130-0-2 was analyzed at a 4X dilution for SVOCs resulting in elevated non-detected SVOC analyte results.

The SVOC CCV %D was greater than the 20% and less than 50% quality control limit for benzaldehyde for instrument A4HP7 07/14/11 @ 09:03 affecting samples GSP-SB-126-8-10, GSP-SB-124-6-8, GSP-SB-127-6-8, GSP-SB-130-6-8, GSP-SB-126-0-2, GSP-SB-127-0-2, GSP-SB-124-0-2, and GSP-SB-130-0-2. The aforementioned samples had non-detected results for benzaldehyde which were not qualified.

The SVOC CCV %D was greater than the 20% and less than 50% quality control limit for benzaldehyde for instrument A4HP9 06/28/11 @ 16:19 affecting samples GSP-SB-123-0-2 and GSP-SB-126-20-22. The aforementioned samples had non-detected results for benzaldehyde which were not qualified.

The sample GSP-SB-123-0-2 MS/MSD RPDs were greater than the quality control for SVOC analytes fluoranthene and pyrene. No validation action was taken as the MS and MSD %Rs for the aforementioned analytes were within the quality control limits.

The sample GSP-SB-124-0-2 was analyzed at a 10X dilution for DRO/TPH.

The sample GSP-SB-123-0-2 was analyzed at a 5X dilution for Aroclors resulting in elevated LODs for non-detected Aroclor analytes.

The laboratory reported all Aroclor results from the initial column CLP-1 regardless if it was the higher or lower result of the two column analyses.

The analytes naphthalene and hexachlorobutadiene were analyzed in both the VOC and the SVOC analyses.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Calibration RRF QC limit non-compliances in the VOC fraction led to the rejection of tert-butyl alcohol and vinyl acetate non-detected results for all samples, and 2-chloroethyl vinyl ether non-detected results for some SDG samples. VOC acetone and methylene chloride sample results were qualified for method blank contamination. VOC sample non-detected chloroethane and positive trichloroethene results were qualified for CCV %D quality control limit non-compliances. Non-detected SVOC analyte results were qualified for LCS, MS, and MSD %R quality control limit non-compliances. SVOC non-detected analyte results were rejected for sample GSP-SB-123-0-2 due to MS and MSD %Rs at 0% for the analytes.

Other Factors Affecting Data Quality: Positive results reported below the quantitation limit but above the method detection limit were qualified as estimated, (J). MS/MSD analyte %R quality control limit non-compliances were noted affecting sample GSP-SB-123-0-2. The analytes naphthalene and hexachlorobutadiene were analyzed in both the VOC and the SVOC analyses.

The data for these analyses were reviewed with reference to SW-846 Methods 8260B, 8270D, 8082A, and 8015C, the Region III EPA Functional Guidelines for Organic Data Validation (9/94). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Joseph Kalinyak
Data Validator/Environmental Scientist

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279	NSAMPLE	GSP-SB-123-0-2			GSP-SB-123-6-8			GSP-SB-124-0-2			GSP-SB-124-6-8		
SDG: 240-820-1	LAB_ID	240-820-4			240-820-5			240-820-7			240-820-8		
FRACTION: OV	SAMP_DATE	6/7/2011			6/7/2011			6/7/2011			6/7/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.7			81.6			90.9			82.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.57	U		0.56	U		0.56	U		0.56	U	
1,1,1-TRICHLOROETHANE		0.52	U		0.51	U		0.5	U		0.51	U	
1,1,2,2-TETRACHLOROETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.2	U		1.2	U		1.2	U		1.2	U	
1,1-DICHLOROETHANE		0.33	U		0.33	U		0.32	U		0.33	U	
1,1-DICHLOROETHENE		0.48	U		0.47	U		0.47	U		0.47	U	
1,1-DICHLOROPROPENE		0.28	U		0.27	U		0.27	U		0.27	U	
1,2,3-TRICHLOROBENZENE		0.35	U		0.34	U		0.34	U		0.35	U	
1,2,3-TRICHLOROPROPANE		0.83	U		0.81	U		0.81	U		0.82	U	
1,2,3-TRIMETHYLBENZENE		0.16	U		0.15	U		0.15	U		0.15	U	
1,2,4-TRICHLOROBENZENE		0.25	U		0.24	U		0.24	U		0.25	U	
1,2,4-TRIMETHYLBENZENE		0.6	U		0.59	U		0.58	U		0.59	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.2	U		1.2	U		1.2	U		1.2	U	
1,2-DIBROMOETHANE		0.46	U		0.45	U		0.45	U		0.46	U	
1,2-DICHLOROBENZENE		0.33	U		0.33	U		0.32	U		0.33	U	
1,2-DICHLOROETHANE		0.31	U		0.31	U		0.31	U		0.31	U	
1,2-DICHLOROPROPANE		0.64	U		0.62	U		0.62	U		0.63	U	
1,3-DICHLOROBENZENE		0.32	U		0.32	U		0.31	U		0.32	U	
1,3-DICHLOROPROPANE		0.31	U		0.31	U		0.31	U		0.31	U	
1,4-DICHLOROBENZENE		0.61	U		0.6	U		0.59	U		0.6	U	
2,2-DICHLOROPROPANE		0.87	U		0.85	U		0.85	U		0.86	U	
2-BUTANONE		1.3	U		1.3	U		1.6	U	A	1.3	U	
2-CHLOROETHYL VINYL ETHER		1.3	U		1.3	UR	C	1.3	UR	C	1.3	UR	C
2-CHLOROTOLUENE		0.37	U		0.36	U		0.36	U		0.36	U	
2-HEXANONE		0.58	U		0.57	U		0.57	U		0.57	U	
4-CHLOROTOLUENE		0.38	U		0.37	U		0.37	U		0.37	U	
4-ISOPROPYLTOLUENE		0.19	U		0.19	U		0.19	U		0.19	U	
4-METHYL-2-PENTANONE		0.58	J	P	0.49	U		0.49	U		0.49	U	
ACETONE		17	U	A	9.8	U	A	5.7	U		5.7	U	
BENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
BROMOBENZENE		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOCHLOROMETHANE		0.65	U		0.64	U		0.64	U		0.65	U	
BROMODICHLOROMETHANE		0.26	U		0.25	U		0.25	U		0.26	U	
BROMOFORM		0.3	U		0.3	U		0.3	U		0.3	U	
BROMOMETHANE		0.5	U		0.49	U		0.49	U		0.49	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-126-0-2			GSP-SB-126-20-22			GSP-SB-126-8-10			GSP-SB-127-0-2		
SDG: 240-820-1	LAB_ID	240-820-10			240-820-12			240-820-11			240-820-13		
FRACTION: OV	SAMP_DATE	6/7/2011			6/7/2011			6/7/2011			6/7/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.6			76.4			84.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.62	U		0.64	U		0.6	U		0.55	U	
1,1,1-TRICHLOROETHANE		0.56	U		0.58	U		0.54	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.34	U		0.35	U		0.33	U		0.3	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.3	U		1.3	U		1.3	U		1.2	U	
1,1-DICHLOROETHANE		0.36	U		0.37	U		0.35	U		0.32	U	
1,1-DICHLOROETHENE		0.52	U		0.54	U		0.5	U		0.46	U	
1,1-DICHLOROPROPENE		0.3	U		0.31	U		0.29	U		0.27	U	
1,2,3-TRICHLOROBENZENE		0.38	U		0.39	U		0.37	U		0.34	U	
1,2,3-TRICHLOROPROPANE		0.9	U		0.93	U		0.87	U		0.8	U	
1,2,3-TRIMETHYLBENZENE		0.17	U		0.18	U		0.16	U		0.15	U	
1,2,4-TRICHLOROBENZENE		0.27	U		0.28	U		0.26	U		0.24	U	
1,2,4-TRIMETHYLBENZENE		0.65	U		0.67	U		0.63	U		0.58	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.3	U		1.3	U		1.3	U		1.2	U	
1,2-DIBROMOETHANE		0.5	U		0.52	U		0.48	U		0.44	U	
1,2-DICHLOROBENZENE		0.36	U		0.37	U		0.35	U		0.32	U	
1,2-DICHLOROETHANE		0.34	U		0.35	U		0.33	U		0.3	U	
1,2-DICHLOROPROPANE		0.69	U		0.72	U		0.67	U		0.61	U	
1,3-DICHLOROBENZENE		0.35	U		0.36	U		0.34	U		0.31	U	
1,3-DICHLOROPROPANE		0.34	U		0.35	U		0.33	U		0.3	U	
1,4-DICHLOROBENZENE		0.66	U		0.68	U		0.64	U		0.59	U	
2,2-DICHLOROPROPANE		0.93	U		0.97	U		0.91	U		0.83	U	
2-BUTANONE		1.4	U		1.5	U		1.4	U		1.2	U	
2-CHLOROETHYL VINYL ETHER		1.4	UR	C	1.5	UR	C	1.4	UR	C	1.2	UR	C
2-CHLOROTOLUENE		0.4	U		0.41	U		0.39	U		0.36	U	
2-HEXANONE		0.63	U		0.65	U		0.61	U		0.56	U	
4-CHLOROTOLUENE		0.41	U		0.42	U		0.4	U		0.36	U	
4-ISOPROPYLTOLUENE		0.21	U		0.22	U		0.2	U		0.19	U	
4-METHYL-2-PENTANONE		0.54	U		0.56	U		0.52	U		0.48	U	
ACETONE		6.3	U		6.5	U		22	U	A	5.6	U	
BENZENE		0.23	U		0.24	U		0.22	U		0.2	U	
BROMOBENZENE		0.33	U		0.34	U		0.32	U		0.29	U	
BROMOCHLOROMETHANE		0.71	U		0.74	U		0.69	U		0.63	U	
BROMODICHLOROMETHANE		0.28	U		0.29	U		0.27	U		0.25	U	
BROMOFORM		0.33	U		0.34	U		0.32	U		0.29	U	
BROMOMETHANE		0.54	U		0.56	U		0.52	U		0.48	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-127-6-8			GSP-SB-128-0-2			GSP-SB-128-6-8			GSP-SB-130-0-2		
SDG: 240-820-1	LAB_ID	240-820-14			240-820-1			240-820-2			240-820-16		
FRACTION: OV	SAMP_DATE	6/7/2011			6/7/2011			6/7/2011			6/7/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	79.7			80.2			78.6			85.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.67	U		0.66	U		0.65	U		0.67	U	
1,1,1-TRICHLOROETHANE		0.61	U		0.6	U		0.59	U		0.6	U	
1,1,2,2-TETRACHLOROETHANE		0.37	U		0.36	U		0.36	U		0.37	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.4	U		1.4	U		1.4	U		1.4	U	
1,1-DICHLOROETHANE		0.39	U		0.38	U		0.38	U		0.39	U	
1,1-DICHLOROETHENE		0.57	U		0.55	U		0.55	U		0.56	U	
1,1-DICHLOROPROPENE		0.33	U		0.32	U		0.31	U		0.32	U	
1,2,3-TRICHLOROBENZENE		0.41	U		0.4	U		0.4	U		0.41	U	
1,2,3-TRICHLOROPROPANE		0.98	U		0.96	U		0.94	U		0.97	U	
1,2,3-TRIMETHYLBENZENE		0.18	U		0.18	U		0.18	U		0.18	U	
1,2,4-TRICHLOROBENZENE		0.29	U		0.29	U		0.28	U		0.29	U	
1,2,4-TRIMETHYLBENZENE		0.71	U		0.69	U		0.68	U		0.7	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.4	U		1.4	U		1.4	U		1.4	U	
1,2-DIBROMOETHANE		0.54	U		0.53	U		0.52	U		0.54	U	
1,2-DICHLOROBENZENE		0.39	U		0.38	U		0.38	U		0.39	U	
1,2-DICHLOROETHANE		0.37	U		0.36	U		0.36	U		0.37	U	
1,2-DICHLOROPROPANE		0.75	U		0.74	U		0.72	U		0.74	U	
1,3-DICHLOROBENZENE		0.38	U		0.37	U		0.37	U		0.38	U	
1,3-DICHLOROPROPANE		0.37	U		0.36	U		0.36	U		0.37	U	
1,4-DICHLOROBENZENE		0.72	U		0.7	U		0.69	U		0.71	U	
2,2-DICHLOROPROPANE		1	U		1	U		0.99	U		1	U	
2-BUTANONE		1.5	U		1.5	U		1.5	U		1.5	U	
2-CHLOROETHYL VINYL ETHER		1.5	UR	C	1.5	U		1.5	U		1.5	UR	C
2-CHLOROTOLUENE		0.43	U		0.43	U		0.42	U		0.43	U	
2-HEXANONE		0.68	U		0.67	U		0.66	U		0.68	U	
4-CHLOROTOLUENE		0.45	U		0.44	U		0.43	U		0.44	U	
4-ISOPROPYLTOLUENE		0.23	U		0.22	U		0.22	U		0.23	U	
4-METHYL-2-PENTANONE		0.59	U		0.58	U		0.57	U		0.58	U	
ACETONE		6.8	U		6.7	U		46	U	A	6.8	U	
BENZENE		0.25	U		0.25	U		0.24	U		0.25	U	
BROMOBENZENE		0.36	U		0.35	U		0.35	U		0.36	U	
BROMOCHLOROMETHANE		0.77	U		0.76	U		0.74	U		0.76	U	
BROMODICHLOROMETHANE		0.3	U		0.3	U		0.29	U		0.3	U	
BROMOFORM		0.36	U		0.35	U		0.35	U		0.36	U	
BROMOMETHANE		0.59	U		0.58	U		0.57	U		0.58	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-130-20-22			GSP-SB-130-6-8		
SDG: 240-820-1	LAB_ID	240-820-18			240-820-17		
FRACTION: OV	SAMP_DATE	6/7/2011			6/7/2011		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	81.3			83.1		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1,2-TETRACHLOROETHANE		0.6	U		0.6	U	
1,1,1-TRICHLOROETHANE		0.54	U		0.54	U	
1,1,2,2-TETRACHLOROETHANE		0.33	U		0.33	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.3	U		1.3	U	
1,1-DICHLOROETHANE		0.35	U		0.35	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U	
1,1-DICHLOROPROPENE		0.29	U		0.29	U	
1,2,3-TRICHLOROBENZENE		0.37	U		0.37	U	
1,2,3-TRICHLOROPROPANE		0.87	U		0.87	U	
1,2,3-TRIMETHYLBENZENE		0.16	U		0.16	U	
1,2,4-TRICHLOROBENZENE		0.26	U		0.26	U	
1,2,4-TRIMETHYLBENZENE		0.63	U		0.63	U	
1,2-DIBROMO-3-CHLOROPROPANE		1.3	U		1.3	U	
1,2-DIBROMOETHANE		0.49	U		0.48	U	
1,2-DICHLOROBENZENE		0.35	U		0.35	U	
1,2-DICHLOROETHANE		0.33	U		0.33	U	
1,2-DICHLOROPROPANE		0.67	U		0.67	U	
1,3-DICHLOROBENZENE		0.34	U		0.34	U	
1,3-DICHLOROPROPANE		0.33	U		0.33	U	
1,4-DICHLOROBENZENE		0.64	U		0.64	U	
2,2-DICHLOROPROPANE		0.91	U		0.91	U	
2-BUTANONE		1.4	U		1.4	U	
2-CHLOROETHYL VINYL ETHER		1.4	UR	C	1.4	UR	C
2-CHLOROTOLUENE		0.39	U		0.39	U	
2-HEXANONE		0.61	U		0.61	U	
4-CHLOROTOLUENE		0.4	U		0.4	U	
4-ISOPROPYLTOLUENE		0.2	U		0.2	U	
4-METHYL-2-PENTANONE		0.52	U		0.52	U	
ACETONE		9.6	U	A	14	U	A
BENZENE		0.22	U		0.22	U	
BROMOBENZENE		0.32	U		0.32	U	
BROMOCHLOROMETHANE		0.69	U		0.69	U	
BROMODICHLOROMETHANE		0.27	U		0.27	U	
BROMOFORM		0.32	U		0.32	U	
BROMOMETHANE		0.52	U		0.52	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-123-0-2			GSP-SB-123-6-8			GSP-SB-124-0-2			GSP-SB-124-6-8		
SDG: 240-820-1	LAB_ID	240-820-4			240-820-5			240-820-7			240-820-8		
FRACTION: OV	SAMP_DATE	6/7/2011			6/7/2011			6/7/2011			6/7/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.7			81.6			90.9			82.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.41	U		0.4	U		0.4	U		0.4	U	
CARBON TETRACHLORIDE		0.34	U		0.33	U		0.33	U		0.34	U	
CHLOROBENZENE		0.3	U		0.3	U		0.3	U		0.3	U	
CHLORODIBROMOMETHANE		0.51	U		0.5	U		0.49	U		0.5	U	
CHLOROETHANE		0.79	UJ	C	0.78	U		0.77	U		0.78	U	
CHLOROFORM		0.27	U		0.26	U		0.26	U		0.26	U	
CHLOROMETHANE		0.38	U		0.37	U		0.37	U		0.37	U	
CIS-1,2-DICHLOROETHENE		0.33	U		0.33	U		0.32	U		0.33	U	
CIS-1,3-DICHLOROPROPENE		0.31	U		0.31	U		0.31	U		0.31	U	
DIBROMOMETHANE		0.58	U		0.57	U		0.57	U		0.57	U	
DICHLORODIFLUOROMETHANE		0.46	U		0.45	U		0.45	U		0.46	U	
DIISOPROPYL ETHER		1.4	U		1.4	U		1.3	U		1.4	U	
ETHYL TERT-BUTYL ETHER		0.2	U		0.2	U		0.2	U		0.2	U	
ETHYLBENZENE		0.24	U		0.24	U		0.23	U		0.24	U	
HEXACHLOROBUTADIENE		1.1	U		1.1	U		1.1	U		1.1	U	
ISOPROPYLBENZENE		0.15	U		0.14	U		0.14	U		0.15	U	
M+P-XYLENES		1.1	U		1.1	U		1.1	U		1.1	U	
METHYL TERT-BUTYL ETHER		0.4	U		0.39	U		0.39	U		0.39	U	
METHYLENE CHLORIDE		3.7	U	A	0.61	U		0.6	U		0.61	U	
NAPHTHALENE		0.18	U		0.17	U		0.17	U		0.17	U	
N-BUTYLBENZENE		0.21	U		0.21	U		0.21	U		0.21	U	
N-PROPYLBENZENE		0.37	U		0.36	U		0.36	U		0.36	U	
O-XYLENE		0.32	U		0.32	U		0.31	U		0.32	U	
SEC-BUTYLBENZENE		0.17	U		0.16	U		0.16	U		0.16	U	
STYRENE		0.14	U		0.14	U		0.13	U		0.14	U	
TERT-AMYL METHYL ETHER		0.34	U		0.33	U		0.33	U		0.34	U	
TERT-BUTYLBENZENE		0.27	U		0.26	U		0.26	U		0.26	U	
TERTIARY-BUTYL ALCOHOL		7	UR	C	6.9	UR	C	6.8	UR	C	6.9	UR	C
TETRACHLOROETHENE		0.48	U		0.47	U		0.47	U		0.47	U	
TOLUENE		0.25	U		0.36	J	P	0.24	U		0.25	U	
TOTAL XYLENES		0.62	U		0.61	U		0.6	U		0.61	U	
TRANS-1,2-DICHLOROETHENE		0.38	U		0.37	U		0.37	U		0.37	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.49	U		0.49	U		0.49	U	
TRICHLOROETHENE		0.39	U		0.38	U		0.38	U		19	J	C
TRICHLOROFLUOROMETHANE		0.31	U		0.31	U		0.31	U		0.31	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-126-0-2			GSP-SB-126-20-22			GSP-SB-126-8-10			GSP-SB-127-0-2		
SDG: 240-820-1	LAB_ID	240-820-10			240-820-12			240-820-11			240-820-13		
FRACTION: OV	SAMP_DATE	6/7/2011			6/7/2011			6/7/2011			6/7/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.6			76.4			84.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.44	U		0.46	U		0.42	U		0.39	U	
CARBON TETRACHLORIDE		0.37	U		0.38	U		0.36	U		0.33	U	
CHLOROBENZENE		0.33	U		0.34	U		0.32	U		0.29	U	
CHLORODIBROMOMETHANE		0.55	U		0.57	U		0.53	U		0.49	U	
CHLOROETHANE		0.86	U		0.89	U		0.83	U		0.76	U	
CHLOROFORM		0.29	U		0.3	U		0.28	U		0.26	U	
CHLOROMETHANE		0.41	U		0.42	U		0.4	U		0.36	U	
CIS-1,2-DICHLOROETHENE		0.36	U		0.37	U		0.35	U		0.32	U	
CIS-1,3-DICHLOROPROPENE		0.34	U		0.35	U		0.33	U		0.3	U	
DIBROMOMETHANE		0.63	U		0.65	U		0.61	U		0.56	U	
DICHLORODIFLUOROMETHANE		0.5	U		0.52	U		0.48	U		0.44	U	
DIISOPROPYL ETHER		1.5	U		1.6	U		1.4	U		1.3	U	
ETHYL TERT-BUTYL ETHER		0.22	U		0.23	U		0.21	U		0.2	U	
ETHYLBENZENE		0.26	U		0.27	U		0.25	U		0.23	U	
HEXACHLOROBUTADIENE		1.2	U		1.2	U		1.2	U		1.1	U	
ISOPROPYLBENZENE		0.16	U		0.17	U		0.15	U		0.14	U	
M+P-XYLENES		1.2	U		1.2	U		1.2	U		1.1	U	
METHYL TERT-BUTYL ETHER		0.43	U		0.45	U		0.42	U		0.38	U	
METHYLENE CHLORIDE		0.67	U		0.69	U		0.65	U		0.59	U	
NAPHTHALENE		0.19	U		0.2	U		0.18	U		0.17	U	
N-BUTYLBENZENE		0.23	U		0.24	U		0.22	U		0.2	U	
N-PROPYLBENZENE		0.4	U		0.41	U		0.39	U		0.36	U	
O-XYLENE		0.35	U		0.36	U		0.34	U		0.31	U	
SEC-BUTYLBENZENE		0.18	U		0.19	U		0.17	U		0.16	U	
STYRENE		0.15	U		0.16	U		0.14	U		0.13	U	
TERT-AMYL METHYL ETHER		0.37	U		0.38	U		0.36	U		0.33	U	
TERT-BUTYLBENZENE		0.29	U		0.3	U		0.28	U		0.26	U	
TERTIARY-BUTYL ALCOHOL		7.6	UR	C	7.9	UR	C	7.3	UR	C	6.7	UR	C
TETRACHLOROETHENE		0.52	U		0.54	U		0.5	U		0.46	U	
TOLUENE		0.27	U		0.28	U		0.26	U		0.24	U	
TOTAL XYLENES		0.67	U		0.69	U		0.65	U		0.59	U	
TRANS-1,2-DICHLOROETHENE		0.41	U		0.42	U		0.4	U		0.36	U	
TRANS-1,3-DICHLOROPROPENE		0.54	U		0.56	U		0.52	U		0.48	U	
TRICHLOROETHENE		0.42	U		10	J	C	0.81	J	CP	0.37	U	
TRICHLOROFLUOROMETHANE		0.34	U		0.35	U		0.33	U		0.3	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-127-6-8			GSP-SB-128-0-2			GSP-SB-128-6-8			GSP-SB-130-0-2		
SDG: 240-820-1	LAB_ID	240-820-14			240-820-1			240-820-2			240-820-16		
FRACTION: OV	SAMP_DATE	6/7/2011			6/7/2011			6/7/2011			6/7/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	79.7			80.2			78.6			85.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.48	U		0.47	U		0.46	U		0.47	U	
CARBON TETRACHLORIDE		0.4	U		0.39	U		0.39	U		0.4	U	
CHLOROBENZENE		0.36	U		0.35	U		0.35	U		0.36	U	
CHLORODIBROMOMETHANE		0.6	U		0.59	U		0.58	U		0.59	U	
CHLOROETHANE		0.94	U		0.92	UJ	C	0.9	UJ	C	0.93	U	
CHLOROFORM		0.32	U		0.31	U		0.3	U		0.31	U	
CHLOROMETHANE		0.45	U		0.44	U		0.43	U		0.44	U	
CIS-1,2-DICHLOROETHENE		0.39	U		0.38	U		0.38	U		0.39	U	
CIS-1,3-DICHLOROPROPENE		0.37	U		0.36	U		0.36	U		0.37	U	
DIBROMOMETHANE		0.68	U		0.67	U		0.66	U		0.68	U	
DICHLORODIFLUOROMETHANE		0.54	U		0.53	U		0.52	U		0.54	U	
DIISOPROPYL ETHER		1.6	U		1.6	U		1.6	U		1.6	U	
ETHYL TERT-BUTYL ETHER		0.24	U		0.23	U		0.23	U		0.24	U	
ETHYLBENZENE		0.28	U		0.28	U		0.27	U		0.28	U	
HEXACHLOROBUTADIENE		1.3	U		1.3	U		1.3	U		1.3	U	
ISOPROPYLBENZENE		0.17	U		0.17	U		0.17	U		0.17	U	
M+P-XYLENES		1.3	U		1.3	U		1.3	U		1.3	U	
METHYL TERT-BUTYL ETHER		0.47	U		0.46	U		0.45	U		0.46	U	
METHYLENE CHLORIDE		0.73	U		3.4	U	A	4.8	U	A	0.72	U	
NAPHTHALENE		0.21	U		0.2	U		0.2	U		0.2	U	
N-BUTYLBENZENE		0.25	U		0.25	U		0.24	U		0.25	U	
N-PROPYLBENZENE		0.43	U		0.43	U		0.42	U		0.43	U	
O-XYLENE		0.38	U		0.37	U		0.37	U		0.38	U	
SEC-BUTYLBENZENE		0.2	U		0.19	U		0.19	U		0.19	U	
STYRENE		0.16	U		0.16	U		0.16	U		0.16	U	
TERT-AMYL METHYL ETHER		0.4	U		0.39	U		0.39	U		0.4	U	
TERT-BUTYLBENZENE		0.32	U		0.31	U		0.3	U		0.31	U	
TERTIARY-BUTYL ALCOHOL		8.3	UR	C	8.1	UR	C	8	UR	C	8.2	UR	C
TETRACHLOROETHENE		0.57	U		0.55	U		0.55	U		0.56	U	
TOLUENE		0.29	U		0.37	J	P	0.4	J	P	0.29	U	
TOTAL XYLENES		0.73	U		0.71	U		0.7	U		0.72	U	
TRANS-1,2-DICHLOROETHENE		0.45	U		0.44	U		0.43	U		0.44	U	
TRANS-1,3-DICHLOROPROPENE		0.59	U		0.58	U		0.57	U		0.58	U	
TRICHLOROETHENE		0.46	U		0.45	U		0.44	U		0.45	U	
TRICHLOROFLUOROMETHANE		0.37	U		0.36	U		0.36	U		0.37	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-130-20-22			GSP-SB-130-6-8		
SDG: 240-820-1	LAB_ID	240-820-18			240-820-17		
FRACTION: OV	SAMP_DATE	6/7/2011			6/7/2011		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	81.3			83.1		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
CARBON DISULFIDE		0.43	U		0.43	U	
CARBON TETRACHLORIDE		0.36	U		0.36	U	
CHLOROBENZENE		0.32	U		0.32	U	
CHLORODIBROMOMETHANE		0.53	U		0.53	U	
CHLOROETHANE		0.83	U		0.83	U	
CHLOROFORM		0.28	U		0.28	U	
CHLOROMETHANE		0.4	U		0.4	U	
CIS-1,2-DICHLOROETHENE		0.35	U		0.35	U	
CIS-1,3-DICHLOROPROPENE		0.33	U		0.33	U	
DIBROMOMETHANE		0.61	U		0.61	U	
DICHLORODIFLUOROMETHANE		0.49	U		0.48	U	
DIISOPROPYL ETHER		1.5	U		1.5	U	
ETHYL TERT-BUTYL ETHER		0.21	U		0.21	U	
ETHYLBENZENE		0.25	U		0.25	U	
HEXACHLOROBUTADIENE		1.2	U		1.2	U	
ISOPROPYLBENZENE		0.16	U		0.15	U	
M+P-XYLENES		1.2	U		1.2	U	
METHYL TERT-BUTYL ETHER		0.42	U		0.42	U	
METHYLENE CHLORIDE		0.65	U		0.65	U	
NAPHTHALENE		1.3	U	A	0.18	U	
N-BUTYLBENZENE		0.22	U		0.22	U	
N-PROPYLBENZENE		0.39	U		0.39	U	
O-XYLENE		0.34	U		0.34	U	
SEC-BUTYLBENZENE		0.17	U		0.17	U	
STYRENE		0.15	U		0.15	U	
TERT-AMYL METHYL ETHER		0.36	U		0.36	U	
TERT-BUTYLBENZENE		0.28	U		0.28	U	
TERTIARY-BUTYL ALCOHOL		7.4	UR	C	7.4	UR	C
TETRACHLOROETHENE		0.5	U		0.5	U	
TOLUENE		0.26	U		0.26	U	
TOTAL XYLENES		0.65	U		0.65	U	
TRANS-1,2-DICHLOROETHENE		0.4	U		0.4	U	
TRANS-1,3-DICHLOROPROPENE		0.52	U		0.52	U	
TRICHLOROETHENE		5.5	J	C	0.41	U	
TRICHLOROFLUOROMETHANE		0.33	U		0.33	U	

PROJ_NO: 03279 SDG: 240-820-1 FRACTION: OV MEDIA: SOIL	NSAMPLE	GSP-SB-123-0-2			GSP-SB-123-6-8			GSP-SB-124-0-2			GSP-SB-124-6-8		
	LAB_ID	240-820-4			240-820-5			240-820-7			240-820-8		
	SAMP_DATE	6/7/2011			6/7/2011			6/7/2011			6/7/2011		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.7			81.6			90.9			82.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.23	UR	C	0.23	UR	C	0.22	UR	C	0.23	UR	C
VINYL CHLORIDE		0.36	U		0.35	U		0.35	U		0.36	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-126-0-2			GSP-SB-126-20-22			GSP-SB-126-8-10			GSP-SB-127-0-2		
SDG: 240-820-1	LAB_ID	240-820-10			240-820-12			240-820-11			240-820-13		
FRACTION: OV	SAMP_DATE	6/7/2011			6/7/2011			6/7/2011			6/7/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.6			76.4			84.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.25	UR	C	0.26	UR	C	0.24	UR	C	0.22	UR	C
VINYL CHLORIDE		0.39	U		0.4	U		0.38	U		0.35	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-127-6-8			GSP-SB-128-0-2			GSP-SB-128-6-8			GSP-SB-130-0-2		
SDG: 240-820-1	LAB_ID	240-820-14			240-820-1			240-820-2			240-820-16		
FRACTION: OV	SAMP_DATE	6/7/2011			6/7/2011			6/7/2011			6/7/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	79.7			80.2			78.6			85.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.27	UR	C	0.27	UR	C	0.26	UR	C	0.27	UR	C
VINYL CHLORIDE		0.42	U		0.42	U		0.41	U		0.42	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-130-20-22			GSP-SB-130-6-8		
SDG: 240-820-1	LAB_ID	240-820-18			240-820-17		
FRACTION: OV	SAMP_DATE	6/7/2011			6/7/2011		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	81.3			83.1		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
VINYL ACETATE		0.24	UR	C	0.24	UR	C
VINYL CHLORIDE		0.38	U		0.38	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-123-0-2			GSP-SB-123-6-8			GSP-SB-124-0-2			GSP-SB-124-6-8		
SDG: 240-820-1	LAB_ID	240-820-4			240-820-5			240-820-7			240-820-8		
FRACTION: OS	SAMP_DATE	6/6/2011			6/6/2011			6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.7			81.6			90.9			82.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		30	U		33	U		590	UJ	E	32	UJ	E
1,4-DIOXANE		24	U		27	U		480	U		26	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		10	U		12	U		210	U		11	U	
2,4,5-TRICHLOROPHENOL		27	UJ	D	31	U		550	U		30	U	
2,4,6-TRICHLOROPHENOL		88	UJ	D	98	U		1800	U		96	U	
2,4-DICHLOROPHENOL		22	U		25	U		440	U		24	U	
2,4-DIMETHYLPHENOL		22	U		25	U		440	U		24	U	
2,4-DINITROPHENOL		88	UR	D	98	U		1800	U		96	U	
2,4-DINITROTOLUENE		30	U		33	U		590	U		32	U	
2,6-DINITROTOLUENE		23	U		26	U		460	U		25	U	
2-CHLORONAPHTHALENE		3.6	U		4	U		72	U		4	U	
2-CHLOROPHENOL		30	U		33	U		590	U		32	U	
2-METHYLNAPHTHALENE		9.3			4	U		360			4	U	
2-METHYLPHENOL		88	U		98	U		1800	U		96	U	
2-NITROANILINE		10	U		11	U		200	U		11	U	
2-NITROPHENOL		30	U		33	U		590	U		32	U	
3&4-METHYLPHENOL		22	U		25	U		440	U		24	U	
3,3'-DICHLOROBENZIDINE		20	U		22	U		390	U		22	U	
3-NITROANILINE		18	U		20	U		350	U		19	U	
4,6-DINITRO-2-METHYLPHENOL		88	UR	D	98	U		1800	U		96	U	
4-BROMOPHENYL PHENYL ETHER		14	U		16	U		280	U		16	U	
4-CHLORO-3-METHYLPHENOL		23	UJ	D	26	U		460	U		25	U	
4-CHLOROANILINE		19	U		21	U		370	U		20	U	
4-CHLOROPHENYL PHENYL ETHER		14	U		16	U		280	U		16	U	
4-NITROANILINE		29	U		32	U		570	U		31	U	
4-NITROPHENOL		88	UJ	D	98	U		1800	U		96	U	
ACENAPHTHENE		28			4	U		240			4	U	
ACENAPHTHYLENE		13			4	U		300			4	U	
ACETOPHENONE		10	U		11	U		200	UJ	E	11	UJ	E
ANTHRACENE		68			4	U		1200			4	U	
ATRAZINE		10	U		11	U		200	U		11	U	
BENZALDEHYDE		13	U		15	U		260	U		14	U	
BENZO(A)ANTHRACENE		230			4	U		3700			4	U	
BENZO(A)PYRENE		220			4	U		4000			4	U	
BENZO(B)FLUORANTHENE		270			4	U		4000			4	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-126-0-2			GSP-SB-126-20-22			GSP-SB-126-8-10			GSP-SB-127-0-2		
SDG: 240-820-1	LAB_ID	240-820-10			240-820-12			240-820-11			240-820-13		
FRACTION: OS	SAMP_DATE	6/6/2011			6/6/2011			6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.6			76.4			84.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		30	UJ	E	35	U		32	UJ	E	31	UJ	E
1,4-DIOXANE		24	U		29	U		26	U		25	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		10	U		12	U		11	U		11	U	
2,4,5-TRICHLOROPHENOL		28	U		33	U		30	U		28	U	
2,4,6-TRICHLOROPHENOL		88	U		100	U		95	U		91	U	
2,4-DICHLOROPHENOL		22	U		26	U		24	U		23	U	
2,4-DIMETHYLPHENOL		22	U		26	U		24	U		23	U	
2,4-DINITROPHENOL		88	U		100	U		95	U		91	U	
2,4-DINITROTOLUENE		30	U		35	U		32	U		31	U	
2,6-DINITROTOLUENE		23	U		27	U		25	U		24	U	
2-CHLORONAPHTHALENE		3.6	U		4.3	U		3.9	U		3.7	U	
2-CHLOROPHENOL		30	U		35	U		32	U		31	U	
2-METHYLNAPHTHALENE		3.6	U		4.3	U		3.9	U		3.7	U	
2-METHYLPHENOL		88	U		100	U		95	U		91	U	
2-NITROANILINE		10	U		12	U		11	U		10	U	
2-NITROPHENOL		30	U		35	U		32	U		31	U	
3&4-METHYLPHENOL		22	U		26	U		24	U		23	U	
3,3'-DICHLOROBENZIDINE		20	U		23	U		21	U		20	U	
3-NITROANILINE		18	U		21	U		19	U		18	U	
4,6-DINITRO-2-METHYLPHENOL		88	U		100	U		95	U		91	U	
4-BROMOPHENYL PHENYL ETHER		14	U		17	U		15	U		15	U	
4-CHLORO-3-METHYLPHENOL		23	U		27	U		25	U		24	U	
4-CHLOROANILINE		19	U		22	U		20	U		19	U	
4-CHLOROPHENYL PHENYL ETHER		14	U		17	U		15	U		15	U	
4-NITROANILINE		29	U		34	U		31	U		30	U	
4-NITROPHENOL		88	U		100	U		95	U		91	U	
ACENAPHTHENE		3.6	U		4.3	U		3.9	U		3.7	U	
ACENAPHTHYLENE		3.6	U		4.3	U		3.9	U		3.7	U	
ACETOPHENONE		10	UJ	E	12	U		11	UJ	E	10	UJ	E
ANTHRACENE		10			4.3	U		3.9	U		20		
ATRAZINE		10	U		12	U		11	U		10	U	
BENZALDEHYDE		13	U		16	U		14	U		14	U	
BENZO(A)ANTHRACENE		42			4.3	U		3.9	U		62		
BENZO(A)PYRENE		41			4.3	U		3.9	U		55		
BENZO(B)FLUORANTHENE		50			4.3	U		3.9	U		72		

PROJ_NO: 03279	NSAMPLE	GSP-SB-127-6-8			GSP-SB-128-0-2			GSP-SB-128-6-8			GSP-SB-130-0-2		
SDG: 240-820-1	LAB_ID	240-820-14			240-820-1			240-820-2			240-820-16		
FRACTION: OS	SAMP_DATE	6/6/2011			6/6/2011			6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	79.7			80.2			78.6			85.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		34	UJ	E	34	U		34	U		130	UJ	E
1,4-DIOXANE		28	U		27	U		28	U		100	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		12	U		12	U		12	U		44	U	
2,4,5-TRICHLOROPHENOL		31	U		31	U		32	U		120	U	
2,4,6-TRICHLOROPHENOL		100	U		99	U		100	U		370	U	
2,4-DICHLOROPHENOL		25	U		25	U		25	U		93	U	
2,4-DIMETHYLPHENOL		25	U		25	U		25	U		93	U	
2,4-DINITROPHENOL		100	U		99	U		100	U		370	U	
2,4-DINITROTOLUENE		34	U		34	U		34	U		130	U	
2,6-DINITROTOLUENE		26	U		26	U		27	U		98	U	
2-CHLORONAPHTHALENE		4.1	U		4.1	U		4.2	U		15	U	
2-CHLOROPHENOL		34	U		34	U		34	U		130	U	
2-METHYLNAPHTHALENE		4.1	U		15			4.2	U		15	U	
2-METHYLPHENOL		100	U		99	U		100	U		370	U	
2-NITROANILINE		11	U		11	U		12	U		42	U	
2-NITROPHENOL		34	U		34	U		34	U		130	U	
3&4-METHYLPHENOL		25	U		25	U		25	U		93	U	
3,3'-DICHLOROBENZIDINE		23	U		22	U		23	U		84	U	
3-NITROANILINE		20	U		20	U		20	U		75	U	
4,6-DINITRO-2-METHYLPHENOL		100	U		99	U		100	U		370	U	
4-BROMOPHENYL PHENYL ETHER		16	U		16	U		17	U		61	U	
4-CHLORO-3-METHYLPHENOL		26	U		26	U		27	U		98	U	
4-CHLOROANILINE		21	U		21	U		22	U		79	U	
4-CHLOROPHENYL PHENYL ETHER		16	U		16	U		17	U		61	U	
4-NITROANILINE		33	U		32	U		33	U		120	U	
4-NITROPHENOL		100	U		99	U		100	U		370	U	
ACENAPHTHENE		4.1	U		24			4.2	U		15	U	
ACENAPHTHYLENE		4.1	U		23			4.2	U		15	U	
ACETOPHENONE		12	UJ	E	11	U		12	U		43	UJ	E
ANTHRACENE		4.1	U		86			4.2	U		34		
ATRAZINE		11	U		11	U		12	U		42	U	
BENZALDEHYDE		15	U		15	U		15	U		56	U	
BENZO(A)ANTHRACENE		4.1	U		360			4.2	U		120		
BENZO(A)PYRENE		4.1	U		310			4.2	U		120		
BENZO(B)FLUORANTHENE		4.1	U		330			4.2	U		140		

PROJ_NO: 03279	NSAMPLE	GSP-SB-130-20-22			GSP-SB-130-6-8		
SDG: 240-820-1	LAB_ID	240-820-18			240-820-17		
FRACTION: OS	SAMP_DATE	6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	81.3			83.1		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		33	U		33	UJ	E
1,4-DIOXANE		27	U		27	U	
2,2'-OXYBIS(1-CHLOROPROPANE)		12	U		11	U	
2,4,5-TRICHLOROPHENOL		31	U		30	U	
2,4,6-TRICHLOROPHENOL		98	U		96	U	
2,4-DICHLOROPHENOL		25	U		24	U	
2,4-DIMETHYLPHENOL		25	U		24	U	
2,4-DINITROPHENOL		98	U		96	U	
2,4-DINITROTOLUENE		33	U		33	U	
2,6-DINITROTOLUENE		26	U		25	U	
2-CHLORONAPHTHALENE		4	U		4	U	
2-CHLOROPHENOL		33	U		33	U	
2-METHYLNAPHTHALENE		4	U		4	U	
2-METHYLPHENOL		98	U		96	U	
2-NITROANILINE		11	U		11	U	
2-NITROPHENOL		33	U		33	U	
3&4-METHYLPHENOL		25	U		24	U	
3,3'-DICHLOROBENZIDINE		22	U		22	U	
3-NITROANILINE		20	U		19	U	
4,6-DINITRO-2-METHYLPHENOL		98	U		96	U	
4-BROMOPHENYL PHENYL ETHER		16	U		16	U	
4-CHLORO-3-METHYLPHENOL		26	U		25	U	
4-CHLOROANILINE		21	U		21	U	
4-CHLOROPHENYL PHENYL ETHER		16	U		16	U	
4-NITROANILINE		32	U		31	U	
4-NITROPHENOL		98	U		96	U	
ACENAPHTHENE		4	U		4	U	
ACENAPHTHYLENE		4	U		4	U	
ACETOPHENONE		11	U		11	UJ	E
ANTHRACENE		7.4	J	P	4	U	
ATRAZINE		11	U		11	U	
BENZALDEHYDE		15	U		14	U	
BENZO(A)ANTHRACENE		12			4	U	
BENZO(A)PYRENE		13			4	U	
BENZO(B)FLUORANTHENE		13			4	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-123-0-2			GSP-SB-123-6-8			GSP-SB-124-0-2			GSP-SB-124-6-8		
SDG: 240-820-1	LAB_ID	240-820-4			240-820-5			240-820-7			240-820-8		
FRACTION: OS	SAMP_DATE	6/6/2011			6/6/2011			6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.7			81.6			90.9			82.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		120			4	U		2500			4	U	
BENZO(K)FLUORANTHENE		150			4	U		1100			4	U	
BIS(2-CHLOROETHOXY)METHANE		24	U		27	U		480	U		26	U	
BIS(2-CHLOROETHYL)ETHER		2.2	U		2.5	U		44	U		2.4	U	
BIS(2-ETHYLHEXYL)PHTHALATE		24	J	P	23	U		420	U		23	U	
BUTYL BENZYL PHTHALATE		11	U		12	U		220	UJ	E	12	UJ	E
CAPROLACTAM		41	U		45	U		810	U		44	U	
CARBAZOLE		30	J	P	33	U		590	U		32	U	
CHRYSENE		230			1.3	U		4200			1.3	U	
DIBENZO(A,H)ANTHRACENE		42			4	U		780			4	U	
DIBENZOFURAN		3.6	U		4	U		72	U		4	U	
DIETHYL PHTHALATE		18	U		20	U		350	U		19	U	
DIMETHYL PHTHALATE		19	U		21	U		370	U		20	U	
DI-N-BUTYL PHTHALATE		16	UJ	D	18	U		330	U		18	U	
DI-N-OCTYL PHTHALATE		30	U		33	U		590	U		32	U	
FLUORANTHENE		470			4	U		5000			4	U	
FLUORENE		23			4	U		450			4	U	
HEXACHLOROBENZENE		2.3	U		2.6	U		46	U		2.5	U	
HEXACHLOROBUTADIENE		30	U		33	U		590	U		32	U	
HEXACHLOROCYCLOPENTADIENE		30	UR	D	33	U		590	U		32	U	
HEXACHLOROETHANE		9.9	U		11	U		200	U		11	U	
INDENO(1,2,3-CD)PYRENE		110			4	U		1900			4	U	
ISOPHORONE		14	U		16	U		280	U		16	U	
NAPHTHALENE		3.6	U		4	U		400			4	U	
NITROBENZENE		2.4	U		2.7	U		48	U		2.6	U	
N-NITROSODIMETHYLAMINE		18	U		20	U		350	U		19	U	
N-NITROSO-DI-N-PROPYLAMINE		30	U		33	U		590	U		32	U	
N-NITROSODIPHENYLAMINE		23	U		26	U		460	U		25	U	
PENTACHLOROPHENOL		88	UR	D	98	U		1800	U		96	U	
PHENANTHRENE		230			4	U		3500			4	U	
PHENOL		30	U		33	U		590	U		32	U	
PYRENE		410			4	U		7800			4	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-126-0-2			GSP-SB-126-20-22			GSP-SB-126-8-10			GSP-SB-127-0-2		
SDG: 240-820-1	LAB_ID	240-820-10			240-820-12			240-820-11			240-820-13		
FRACTION: OS	SAMP_DATE	6/6/2011			6/6/2011			6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.6			76.4			84.4			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		31			4.3	U		3.9	U		38		
BENZO(K)FLUORANTHENE		30			4.3	U		3.9	U		31		
BIS(2-CHLOROETHOXY)METHANE		24	U		29	U		26	U		25	U	
BIS(2-CHLOROETHYL)ETHER		2.2	U		2.6	U		2.4	U		2.3	U	
BIS(2-ETHYLHEXYL)PHTHALATE		21	U		25	U		23	U		22	U	
BUTYL BENZYL PHTHALATE		11	UJ	E	13	U		12	UJ	E	11	UJ	E
CAPROLACTAM		41	U		48	U		44	U		42	U	
CARBAZOLE		30	U		35	U		32	U		31	U	
CHRYSENE		45			1.4	U		1.3	U		57		
DIBENZO(A,H)ANTHRACENE		7.5			4.3	U		3.9	U		10		
DIBENZOFURAN		3.6	U		4.3	U		3.9	U		3.7	U	
DIETHYL PHTHALATE		18	U		21	U		19	U		18	U	
DIMETHYL PHTHALATE		19	U		22	U		20	U		19	U	
DI-N-BUTYL PHTHALATE		17	U		20	U		18	U		17	U	
DI-N-OCTYL PHTHALATE		30	U		35	U		32	U		31	U	
FLUORANTHENE		88			4.3	U		3.9	U		130		
FLUORENE		3.6	U		4.3	U		3.9	U		3.7	U	
HEXACHLOROBENZENE		2.3	U		2.7	U		2.5	U		2.4	U	
HEXACHLOROBUTADIENE		30	U		35	U		32	U		31	U	
HEXACHLOROCYCLOPENTADIENE		30	U		35	U		32	U		31	U	
HEXACHLOROETHANE		9.9	U		12	U		11	U		10	U	
INDENO(1,2,3-CD)PYRENE		26			4.3	U		3.9	U		32		
ISOPHORONE		14	U		17	U		15	U		15	U	
NAPHTHALENE		3.6	U		4.3	U		3.9	U		3.7	U	
NITROBENZENE		2.4	U		2.9	U		2.6	U		2.5	U	
N-NITROSODIMETHYLAMINE		18	U		21	U		19	U		18	U	
N-NITROSO-DI-N-PROPYLAMINE		30	U		35	U		32	U		31	U	
N-NITROSODIPHENYLAMINE		23	U		27	U		25	U		24	U	
PENTACHLOROPHENOL		88	U		100	U		95	U		91	U	
PHENANTHRENE		43			4.3	U		3.9	U		68		
PHENOL		30	U		35	U		32	U		31	U	
PYRENE		73			4.3	U		3.9	U		99		

PROJ_NO: 03279	NSAMPLE	GSP-SB-127-6-8			GSP-SB-128-0-2			GSP-SB-128-6-8			GSP-SB-130-0-2		
SDG: 240-820-1	LAB_ID	240-820-14			240-820-1			240-820-2			240-820-16		
FRACTION: OS	SAMP_DATE	6/6/2011			6/6/2011			6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	79.7			80.2			78.6			85.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		4.1	U		180			4.2	U		77		
BENZO(K)FLUORANTHENE		4.1	U		250			4.2	U		39		
BIS(2-CHLOROETHOXY)METHANE		28	U		27	U		28	U		100	U	
BIS(2-CHLOROETHYL)ETHER		2.5	U		2.5	U		2.5	U		9.3	U	
BIS(2-ETHYLHEXYL)PHTHALATE		24	U		97			24	U		89	U	
BUTYL BENZYL PHTHALATE		13	UJ	E	12	U		13	U		47	UJ	E
CAPROLACTAM		46	U		46	U		47	U		170	U	
CARBAZOLE		34	U		45	J	P	34	U		130	U	
CHRYSENE		1.4	U		360			1.4	U		130		
DIBENZO(A,H)ANTHRACENE		4.1	U		40			4.2	U		20	J	P
DIBENZOFURAN		4.1	U		15	J	P	4.2	U		15	U	
DIETHYL PHTHALATE		20	U		20	U		20	U		75	U	
DIMETHYL PHTHALATE		21	U		21	U		22	U		79	U	
DI-N-BUTYL PHTHALATE		19	U		19	U		19	U		70	U	
DI-N-OCTYL PHTHALATE		34	U		34	U		34	U		130	U	
FLUORANTHENE		4.1	U		730			4.2	U		210		
FLUORENE		4.1	U		26			4.2	U		15	U	
HEXACHLOROBENZENE		2.6	U		2.6	U		2.7	U		9.8	U	
HEXACHLOROBUTADIENE		34	U		34	U		34	U		130	U	
HEXACHLOROCYCLOPENTADIENE		34	U		34	U		34	U		130	U	
HEXACHLOROETHANE		11	U		11	U		11	U		42	U	
INDENO(1,2,3-CD)PYRENE		4.1	U		170			4.2	U		66		
ISOPHORONE		16	U		16	U		17	U		61	U	
NAPHTHALENE		4.1	U		14			4.2	U		15	U	
NITROBENZENE		2.8	U		2.7	U		2.8	U		10	U	
N-NITROSODIMETHYLAMINE		20	U		20	U		20	U		75	U	
N-NITROSO-DI-N-PROPYLAMINE		34	U		34	U		34	U		130	U	
N-NITROSODIPHENYLAMINE		26	U		26	U		27	U		98	U	
PENTACHLOROPHENOL		100	U		99	U		100	U		370	U	
PHENANTHRENE		4.1	U		260			4.2	U		96		
PHENOL		34	U		34	U		34	U		130	U	
PYRENE		4.1	U		590			4.2	U		180		

PROJ_NO: 03279	NSAMPLE	GSP-SB-130-20-22			GSP-SB-130-6-8		
SDG: 240-820-1	LAB_ID	240-820-18			240-820-17		
FRACTION: OS	SAMP_DATE	6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	81.3			83.1		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
BENZO(G,H,I)PERYLENE		4	U		4	U	
BENZO(K)FLUORANTHENE		9.6			4	U	
BIS(2-CHLOROETHOXY)METHANE		27	U		27	U	
BIS(2-CHLOROETHYL)ETHER		2.5	U		2.4	U	
BIS(2-ETHYLHEXYL)PHTHALATE		23	U		23	U	
BUTYL BENZYL PHTHALATE		12	U		12	UJ	E
CAPROLACTAM		45	U		45	U	
CARBAZOLE		33	U		33	U	
CHRYSENE		14			1.3	U	
DIBENZO(A,H)ANTHRACENE		4	U		4	U	
DIBENZOFURAN		4	U		4	U	
DIETHYL PHTHALATE		20	U		19	U	
DIMETHYL PHTHALATE		21	U		21	U	
DI-N-BUTYL PHTHALATE		18	U		18	U	
DI-N-OCTYL PHTHALATE		33	U		33	U	
FLUORANTHENE		33			4	U	
FLUORENE		4	U		4	U	
HEXACHLOROBENZENE		2.6	U		2.5	U	
HEXACHLOROBUTADIENE		33	U		33	U	
HEXACHLOROCYCLOPENTADIENE		33	U		33	U	
HEXACHLOROETHANE		11	U		11	U	
INDENO(1,2,3-CD)PYRENE		4	U		4	U	
ISOPHORONE		16	U		16	U	
NAPHTHALENE		4	U		4	U	
NITROBENZENE		2.7	U		2.7	U	
N-NITROSODIMETHYLAMINE		20	U		19	U	
N-NITROSO-DI-N-PROPYLAMINE		33	U		33	U	
N-NITROSODIPHENYLAMINE		26	U		25	U	
PENTACHLOROPHENOL		98	U		96	U	
PHENANTHRENE		25			4	U	
PHENOL		33	U		33	U	
PYRENE		24			4	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-123-0-2						GSP-SB-123-6-8					
SDG: 240-820-1	LAB_ID	240-820-4						240-820-5					
FRACTION: PET	SAMP_DATE	6/6/2011						6/6/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	90.7			90.7			81.6			81.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		42						11	U				
GASOLINE RANGE ORGANICS					28	U					31	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-124-0-2						GSP-SB-124-6-8					
SDG: 240-820-1	LAB_ID	240-820-7						240-820-8					
FRACTION: PET	SAMP_DATE	6/6/2011						6/6/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	90.9			90.9			82.9			82.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		890						11	U				
GASOLINE RANGE ORGANICS					28	U					30	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-126-0-2						GSP-SB-126-20-22					
SDG: 240-820-1	LAB_ID	240-820-10						240-820-12					
FRACTION: PET	SAMP_DATE	6/6/2011						6/6/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	90.6			90.6			76.4			76.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		10	U					12	U				
GASOLINE RANGE ORGANICS					28	U					33	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-126-8-10						GSP-SB-127-0-2					
SDG: 240-820-1	LAB_ID	240-820-11						240-820-13					
FRACTION: PET	SAMP_DATE	6/6/2011						6/6/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	84.4			84.4			88.0			88.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		11	U					10	U				
GASOLINE RANGE ORGANICS					30	U					28	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-127-6-8						GSP-SB-128-0-2					
SDG: 240-820-1	LAB_ID	240-820-14						240-820-1					
FRACTION: PET	SAMP_DATE	6/6/2011						6/6/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	79.7			79.7			80.2			80.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		12	U					12	U				
GASOLINE RANGE ORGANICS					31	U					31	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-128-6-8						GSP-SB-130-0-2					
SDG: 240-820-1	LAB_ID	240-820-2						240-820-16					
FRACTION: PET	SAMP_DATE	6/6/2011						6/6/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	78.6			78.6			85.7			85.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		12	U					100					
GASOLINE RANGE ORGANICS					32	U					29	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-130-20-22						GSP-SB-130-6-8					
SDG: 240-820-1	LAB_ID	240-820-18						240-820-17					
FRACTION: PET	SAMP_DATE	6/6/2011						6/6/2011					
MEDIA: SOIL	QC_TYPE	NM						NM					
	UNITS	MG/KG			UG/KG			MG/KG			UG/KG		
	PCT_SOLIDS	81.3			81.3			83.1			83.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIESEL RANGE ORGANICS		11	U					11	U				
GASOLINE RANGE ORGANICS					31	U					30	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-123-0-2			GSP-SB-123-6-8			GSP-SB-124-0-2			GSP-SB-124-6-8		
SDG: 240-820-1	LAB_ID	240-820-4			240-820-5			240-820-7			240-820-8		
FRACTION: PCB	SAMP_DATE	6/6/2011			6/6/2011			6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.7			81.6			90.9			82.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		120	U		26	U		23	U		25	U	
AROCLOR-1221		88	U		20	U		18	U		19	U	
AROCLOR-1232		77	U		17	U		15	U		17	U	
AROCLOR-1242		72	U		16	U		14	U		16	U	
AROCLOR-1248		94	U		21	U		19	U		21	U	
AROCLOR-1254		94	U		21	U		19	U		21	U	
AROCLOR-1260		640			21	U		24	J	P	21	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-126-0-2			GSP-SB-126-8-10			GSP-SB-127-0-2			GSP-SB-127-6-8		
SDG: 240-820-1	LAB_ID	240-820-10			240-820-11			240-820-13			240-820-14		
FRACTION: PCB	SAMP_DATE	6/6/2011			6/6/2011			6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	90.6			84.4			88.0			79.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		23	U		25	U		24	U		26	U	
AROCLOR-1221		18	U		19	U		18	U		20	U	
AROCLOR-1232		15	U		17	U		16	U		18	U	
AROCLOR-1242		14	U		15	U		15	U		16	U	
AROCLOR-1248		19	U		20	U		19	U		21	U	
AROCLOR-1254		19	U		20	U		19	U		21	U	
AROCLOR-1260		19	U		20	U		62			21	U	

PROJ_NO: 03279	NSAMPLE	GSP-SB-128-0-2			GSP-SB-128-6-8			GSP-SB-130-0-2			GSP-SB-130-6-8		
SDG: 240-820-1	LAB_ID	240-820-1			240-820-2			240-820-16			240-820-17		
FRACTION: PCB	SAMP_DATE	6/6/2011			6/6/2011			6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	80.2			78.6			85.7			83.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		26	U		27	U		24	U		25	U	
AROCLOR-1221		20	U		20	U		19	U		19	U	
AROCLOR-1232		17	U		18	U		16	U		17	U	
AROCLOR-1242		16	U		17	U		15	U		16	U	
AROCLOR-1248		21	U		22	U		20	U		20	U	
AROCLOR-1254		21	U		22	U		20	U		20	U	
AROCLOR-1260		30	J	P	22	U		56			20	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 Lab Sample ID: 240-820-4

Matrix: Solid Lab File ID: 149074.D

Analysis Method: 8260B Date Collected: 06/06/2011 11:55

Sample wt/vol: 5.98(g) Date Analyzed: 06/16/2011 23:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.3 Level: (low/med) Low

Analysis Batch No.: 5027 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.6	U	4.6	0.57
71-55-6	1,1,1-Trichloroethane	4.6	U	4.6	0.52
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U	4.6	0.31
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.6	U	4.6	1.2
75-34-3	1,1-Dichloroethane	4.6	U	4.6	0.33
75-35-4	1,1-Dichloroethene	4.6	U	4.6	0.48
563-58-6	1,1-Dichloropropene	4.6	U	4.6	0.28
87-61-6	1,2,3-Trichlorobenzene	4.6	U	4.6	0.35
96-18-4	1,2,3-Trichloropropane	4.6	U	4.6	0.83
526-73-8	1,2,3-Trimethylbenzene	4.6	U	4.6	0.16
120-82-1	1,2,4-Trichlorobenzene	4.6	U	4.6	0.25
95-63-6	1,2,4-Trimethylbenzene	4.6	U	4.6	0.60
96-12-8	1,2-Dibromo-3-Chloropropane	9.2	U	9.2	1.2
95-50-1	1,2-Dichlorobenzene	4.6	U	4.6	0.33
107-06-2	1,2-Dichloroethane	4.6	U	4.6	0.31
78-87-5	1,2-Dichloropropane	4.6	U	4.6	0.64
541-73-1	1,3-Dichlorobenzene	4.6	U	4.6	0.32
142-28-9	1,3-Dichloropropane	4.6	U	4.6	0.31
106-46-7	1,4-Dichlorobenzene	4.6	U	4.6	0.61
594-20-7	2,2-Dichloropropane	4.6	U	4.6	0.87
78-93-3	2-Butanone	18	U	18	1.3
110-75-8	2-Chloroethyl vinyl ether	46	U	46	1.3
95-49-8	2-Chlorotoluene	4.6	U	4.6	0.37
591-78-6	2-Hexanone	18	U	18	0.58
106-43-4	4-Chlorotoluene	4.6	U	4.6	0.38
99-87-6	p-Isopropyltoluene	4.6	U	4.6	0.19
108-10-1	4-Methyl-2-pentanone	0.58	J	18	0.50
67-64-1	Acetone	17	J B	18	5.8
71-43-2	Benzene	4.6	U	4.6	0.21
108-86-1	Bromobenzene	4.6	U	4.6	0.30
75-25-2	Bromoform	4.6	U	4.6	0.30
74-83-9	Bromomethane	4.6	U	4.6	0.50
75-15-0	Carbon disulfide	4.6	U	4.6	0.41
56-23-5	Carbon tetrachloride	4.6	U	4.6	0.34
108-90-7	Chlorobenzene	4.6	U	4.6	0.30

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 | Lab Sample ID: 240-820-4

Matrix: Solid | Lab File ID: 149074.D

Analysis Method: 8260B | Date Collected: 06/06/2011 11:55

Sample wt/vol: 5.98(g) | Date Analyzed: 06/16/2011 23:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.3 | Level: (low/med) Low

Analysis Batch No.: 5027 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.6	U	4.6	0.51
75-00-3	Chloroethane	4.6	U *	4.6	0.79
67-66-3	Chloroform	4.6	U	4.6	0.27
74-87-3	Chloromethane	4.6	U	4.6	0.38
156-59-2	cis-1,2-Dichloroethene	4.6	U	4.6	0.33
10061-01-5	cis-1,3-Dichloropropene	4.6	U	4.6	0.31
74-95-3	Dibromomethane	4.6	U	4.6	0.58
74-97-5	Bromochloromethane	4.6	U	4.6	0.65
75-71-8	Dichlorodifluoromethane	4.6	U	4.6	0.46
75-27-4	Bromodichloromethane	4.6	U	4.6	0.26
75-65-0	tert-Butyl alcohol	180	U	180	7.0
100-41-4	Ethylbenzene	4.6	U	4.6	0.24
87-68-3	Hexachlorobutadiene	4.6	U	4.6	1.1
108-20-3	Diisopropyl ether	9.2	U	9.2	1.4
98-82-8	Isopropylbenzene	4.6	U	4.6	0.15
1634-04-4	Methyl tert-butyl ether	18	U	18	0.40
75-09-2	Methylene Chloride	3.7	J B	4.6	0.62
179601-23-1	m-Xylene & p-Xylene	9.2	U	9.2	1.1
91-20-3	Naphthalene	4.6	U	4.6	0.18
104-51-8	n-Butylbenzene	4.6	U	4.6	0.21
103-65-1	n-Propylbenzene	4.6	U	4.6	0.37
95-47-6	o-Xylene	4.6	U	4.6	0.32
135-98-8	sec-Butylbenzene	4.6	U	4.6	0.17
100-42-5	Styrene	4.6	U	4.6	0.14
994-05-8	Tert-amyl-methyl ether (TAME)	4.6	U	4.6	0.34
637-92-3	Ethyl-t-butyl ether (ETBE)	4.6	U	4.6	0.20
127-18-4	Tetrachloroethene	4.6	U	4.6	0.48
108-88-3	Toluene	4.6	U	4.6	0.25
156-60-5	trans-1,2-Dichloroethene	4.6	U	4.6	0.38
10061-02-6	trans-1,3-Dichloropropene	4.6	U	4.6	0.50
79-01-6	Trichloroethene	4.6	U	4.6	0.39
75-69-4	Trichlorofluoromethane	4.6	U	4.6	0.31
108-05-4	Vinyl acetate	9.2	U	9.2	0.23
75-01-4	Vinyl chloride	4.6	U	4.6	0.36
1330-20-7	Xylenes, Total	9.2	U	9.2	0.62

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 Lab Sample ID: 240-820-4

Matrix: Solid Lab File ID: 149074.D

Analysis Method: 8260B Date Collected: 06/06/2011 11:55

Sample wt/vol: 5.98(g) Date Analyzed: 06/16/2011 23:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.3 Level: (low/med) Low

Analysis Batch No.: 5027 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.6	U	4.6	0.27
106-93-4	1,2-Dibromoethane	4.6	U	4.6	0.46

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	108		67-125
1868-53-7	Dibromofluoromethane (Surr)	85		37-132
460-00-4	4-Bromofluorobenzene (Surr)	99		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 | Lab Sample ID: 240-820-4

Matrix: Solid | Lab File ID: 149074.D

Analysis Method: 8260B | Date Collected: 06/06/2011 11:55

Sample wt/vol: 5.98(g) | Date Analyzed: 06/16/2011 23:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.3 | Level: (low/med) Low

Analysis Batch No.: 5027 | Units: ug/Kg

Number TICs Found: 1 | TIC Result Total: 2.7

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.78	2.7	J

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-6-8 | Lab Sample ID: 240-820-5

Matrix: Solid | Lab File ID: UX82740.D

Analysis Method: 8260B | Date Collected: 06/06/2011 11:58

Sample wt/vol: 6.78(g) | Date Analyzed: 06/16/2011 22:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.4 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.5	U	4.5	0.56
71-55-6	1,1,1-Trichloroethane	4.5	U	4.5	0.51
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	4.5	0.31
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.5	U	4.5	1.2
75-34-3	1,1-Dichloroethane	4.5	U	4.5	0.33
75-35-4	1,1-Dichloroethene	4.5	U	4.5	0.47
563-58-6	1,1-Dichloropropene	4.5	U	4.5	0.27
87-61-6	1,2,3-Trichlorobenzene	4.5	U	4.5	0.34
96-18-4	1,2,3-Trichloropropane	4.5	U	4.5	0.81
526-73-8	1,2,3-Trimethylbenzene	4.5	U	4.5	0.15
120-82-1	1,2,4-Trichlorobenzene	4.5	U	4.5	0.24
95-63-6	1,2,4-Trimethylbenzene	4.5	U	4.5	0.59
96-12-8	1,2-Dibromo-3-Chloropropane	9.0	U	9.0	1.2
95-50-1	1,2-Dichlorobenzene	4.5	U	4.5	0.33
107-06-2	1,2-Dichloroethane	4.5	U	4.5	0.31
78-87-5	1,2-Dichloropropane	4.5	U	4.5	0.62
541-73-1	1,3-Dichlorobenzene	4.5	U	4.5	0.32
142-28-9	1,3-Dichloropropane	4.5	U	4.5	0.31
106-46-7	1,4-Dichlorobenzene	4.5	U	4.5	0.60
594-20-7	2,2-Dichloropropane	4.5	U	4.5	0.85
78-93-3	2-Butanone	18	U	18	1.3
110-75-8	2-Chloroethyl vinyl ether	45	U	45	1.3
95-49-8	2-Chlorotoluene	4.5	U	4.5	0.36
591-78-6	2-Hexanone	18	U	18	0.57
106-43-4	4-Chlorotoluene	4.5	U	4.5	0.37
99-87-6	p-Isopropyltoluene	4.5	U	4.5	0.19
108-10-1	4-Methyl-2-pentanone	18	U	18	0.49
67-64-1	Acetone	9.8	J	18	5.7
71-43-2	Benzene	4.5	U	4.5	0.21
108-86-1	Bromobenzene	4.5	U	4.5	0.30
75-25-2	Bromoform	4.5	U	4.5	0.30
74-83-9	Bromomethane	4.5	U	4.5	0.49
75-15-0	Carbon disulfide	4.5	U	4.5	0.40
56-23-5	Carbon tetrachloride	4.5	U	4.5	0.33
108-90-7	Chlorobenzene	4.5	U	4.5	0.30

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-6-8 | Lab Sample ID: 240-820-5

Matrix: Solid | Lab File ID: UX82740.D

Analysis Method: 8260B | Date Collected: 06/06/2011 11:58

Sample wt/vol: 6.78(g) | Date Analyzed: 06/16/2011 22:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.4 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.5	U	4.5	0.50
75-00-3	Chloroethane	4.5	U	4.5	0.78
67-66-3	Chloroform	4.5	U	4.5	0.26
74-87-3	Chloromethane	4.5	U	4.5	0.37
156-59-2	cis-1,2-Dichloroethene	4.5	U	4.5	0.33
10061-01-5	cis-1,3-Dichloropropene	4.5	U	4.5	0.31
74-95-3	Dibromomethane	4.5	U	4.5	0.57
74-97-5	Bromochloromethane	4.5	U	4.5	0.64
75-71-8	Dichlorodifluoromethane	4.5	U	4.5	0.45
75-27-4	Bromodichloromethane	4.5	U	4.5	0.25
75-65-0	tert-Butyl alcohol	180	U	180	6.9
100-41-4	Ethylbenzene	4.5	U	4.5	0.24
87-68-3	Hexachlorobutadiene	4.5	U	4.5	1.1
108-20-3	Diisopropyl ether	9.0	U	9.0	1.4
98-82-8	Isopropylbenzene	4.5	U	4.5	0.14
1634-04-4	Methyl tert-butyl ether	18	U	18	0.39
75-09-2	Methylene Chloride	4.5	U	4.5	0.61
179601-23-1	m-Xylene & p-Xylene	9.0	U	9.0	1.1
91-20-3	Naphthalene	4.5	U	4.5	0.17
104-51-8	n-Butylbenzene	4.5	U	4.5	0.21
103-65-1	n-Propylbenzene	4.5	U	4.5	0.36
95-47-6	o-Xylene	4.5	U	4.5	0.32
135-98-8	sec-Butylbenzene	4.5	U	4.5	0.16
100-42-5	Styrene	4.5	U	4.5	0.14
994-05-8	Tert-amyl-methyl ether (TAME)	4.5	U	4.5	0.33
637-92-3	Ethyl-t-butyl ether (ETBE)	4.5	U	4.5	0.20
127-18-4	Tetrachloroethene	4.5	U	4.5	0.47
108-88-3	Toluene	0.36	J	4.5	0.24
156-60-5	trans-1,2-Dichloroethene	4.5	U	4.5	0.37
10061-02-6	trans-1,3-Dichloropropene	4.5	U	4.5	0.49
79-01-6	Trichloroethene	4.5	U	4.5	0.38
75-69-4	Trichlorofluoromethane	4.5	U	4.5	0.31
108-05-4	Vinyl acetate	9.0	U	9.0	0.23
75-01-4	Vinyl chloride	4.5	U	4.5	0.35
1330-20-7	Xylenes, Total	9.0	U	9.0	0.61

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-6-8 | Lab Sample ID: 240-820-5

Matrix: Solid | Lab File ID: UX82740.D

Analysis Method: 8260B | Date Collected: 06/06/2011 11:58

Sample wt/vol: 6.78(g) | Date Analyzed: 06/16/2011 22:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.4 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.5	U	4.5	0.26
106-93-4	1,2-Dibromoethane	4.5	U	4.5	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		67-125
1868-53-7	Dibromofluoromethane (Surr)	88		37-132
460-00-4	4-Bromofluorobenzene (Surr)	98		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-6-8 | Lab Sample ID: 240-820-5

Matrix: Solid | Lab File ID: UX82740.D

Analysis Method: 8260B | Date Collected: 06/06/2011 11:58

Sample wt/vol: 6.78(g) | Date Analyzed: 06/16/2011 22:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.4 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-0-2 | Lab Sample ID: 240-820-7

Matrix: Solid | Lab File ID: UX82742.D

Analysis Method: 8260B | Date Collected: 06/06/2011 13:05

Sample wt/vol: 6.12(g) | Date Analyzed: 06/16/2011 23:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.1 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.5	U	4.5	0.56
71-55-6	1,1,1-Trichloroethane	4.5	U	4.5	0.50
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	4.5	0.31
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.5	U	4.5	1.2
75-34-3	1,1-Dichloroethane	4.5	U	4.5	0.32
75-35-4	1,1-Dichloroethene	4.5	U	4.5	0.47
563-58-6	1,1-Dichloropropene	4.5	U	4.5	0.27
87-61-6	1,2,3-Trichlorobenzene	4.5	U	4.5	0.34
96-18-4	1,2,3-Trichloropropane	4.5	U	4.5	0.81
526-73-8	1,2,3-Trimethylbenzene	4.5	U	4.5	0.15
120-82-1	1,2,4-Trichlorobenzene	4.5	U	4.5	0.24
95-63-6	1,2,4-Trimethylbenzene	4.5	U	4.5	0.58
96-12-8	1,2-Dibromo-3-Chloropropane	9.0	U	9.0	1.2
95-50-1	1,2-Dichlorobenzene	4.5	U	4.5	0.32
107-06-2	1,2-Dichloroethane	4.5	U	4.5	0.31
78-87-5	1,2-Dichloropropane	4.5	U	4.5	0.62
541-73-1	1,3-Dichlorobenzene	4.5	U	4.5	0.31
142-28-9	1,3-Dichloropropane	4.5	U	4.5	0.31
106-46-7	1,4-Dichlorobenzene	4.5	U	4.5	0.59
594-20-7	2,2-Dichloropropane	4.5	U	4.5	0.85
78-93-3	2-Butanone	1.6	J B	18	1.3
110-75-8	2-Chloroethyl vinyl ether	45	U	45	1.3
95-49-8	2-Chlorotoluene	4.5	U	4.5	0.36
591-78-6	2-Hexanone	18	U	18	0.57
106-43-4	4-Chlorotoluene	4.5	U	4.5	0.37
99-87-6	p-Isopropyltoluene	4.5	U	4.5	0.19
108-10-1	4-Methyl-2-pentanone	18	U	18	0.49
67-64-1	Acetone	18	U	18	5.7
71-43-2	Benzene	4.5	U	4.5	0.21
108-86-1	Bromobenzene	4.5	U	4.5	0.30
75-25-2	Bromoform	4.5	U	4.5	0.30
74-83-9	Bromomethane	4.5	U	4.5	0.49
75-15-0	Carbon disulfide	4.5	U	4.5	0.40
56-23-5	Carbon tetrachloride	4.5	U	4.5	0.33
108-90-7	Chlorobenzene	4.5	U	4.5	0.30

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-0-2 | Lab Sample ID: 240-820-7

Matrix: Solid | Lab File ID: UX82742.D

Analysis Method: 8260B | Date Collected: 06/06/2011 13:05

Sample wt/vol: 6.12(g) | Date Analyzed: 06/16/2011 23:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.1 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.5	U	4.5	0.49
75-00-3	Chloroethane	4.5	U	4.5	0.77
67-66-3	Chloroform	4.5	U	4.5	0.26
74-87-3	Chloromethane	4.5	U	4.5	0.37
156-59-2	cis-1,2-Dichloroethene	4.5	U	4.5	0.32
10061-01-5	cis-1,3-Dichloropropene	4.5	U	4.5	0.31
74-95-3	Dibromomethane	4.5	U	4.5	0.57
74-97-5	Bromochloromethane	4.5	U	4.5	0.64
75-71-8	Dichlorodifluoromethane	4.5	U	4.5	0.45
75-27-4	Bromodichloromethane	4.5	U	4.5	0.25
75-65-0	tert-Butyl alcohol	180	U	180	6.8
100-41-4	Ethylbenzene	4.5	U	4.5	0.23
87-68-3	Hexachlorobutadiene	4.5	U	4.5	1.1
108-20-3	Diisopropyl ether	9.0	U	9.0	1.3
98-82-8	Isopropylbenzene	4.5	U	4.5	0.14
1634-04-4	Methyl tert-butyl ether	18	U	18	0.39
75-09-2	Methylene Chloride	4.5	U	4.5	0.60
179601-23-1	m-Xylene & p-Xylene	9.0	U	9.0	1.1
91-20-3	Naphthalene	4.5	U	4.5	0.17
104-51-8	n-Butylbenzene	4.5	U	4.5	0.21
103-65-1	n-Propylbenzene	4.5	U	4.5	0.36
95-47-6	o-Xylene	4.5	U	4.5	0.31
135-98-8	sec-Butylbenzene	4.5	U	4.5	0.16
100-42-5	Styrene	4.5	U	4.5	0.13
994-05-8	Tert-amyl-methyl ether (TAME)	4.5	U	4.5	0.33
637-92-3	Ethyl-t-butyl ether (ETBE)	4.5	U	4.5	0.20
127-18-4	Tetrachloroethene	4.5	U	4.5	0.47
108-88-3	Toluene	4.5	U	4.5	0.24
156-60-5	trans-1,2-Dichloroethene	4.5	U	4.5	0.37
10061-02-6	trans-1,3-Dichloropropene	4.5	U	4.5	0.49
79-01-6	Trichloroethene	4.5	U	4.5	0.38
75-69-4	Trichlorofluoromethane	4.5	U	4.5	0.31
108-05-4	Vinyl acetate	9.0	U	9.0	0.22
75-01-4	Vinyl chloride	4.5	U	4.5	0.35
1330-20-7	Xylenes, Total	9.0	U	9.0	0.60

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-0-2 | Lab Sample ID: 240-820-7

Matrix: Solid | Lab File ID: UX82742.D

Analysis Method: 8260B | Date Collected: 06/06/2011 13:05

Sample wt/vol: 6.12(g) | Date Analyzed: 06/16/2011 23:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.1 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.5	U	4.5	0.26
106-93-4	1,2-Dibromoethane	4.5	U	4.5	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		67-125
1868-53-7	Dibromofluoromethane (Surr)	89		37-132
460-00-4	4-Bromofluorobenzene (Surr)	95		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-0-2 Lab Sample ID: 240-820-7

Matrix: Solid Lab File ID: UX82742.D

Analysis Method: 8260B Date Collected: 06/06/2011 13:05

Sample wt/vol: 6.12(g) Date Analyzed: 06/16/2011 23:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.1 Level: (low/med) Low

Analysis Batch No.: 5087 Units: ug/Kg

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-6-8 | Lab Sample ID: 240-820-8

Matrix: Solid | Lab File ID: UX82743.D

Analysis Method: 8260B | Date Collected: 06/06/2011 13:08

Sample wt/vol: 6.62(g) | Date Analyzed: 06/16/2011 23:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.1 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.6	U	4.6	0.56
71-55-6	1,1,1-Trichloroethane	4.6	U	4.6	0.51
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U	4.6	0.31
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.6	U	4.6	1.2
75-34-3	1,1-Dichloroethane	4.6	U	4.6	0.33
75-35-4	1,1-Dichloroethene	4.6	U	4.6	0.47
563-58-6	1,1-Dichloropropene	4.6	U	4.6	0.27
87-61-6	1,2,3-Trichlorobenzene	4.6	U	4.6	0.35
96-18-4	1,2,3-Trichloropropane	4.6	U	4.6	0.82
526-73-8	1,2,3-Trimethylbenzene	4.6	U	4.6	0.15
120-82-1	1,2,4-Trichlorobenzene	4.6	U	4.6	0.25
95-63-6	1,2,4-Trimethylbenzene	4.6	U	4.6	0.59
96-12-8	1,2-Dibromo-3-Chloropropane	9.1	U	9.1	1.2
95-50-1	1,2-Dichlorobenzene	4.6	U	4.6	0.33
107-06-2	1,2-Dichloroethane	4.6	U	4.6	0.31
78-87-5	1,2-Dichloropropane	4.6	U	4.6	0.63
541-73-1	1,3-Dichlorobenzene	4.6	U	4.6	0.32
142-28-9	1,3-Dichloropropane	4.6	U	4.6	0.31
106-46-7	1,4-Dichlorobenzene	4.6	U	4.6	0.60
594-20-7	2,2-Dichloropropane	4.6	U	4.6	0.86
78-93-3	2-Butanone	18	U	18	1.3
110-75-8	2-Chloroethyl vinyl ether	46	U	46	1.3
95-49-8	2-Chlorotoluene	4.6	U	4.6	0.36
591-78-6	2-Hexanone	18	U	18	0.57
106-43-4	4-Chlorotoluene	4.6	U	4.6	0.37
99-87-6	p-Isopropyltoluene	4.6	U	4.6	0.19
108-10-1	4-Methyl-2-pentanone	18	U	18	0.49
67-64-1	Acetone	18	U	18	5.7
71-43-2	Benzene	4.6	U	4.6	0.21
108-86-1	Bromobenzene	4.6	U	4.6	0.30
75-25-2	Bromoform	4.6	U	4.6	0.30
74-83-9	Bromomethane	4.6	U	4.6	0.49
75-15-0	Carbon disulfide	4.6	U	4.6	0.40
56-23-5	Carbon tetrachloride	4.6	U	4.6	0.34
108-90-7	Chlorobenzene	4.6	U	4.6	0.30

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-6-8 Lab Sample ID: 240-820-8

Matrix: Solid Lab File ID: UX82743.D

Analysis Method: 8260B Date Collected: 06/06/2011 13:08

Sample wt/vol: 6.62(g) Date Analyzed: 06/16/2011 23:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.1 Level: (low/med) Low

Analysis Batch No.: 5087 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.6	U	4.6	0.50
75-00-3	Chloroethane	4.6	U	4.6	0.78
67-66-3	Chloroform	4.6	U	4.6	0.26
74-87-3	Chloromethane	4.6	U	4.6	0.37
156-59-2	cis-1,2-Dichloroethene	4.6	U	4.6	0.33
10061-01-5	cis-1,3-Dichloropropene	4.6	U	4.6	0.31
74-95-3	Dibromomethane	4.6	U	4.6	0.57
74-97-5	Bromochloromethane	4.6	U	4.6	0.65
75-71-8	Dichlorodifluoromethane	4.6	U	4.6	0.46
75-27-4	Bromodichloromethane	4.6	U	4.6	0.26
75-65-0	tert-Butyl alcohol	180	U	180	6.9
100-41-4	Ethylbenzene	4.6	U	4.6	0.24
87-68-3	Hexachlorobutadiene	4.6	U	4.6	1.1
108-20-3	Diisopropyl ether	9.1	U	9.1	1.4
98-82-8	Isopropylbenzene	4.6	U	4.6	0.15
1634-04-4	Methyl tert-butyl ether	18	U	18	0.39
75-09-2	Methylene Chloride	4.6	U	4.6	0.61
179601-23-1	m-Xylene & p-Xylene	9.1	U	9.1	1.1
91-20-3	Naphthalene	4.6	U	4.6	0.17
104-51-8	n-Butylbenzene	4.6	U	4.6	0.21
103-65-1	n-Propylbenzene	4.6	U	4.6	0.36
95-47-6	o-Xylene	4.6	U	4.6	0.32
135-98-8	sec-Butylbenzene	4.6	U	4.6	0.16
100-42-5	Styrene	4.6	U	4.6	0.14
994-05-8	Tert-amyl-methyl ether (TAME)	4.6	U	4.6	0.34
637-92-3	Ethyl-t-butyl ether (ETBE)	4.6	U	4.6	0.20
127-18-4	Tetrachloroethene	4.6	U	4.6	0.47
108-88-3	Toluene	4.6	U	4.6	0.25
156-60-5	trans-1,2-Dichloroethene	4.6	U	4.6	0.37
10061-02-6	trans-1,3-Dichloropropene	4.6	U	4.6	0.49
79-01-6	Trichloroethene	19		4.6	0.38
75-69-4	Trichlorofluoromethane	4.6	U	4.6	0.31
108-05-4	Vinyl acetate	9.1	U	9.1	0.23
75-01-4	Vinyl chloride	4.6	U	4.6	0.36
1330-20-7	Xylenes, Total	9.1	U	9.1	0.61

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-6-8 | Lab Sample ID: 240-820-8

Matrix: Solid | Lab File ID: UX82743.D

Analysis Method: 8260B | Date Collected: 06/06/2011 13:08

Sample wt/vol: 6.62(g) | Date Analyzed: 06/16/2011 23:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.1 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.6	U	4.6	0.26
106-93-4	1,2-Dibromoethane	4.6	U	4.6	0.46

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		67-125
1868-53-7	Dibromofluoromethane (Surr)	90		37-132
460-00-4	4-Bromofluorobenzene (Surr)	96		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-6-8 Lab Sample ID: 240-820-8

Matrix: Solid Lab File ID: UX82743.D

Analysis Method: 8260B Date Collected: 06/06/2011 13:08

Sample wt/vol: 6.62(g) Date Analyzed: 06/16/2011 23:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.1 Level: (low/med) Low

Analysis Batch No.: 5087 Units: ug/Kg

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-0-2 | Lab Sample ID: 240-820-10

Matrix: Solid | Lab File ID: UX82746.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:05

Sample wt/vol: 5.55(g) | Date Analyzed: 06/17/2011 00:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.4 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	0.62
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	0.56
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.34
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	5.0	U	5.0	1.3
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.36
75-35-4	1,1-Dichloroethene	5.0	U	5.0	0.52
563-58-6	1,1-Dichloropropene	5.0	U	5.0	0.30
87-61-6	1,2,3-Trichlorobenzene	5.0	U	5.0	0.38
96-18-4	1,2,3-Trichloropropane	5.0	U	5.0	0.90
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.17
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	0.27
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.65
96-12-8	1,2-Dibromo-3-Chloropropane	9.9	U	9.9	1.3
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	0.36
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.34
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.69
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	0.35
142-28-9	1,3-Dichloropropane	5.0	U	5.0	0.34
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	0.66
594-20-7	2,2-Dichloropropane	5.0	U	5.0	0.93
78-93-3	2-Butanone	20	U	20	1.4
110-75-8	2-Chloroethyl vinyl ether	50	U	50	1.4
95-49-8	2-Chlorotoluene	5.0	U	5.0	0.40
591-78-6	2-Hexanone	20	U	20	0.63
106-43-4	4-Chlorotoluene	5.0	U	5.0	0.41
99-87-6	p-Isopropyltoluene	5.0	U	5.0	0.21
108-10-1	4-Methyl-2-pentanone	20	U	20	0.54
67-64-1	Acetone	20	U	20	6.3
71-43-2	Benzene	5.0	U	5.0	0.23
108-86-1	Bromobenzene	5.0	U	5.0	0.33
75-25-2	Bromoform	5.0	U	5.0	0.33
74-83-9	Bromomethane	5.0	U	5.0	0.54
75-15-0	Carbon disulfide	5.0	U	5.0	0.44
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.37
108-90-7	Chlorobenzene	5.0	U	5.0	0.33

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-0-2 | Lab Sample ID: 240-820-10

Matrix: Solid | Lab File ID: UX82746.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:05

Sample wt/vol: 5.55(g) | Date Analyzed: 06/17/2011 00:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.4 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.0	U	5.0	0.55
75-00-3	Chloroethane	5.0	U	5.0	0.86
67-66-3	Chloroform	5.0	U	5.0	0.29
74-87-3	Chloromethane	5.0	U	5.0	0.41
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.36
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.34
74-95-3	Dibromomethane	5.0	U	5.0	0.63
74-97-5	Bromochloromethane	5.0	U	5.0	0.71
75-71-8	Dichlorodifluoromethane	5.0	U	5.0	0.50
75-27-4	Bromodichloromethane	5.0	U	5.0	0.28
75-65-0	tert-Butyl alcohol	200	U	200	7.6
100-41-4	Ethylbenzene	5.0	U	5.0	0.26
87-68-3	Hexachlorobutadiene	5.0	U	5.0	1.2
108-20-3	Diisopropyl ether	9.9	U	9.9	1.5
98-82-8	Isopropylbenzene	5.0	U	5.0	0.16
1634-04-4	Methyl tert-butyl ether	20	U	20	0.43
75-09-2	Methylene Chloride	5.0	U	5.0	0.67
179601-23-1	m-Xylene & p-Xylene	9.9	U	9.9	1.2
91-20-3	Naphthalene	5.0	U	5.0	0.19
104-51-8	n-Butylbenzene	5.0	U	5.0	0.23
103-65-1	n-Propylbenzene	5.0	U	5.0	0.40
95-47-6	o-Xylene	5.0	U	5.0	0.35
135-98-8	sec-Butylbenzene	5.0	U	5.0	0.18
100-42-5	Styrene	5.0	U	5.0	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.37
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.22
127-18-4	Tetrachloroethene	5.0	U	5.0	0.52
108-88-3	Toluene	5.0	U	5.0	0.27
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.41
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.54
79-01-6	Trichloroethene	5.0	U	5.0	0.42
75-69-4	Trichlorofluoromethane	5.0	U	5.0	0.34
108-05-4	Vinyl acetate	9.9	U	9.9	0.25
75-01-4	Vinyl chloride	5.0	U	5.0	0.39
1330-20-7	Xylenes, Total	9.9	U	9.9	0.67

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-0-2 | Lab Sample ID: 240-820-10

Matrix: Solid | Lab File ID: UX82746.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:05

Sample wt/vol: 5.55(g) | Date Analyzed: 06/17/2011 00:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.4 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.0	U	5.0	0.29
106-93-4	1,2-Dibromoethane	5.0	U	5.0	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		67-125
1868-53-7	Dibromofluoromethane (Surr)	90		37-132
460-00-4	4-Bromofluorobenzene (Surr)	97		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-0-2 | Lab Sample ID: 240-820-10

Matrix: Solid | Lab File ID: UX82746.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:05

Sample wt/vol: 5.55(g) | Date Analyzed: 06/17/2011 00:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 9.4 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-20-22 Lab Sample ID: 240-820-12

Matrix: Solid Lab File ID: UX82748.D

Analysis Method: 8260B Date Collected: 06/06/2011 15:16

Sample wt/vol: 6.31(g) Date Analyzed: 06/17/2011 01:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 23.6 Level: (low/med) Low

Analysis Batch No.: 5087 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.2	U	5.2	0.64
71-55-6	1,1,1-Trichloroethane	5.2	U	5.2	0.58
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	5.2	0.35
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	5.2	U	5.2	1.3
75-34-3	1,1-Dichloroethane	5.2	U	5.2	0.37
75-35-4	1,1-Dichloroethene	5.2	U	5.2	0.54
563-58-6	1,1-Dichloropropene	5.2	U	5.2	0.31
87-61-6	1,2,3-Trichlorobenzene	5.2	U	5.2	0.39
96-18-4	1,2,3-Trichloropropane	5.2	U	5.2	0.93
526-73-8	1,2,3-Trimethylbenzene	5.2	U	5.2	0.18
120-82-1	1,2,4-Trichlorobenzene	5.2	U	5.2	0.28
95-63-6	1,2,4-Trimethylbenzene	5.2	U	5.2	0.67
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	1.3
95-50-1	1,2-Dichlorobenzene	5.2	U	5.2	0.37
107-06-2	1,2-Dichloroethane	5.2	U	5.2	0.35
78-87-5	1,2-Dichloropropane	5.2	U	5.2	0.72
541-73-1	1,3-Dichlorobenzene	5.2	U	5.2	0.36
142-28-9	1,3-Dichloropropane	5.2	U	5.2	0.35
106-46-7	1,4-Dichlorobenzene	5.2	U	5.2	0.68
594-20-7	2,2-Dichloropropane	5.2	U	5.2	0.97
78-93-3	2-Butanone	21	U	21	1.5
110-75-8	2-Chloroethyl vinyl ether	52	U	52	1.5
95-49-8	2-Chlorotoluene	5.2	U	5.2	0.41
591-78-6	2-Hexanone	21	U	21	0.65
106-43-4	4-Chlorotoluene	5.2	U	5.2	0.42
99-87-6	p-Isopropyltoluene	5.2	U	5.2	0.22
108-10-1	4-Methyl-2-pentanone	21	U	21	0.56
67-64-1	Acetone	21	U	21	6.5
71-43-2	Benzene	5.2	U	5.2	0.24
108-86-1	Bromobenzene	5.2	U	5.2	0.34
75-25-2	Bromoform	5.2	U	5.2	0.34
74-83-9	Bromomethane	5.2	U	5.2	0.56
75-15-0	Carbon disulfide	5.2	U	5.2	0.46
56-23-5	Carbon tetrachloride	5.2	U	5.2	0.38
108-90-7	Chlorobenzene	5.2	U	5.2	0.34

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-20-22 | Lab Sample ID: 240-820-12

Matrix: Solid | Lab File ID: UX82748.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:16

Sample wt/vol: 6.31(g) | Date Analyzed: 06/17/2011 01:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 23.6 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.2	U	5.2	0.57
75-00-3	Chloroethane	5.2	U	5.2	0.89
67-66-3	Chloroform	5.2	U	5.2	0.30
74-87-3	Chloromethane	5.2	U	5.2	0.42
156-59-2	cis-1,2-Dichloroethene	5.2	U	5.2	0.37
10061-01-5	cis-1,3-Dichloropropene	5.2	U	5.2	0.35
74-95-3	Dibromomethane	5.2	U	5.2	0.65
74-97-5	Bromochloromethane	5.2	U	5.2	0.74
75-71-8	Dichlorodifluoromethane	5.2	U	5.2	0.52
75-27-4	Bromodichloromethane	5.2	U	5.2	0.29
75-65-0	tert-Butyl alcohol	210	U	210	7.9
100-41-4	Ethylbenzene	5.2	U	5.2	0.27
87-68-3	Hexachlorobutadiene	5.2	U	5.2	1.2
108-20-3	Diisopropyl ether	10	U	10	1.6
98-82-8	Isopropylbenzene	5.2	U	5.2	0.17
1634-04-4	Methyl tert-butyl ether	21	U	21	0.45
75-09-2	Methylene Chloride	5.2	U	5.2	0.69
179601-23-1	m-Xylene & p-Xylene	10	U	10	1.2
91-20-3	Naphthalene	5.2	U	5.2	0.20
104-51-8	n-Butylbenzene	5.2	U	5.2	0.24
103-65-1	n-Propylbenzene	5.2	U	5.2	0.41
95-47-6	o-Xylene	5.2	U	5.2	0.36
135-98-8	sec-Butylbenzene	5.2	U	5.2	0.19
100-42-5	Styrene	5.2	U	5.2	0.16
994-05-8	Tert-amyl-methyl ether (TAME)	5.2	U	5.2	0.38
637-92-3	Ethyl-t-butyl ether (ETBE)	5.2	U	5.2	0.23
127-18-4	Tetrachloroethene	5.2	U	5.2	0.54
108-88-3	Toluene	5.2	U	5.2	0.28
156-60-5	trans-1,2-Dichloroethene	5.2	U	5.2	0.42
10061-02-6	trans-1,3-Dichloropropene	5.2	U	5.2	0.56
79-01-6	Trichloroethene	10		5.2	0.44
75-69-4	Trichlorofluoromethane	5.2	U	5.2	0.35
108-05-4	Vinyl acetate	10	U	10	0.26
75-01-4	Vinyl chloride	5.2	U	5.2	0.40
1330-20-7	Xylenes, Total	10	U	10	0.69

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-20-22 Lab Sample ID: 240-820-12

Matrix: Solid Lab File ID: UX82748.D

Analysis Method: 8260B Date Collected: 06/06/2011 15:16

Sample wt/vol: 6.31(g) Date Analyzed: 06/17/2011 01:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 23.6 Level: (low/med) Low

Analysis Batch No.: 5087 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.2	U	5.2	0.30
106-93-4	1,2-Dibromoethane	5.2	U	5.2	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	89		67-125
1868-53-7	Dibromofluoromethane (Surr)	94		37-132
460-00-4	4-Bromofluorobenzene (Surr)	99		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-20-22 | Lab Sample ID: 240-820-12

Matrix: Solid | Lab File ID: UX82748.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:16

Sample wt/vol: 6.31(g) | Date Analyzed: 06/17/2011 01:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 23.6 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-8-10 | Lab Sample ID: 240-820-11

Matrix: Solid | Lab File ID: UX82747.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:13

Sample wt/vol: 6.14(g) | Date Analyzed: 06/17/2011 01:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.6 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.8	U	4.8	0.60
71-55-6	1,1,1-Trichloroethane	4.8	U	4.8	0.54
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U	4.8	0.33
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.8	U	4.8	1.3
75-34-3	1,1-Dichloroethane	4.8	U	4.8	0.35
75-35-4	1,1-Dichloroethene	4.8	U	4.8	0.50
563-58-6	1,1-Dichloropropene	4.8	U	4.8	0.29
87-61-6	1,2,3-Trichlorobenzene	4.8	U	4.8	0.37
96-18-4	1,2,3-Trichloropropane	4.8	U	4.8	0.87
526-73-8	1,2,3-Trimethylbenzene	4.8	U	4.8	0.16
120-82-1	1,2,4-Trichlorobenzene	4.8	U	4.8	0.26
95-63-6	1,2,4-Trimethylbenzene	4.8	U	4.8	0.63
96-12-8	1,2-Dibromo-3-Chloropropane	9.7	U	9.7	1.3
95-50-1	1,2-Dichlorobenzene	4.8	U	4.8	0.35
107-06-2	1,2-Dichloroethane	4.8	U	4.8	0.33
78-87-5	1,2-Dichloropropane	4.8	U	4.8	0.67
541-73-1	1,3-Dichlorobenzene	4.8	U	4.8	0.34
142-28-9	1,3-Dichloropropane	4.8	U	4.8	0.33
106-46-7	1,4-Dichlorobenzene	4.8	U	4.8	0.64
594-20-7	2,2-Dichloropropane	4.8	U	4.8	0.91
78-93-3	2-Butanone	19	U	19	1.4
110-75-8	2-Chloroethyl vinyl ether	48	U	48	1.4
95-49-8	2-Chlorotoluene	4.8	U	4.8	0.39
591-78-6	2-Hexanone	19	U	19	0.61
106-43-4	4-Chlorotoluene	4.8	U	4.8	0.40
99-87-6	p-Isopropyltoluene	4.8	U	4.8	0.20
108-10-1	4-Methyl-2-pentanone	19	U	19	0.52
67-64-1	Acetone	22		19	6.1
71-43-2	Benzene	4.8	U	4.8	0.22
108-86-1	Bromobenzene	4.8	U	4.8	0.32
75-25-2	Bromoform	4.8	U	4.8	0.32
74-83-9	Bromomethane	4.8	U	4.8	0.52
75-15-0	Carbon disulfide	4.8	U	4.8	0.42
56-23-5	Carbon tetrachloride	4.8	U	4.8	0.36
108-90-7	Chlorobenzene	4.8	U	4.8	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-8-10 | Lab Sample ID: 240-820-11

Matrix: Solid | Lab File ID: UX82747.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:13

Sample wt/vol: 6.14(g) | Date Analyzed: 06/17/2011 01:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.6 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.8	U	4.8	0.53
75-00-3	Chloroethane	4.8	U	4.8	0.83
67-66-3	Chloroform	4.8	U	4.8	0.28
74-87-3	Chloromethane	4.8	U	4.8	0.40
156-59-2	cis-1,2-Dichloroethene	4.8	U	4.8	0.35
10061-01-5	cis-1,3-Dichloropropene	4.8	U	4.8	0.33
74-95-3	Dibromomethane	4.8	U	4.8	0.61
74-97-5	Bromochloromethane	4.8	U	4.8	0.69
75-71-8	Dichlorodifluoromethane	4.8	U	4.8	0.48
75-27-4	Bromodichloromethane	4.8	U	4.8	0.27
75-65-0	tert-Butyl alcohol	190	U	190	7.3
100-41-4	Ethylbenzene	4.8	U	4.8	0.25
87-68-3	Hexachlorobutadiene	4.8	U	4.8	1.2
108-20-3	Diisopropyl ether	9.7	U	9.7	1.4
98-82-8	Isopropylbenzene	4.8	U	4.8	0.15
1634-04-4	Methyl tert-butyl ether	19	U	19	0.42
75-09-2	Methylene Chloride	4.8	U	4.8	0.65
179601-23-1	m-Xylene & p-Xylene	9.7	U	9.7	1.2
91-20-3	Naphthalene	4.8	U	4.8	0.18
104-51-8	n-Butylbenzene	4.8	U	4.8	0.22
103-65-1	n-Propylbenzene	4.8	U	4.8	0.39
95-47-6	o-Xylene	4.8	U	4.8	0.34
135-98-8	sec-Butylbenzene	4.8	U	4.8	0.17
100-42-5	Styrene	4.8	U	4.8	0.14
994-05-8	Tert-amyl-methyl ether (TAME)	4.8	U	4.8	0.36
637-92-3	Ethyl-t-butyl ether (ETBE)	4.8	U	4.8	0.21
127-18-4	Tetrachloroethene	4.8	U	4.8	0.50
108-88-3	Toluene	4.8	U	4.8	0.26
156-60-5	trans-1,2-Dichloroethene	4.8	U	4.8	0.40
10061-02-6	trans-1,3-Dichloropropene	4.8	U	4.8	0.52
79-01-6	Trichloroethene	0.81	J	4.8	0.41
75-69-4	Trichlorofluoromethane	4.8	U	4.8	0.33
108-05-4	Vinyl acetate	9.7	U	9.7	0.24
75-01-4	Vinyl chloride	4.8	U	4.8	0.38
1330-20-7	Xylenes, Total	9.7	U	9.7	0.65

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-8-10 Lab Sample ID: 240-820-11

Matrix: Solid Lab File ID: UX82747.D

Analysis Method: 8260B Date Collected: 06/06/2011 15:13

Sample wt/vol: 6.14(g) Date Analyzed: 06/17/2011 01:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.6 Level: (low/med) Low

Analysis Batch No.: 5087 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.8	U	4.8	0.28
106-93-4	1,2-Dibromoethane	4.8	U	4.8	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		67-125
1868-53-7	Dibromofluoromethane (Surr)	92		37-132
460-00-4	4-Bromofluorobenzene (Surr)	95		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-8-10 | Lab Sample ID: 240-820-11

Matrix: Solid | Lab File ID: UX82747.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:13

Sample wt/vol: 6.14(g) | Date Analyzed: 06/17/2011 01:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 15.6 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-0-2 | Lab Sample ID: 240-820-13

Matrix: Solid | Lab File ID: UX82749.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:55

Sample wt/vol: 6.4(g) | Date Analyzed: 06/17/2011 01:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.0 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.4	U	4.4	0.55
71-55-6	1,1,1-Trichloroethane	4.4	U	4.4	0.50
79-34-5	1,1,2,2-Tetrachloroethane	4.4	U	4.4	0.30
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.4	U	4.4	1.2
75-34-3	1,1-Dichloroethane	4.4	U	4.4	0.32
75-35-4	1,1-Dichloroethene	4.4	U	4.4	0.46
563-58-6	1,1-Dichloropropene	4.4	U	4.4	0.27
87-61-6	1,2,3-Trichlorobenzene	4.4	U	4.4	0.34
96-18-4	1,2,3-Trichloropropane	4.4	U	4.4	0.80
526-73-8	1,2,3-Trimethylbenzene	4.4	U	4.4	0.15
120-82-1	1,2,4-Trichlorobenzene	4.4	U	4.4	0.24
95-63-6	1,2,4-Trimethylbenzene	4.4	U	4.4	0.58
96-12-8	1,2-Dibromo-3-Chloropropane	8.9	U	8.9	1.2
95-50-1	1,2-Dichlorobenzene	4.4	U	4.4	0.32
107-06-2	1,2-Dichloroethane	4.4	U	4.4	0.30
78-87-5	1,2-Dichloropropane	4.4	U	4.4	0.61
541-73-1	1,3-Dichlorobenzene	4.4	U	4.4	0.31
142-28-9	1,3-Dichloropropane	4.4	U	4.4	0.30
106-46-7	1,4-Dichlorobenzene	4.4	U	4.4	0.59
594-20-7	2,2-Dichloropropane	4.4	U	4.4	0.83
78-93-3	2-Butanone	18	U	18	1.2
110-75-8	2-Chloroethyl vinyl ether	44	U	44	1.2
95-49-8	2-Chlorotoluene	4.4	U	4.4	0.36
591-78-6	2-Hexanone	18	U	18	0.56
106-43-4	4-Chlorotoluene	4.4	U	4.4	0.36
99-87-6	p-Isopropyltoluene	4.4	U	4.4	0.19
108-10-1	4-Methyl-2-pentanone	18	U	18	0.48
67-64-1	Acetone	18	U	18	5.6
71-43-2	Benzene	4.4	U	4.4	0.20
108-86-1	Bromobenzene	4.4	U	4.4	0.29
75-25-2	Bromoform	4.4	U	4.4	0.29
74-83-9	Bromomethane	4.4	U	4.4	0.48
75-15-0	Carbon disulfide	4.4	U	4.4	0.39
56-23-5	Carbon tetrachloride	4.4	U	4.4	0.33
108-90-7	Chlorobenzene	4.4	U	4.4	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-0-2 | Lab Sample ID: 240-820-13

Matrix: Solid | Lab File ID: UX82749.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:55

Sample wt/vol: 6.4(g) | Date Analyzed: 06/17/2011 01:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.0 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.4	U	4.4	0.49
75-00-3	Chloroethane	4.4	U	4.4	0.76
67-66-3	Chloroform	4.4	U	4.4	0.26
74-87-3	Chloromethane	4.4	U	4.4	0.36
156-59-2	cis-1,2-Dichloroethene	4.4	U	4.4	0.32
10061-01-5	cis-1,3-Dichloropropene	4.4	U	4.4	0.30
74-95-3	Dibromomethane	4.4	U	4.4	0.56
74-97-5	Bromochloromethane	4.4	U	4.4	0.63
75-71-8	Dichlorodifluoromethane	4.4	U	4.4	0.44
75-27-4	Bromodichloromethane	4.4	U	4.4	0.25
75-65-0	tert-Butyl alcohol	180	U	180	6.7
100-41-4	Ethylbenzene	4.4	U	4.4	0.23
87-68-3	Hexachlorobutadiene	4.4	U	4.4	1.1
108-20-3	Diisopropyl ether	8.9	U	8.9	1.3
98-82-8	Isopropylbenzene	4.4	U	4.4	0.14
1634-04-4	Methyl tert-butyl ether	18	U	18	0.38
75-09-2	Methylene Chloride	4.4	U	4.4	0.59
179601-23-1	m-Xylene & p-Xylene	8.9	U	8.9	1.1
91-20-3	Naphthalene	4.4	U	4.4	0.17
104-51-8	n-Butylbenzene	4.4	U	4.4	0.20
103-65-1	n-Propylbenzene	4.4	U	4.4	0.36
95-47-6	o-Xylene	4.4	U	4.4	0.31
135-98-8	sec-Butylbenzene	4.4	U	4.4	0.16
100-42-5	Styrene	4.4	U	4.4	0.13
994-05-8	Tert-amyl-methyl ether (TAME)	4.4	U	4.4	0.33
637-92-3	Ethyl-t-butyl ether (ETBE)	4.4	U	4.4	0.20
127-18-4	Tetrachloroethene	4.4	U	4.4	0.46
108-88-3	Toluene	4.4	U	4.4	0.24
156-60-5	trans-1,2-Dichloroethene	4.4	U	4.4	0.36
10061-02-6	trans-1,3-Dichloropropene	4.4	U	4.4	0.48
79-01-6	Trichloroethene	4.4	U	4.4	0.37
75-69-4	Trichlorofluoromethane	4.4	U	4.4	0.30
108-05-4	Vinyl acetate	8.9	U	8.9	0.22
75-01-4	Vinyl chloride	4.4	U	4.4	0.35
1330-20-7	Xylenes, Total	8.9	U	8.9	0.59

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-0-2 Lab Sample ID: 240-820-13

Matrix: Solid Lab File ID: UX82749.D

Analysis Method: 8260B Date Collected: 06/06/2011 15:55

Sample wt/vol: 6.4(g) Date Analyzed: 06/17/2011 01:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.0 Level: (low/med) Low

Analysis Batch No.: 5087 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.4	U	4.4	0.26
106-93-4	1,2-Dibromoethane	4.4	U	4.4	0.44

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		67-125
1868-53-7	Dibromofluoromethane (Surr)	93		37-132
460-00-4	4-Bromofluorobenzene (Surr)	98		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-0-2 | Lab Sample ID: 240-820-13

Matrix: Solid | Lab File ID: UX82749.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:55

Sample wt/vol: 6.4(g) | Date Analyzed: 06/17/2011 01:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 12.0 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-6-8 | Lab Sample ID: 240-820-14

Matrix: Solid | Lab File ID: UX82750.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:58

Sample wt/vol: 5.77(g) | Date Analyzed: 06/17/2011 02:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 20.3 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.4	U	5.4	0.67
71-55-6	1,1,1-Trichloroethane	5.4	U	5.4	0.61
79-34-5	1,1,2,2-Tetrachloroethane	5.4	U	5.4	0.37
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	5.4	U	5.4	1.4
75-34-3	1,1-Dichloroethane	5.4	U	5.4	0.39
75-35-4	1,1-Dichloroethene	5.4	U	5.4	0.57
563-58-6	1,1-Dichloropropene	5.4	U	5.4	0.33
87-61-6	1,2,3-Trichlorobenzene	5.4	U	5.4	0.41
96-18-4	1,2,3-Trichloropropane	5.4	U	5.4	0.98
526-73-8	1,2,3-Trimethylbenzene	5.4	U	5.4	0.18
120-82-1	1,2,4-Trichlorobenzene	5.4	U	5.4	0.29
95-63-6	1,2,4-Trimethylbenzene	5.4	U	5.4	0.71
96-12-8	1,2-Dibromo-3-Chloropropane	11	U	11	1.4
95-50-1	1,2-Dichlorobenzene	5.4	U	5.4	0.39
107-06-2	1,2-Dichloroethane	5.4	U	5.4	0.37
78-87-5	1,2-Dichloropropane	5.4	U	5.4	0.75
541-73-1	1,3-Dichlorobenzene	5.4	U	5.4	0.38
142-28-9	1,3-Dichloropropane	5.4	U	5.4	0.37
106-46-7	1,4-Dichlorobenzene	5.4	U	5.4	0.72
594-20-7	2,2-Dichloropropane	5.4	U	5.4	1.0
78-93-3	2-Butanone	22	U	22	1.5
110-75-8	2-Chloroethyl vinyl ether	54	U	54	1.5
95-49-8	2-Chlorotoluene	5.4	U	5.4	0.43
591-78-6	2-Hexanone	22	U	22	0.68
106-43-4	4-Chlorotoluene	5.4	U	5.4	0.45
99-87-6	p-Isopropyltoluene	5.4	U	5.4	0.23
108-10-1	4-Methyl-2-pentanone	22	U	22	0.59
67-64-1	Acetone	22	U	22	6.8
71-43-2	Benzene	5.4	U	5.4	0.25
108-86-1	Bromobenzene	5.4	U	5.4	0.36
75-25-2	Bromoform	5.4	U	5.4	0.36
74-83-9	Bromomethane	5.4	U	5.4	0.59
75-15-0	Carbon disulfide	5.4	U	5.4	0.48
56-23-5	Carbon tetrachloride	5.4	U	5.4	0.40
108-90-7	Chlorobenzene	5.4	U	5.4	0.36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-6-8 | Lab Sample ID: 240-820-14

Matrix: Solid | Lab File ID: UX82750.D

Analysis Method: 8260B | Date Collected: 06/06/2011 15:58

Sample wt/vol: 5.77(g) | Date Analyzed: 06/17/2011 02:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 20.3 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.4	U	5.4	0.60
75-00-3	Chloroethane	5.4	U	5.4	0.94
67-66-3	Chloroform	5.4	U	5.4	0.32
74-87-3	Chloromethane	5.4	U	5.4	0.45
156-59-2	cis-1,2-Dichloroethene	5.4	U	5.4	0.39
10061-01-5	cis-1,3-Dichloropropene	5.4	U	5.4	0.37
74-95-3	Dibromomethane	5.4	U	5.4	0.68
74-97-5	Bromochloromethane	5.4	U	5.4	0.77
75-71-8	Dichlorodifluoromethane	5.4	U	5.4	0.54
75-27-4	Bromodichloromethane	5.4	U	5.4	0.30
75-65-0	tert-Butyl alcohol	220	U	220	8.3
100-41-4	Ethylbenzene	5.4	U	5.4	0.28
87-68-3	Hexachlorobutadiene	5.4	U	5.4	1.3
108-20-3	Diisopropyl ether	11	U	11	1.6
98-82-8	Isopropylbenzene	5.4	U	5.4	0.17
1634-04-4	Methyl tert-butyl ether	22	U	22	0.47
75-09-2	Methylene Chloride	5.4	U	5.4	0.73
179601-23-1	m-Xylene & p-Xylene	11	U	11	1.3
91-20-3	Naphthalene	5.4	U	5.4	0.21
104-51-8	n-Butylbenzene	5.4	U	5.4	0.25
103-65-1	n-Propylbenzene	5.4	U	5.4	0.43
95-47-6	o-Xylene	5.4	U	5.4	0.38
135-98-8	sec-Butylbenzene	5.4	U	5.4	0.20
100-42-5	Styrene	5.4	U	5.4	0.16
994-05-8	Tert-amyl-methyl ether (TAME)	5.4	U	5.4	0.40
637-92-3	Ethyl-t-butyl ether (ETBE)	5.4	U	5.4	0.24
127-18-4	Tetrachloroethene	5.4	U	5.4	0.57
108-88-3	Toluene	5.4	U	5.4	0.29
156-60-5	trans-1,2-Dichloroethene	5.4	U	5.4	0.45
10061-02-6	trans-1,3-Dichloropropene	5.4	U	5.4	0.59
79-01-6	Trichloroethene	5.4	U	5.4	0.46
75-69-4	Trichlorofluoromethane	5.4	U	5.4	0.37
108-05-4	Vinyl acetate	11	U	11	0.27
75-01-4	Vinyl chloride	5.4	U	5.4	0.42
1330-20-7	Xylenes, Total	11	U	11	0.73

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-6-8 Lab Sample ID: 240-820-14

Matrix: Solid Lab File ID: UX82750.D

Analysis Method: 8260B Date Collected: 06/06/2011 15:58

Sample wt/vol: 5.77(g) Date Analyzed: 06/17/2011 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 20.3 Level: (low/med) Low

Analysis Batch No.: 5087 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.4	U	5.4	0.32
106-93-4	1,2-Dibromoethane	5.4	U	5.4	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	89		67-125
1868-53-7	Dibromofluoromethane (Surr)	93		37-132
460-00-4	4-Bromofluorobenzene (Surr)	100		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-6-8 Lab Sample ID: 240-820-14

Matrix: Solid Lab File ID: UX82750.D

Analysis Method: 8260B Date Collected: 06/06/2011 15:58

Sample wt/vol: 5.77(g) Date Analyzed: 06/17/2011 02:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 20.3 Level: (low/med) Low

Analysis Batch No.: 5087 Units: ug/Kg

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-0-2 | Lab Sample ID: 240-820-1

Matrix: Solid | Lab File ID: 149072.D

Analysis Method: 8260B | Date Collected: 06/06/2011 10:47

Sample wt/vol: 5.85(g) | Date Analyzed: 06/16/2011 22:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 19.8 | Level: (low/med) Low

Analysis Batch No.: 5027 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.3	U	5.3	0.66
71-55-6	1,1,1-Trichloroethane	5.3	U	5.3	0.60
79-34-5	1,1,2,2-Tetrachloroethane	5.3	U	5.3	0.36
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	5.3	U	5.3	1.4
75-34-3	1,1-Dichloroethane	5.3	U	5.3	0.38
75-35-4	1,1-Dichloroethene	5.3	U	5.3	0.55
563-58-6	1,1-Dichloropropene	5.3	U	5.3	0.32
87-61-6	1,2,3-Trichlorobenzene	5.3	U	5.3	0.40
96-18-4	1,2,3-Trichloropropane	5.3	U	5.3	0.96
526-73-8	1,2,3-Trimethylbenzene	5.3	U	5.3	0.18
120-82-1	1,2,4-Trichlorobenzene	5.3	U	5.3	0.29
95-63-6	1,2,4-Trimethylbenzene	5.3	U	5.3	0.69
96-12-8	1,2-Dibromo-3-Chloropropane	11	U	11	1.4
95-50-1	1,2-Dichlorobenzene	5.3	U	5.3	0.38
107-06-2	1,2-Dichloroethane	5.3	U	5.3	0.36
78-87-5	1,2-Dichloropropane	5.3	U	5.3	0.74
541-73-1	1,3-Dichlorobenzene	5.3	U	5.3	0.37
142-28-9	1,3-Dichloropropane	5.3	U	5.3	0.36
106-46-7	1,4-Dichlorobenzene	5.3	U	5.3	0.70
594-20-7	2,2-Dichloropropane	5.3	U	5.3	1.0
78-93-3	2-Butanone	21	U	21	1.5
110-75-8	2-Chloroethyl vinyl ether	53	U	53	1.5
95-49-8	2-Chlorotoluene	5.3	U	5.3	0.43
591-78-6	2-Hexanone	21	U	21	0.67
106-43-4	4-Chlorotoluene	5.3	U	5.3	0.44
99-87-6	p-Isopropyltoluene	5.3	U	5.3	0.22
108-10-1	4-Methyl-2-pentanone	21	U	21	0.58
67-64-1	Acetone	21	U	21	6.7
71-43-2	Benzene	5.3	U	5.3	0.25
108-86-1	Bromobenzene	5.3	U	5.3	0.35
75-25-2	Bromoform	5.3	U	5.3	0.35
74-83-9	Bromomethane	5.3	U	5.3	0.58
75-15-0	Carbon disulfide	5.3	U	5.3	0.47
56-23-5	Carbon tetrachloride	5.3	U	5.3	0.39
108-90-7	Chlorobenzene	5.3	U	5.3	0.35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-0-2 | Lab Sample ID: 240-820-1

Matrix: Solid | Lab File ID: 149072.D

Analysis Method: 8260B | Date Collected: 06/06/2011 10:47

Sample wt/vol: 5.85(g) | Date Analyzed: 06/16/2011 22:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 19.8 | Level: (low/med) Low

Analysis Batch No.: 5027 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.3	U	5.3	0.59
75-00-3	Chloroethane	5.3	U *	5.3	0.92
67-66-3	Chloroform	5.3	U	5.3	0.31
74-87-3	Chloromethane	5.3	U	5.3	0.44
156-59-2	cis-1,2-Dichloroethene	5.3	U	5.3	0.38
10061-01-5	cis-1,3-Dichloropropene	5.3	U	5.3	0.36
74-95-3	Dibromomethane	5.3	U	5.3	0.67
74-97-5	Bromochloromethane	5.3	U	5.3	0.76
75-71-8	Dichlorodifluoromethane	5.3	U	5.3	0.53
75-27-4	Bromodichloromethane	5.3	U	5.3	0.30
75-65-0	tert-Butyl alcohol	210	U	210	8.1
100-41-4	Ethylbenzene	5.3	U	5.3	0.28
87-68-3	Hexachlorobutadiene	5.3	U	5.3	1.3
108-20-3	Diisopropyl ether	11	U	11	1.6
98-82-8	Isopropylbenzene	5.3	U	5.3	0.17
1634-04-4	Methyl tert-butyl ether	21	U	21	0.46
75-09-2	Methylene Chloride	3.4	J B	5.3	0.71
179601-23-1	m-Xylene & p-Xylene	11	U	11	1.3
91-20-3	Naphthalene	5.3	U	5.3	0.20
104-51-8	n-Butylbenzene	5.3	U	5.3	0.25
103-65-1	n-Propylbenzene	5.3	U	5.3	0.43
95-47-6	o-Xylene	5.3	U	5.3	0.37
135-98-8	sec-Butylbenzene	5.3	U	5.3	0.19
100-42-5	Styrene	5.3	U	5.3	0.16
994-05-8	Tert-amyl-methyl ether (TAME)	5.3	U	5.3	0.39
637-92-3	Ethyl-t-butyl ether (ETBE)	5.3	U	5.3	0.23
127-18-4	Tetrachloroethene	5.3	U	5.3	0.55
108-88-3	Toluene	0.37	J	5.3	0.29
156-60-5	trans-1,2-Dichloroethene	5.3	U	5.3	0.44
10061-02-6	trans-1,3-Dichloropropene	5.3	U	5.3	0.58
79-01-6	Trichloroethene	5.3	U	5.3	0.45
75-69-4	Trichlorofluoromethane	5.3	U	5.3	0.36
108-05-4	Vinyl acetate	11	U	11	0.27
75-01-4	Vinyl chloride	5.3	U	5.3	0.42
1330-20-7	Xylenes, Total	11	U	11	0.71

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-0-2 | Lab Sample ID: 240-820-1

Matrix: Solid | Lab File ID: 149072.D

Analysis Method: 8260B | Date Collected: 06/06/2011 10:47

Sample wt/vol: 5.85(g) | Date Analyzed: 06/16/2011 22:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 19.8 | Level: (low/med) Low

Analysis Batch No.: 5027 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.3	U	5.3	0.31
106-93-4	1,2-Dibromoethane	5.3	U	5.3	0.53

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	106		67-125
1868-53-7	Dibromofluoromethane (Surr)	86		37-132
460-00-4	4-Bromofluorobenzene (Surr)	96		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-0-2 Lab Sample ID: 240-820-1

Matrix: Solid Lab File ID: 149072.D

Analysis Method: 8260B Date Collected: 06/06/2011 10:47

Sample wt/vol: 5.85(g) Date Analyzed: 06/16/2011 22:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 19.8 Level: (low/med) Low

Analysis Batch No.: 5027 Units: ug/Kg

Number TICs Found: 1 TIC Result Total: 9.2

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	
79-20-9	Methyl acetate	3.78	9.2	J

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-6-8 Lab Sample ID: 240-820-2

Matrix: Solid Lab File ID: 149073.D

Analysis Method: 8260B Date Collected: 06/06/2011 10:50

Sample wt/vol: 6.07(g) Date Analyzed: 06/16/2011 23:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 21.4 Level: (low/med) Low

Analysis Batch No.: 5027 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.2	U	5.2	0.65
71-55-6	1,1,1-Trichloroethane	5.2	U	5.2	0.59
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	5.2	0.36
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	5.2	U	5.2	1.4
75-34-3	1,1-Dichloroethane	5.2	U	5.2	0.38
75-35-4	1,1-Dichloroethene	5.2	U	5.2	0.55
563-58-6	1,1-Dichloropropene	5.2	U	5.2	0.31
87-61-6	1,2,3-Trichlorobenzene	5.2	U	5.2	0.40
96-18-4	1,2,3-Trichloropropane	5.2	U	5.2	0.94
526-73-8	1,2,3-Trimethylbenzene	5.2	U	5.2	0.18
120-82-1	1,2,4-Trichlorobenzene	5.2	U	5.2	0.28
95-63-6	1,2,4-Trimethylbenzene	5.2	U	5.2	0.68
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	1.4
95-50-1	1,2-Dichlorobenzene	5.2	U	5.2	0.38
107-06-2	1,2-Dichloroethane	5.2	U	5.2	0.36
78-87-5	1,2-Dichloropropane	5.2	U	5.2	0.72
541-73-1	1,3-Dichlorobenzene	5.2	U	5.2	0.37
142-28-9	1,3-Dichloropropane	5.2	U	5.2	0.36
106-46-7	1,4-Dichlorobenzene	5.2	U	5.2	0.69
594-20-7	2,2-Dichloropropane	5.2	U	5.2	0.99
78-93-3	2-Butanone	21	U	21	1.5
110-75-8	2-Chloroethyl vinyl ether	52	U	52	1.5
95-49-8	2-Chlorotoluene	5.2	U	5.2	0.42
591-78-6	2-Hexanone	21	U	21	0.66
106-43-4	4-Chlorotoluene	5.2	U	5.2	0.43
99-87-6	p-Isopropyltoluene	5.2	U	5.2	0.22
108-10-1	4-Methyl-2-pentanone	21	U	21	0.57
67-64-1	Acetone	46	B	21	6.6
71-43-2	Benzene	5.2	U	5.2	0.24
108-86-1	Bromobenzene	5.2	U	5.2	0.35
75-25-2	Bromoform	5.2	U	5.2	0.35
74-83-9	Bromomethane	5.2	U	5.2	0.57
75-15-0	Carbon disulfide	5.2	U	5.2	0.46
56-23-5	Carbon tetrachloride	5.2	U	5.2	0.39
108-90-7	Chlorobenzene	5.2	U	5.2	0.35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-6-8 | Lab Sample ID: 240-820-2

Matrix: Solid | Lab File ID: 149073.D

Analysis Method: 8260B | Date Collected: 06/06/2011 10:50

Sample wt/vol: 6.07(g) | Date Analyzed: 06/16/2011 23:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 21.4 | Level: (low/med) Low

Analysis Batch No.: 5027 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.2	U	5.2	0.58
75-00-3	Chloroethane	5.2	U *	5.2	0.90
67-66-3	Chloroform	5.2	U	5.2	0.30
74-87-3	Chloromethane	5.2	U	5.2	0.43
156-59-2	cis-1,2-Dichloroethene	5.2	U	5.2	0.38
10061-01-5	cis-1,3-Dichloropropene	5.2	U	5.2	0.36
74-95-3	Dibromomethane	5.2	U	5.2	0.66
74-97-5	Bromochloromethane	5.2	U	5.2	0.74
75-71-8	Dichlorodifluoromethane	5.2	U	5.2	0.52
75-27-4	Bromodichloromethane	5.2	U	5.2	0.29
75-65-0	tert-Butyl alcohol	210	U	210	8.0
100-41-4	Ethylbenzene	5.2	U	5.2	0.27
87-68-3	Hexachlorobutadiene	5.2	U	5.2	1.3
108-20-3	Diisopropyl ether	10	U	10	1.6
98-82-8	Isopropylbenzene	5.2	U	5.2	0.17
1634-04-4	Methyl tert-butyl ether	21	U	21	0.45
75-09-2	Methylene Chloride	4.8	J B	5.2	0.70
179601-23-1	m-Xylene & p-Xylene	10	U	10	1.3
91-20-3	Naphthalene	5.2	U	5.2	0.20
104-51-8	n-Butylbenzene	5.2	U	5.2	0.24
103-65-1	n-Propylbenzene	5.2	U	5.2	0.42
95-47-6	o-Xylene	5.2	U	5.2	0.37
135-98-8	sec-Butylbenzene	5.2	U	5.2	0.19
100-42-5	Styrene	5.2	U	5.2	0.16
994-05-8	Tert-amyl-methyl ether (TAME)	5.2	U	5.2	0.39
637-92-3	Ethyl-t-butyl ether (ETBE)	5.2	U	5.2	0.23
127-18-4	Tetrachloroethene	5.2	U	5.2	0.55
108-88-3	Toluene	0.40	J	5.2	0.28
156-60-5	trans-1,2-Dichloroethene	5.2	U	5.2	0.43
10061-02-6	trans-1,3-Dichloropropene	5.2	U	5.2	0.57
79-01-6	Trichloroethene	5.2	U	5.2	0.44
75-69-4	Trichlorofluoromethane	5.2	U	5.2	0.36
108-05-4	Vinyl acetate	10	U	10	0.26
75-01-4	Vinyl chloride	5.2	U	5.2	0.41
1330-20-7	Xylenes, Total	10	U	10	0.70

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-6-8 Lab Sample ID: 240-820-2

Matrix: Solid Lab File ID: 149073.D

Analysis Method: 8260B Date Collected: 06/06/2011 10:50

Sample wt/vol: 6.07(g) Date Analyzed: 06/16/2011 23:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 21.4 Level: (low/med) Low

Analysis Batch No.: 5027 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.2	U	5.2	0.30
106-93-4	1,2-Dibromoethane	5.2	U	5.2	0.52

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		67-125
1868-53-7	Dibromofluoromethane (Surr)	87		37-132
460-00-4	4-Bromofluorobenzene (Surr)	92		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-6-8 Lab Sample ID: 240-820-2

Matrix: Solid Lab File ID: 149073.D

Analysis Method: 8260B Date Collected: 06/06/2011 10:50

Sample wt/vol: 6.07(g) Date Analyzed: 06/16/2011 23:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 21.4 Level: (low/med) Low

Analysis Batch No.: 5027 Units: ug/Kg

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-0-2 | Lab Sample ID: 240-820-16

Matrix: Solid | Lab File ID: UX82752.D

Analysis Method: 8260B | Date Collected: 06/06/2011 16:42

Sample wt/vol: 5.42(g) | Date Analyzed: 06/17/2011 03:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 14.3 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.4	U	5.4	0.67
71-55-6	1,1,1-Trichloroethane	5.4	U	5.4	0.60
79-34-5	1,1,2,2-Tetrachloroethane	5.4	U	5.4	0.37
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	5.4	U	5.4	1.4
75-34-3	1,1-Dichloroethane	5.4	U	5.4	0.39
75-35-4	1,1-Dichloroethene	5.4	U	5.4	0.56
563-58-6	1,1-Dichloropropene	5.4	U	5.4	0.32
87-61-6	1,2,3-Trichlorobenzene	5.4	U	5.4	0.41
96-18-4	1,2,3-Trichloropropane	5.4	U	5.4	0.97
526-73-8	1,2,3-Trimethylbenzene	5.4	U	5.4	0.18
120-82-1	1,2,4-Trichlorobenzene	5.4	U	5.4	0.29
95-63-6	1,2,4-Trimethylbenzene	5.4	U	5.4	0.70
96-12-8	1,2-Dibromo-3-Chloropropane	11	U	11	1.4
95-50-1	1,2-Dichlorobenzene	5.4	U	5.4	0.39
107-06-2	1,2-Dichloroethane	5.4	U	5.4	0.37
78-87-5	1,2-Dichloropropane	5.4	U	5.4	0.74
541-73-1	1,3-Dichlorobenzene	5.4	U	5.4	0.38
142-28-9	1,3-Dichloropropane	5.4	U	5.4	0.37
106-46-7	1,4-Dichlorobenzene	5.4	U	5.4	0.71
594-20-7	2,2-Dichloropropane	5.4	U	5.4	1.0
78-93-3	2-Butanone	22	U	22	1.5
110-75-8	2-Chloroethyl vinyl ether	54	U	54	1.5
95-49-8	2-Chlorotoluene	5.4	U	5.4	0.43
591-78-6	2-Hexanone	22	U	22	0.68
106-43-4	4-Chlorotoluene	5.4	U	5.4	0.44
99-87-6	p-Isopropyltoluene	5.4	U	5.4	0.23
108-10-1	4-Methyl-2-pentanone	22	U	22	0.58
67-64-1	Acetone	22	U	22	6.8
71-43-2	Benzene	5.4	U	5.4	0.25
108-86-1	Bromobenzene	5.4	U	5.4	0.36
75-25-2	Bromoform	5.4	U	5.4	0.36
74-83-9	Bromomethane	5.4	U	5.4	0.58
75-15-0	Carbon disulfide	5.4	U	5.4	0.47
56-23-5	Carbon tetrachloride	5.4	U	5.4	0.40
108-90-7	Chlorobenzene	5.4	U	5.4	0.36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-0-2 | Lab Sample ID: 240-820-16

Matrix: Solid | Lab File ID: UX82752.D

Analysis Method: 8260B | Date Collected: 06/06/2011 16:42

Sample wt/vol: 5.42(g) | Date Analyzed: 06/17/2011 03:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 14.3 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.4	U	5.4	0.59
75-00-3	Chloroethane	5.4	U	5.4	0.93
67-66-3	Chloroform	5.4	U	5.4	0.31
74-87-3	Chloromethane	5.4	U	5.4	0.44
156-59-2	cis-1,2-Dichloroethene	5.4	U	5.4	0.39
10061-01-5	cis-1,3-Dichloropropene	5.4	U	5.4	0.37
74-95-3	Dibromomethane	5.4	U	5.4	0.68
74-97-5	Bromochloromethane	5.4	U	5.4	0.76
75-71-8	Dichlorodifluoromethane	5.4	U	5.4	0.54
75-27-4	Bromodichloromethane	5.4	U	5.4	0.30
75-65-0	tert-Butyl alcohol	220	U	220	8.2
100-41-4	Ethylbenzene	5.4	U	5.4	0.28
87-68-3	Hexachlorobutadiene	5.4	U	5.4	1.3
108-20-3	Diisopropyl ether	11	U	11	1.6
98-82-8	Isopropylbenzene	5.4	U	5.4	0.17
1634-04-4	Methyl tert-butyl ether	22	U	22	0.46
75-09-2	Methylene Chloride	5.4	U	5.4	0.72
179601-23-1	m-Xylene & p-Xylene	11	U	11	1.3
91-20-3	Naphthalene	5.4	U	5.4	0.20
104-51-8	n-Butylbenzene	5.4	U	5.4	0.25
103-65-1	n-Propylbenzene	5.4	U	5.4	0.43
95-47-6	o-Xylene	5.4	U	5.4	0.38
135-98-8	sec-Butylbenzene	5.4	U	5.4	0.19
100-42-5	Styrene	5.4	U	5.4	0.16
994-05-8	Tert-amyl-methyl ether (TAME)	5.4	U	5.4	0.40
637-92-3	Ethyl-t-butyl ether (ETBE)	5.4	U	5.4	0.24
127-18-4	Tetrachloroethene	5.4	U	5.4	0.56
108-88-3	Toluene	5.4	U	5.4	0.29
156-60-5	trans-1,2-Dichloroethene	5.4	U	5.4	0.44
10061-02-6	trans-1,3-Dichloropropene	5.4	U	5.4	0.58
79-01-6	Trichloroethene	5.4	U	5.4	0.45
75-69-4	Trichlorofluoromethane	5.4	U	5.4	0.37
108-05-4	Vinyl acetate	11	U	11	0.27
75-01-4	Vinyl chloride	5.4	U	5.4	0.42
1330-20-7	Xylenes, Total	11	U	11	0.72

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-0-2 | Lab Sample ID: 240-820-16

Matrix: Solid | Lab File ID: UX82752.D

Analysis Method: 8260B | Date Collected: 06/06/2011 16:42

Sample wt/vol: 5.42(g) | Date Analyzed: 06/17/2011 03:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 14.3 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.4	U	5.4	0.31
106-93-4	1,2-Dibromoethane	5.4	U	5.4	0.54

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		67-125
1868-53-7	Dibromofluoromethane (Surr)	90		37-132
460-00-4	4-Bromofluorobenzene (Surr)	99		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-0-2 | Lab Sample ID: 240-820-16

Matrix: Solid | Lab File ID: UX82752.D

Analysis Method: 8260B | Date Collected: 06/06/2011 16:42

Sample wt/vol: 5.42(g) | Date Analyzed: 06/17/2011 03:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 14.3 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I-TIC 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-20-22 | Lab Sample ID: 240-820-18

Matrix: Solid | Lab File ID: UX82754.D

Analysis Method: 8260B | Date Collected: 06/06/2011 16:50

Sample wt/vol: 6.34(g) | Date Analyzed: 06/17/2011 03:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.7 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.9	U	4.9	0.60
71-55-6	1,1,1-Trichloroethane	4.9	U	4.9	0.54
79-34-5	1,1,2,2-Tetrachloroethane	4.9	U	4.9	0.33
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	4.9	U	4.9	1.3
75-34-3	1,1-Dichloroethane	4.9	U	4.9	0.35
75-35-4	1,1-Dichloroethene	4.9	U	4.9	0.50
563-58-6	1,1-Dichloropropene	4.9	U	4.9	0.29
87-61-6	1,2,3-Trichlorobenzene	4.9	U	4.9	0.37
96-18-4	1,2,3-Trichloropropane	4.9	U	4.9	0.87
526-73-8	1,2,3-Trimethylbenzene	4.9	U	4.9	0.16
120-82-1	1,2,4-Trichlorobenzene	4.9	U	4.9	0.26
95-63-6	1,2,4-Trimethylbenzene	4.9	U	4.9	0.63
96-12-8	1,2-Dibromo-3-Chloropropane	9.7	U	9.7	1.3
95-50-1	1,2-Dichlorobenzene	4.9	U	4.9	0.35
107-06-2	1,2-Dichloroethane	4.9	U	4.9	0.33
78-87-5	1,2-Dichloropropane	4.9	U	4.9	0.67
541-73-1	1,3-Dichlorobenzene	4.9	U	4.9	0.34
142-28-9	1,3-Dichloropropane	4.9	U	4.9	0.33
106-46-7	1,4-Dichlorobenzene	4.9	U	4.9	0.64
594-20-7	2,2-Dichloropropane	4.9	U	4.9	0.91
78-93-3	2-Butanone	19	U	19	1.4
110-75-8	2-Chloroethyl vinyl ether	49	U	49	1.4
95-49-8	2-Chlorotoluene	4.9	U	4.9	0.39
591-78-6	2-Hexanone	19	U	19	0.61
106-43-4	4-Chlorotoluene	4.9	U	4.9	0.40
99-87-6	p-Isopropyltoluene	4.9	U	4.9	0.20
108-10-1	4-Methyl-2-pentanone	19	U	19	0.52
67-64-1	Acetone	9.6	J	19	6.1
71-43-2	Benzene	4.9	U	4.9	0.22
108-86-1	Bromobenzene	4.9	U	4.9	0.32
75-25-2	Bromoform	4.9	U	4.9	0.32
74-83-9	Bromomethane	4.9	U	4.9	0.52
75-15-0	Carbon disulfide	4.9	U	4.9	0.43
56-23-5	Carbon tetrachloride	4.9	U	4.9	0.36
108-90-7	Chlorobenzene	4.9	U	4.9	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-20-22 Lab Sample ID: 240-820-18

Matrix: Solid Lab File ID: UX82754.D

Analysis Method: 8260B Date Collected: 06/06/2011 16:50

Sample wt/vol: 6.34(g) Date Analyzed: 06/17/2011 03:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.7 Level: (low/med) Low

Analysis Batch No.: 5087 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.9	U	4.9	0.53
75-00-3	Chloroethane	4.9	U	4.9	0.83
67-66-3	Chloroform	4.9	U	4.9	0.28
74-87-3	Chloromethane	4.9	U	4.9	0.40
156-59-2	cis-1,2-Dichloroethene	4.9	U	4.9	0.35
10061-01-5	cis-1,3-Dichloropropene	4.9	U	4.9	0.33
74-95-3	Dibromomethane	4.9	U	4.9	0.61
74-97-5	Bromochloromethane	4.9	U	4.9	0.69
75-71-8	Dichlorodifluoromethane	4.9	U	4.9	0.49
75-27-4	Bromodichloromethane	4.9	U	4.9	0.27
75-65-0	tert-Butyl alcohol	190	U	190	7.4
100-41-4	Ethylbenzene	4.9	U	4.9	0.25
87-68-3	Hexachlorobutadiene	4.9	U	4.9	1.2
108-20-3	Diisopropyl ether	9.7	U	9.7	1.5
98-82-8	Isopropylbenzene	4.9	U	4.9	0.16
1634-04-4	Methyl tert-butyl ether	19	U	19	0.42
75-09-2	Methylene Chloride	4.9	U	4.9	0.65
179601-23-1	m-Xylene & p-Xylene	9.7	U	9.7	1.2
91-20-3	Naphthalene	1.3	J B	4.9	0.18
104-51-8	n-Butylbenzene	4.9	U	4.9	0.22
103-65-1	n-Propylbenzene	4.9	U	4.9	0.39
95-47-6	o-Xylene	4.9	U	4.9	0.34
135-98-8	sec-Butylbenzene	4.9	U	4.9	0.17
100-42-5	Styrene	4.9	U	4.9	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	4.9	U	4.9	0.36
637-92-3	Ethyl-t-butyl ether (ETBE)	4.9	U	4.9	0.21
127-18-4	Tetrachloroethene	4.9	U	4.9	0.50
108-88-3	Toluene	4.9	U	4.9	0.26
156-60-5	trans-1,2-Dichloroethene	4.9	U	4.9	0.40
10061-02-6	trans-1,3-Dichloropropene	4.9	U	4.9	0.52
79-01-6	Trichloroethene	5.5		4.9	0.41
75-69-4	Trichlorofluoromethane	4.9	U	4.9	0.33
108-05-4	Vinyl acetate	9.7	U	9.7	0.24
75-01-4	Vinyl chloride	4.9	U	4.9	0.38
1330-20-7	Xylenes, Total	9.7	U	9.7	0.65

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-20-22 Lab Sample ID: 240-820-18

Matrix: Solid Lab File ID: UX82754.D

Analysis Method: 8260B Date Collected: 06/06/2011 16:50

Sample wt/vol: 6.34(g) Date Analyzed: 06/17/2011 03:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.7 Level: (low/med) Low

Analysis Batch No.: 5087 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.9	U	4.9	0.28
106-93-4	1,2-Dibromoethane	4.9	U	4.9	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	87		67-125
1868-53-7	Dibromofluoromethane (Surr)	92		37-132
460-00-4	4-Bromofluorobenzene (Surr)	101		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-20-22 | Lab Sample ID: 240-820-18

Matrix: Solid | Lab File ID: UX82754.D

Analysis Method: 8260B | Date Collected: 06/06/2011 16:50

Sample wt/vol: 6.34(g) | Date Analyzed: 06/17/2011 03:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 18.7 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-6-8 | Lab Sample ID: 240-820-17

Matrix: Solid | Lab File ID: UX82753.D

Analysis Method: 8260B | Date Collected: 06/06/2011 16:45

Sample wt/vol: 6.22(g) | Date Analyzed: 06/17/2011 03:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 16.9 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.8	U	4.8	0.60
71-55-6	1,1,1-Trichloroethane	4.8	U	4.8	0.54
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U	4.8	0.33
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	4.8	U	4.8	1.3
75-34-3	1,1-Dichloroethane	4.8	U	4.8	0.35
75-35-4	1,1-Dichloroethene	4.8	U	4.8	0.50
563-58-6	1,1-Dichloropropene	4.8	U	4.8	0.29
87-61-6	1,2,3-Trichlorobenzene	4.8	U	4.8	0.37
96-18-4	1,2,3-Trichloropropane	4.8	U	4.8	0.87
526-73-8	1,2,3-Trimethylbenzene	4.8	U	4.8	0.16
120-82-1	1,2,4-Trichlorobenzene	4.8	U	4.8	0.26
95-63-6	1,2,4-Trimethylbenzene	4.8	U	4.8	0.63
96-12-8	1,2-Dibromo-3-Chloropropane	9.7	U	9.7	1.3
95-50-1	1,2-Dichlorobenzene	4.8	U	4.8	0.35
107-06-2	1,2-Dichloroethane	4.8	U	4.8	0.33
78-87-5	1,2-Dichloropropane	4.8	U	4.8	0.67
541-73-1	1,3-Dichlorobenzene	4.8	U	4.8	0.34
142-28-9	1,3-Dichloropropane	4.8	U	4.8	0.33
106-46-7	1,4-Dichlorobenzene	4.8	U	4.8	0.64
594-20-7	2,2-Dichloropropane	4.8	U	4.8	0.91
78-93-3	2-Butanone	19	U	19	1.4
110-75-8	2-Chloroethyl vinyl ether	48	U	48	1.4
95-49-8	2-Chlorotoluene	4.8	U	4.8	0.39
591-78-6	2-Hexanone	19	U	19	0.61
106-43-4	4-Chlorotoluene	4.8	U	4.8	0.40
99-87-6	p-Isopropyltoluene	4.8	U	4.8	0.20
108-10-1	4-Methyl-2-pentanone	19	U	19	0.52
67-64-1	Acetone	14	J	19	6.1
71-43-2	Benzene	4.8	U	4.8	0.22
108-86-1	Bromobenzene	4.8	U	4.8	0.32
75-25-2	Bromoform	4.8	U	4.8	0.32
74-83-9	Bromomethane	4.8	U	4.8	0.52
75-15-0	Carbon disulfide	4.8	U	4.8	0.43
56-23-5	Carbon tetrachloride	4.8	U	4.8	0.36
108-90-7	Chlorobenzene	4.8	U	4.8	0.32

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-6-8 | Lab Sample ID: 240-820-17

Matrix: Solid | Lab File ID: UX82753.D

Analysis Method: 8260B | Date Collected: 06/06/2011 16:45

Sample wt/vol: 6.22(g) | Date Analyzed: 06/17/2011 03:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 16.9 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.8	U	4.8	0.53
75-00-3	Chloroethane	4.8	U	4.8	0.83
67-66-3	Chloroform	4.8	U	4.8	0.28
74-87-3	Chloromethane	4.8	U	4.8	0.40
156-59-2	cis-1,2-Dichloroethene	4.8	U	4.8	0.35
10061-01-5	cis-1,3-Dichloropropene	4.8	U	4.8	0.33
74-95-3	Dibromomethane	4.8	U	4.8	0.61
74-97-5	Bromochloromethane	4.8	U	4.8	0.69
75-71-8	Dichlorodifluoromethane	4.8	U	4.8	0.48
75-27-4	Bromodichloromethane	4.8	U	4.8	0.27
75-65-0	tert-Butyl alcohol	190	U	190	7.4
100-41-4	Ethylbenzene	4.8	U	4.8	0.25
87-68-3	Hexachlorobutadiene	4.8	U	4.8	1.2
108-20-3	Diisopropyl ether	9.7	U	9.7	1.5
98-82-8	Isopropylbenzene	4.8	U	4.8	0.15
1634-04-4	Methyl tert-butyl ether	19	U	19	0.42
75-09-2	Methylene Chloride	4.8	U	4.8	0.65
179601-23-1	m-Xylene & p-Xylene	9.7	U	9.7	1.2
91-20-3	Naphthalene	4.8	U	4.8	0.18
104-51-8	n-Butylbenzene	4.8	U	4.8	0.22
103-65-1	n-Propylbenzene	4.8	U	4.8	0.39
95-47-6	o-Xylene	4.8	U	4.8	0.34
135-98-8	sec-Butylbenzene	4.8	U	4.8	0.17
100-42-5	Styrene	4.8	U	4.8	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	4.8	U	4.8	0.36
637-92-3	Ethyl-t-butyl ether (ETBE)	4.8	U	4.8	0.21
127-18-4	Tetrachloroethene	4.8	U	4.8	0.50
108-88-3	Toluene	4.8	U	4.8	0.26
156-60-5	trans-1,2-Dichloroethene	4.8	U	4.8	0.40
10061-02-6	trans-1,3-Dichloropropene	4.8	U	4.8	0.52
79-01-6	Trichloroethene	4.8	U	4.8	0.41
75-69-4	Trichlorofluoromethane	4.8	U	4.8	0.33
108-05-4	Vinyl acetate	9.7	U	9.7	0.24
75-01-4	Vinyl chloride	4.8	U	4.8	0.38
1330-20-7	Xylenes, Total	9.7	U	9.7	0.65

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-6-8 | Lab Sample ID: 240-820-17

Matrix: Solid | Lab File ID: UX82753.D

Analysis Method: 8260B | Date Collected: 06/06/2011 16:45

Sample wt/vol: 6.22(g) | Date Analyzed: 06/17/2011 03:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 16.9 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	4.8	U	4.8	0.28
106-93-4	1,2-Dibromoethane	4.8	U	4.8	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	88		67-125
1868-53-7	Dibromofluoromethane (Surr)	93		37-132
460-00-4	4-Bromofluorobenzene (Surr)	99		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-6-8 | Lab Sample ID: 240-820-17

Matrix: Solid | Lab File ID: UX82753.D

Analysis Method: 8260B | Date Collected: 06/06/2011 16:45

Sample wt/vol: 6.22(g) | Date Analyzed: 06/17/2011 03:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: 16.9 | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
	Tentatively Identified Compound		None	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 | Lab Sample ID: 240-820-4

Matrix: Solid | Lab File ID: 820G4A.D

Analysis Method: 8270D | Date Collected: 06/06/2011 11:55

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.17(g) | Date Analyzed: 06/29/2011 01:59

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	55	U	55	30
123-91-1	1,4-Dioxane	110	U	110	24
88-06-2	2,4,6-Trichlorophenol	160	U	160	88
95-95-4	2,4,5-Trichlorophenol	160	U	160	27
120-83-2	2,4-Dichlorophenol	160	U	160	22
105-67-9	2,4-Dimethylphenol	160	U	160	22
51-28-5	2,4-Dinitrophenol	360	U	360	88
121-14-2	2,4-Dinitrotoluene	220	U	220	30
91-58-7	2-Chloronaphthalene	55	U	55	3.6
95-57-8	2-Chlorophenol	55	U	55	30
91-57-6	2-Methylnaphthalene	9.3		7.3	3.6
95-48-7	2-Methylphenol	220	U	220	88
88-74-4	2-Nitroaniline	220	U	220	10
88-75-5	2-Nitrophenol	55	U	55	30
15831-10-4	3 & 4 Methylphenol	440	U	440	22
91-94-1	3,3'-Dichlorobenzidine	110	U	110	20
99-09-2	3-Nitroaniline	220	U	220	18
534-52-1	4,6-Dinitro-2-methylphenol	160	U	160	88
101-55-3	4-Bromophenyl phenyl ether	55	U	55	14
59-50-7	4-Chloro-3-methylphenol	160	U	160	23
106-47-8	4-Chloroaniline	160	U	160	19
7005-72-3	4-Chlorophenyl phenyl ether	55	U	55	14
100-01-6	4-Nitroaniline	220	U	220	29
83-32-9	Acenaphthene	28		7.3	3.6
208-96-8	Acenaphthylene	13		7.3	3.6
98-86-2	Acetophenone	110	U	110	10
120-12-7	Anthracene	68		7.3	3.6
1912-24-9	Atrazine	220	U	220	10
100-52-7	Benzaldehyde	110	U	110	13
56-55-3	Benzo[a]anthracene	230		7.3	3.6
50-32-8	Benzo[a]pyrene	220		7.3	3.6
205-99-2	Benzo[b]fluoranthene	270		7.3	3.6
191-24-2	Benzo[g,h,i]perylene	120		7.3	3.6
207-08-9	Benzo[k]fluoranthene	150		7.3	3.6

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 | Lab Sample ID: 240-820-4

Matrix: Solid | Lab File ID: 820G4A.D

Analysis Method: 8270D | Date Collected: 06/06/2011 11:55

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.17(g) | Date Analyzed: 06/29/2011 01:59

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U	110	24
111-44-4	Bis(2-chloroethyl)ether	110	U	110	2.2
117-81-7	Bis(2-ethylhexyl) phthalate	24	J	55	21
85-68-7	Butyl benzyl phthalate	55	U	55	11
105-60-2	Caprolactam	360	U	360	41
86-74-8	Carbazole	30	J	55	30
218-01-9	Chrysene	230		7.3	1.2
84-74-2	Di-n-butyl phthalate	55	U	55	16
117-84-0	Di-n-octyl phthalate	55	U	55	30
53-70-3	Dibenzo(a,h)anthracene	42		7.3	3.6
132-64-9	Dibenzofuran	55	U	55	3.6
84-66-2	Diethyl phthalate	55	U	55	18
131-11-3	Dimethyl phthalate	55	U	55	19
206-44-0	Fluoranthene	470		7.3	3.6
86-73-7	Fluorene	23		7.3	3.6
118-74-1	Hexachlorobenzene	7.3	U	7.3	2.3
87-68-3	Hexachlorobutadiene	55	U	55	30
77-47-4	Hexachlorocyclopentadiene	360	U	360	30
67-72-1	Hexachloroethane	55	U	55	9.9
193-39-5	Indeno[1,2,3-cd]pyrene	110		7.3	3.6
78-59-1	Isophorone	55	U	55	14
621-64-7	N-Nitrosodi-n-propylamine	55	U	55	30
62-75-9	N-Nitrosodimethylamine	110	U	110	18
86-30-6	N-Nitrosodiphenylamine	55	U	55	23
91-20-3	Naphthalene	7.3	U	7.3	3.6
98-95-3	Nitrobenzene	110	U	110	2.4
87-86-5	Pentachlorophenol	160	U	160	88
85-01-8	Phenanthrene	230		7.3	3.6
108-95-2	Phenol	55	U	55	30
129-00-0	Pyrene	410		7.3	3.6
108-60-1	2,2'-oxybis[1-chloropropane]	110	U	110	10
606-20-2	2,6-Dinitrotoluene	220	U	220	23
100-02-7	4-Nitrophenol	360	U	360	88

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 | Lab Sample ID: 240-820-4

Matrix: Solid | Lab File ID: 820G4A.D

Analysis Method: 8270D | Date Collected: 06/06/2011 11:55

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.17(g) | Date Analyzed: 06/29/2011 01:59

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	78		41-119
4165-62-2	Phenol-d5 (Surr)	61		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	50		24-112
367-12-4	2-Fluorophenol (Surr)	66		26-110
321-60-8	2-Fluorobiphenyl (Surr)	57		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	48		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-820-1
SDG No.:
Client Sample ID: GSP-SB-123-6-8
Lab Sample ID: 240-820-5
Matrix: Solid
Lab File ID: 820G5A.D
Analysis Method: 8270D
Date Collected: 06/06/2011 11:58
Extract. Method: 3540C
Date Extracted: 06/17/2011 10:57
Sample wt/vol: 29.97(g)
Date Analyzed: 07/04/2011 22:44
Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 18.4
GPC Cleanup:(Y/N) N
Analysis Batch No.: 7057
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	61	U	61	33
123-91-1	1,4-Dioxane	120	U	120	27
88-06-2	2,4,6-Trichlorophenol	180	U	180	98
95-95-4	2,4,5-Trichlorophenol	180	U	180	31
120-83-2	2,4-Dichlorophenol	180	U	180	25
105-67-9	2,4-Dimethylphenol	180	U	180	25
51-28-5	2,4-Dinitrophenol	400	U	400	98
121-14-2	2,4-Dinitrotoluene	250	U	250	33
91-58-7	2-Chloronaphthalene	61	U	61	4.0
95-57-8	2-Chlorophenol	61	U	61	33
91-57-6	2-Methylnaphthalene	8.2	U	8.2	4.0
95-48-7	2-Methylphenol	250	U	250	98
88-74-4	2-Nitroaniline	250	U	250	11
88-75-5	2-Nitrophenol	61	U	61	33
15831-10-4	3 & 4 Methylphenol	490	U	490	25
91-94-1	3,3'-Dichlorobenzidine	120	U	120	22
99-09-2	3-Nitroaniline	250	U	250	20
534-52-1	4,6-Dinitro-2-methylphenol	180	U	180	98
101-55-3	4-Bromophenyl phenyl ether	61	U	61	16
59-50-7	4-Chloro-3-methylphenol	180	U	180	26
106-47-8	4-Chloroaniline	180	U	180	21
7005-72-3	4-Chlorophenyl phenyl ether	61	U	61	16
100-01-6	4-Nitroaniline	250	U	250	32
83-32-9	Acenaphthene	8.2	U	8.2	4.0
208-96-8	Acenaphthylene	8.2	U	8.2	4.0
98-86-2	Acetophenone	120	U	120	11
120-12-7	Anthracene	8.2	U	8.2	4.0
1912-24-9	Atrazine	250	U	250	11
100-52-7	Benzaldehyde	120	U	120	15
56-55-3	Benzo[a]anthracene	8.2	U	8.2	4.0
50-32-8	Benzo[a]pyrene	8.2	U	8.2	4.0
205-99-2	Benzo[b]fluoranthene	8.2	U	8.2	4.0
191-24-2	Benzo[g,h,i]perylene	8.2	U	8.2	4.0
207-08-9	Benzo[k]fluoranthene	8.2	U	8.2	4.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-6-8 | Lab Sample ID: 240-820-5

Matrix: Solid | Lab File ID: 820G5A.D

Analysis Method: 8270D | Date Collected: 06/06/2011 11:58

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 29.97(g) | Date Analyzed: 07/04/2011 22:44

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	27
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.5
117-81-7	Bis(2-ethylhexyl) phthalate	61	U	61	23
85-68-7	Butyl benzyl phthalate	61	U	61	12
105-60-2	Caprolactam	400	U	400	45
86-74-8	Carbazole	61	U	61	33
218-01-9	Chrysene	8.2	U	8.2	1.3
84-74-2	Di-n-butyl phthalate	61	U	61	18
117-84-0	Di-n-octyl phthalate	61	U	61	33
53-70-3	Dibenzo(a,h)anthracene	8.2	U	8.2	4.0
132-64-9	Dibenzofuran	61	U	61	4.0
84-66-2	Diethyl phthalate	61	U	61	20
131-11-3	Dimethyl phthalate	61	U	61	21
206-44-0	Fluoranthene	8.2	U	8.2	4.0
86-73-7	Fluorene	8.2	U	8.2	4.0
118-74-1	Hexachlorobenzene	8.2	U	8.2	2.6
87-68-3	Hexachlorobutadiene	61	U	61	33
77-47-4	Hexachlorocyclopentadiene	400	U	400	33
67-72-1	Hexachloroethane	61	U	61	11
193-39-5	Indeno[1,2,3-cd]pyrene	8.2	U	8.2	4.0
78-59-1	Isophorone	61	U	61	16
621-64-7	N-Nitrosodi-n-propylamine	61	U	61	33
62-75-9	N-Nitrosodimethylamine	120	U	120	20
86-30-6	N-Nitrosodiphenylamine	61	U	61	26
91-20-3	Naphthalene	8.2	U	8.2	4.0
98-95-3	Nitrobenzene	120	U	120	2.7
87-86-5	Pentachlorophenol	180	U	180	98
85-01-8	Phenanthrene	8.2	U	8.2	4.0
108-95-2	Phenol	61	U	61	33
129-00-0	Pyrene	8.2	U	8.2	4.0
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	12
606-20-2	2,6-Dinitrotoluene	250	U	250	26
100-02-7	4-Nitrophenol	400	U	400	98

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GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-6-8
Lab Sample ID: 240-820-5

Matrix: Solid
Lab File ID: 820G5A.D

Analysis Method: 8270D
Date Collected: 06/06/2011 11:58

Extract. Method: 3540C
Date Extracted: 06/17/2011 10:57

Sample wt/vol: 29.97(g)
Date Analyzed: 07/04/2011 22:44

Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1

Injection Volume: 1(uL)
Level: (low/med) Low

% Moisture: 18.4
GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057
Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	63		41-119
4165-62-2	Phenol-d5 (Surr)	67		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	52		24-112
367-12-4	2-Fluorophenol (Surr)	67		26-110
321-60-8	2-Fluorobiphenyl (Surr)	51		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	29		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-0-2 | Lab Sample ID: 240-820-7

Matrix: Solid | Lab File ID: 0714036.D

Analysis Method: 8270D | Date Collected: 06/06/2011 13:05

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.18(g) | Date Analyzed: 07/14/2011 18:27

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	1100	U *	1100	590
123-91-1	1,4-Dioxane	2200	U	2200	480
88-06-2	2,4,6-Trichlorophenol	3300	U	3300	1800
95-95-4	2,4,5-Trichlorophenol	3300	U	3300	550
120-83-2	2,4-Dichlorophenol	3300	U	3300	440
105-67-9	2,4-Dimethylphenol	3300	U	3300	440
51-28-5	2,4-Dinitrophenol	7200	U	7200	1800
121-14-2	2,4-Dinitrotoluene	4400	U	4400	590
91-58-7	2-Chloronaphthalene	1100	U	1100	72
95-57-8	2-Chlorophenol	1100	U	1100	590
91-57-6	2-Methylnaphthalene	360		150	72
95-48-7	2-Methylphenol	4400	U	4400	1800
88-74-4	2-Nitroaniline	4400	U	4400	200
88-75-5	2-Nitrophenol	1100	U	1100	590
15831-10-4	3 & 4 Methylphenol	8800	U	8800	440
91-94-1	3,3'-Dichlorobenzidine	2200	U	2200	390
99-09-2	3-Nitroaniline	4400	U	4400	350
534-52-1	4,6-Dinitro-2-methylphenol	3300	U	3300	1800
101-55-3	4-Bromophenyl phenyl ether	1100	U	1100	280
59-50-7	4-Chloro-3-methylphenol	3300	U	3300	460
106-47-8	4-Chloroaniline	3300	U	3300	370
7005-72-3	4-Chlorophenyl phenyl ether	1100	U	1100	280
100-01-6	4-Nitroaniline	4400	U	4400	570
83-32-9	Acenaphthene	240		150	72
208-96-8	Acenaphthylene	300		150	72
98-86-2	Acetophenone	2200	U *	2200	200
120-12-7	Anthracene	1200		150	72
1912-24-9	Atrazine	4400	U	4400	200
100-52-7	Benzaldehyde	2200	U	2200	260
56-55-3	Benzo[a]anthracene	3700		150	72
50-32-8	Benzo[a]pyrene	4000		150	72
205-99-2	Benzo[b]fluoranthene	4000		150	72
191-24-2	Benzo[g,h,i]perylene	2500		150	72
207-08-9	Benzo[k]fluoranthene	1100		150	72

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-0-2 | Lab Sample ID: 240-820-7

Matrix: Solid | Lab File ID: 0714036.D

Analysis Method: 8270D | Date Collected: 06/06/2011 13:05

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.18(g) | Date Analyzed: 07/14/2011 18:27

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	2200	U	2200	480
111-44-4	Bis(2-chloroethyl)ether	2200	U	2200	44
117-81-7	Bis(2-ethylhexyl) phthalate	1100	U	1100	420
85-68-7	Butyl benzyl phthalate	1100	U *	1100	220
105-60-2	Caprolactam	7200	U	7200	810
86-74-8	Carbazole	1100	U	1100	590
218-01-9	Chrysene	4200		150	24
84-74-2	Di-n-butyl phthalate	1100	U	1100	330
117-84-0	Di-n-octyl phthalate	1100	U	1100	590
53-70-3	Dibenzo(a,h)anthracene	780		150	72
132-64-9	Dibenzofuran	1100	U	1100	72
84-66-2	Diethyl phthalate	1100	U	1100	350
131-11-3	Dimethyl phthalate	1100	U	1100	370
206-44-0	Fluoranthene	5000		150	72
86-73-7	Fluorene	450		150	72
118-74-1	Hexachlorobenzene	150	U	150	46
87-68-3	Hexachlorobutadiene	1100	U	1100	590
77-47-4	Hexachlorocyclopentadiene	7200	U	7200	590
67-72-1	Hexachloroethane	1100	U	1100	200
193-39-5	Indeno[1,2,3-cd]pyrene	1900		150	72
78-59-1	Isophorone	1100	U	1100	280
621-64-7	N-Nitrosodi-n-propylamine	1100	U	1100	590
62-75-9	N-Nitrosodimethylamine	2200	U	2200	350
86-30-6	N-Nitrosodiphenylamine	1100	U	1100	460
91-20-3	Naphthalene	400		150	72
98-95-3	Nitrobenzene	2200	U	2200	48
87-86-5	Pentachlorophenol	3300	U	3300	1800
85-01-8	Phenanthrene	3500		150	72
108-95-2	Phenol	1100	U	1100	590
129-00-0	Pyrene	7800		150	72
108-60-1	2,2'-oxybis[1-chloropropane]	2200	U	2200	210
606-20-2	2,6-Dinitrotoluene	4400	U	4400	460
100-02-7	4-Nitrophenol	7200	U	7200	1800

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-820-1
SDG No.:
Client Sample ID: GSP-SB-124-0-2
Lab Sample ID: 240-820-7
Matrix: Solid
Lab File ID: 0714036.D
Analysis Method: 8270D
Date Collected: 06/06/2011 13:05
Extract. Method: 3540C
Date Extracted: 06/15/2011 11:06
Sample wt/vol: 30.18(g)
Date Analyzed: 07/14/2011 18:27
Con. Extract Vol.: 2.00(mL)
Dilution Factor: 20
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 9.1
GPC Cleanup:(Y/N) N
Analysis Batch No.: 8375
Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	60		41-119
4165-62-2	Phenol-d5 (Surr)	53		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	47		24-112
367-12-4	2-Fluorophenol (Surr)	63		26-110
321-60-8	2-Fluorobiphenyl (Surr)	54		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	43		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-6-8 | Lab Sample ID: 240-820-8

Matrix: Solid | Lab File ID: 0714013.D

Analysis Method: 8270D | Date Collected: 06/06/2011 13:08

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.09(g) | Date Analyzed: 07/14/2011 12:23

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	60	U *	60	32
123-91-1	1,4-Dioxane	120	U	120	26
88-06-2	2,4,6-Trichlorophenol	180	U	180	96
95-95-4	2,4,5-Trichlorophenol	180	U	180	30
120-83-2	2,4-Dichlorophenol	180	U	180	24
105-67-9	2,4-Dimethylphenol	180	U	180	24
51-28-5	2,4-Dinitrophenol	400	U	400	96
121-14-2	2,4-Dinitrotoluene	240	U	240	32
91-58-7	2-Chloronaphthalene	60	U	60	4.0
95-57-8	2-Chlorophenol	60	U	60	32
91-57-6	2-Methylnaphthalene	8.0	U	8.0	4.0
95-48-7	2-Methylphenol	240	U	240	96
88-74-4	2-Nitroaniline	240	U	240	11
88-75-5	2-Nitrophenol	60	U	60	32
15831-10-4	3 & 4 Methylphenol	480	U	480	24
91-94-1	3,3'-Dichlorobenzidine	120	U	120	22
99-09-2	3-Nitroaniline	240	U	240	19
534-52-1	4,6-Dinitro-2-methylphenol	180	U	180	96
101-55-3	4-Bromophenyl phenyl ether	60	U	60	16
59-50-7	4-Chloro-3-methylphenol	180	U	180	25
106-47-8	4-Chloroaniline	180	U	180	20
7005-72-3	4-Chlorophenyl phenyl ether	60	U	60	16
100-01-6	4-Nitroaniline	240	U	240	31
83-32-9	Acenaphthene	8.0	U	8.0	4.0
208-96-8	Acenaphthylene	8.0	U	8.0	4.0
98-86-2	Acetophenone	120	U *	120	11
120-12-7	Anthracene	8.0	U	8.0	4.0
1912-24-9	Atrazine	240	U	240	11
100-52-7	Benzaldehyde	120	U	120	14
56-55-3	Benzo[a]anthracene	8.0	U	8.0	4.0
50-32-8	Benzo[a]pyrene	8.0	U	8.0	4.0
205-99-2	Benzo[b]fluoranthene	8.0	U	8.0	4.0
191-24-2	Benzo[g,h,i]perylene	8.0	U	8.0	4.0
207-08-9	Benzo[k]fluoranthene	8.0	U	8.0	4.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-6-8 | Lab Sample ID: 240-820-8

Matrix: Solid | Lab File ID: 0714013.D

Analysis Method: 8270D | Date Collected: 06/06/2011 13:08

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.09(g) | Date Analyzed: 07/14/2011 12:23

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	26
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.4
117-81-7	Bis(2-ethylhexyl) phthalate	60	U	60	23
85-68-7	Butyl benzyl phthalate	60	U *	60	12
105-60-2	Caprolactam	400	U	400	44
86-74-8	Carbazole	60	U	60	32
218-01-9	Chrysene	8.0	U	8.0	1.3
84-74-2	Di-n-butyl phthalate	60	U	60	18
117-84-0	Di-n-octyl phthalate	60	U	60	32
53-70-3	Dibenzo(a,h)anthracene	8.0	U	8.0	4.0
132-64-9	Dibenzofuran	60	U	60	4.0
84-66-2	Diethyl phthalate	60	U	60	19
131-11-3	Dimethyl phthalate	60	U	60	20
206-44-0	Fluoranthene	8.0	U	8.0	4.0
86-73-7	Fluorene	8.0	U	8.0	4.0
118-74-1	Hexachlorobenzene	8.0	U	8.0	2.5
87-68-3	Hexachlorobutadiene	60	U	60	32
77-47-4	Hexachlorocyclopentadiene	400	U	400	32
67-72-1	Hexachloroethane	60	U	60	11
193-39-5	Indeno[1,2,3-cd]pyrene	8.0	U	8.0	4.0
78-59-1	Isophorone	60	U	60	16
621-64-7	N-Nitrosodi-n-propylamine	60	U	60	32
62-75-9	N-Nitrosodimethylamine	120	U	120	19
86-30-6	N-Nitrosodiphenylamine	60	U	60	25
91-20-3	Naphthalene	8.0	U	8.0	4.0
98-95-3	Nitrobenzene	120	U	120	2.6
87-86-5	Pentachlorophenol	180	U	180	96
85-01-8	Phenanthrene	8.0	U	8.0	4.0
108-95-2	Phenol	60	U	60	32
129-00-0	Pyrene	8.0	U	8.0	4.0
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	11
606-20-2	2,6-Dinitrotoluene	240	U	240	25
100-02-7	4-Nitrophenol	400	U	400	96

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-6-8 | Lab Sample ID: 240-820-8

Matrix: Solid | Lab File ID: 0714013.D

Analysis Method: 8270D | Date Collected: 06/06/2011 13:08

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.09(g) | Date Analyzed: 07/14/2011 12:23

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 17.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	58		41-119
4165-62-2	Phenol-d5 (Surr)	47		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	41		24-112
367-12-4	2-Fluorophenol (Surr)	51		26-110
321-60-8	2-Fluorobiphenyl (Surr)	42		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-0-2 | Lab Sample ID: 240-820-10

Matrix: Solid | Lab File ID: 0714019.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:05

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.03(g) | Date Analyzed: 07/14/2011 13:18

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	55	U *	55	30
123-91-1	1,4-Dioxane	110	U	110	24
88-06-2	2,4,6-Trichlorophenol	170	U	170	88
95-95-4	2,4,5-Trichlorophenol	170	U	170	28
120-83-2	2,4-Dichlorophenol	170	U	170	22
105-67-9	2,4-Dimethylphenol	170	U	170	22
51-28-5	2,4-Dinitrophenol	360	U	360	88
121-14-2	2,4-Dinitrotoluene	220	U	220	30
91-58-7	2-Chloronaphthalene	55	U	55	3.6
95-57-8	2-Chlorophenol	55	U	55	30
91-57-6	2-Methylnaphthalene	7.4	U	7.4	3.6
95-48-7	2-Methylphenol	220	U	220	88
88-74-4	2-Nitroaniline	220	U	220	10
88-75-5	2-Nitrophenol	55	U	55	30
15831-10-4	3 & 4 Methylphenol	440	U	440	22
91-94-1	3,3'-Dichlorobenzidine	110	U	110	20
99-09-2	3-Nitroaniline	220	U	220	18
534-52-1	4,6-Dinitro-2-methylphenol	170	U	170	88
101-55-3	4-Bromophenyl phenyl ether	55	U	55	14
59-50-7	4-Chloro-3-methylphenol	170	U	170	23
106-47-8	4-Chloroaniline	170	U	170	19
7005-72-3	4-Chlorophenyl phenyl ether	55	U	55	14
100-01-6	4-Nitroaniline	220	U	220	29
83-32-9	Acenaphthene	7.4	U	7.4	3.6
208-96-8	Acenaphthylene	7.4	U	7.4	3.6
98-86-2	Acetophenone	110	U *	110	10
120-12-7	Anthracene	10		7.4	3.6
1912-24-9	Atrazine	220	U	220	10
100-52-7	Benzaldehyde	110	U	110	13
56-55-3	Benzo[a]anthracene	42		7.4	3.6
50-32-8	Benzo[a]pyrene	41		7.4	3.6
205-99-2	Benzo[b]fluoranthene	50		7.4	3.6
191-24-2	Benzo[g,h,i]perylene	31		7.4	3.6
207-08-9	Benzo[k]fluoranthene	30		7.4	3.6

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-0-2 | Lab Sample ID: 240-820-10

Matrix: Solid | Lab File ID: 0714019.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:05

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.03(g) | Date Analyzed: 07/14/2011 13:18

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q		RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U		110	24
111-44-4	Bis(2-chloroethyl)ether	110	U		110	2.2
117-81-7	Bis(2-ethylhexyl) phthalate	55	U		55	21
85-68-7	Butyl benzyl phthalate	55	U	*	55	11
105-60-2	Caprolactam	360	U		360	41
86-74-8	Carbazole	55	U		55	30
218-01-9	Chrysene	45			7.4	1.2
84-74-2	Di-n-butyl phthalate	55	U		55	17
117-84-0	Di-n-octyl phthalate	55	U		55	30
53-70-3	Dibenzo(a,h)anthracene	7.5			7.4	3.6
132-64-9	Dibenzofuran	55	U		55	3.6
84-66-2	Diethyl phthalate	55	U		55	18
131-11-3	Dimethyl phthalate	55	U		55	19
206-44-0	Fluoranthene	88			7.4	3.6
86-73-7	Fluorene	7.4	U		7.4	3.6
118-74-1	Hexachlorobenzene	7.4	U		7.4	2.3
87-68-3	Hexachlorobutadiene	55	U		55	30
77-47-4	Hexachlorocyclopentadiene	360	U		360	30
67-72-1	Hexachloroethane	55	U		55	9.9
193-39-5	Indeno[1,2,3-cd]pyrene	26			7.4	3.6
78-59-1	Isophorone	55	U		55	14
621-64-7	N-Nitrosodi-n-propylamine	55	U		55	30
62-75-9	N-Nitrosodimethylamine	110	U		110	18
86-30-6	N-Nitrosodiphenylamine	55	U		55	23
91-20-3	Naphthalene	7.4	U		7.4	3.6
98-95-3	Nitrobenzene	110	U		110	2.4
87-86-5	Pentachlorophenol	170	U		170	88
85-01-8	Phenanthrene	43			7.4	3.6
108-95-2	Phenol	55	U		55	30
129-00-0	Pyrene	73			7.4	3.6
108-60-1	2,2'-oxybis[1-chloropropane]	110	U		110	10
606-20-2	2,6-Dinitrotoluene	220	U		220	23
100-02-7	4-Nitrophenol	360	U		360	88

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-0-2 | Lab Sample ID: 240-820-10

Matrix: Solid | Lab File ID: 0714019.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:05

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.03(g) | Date Analyzed: 07/14/2011 13:18

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	64		41-119
4165-62-2	Phenol-d5 (Surr)	55		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	47		24-112
367-12-4	2-Fluorophenol (Surr)	61		26-110
321-60-8	2-Fluorobiphenyl (Surr)	50		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	33		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-20-22 | Lab Sample ID: 240-820-12

Matrix: Solid | Lab File ID: 820F12B.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:16

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.16(g) | Date Analyzed: 06/29/2011 03:55

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 23.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	65	U	65	35
123-91-1	1,4-Dioxane	130	U	130	29
88-06-2	2,4,6-Trichlorophenol	200	U	200	100
95-95-4	2,4,5-Trichlorophenol	200	U	200	33
120-83-2	2,4-Dichlorophenol	200	U	200	26
105-67-9	2,4-Dimethylphenol	200	U	200	26
51-28-5	2,4-Dinitrophenol	430	U	430	100
121-14-2	2,4-Dinitrotoluene	260	U	260	35
91-58-7	2-Chloronaphthalene	65	U	65	4.3
95-57-8	2-Chlorophenol	65	U	65	35
91-57-6	2-Methylnaphthalene	8.7	U	8.7	4.3
95-48-7	2-Methylphenol	260	U	260	100
88-74-4	2-Nitroaniline	260	U	260	12
88-75-5	2-Nitrophenol	65	U	65	35
15831-10-4	3 & 4 Methylphenol	520	U	520	26
91-94-1	3,3'-Dichlorobenzidine	130	U	130	23
99-09-2	3-Nitroaniline	260	U	260	21
534-52-1	4,6-Dinitro-2-methylphenol	200	U	200	100
101-55-3	4-Bromophenyl phenyl ether	65	U	65	17
59-50-7	4-Chloro-3-methylphenol	200	U	200	27
106-47-8	4-Chloroaniline	200	U	200	22
7005-72-3	4-Chlorophenyl phenyl ether	65	U	65	17
100-01-6	4-Nitroaniline	260	U	260	34
83-32-9	Acenaphthene	8.7	U	8.7	4.3
208-96-8	Acenaphthylene	8.7	U	8.7	4.3
98-86-2	Acetophenone	130	U	130	12
120-12-7	Anthracene	8.7	U	8.7	4.3
1912-24-9	Atrazine	260	U	260	12
100-52-7	Benzaldehyde	130	U	130	16
56-55-3	Benzo[a]anthracene	8.7	U	8.7	4.3
50-32-8	Benzo[a]pyrene	8.7	U	8.7	4.3
205-99-2	Benzo[b]fluoranthene	8.7	U	8.7	4.3
191-24-2	Benzo[g,h,i]perylene	8.7	U	8.7	4.3
207-08-9	Benzo[k]fluoranthene	8.7	U	8.7	4.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-20-22 | Lab Sample ID: 240-820-12

Matrix: Solid | Lab File ID: 820F12B.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:16

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.16(g) | Date Analyzed: 06/29/2011 03:55

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 23.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	130	U	130	29
111-44-4	Bis(2-chloroethyl)ether	130	U	130	2.6
117-81-7	Bis(2-ethylhexyl) phthalate	65	U	65	25
85-68-7	Butyl benzyl phthalate	65	U	65	13
105-60-2	Caprolactam	430	U	430	48
86-74-8	Carbazole	65	U	65	35
218-01-9	Chrysene	8.7	U	8.7	1.4
84-74-2	Di-n-butyl phthalate	65	U	65	20
117-84-0	Di-n-octyl phthalate	65	U	65	35
53-70-3	Dibenzo(a,h)anthracene	8.7	U	8.7	4.3
132-64-9	Dibenzofuran	65	U	65	4.3
84-66-2	Diethyl phthalate	65	U	65	21
131-11-3	Dimethyl phthalate	65	U	65	22
206-44-0	Fluoranthene	8.7	U	8.7	4.3
86-73-7	Fluorene	8.7	U	8.7	4.3
118-74-1	Hexachlorobenzene	8.7	U	8.7	2.7
87-68-3	Hexachlorobutadiene	65	U	65	35
77-47-4	Hexachlorocyclopentadiene	430	U	430	35
67-72-1	Hexachloroethane	65	U	65	12
193-39-5	Indeno[1,2,3-cd]pyrene	8.7	U	8.7	4.3
78-59-1	Isophorone	65	U	65	17
621-64-7	N-Nitrosodi-n-propylamine	65	U	65	35
62-75-9	N-Nitrosodimethylamine	130	U	130	21
86-30-6	N-Nitrosodiphenylamine	65	U	65	27
91-20-3	Naphthalene	8.7	U	8.7	4.3
98-95-3	Nitrobenzene	130	U	130	2.9
87-86-5	Pentachlorophenol	200	U	200	100
85-01-8	Phenanthrene	8.7	U	8.7	4.3
108-95-2	Phenol	65	U	65	35
129-00-0	Pyrene	8.7	U	8.7	4.3
108-60-1	2,2'-oxybis[1-chloropropane]	130	U	130	12
606-20-2	2,6-Dinitrotoluene	260	U	260	27
100-02-7	4-Nitrophenol	430	U	430	100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-20-22 | Lab Sample ID: 240-820-12

Matrix: Solid | Lab File ID: 820F12B.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:16

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.16(g) | Date Analyzed: 06/29/2011 03:55

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 23.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	75		41-119
4165-62-2	Phenol-d5 (Surr)	54		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	46		24-112
367-12-4	2-Fluorophenol (Surr)	56		26-110
321-60-8	2-Fluorobiphenyl (Surr)	50		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	44		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-8-10 | Lab Sample ID: 240-820-11

Matrix: Solid | Lab File ID: 0714012.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:13

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.01(g) | Date Analyzed: 07/14/2011 12:05

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	59	U *	59	32
123-91-1	1,4-Dioxane	120	U	120	26
88-06-2	2,4,6-Trichlorophenol	180	U	180	95
95-95-4	2,4,5-Trichlorophenol	180	U	180	30
120-83-2	2,4-Dichlorophenol	180	U	180	24
105-67-9	2,4-Dimethylphenol	180	U	180	24
51-28-5	2,4-Dinitrophenol	390	U	390	95
121-14-2	2,4-Dinitrotoluene	240	U	240	32
91-58-7	2-Chloronaphthalene	59	U	59	3.9
95-57-8	2-Chlorophenol	59	U	59	32
91-57-6	2-Methylnaphthalene	7.9	U	7.9	3.9
95-48-7	2-Methylphenol	240	U	240	95
88-74-4	2-Nitroaniline	240	U	240	11
88-75-5	2-Nitrophenol	59	U	59	32
15831-10-4	3 & 4 Methylphenol	470	U	470	24
91-94-1	3,3'-Dichlorobenzidine	120	U	120	21
99-09-2	3-Nitroaniline	240	U	240	19
534-52-1	4,6-Dinitro-2-methylphenol	180	U	180	95
101-55-3	4-Bromophenyl phenyl ether	59	U	59	15
59-50-7	4-Chloro-3-methylphenol	180	U	180	25
106-47-8	4-Chloroaniline	180	U	180	20
7005-72-3	4-Chlorophenyl phenyl ether	59	U	59	15
100-01-6	4-Nitroaniline	240	U	240	31
83-32-9	Acenaphthene	7.9	U	7.9	3.9
208-96-8	Acenaphthylene	7.9	U	7.9	3.9
98-86-2	Acetophenone	120	U *	120	11
120-12-7	Anthracene	7.9	U	7.9	3.9
1912-24-9	Atrazine	240	U	240	11
100-52-7	Benzaldehyde	120	U	120	14
56-55-3	Benzo[a]anthracene	7.9	U	7.9	3.9
50-32-8	Benzo[a]pyrene	7.9	U	7.9	3.9
205-99-2	Benzo[b]fluoranthene	7.9	U	7.9	3.9
191-24-2	Benzo[g,h,i]perylene	7.9	U	7.9	3.9
207-08-9	Benzo[k]fluoranthene	7.9	U	7.9	3.9

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-8-10 | Lab Sample ID: 240-820-11

Matrix: Solid | Lab File ID: 0714012.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:13

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.01(g) | Date Analyzed: 07/14/2011 12:05

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	26
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.4
117-81-7	Bis(2-ethylhexyl) phthalate	59	U	59	23
85-68-7	Butyl benzyl phthalate	59	U *	59	12
105-60-2	Caprolactam	390	U	390	44
86-74-8	Carbazole	59	U	59	32
218-01-9	Chrysene	7.9	U	7.9	1.3
84-74-2	Di-n-butyl phthalate	59	U	59	18
117-84-0	Di-n-octyl phthalate	59	U	59	32
53-70-3	Dibenzo(a,h)anthracene	7.9	U	7.9	3.9
132-64-9	Dibenzofuran	59	U	59	3.9
84-66-2	Diethyl phthalate	59	U	59	19
131-11-3	Dimethyl phthalate	59	U	59	20
206-44-0	Fluoranthene	7.9	U	7.9	3.9
86-73-7	Fluorene	7.9	U	7.9	3.9
118-74-1	Hexachlorobenzene	7.9	U	7.9	2.5
87-68-3	Hexachlorobutadiene	59	U	59	32
77-47-4	Hexachlorocyclopentadiene	390	U	390	32
67-72-1	Hexachloroethane	59	U	59	11
193-39-5	Indeno[1,2,3-cd]pyrene	7.9	U	7.9	3.9
78-59-1	Isophorone	59	U	59	15
621-64-7	N-Nitrosodi-n-propylamine	59	U	59	32
62-75-9	N-Nitrosodimethylamine	120	U	120	19
86-30-6	N-Nitrosodiphenylamine	59	U	59	25
91-20-3	Naphthalene	7.9	U	7.9	3.9
98-95-3	Nitrobenzene	120	U	120	2.6
87-86-5	Pentachlorophenol	180	U	180	95
85-01-8	Phenanthrene	7.9	U	7.9	3.9
108-95-2	Phenol	59	U	59	32
129-00-0	Pyrene	7.9	U	7.9	3.9
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	11
606-20-2	2,6-Dinitrotoluene	240	U	240	25
100-02-7	4-Nitrophenol	390	U	390	95

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-8-10 | Lab Sample ID: 240-820-11

Matrix: Solid | Lab File ID: 0714012.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:13

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.01(g) | Date Analyzed: 07/14/2011 12:05

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	64		41-119
4165-62-2	Phenol-d5 (Surr)	58		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	48		24-112
367-12-4	2-Fluorophenol (Surr)	62		26-110
321-60-8	2-Fluorobiphenyl (Surr)	51		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	39		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-820-1
SDG No.:
Client Sample ID: GSP-SB-127-0-2
Lab Sample ID: 240-820-13
Matrix: Solid
Lab File ID: 0714020.D
Analysis Method: 8270D
Date Collected: 06/06/2011 15:55
Extract. Method: 3540C
Date Extracted: 06/15/2011 11:06
Sample wt/vol: 30.01(g)
Date Analyzed: 07/14/2011 13:54
Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 12.0
GPC Cleanup:(Y/N) N
Analysis Batch No.: 8375
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	57	U *	57	31
123-91-1	1,4-Dioxane	110	U	110	25
88-06-2	2,4,6-Trichlorophenol	170	U	170	91
95-95-4	2,4,5-Trichlorophenol	170	U	170	28
120-83-2	2,4-Dichlorophenol	170	U	170	23
105-67-9	2,4-Dimethylphenol	170	U	170	23
51-28-5	2,4-Dinitrophenol	370	U	370	91
121-14-2	2,4-Dinitrotoluene	230	U	230	31
91-58-7	2-Chloronaphthalene	57	U	57	3.7
95-57-8	2-Chlorophenol	57	U	57	31
91-57-6	2-Methylnaphthalene	7.6	U	7.6	3.7
95-48-7	2-Methylphenol	230	U	230	91
88-74-4	2-Nitroaniline	230	U	230	10
88-75-5	2-Nitrophenol	57	U	57	31
15831-10-4	3 & 4 Methylphenol	450	U	450	23
91-94-1	3,3'-Dichlorobenzidine	110	U	110	20
99-09-2	3-Nitroaniline	230	U	230	18
534-52-1	4,6-Dinitro-2-methylphenol	170	U	170	91
101-55-3	4-Bromophenyl phenyl ether	57	U	57	15
59-50-7	4-Chloro-3-methylphenol	170	U	170	24
106-47-8	4-Chloroaniline	170	U	170	19
7005-72-3	4-Chlorophenyl phenyl ether	57	U	57	15
100-01-6	4-Nitroaniline	230	U	230	30
83-32-9	Acenaphthene	7.6	U	7.6	3.7
208-96-8	Acenaphthylene	7.6	U	7.6	3.7
98-86-2	Acetophenone	110	U *	110	10
120-12-7	Anthracene	20		7.6	3.7
1912-24-9	Atrazine	230	U	230	10
100-52-7	Benzaldehyde	110	U	110	14
56-55-3	Benzo[a]anthracene	62		7.6	3.7
50-32-8	Benzo[a]pyrene	55		7.6	3.7
205-99-2	Benzo[b]fluoranthene	72		7.6	3.7
191-24-2	Benzo[g,h,i]perylene	38		7.6	3.7
207-08-9	Benzo[k]fluoranthene	31		7.6	3.7

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-0-2 | Lab Sample ID: 240-820-13

Matrix: Solid | Lab File ID: 0714020.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:55

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.01(g) | Date Analyzed: 07/14/2011 13:54

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	110	U	110	25
111-44-4	Bis(2-chloroethyl)ether	110	U	110	2.3
117-81-7	Bis(2-ethylhexyl) phthalate	57	U	57	22
85-68-7	Butyl benzyl phthalate	57	U *	57	11
105-60-2	Caprolactam	370	U	370	42
86-74-8	Carbazole	57	U	57	31
218-01-9	Chrysene	57		7.6	1.2
84-74-2	Di-n-butyl phthalate	57	U	57	17
117-84-0	Di-n-octyl phthalate	57	U	57	31
53-70-3	Dibenzo(a,h)anthracene	10		7.6	3.7
132-64-9	Dibenzofuran	57	U	57	3.7
84-66-2	Diethyl phthalate	57	U	57	18
131-11-3	Dimethyl phthalate	57	U	57	19
206-44-0	Fluoranthene	130		7.6	3.7
86-73-7	Fluorene	7.6	U	7.6	3.7
118-74-1	Hexachlorobenzene	7.6	U	7.6	2.4
87-68-3	Hexachlorobutadiene	57	U	57	31
77-47-4	Hexachlorocyclopentadiene	370	U	370	31
67-72-1	Hexachloroethane	57	U	57	10
193-39-5	Indeno[1,2,3-cd]pyrene	32		7.6	3.7
78-59-1	Isophorone	57	U	57	15
621-64-7	N-Nitrosodi-n-propylamine	57	U	57	31
62-75-9	N-Nitrosodimethylamine	110	U	110	18
86-30-6	N-Nitrosodiphenylamine	57	U	57	24
91-20-3	Naphthalene	7.6	U	7.6	3.7
98-95-3	Nitrobenzene	110	U	110	2.5
87-86-5	Pentachlorophenol	170	U	170	91
85-01-8	Phenanthrene	68		7.6	3.7
108-95-2	Phenol	57	U	57	31
129-00-0	Pyrene	99		7.6	3.7
108-60-1	2,2'-oxybis[1-chloropropane]	110	U	110	11
606-20-2	2,6-Dinitrotoluene	230	U	230	24
100-02-7	4-Nitrophenol	370	U	370	91

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-0-2 | Lab Sample ID: 240-820-13

Matrix: Solid | Lab File ID: 0714020.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:55

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.01(g) | Date Analyzed: 07/14/2011 13:54

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	64		41-119
4165-62-2	Phenol-d5 (Surr)	54		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	44		24-112
367-12-4	2-Fluorophenol (Surr)	57		26-110
321-60-8	2-Fluorobiphenyl (Surr)	47		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	54		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-6-8 | Lab Sample ID: 240-820-14

Matrix: Solid | Lab File ID: 0714014.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:58

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.06(g) | Date Analyzed: 07/14/2011 12:42

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 20.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	63	U *	63	34
123-91-1	1,4-Dioxane	130	U	130	28
88-06-2	2,4,6-Trichlorophenol	190	U	190	100
95-95-4	2,4,5-Trichlorophenol	190	U	190	31
120-83-2	2,4-Dichlorophenol	190	U	190	25
105-67-9	2,4-Dimethylphenol	190	U	190	25
51-28-5	2,4-Dinitrophenol	410	U	410	100
121-14-2	2,4-Dinitrotoluene	250	U	250	34
91-58-7	2-Chloronaphthalene	63	U	63	4.1
95-57-8	2-Chlorophenol	63	U	63	34
91-57-6	2-Methylnaphthalene	8.4	U	8.4	4.1
95-48-7	2-Methylphenol	250	U	250	100
88-74-4	2-Nitroaniline	250	U	250	11
88-75-5	2-Nitrophenol	63	U	63	34
15831-10-4	3 & 4 Methylphenol	500	U	500	25
91-94-1	3,3'-Dichlorobenzidine	130	U	130	23
99-09-2	3-Nitroaniline	250	U	250	20
534-52-1	4,6-Dinitro-2-methylphenol	190	U	190	100
101-55-3	4-Bromophenyl phenyl ether	63	U	63	16
59-50-7	4-Chloro-3-methylphenol	190	U	190	26
106-47-8	4-Chloroaniline	190	U	190	21
7005-72-3	4-Chlorophenyl phenyl ether	63	U	63	16
100-01-6	4-Nitroaniline	250	U	250	33
83-32-9	Acenaphthene	8.4	U	8.4	4.1
208-96-8	Acenaphthylene	8.4	U	8.4	4.1
98-86-2	Acetophenone	130	U *	130	12
120-12-7	Anthracene	8.4	U	8.4	4.1
1912-24-9	Atrazine	250	U	250	11
100-52-7	Benzaldehyde	130	U	130	15
56-55-3	Benzo[a]anthracene	8.4	U	8.4	4.1
50-32-8	Benzo[a]pyrene	8.4	U	8.4	4.1
205-99-2	Benzo[b]fluoranthene	8.4	U	8.4	4.1
191-24-2	Benzo[g,h,i]perylene	8.4	U	8.4	4.1
207-08-9	Benzo[k]fluoranthene	8.4	U	8.4	4.1

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-6-8 | Lab Sample ID: 240-820-14

Matrix: Solid | Lab File ID: 0714014.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:58

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.06(g) | Date Analyzed: 07/14/2011 12:42

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 20.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	130	U	130	28
111-44-4	Bis(2-chloroethyl)ether	130	U	130	2.5
117-81-7	Bis(2-ethylhexyl) phthalate	63	U	63	24
85-68-7	Butyl benzyl phthalate	63	U *	63	13
105-60-2	Caprolactam	410	U	410	46
86-74-8	Carbazole	63	U	63	34
218-01-9	Chrysene	8.4	U	8.4	1.4
84-74-2	Di-n-butyl phthalate	63	U	63	19
117-84-0	Di-n-octyl phthalate	63	U	63	34
53-70-3	Dibenzo(a,h)anthracene	8.4	U	8.4	4.1
132-64-9	Dibenzofuran	63	U	63	4.1
84-66-2	Diethyl phthalate	63	U	63	20
131-11-3	Dimethyl phthalate	63	U	63	21
206-44-0	Fluoranthene	8.4	U	8.4	4.1
86-73-7	Fluorene	8.4	U	8.4	4.1
118-74-1	Hexachlorobenzene	8.4	U	8.4	2.6
87-68-3	Hexachlorobutadiene	63	U	63	34
77-47-4	Hexachlorocyclopentadiene	410	U	410	34
67-72-1	Hexachloroethane	63	U	63	11
193-39-5	Indeno[1,2,3-cd]pyrene	8.4	U	8.4	4.1
78-59-1	Isophorone	63	U	63	16
621-64-7	N-Nitrosodi-n-propylamine	63	U	63	34
62-75-9	N-Nitrosodimethylamine	130	U	130	20
86-30-6	N-Nitrosodiphenylamine	63	U	63	26
91-20-3	Naphthalene	8.4	U	8.4	4.1
98-95-3	Nitrobenzene	130	U	130	2.8
87-86-5	Pentachlorophenol	190	U	190	100
85-01-8	Phenanthrene	8.4	U	8.4	4.1
108-95-2	Phenol	63	U	63	34
129-00-0	Pyrene	8.4	U	8.4	4.1
108-60-1	2,2'-oxybis[1-chloropropane]	130	U	130	12
606-20-2	2,6-Dinitrotoluene	250	U	250	26
100-02-7	4-Nitrophenol	410	U	410	100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-6-8 | Lab Sample ID: 240-820-14

Matrix: Solid | Lab File ID: 0714014.D

Analysis Method: 8270D | Date Collected: 06/06/2011 15:58

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.06(g) | Date Analyzed: 07/14/2011 12:42

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 20.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	69		41-119
4165-62-2	Phenol-d5 (Surr)	57		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	46		24-112
367-12-4	2-Fluorophenol (Surr)	61		26-110
321-60-8	2-Fluorobiphenyl (Surr)	50		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	39		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-0-2 | Lab Sample ID: 240-820-1

Matrix: Solid | Lab File ID: 820F1A.D

Analysis Method: 8270D | Date Collected: 06/06/2011 10:47

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.09(g) | Date Analyzed: 07/04/2011 22:06

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	62	U	62	34
123-91-1	1,4-Dioxane	120	U	120	27
88-06-2	2,4,6-Trichlorophenol	190	U	190	99
95-95-4	2,4,5-Trichlorophenol	190	U	190	31
120-83-2	2,4-Dichlorophenol	190	U	190	25
105-67-9	2,4-Dimethylphenol	190	U	190	25
51-28-5	2,4-Dinitrophenol	410	U	410	99
121-14-2	2,4-Dinitrotoluene	250	U	250	34
91-58-7	2-Chloronaphthalene	62	U	62	4.1
95-57-8	2-Chlorophenol	62	U	62	34
91-57-6	2-Methylnaphthalene	15		8.3	4.1
95-48-7	2-Methylphenol	250	U	250	99
88-74-4	2-Nitroaniline	250	U	250	11
88-75-5	2-Nitrophenol	62	U	62	34
15831-10-4	3 & 4 Methylphenol	500	U	500	25
91-94-1	3,3'-Dichlorobenzidine	120	U	120	22
99-09-2	3-Nitroaniline	250	U	250	20
534-52-1	4,6-Dinitro-2-methylphenol	190	U	190	99
101-55-3	4-Bromophenyl phenyl ether	62	U	62	16
59-50-7	4-Chloro-3-methylphenol	190	U	190	26
106-47-8	4-Chloroaniline	190	U	190	21
7005-72-3	4-Chlorophenyl phenyl ether	62	U	62	16
100-01-6	4-Nitroaniline	250	U	250	32
83-32-9	Acenaphthene	24		8.3	4.1
208-96-8	Acenaphthylene	23		8.3	4.1
98-86-2	Acetophenone	120	U	120	11
120-12-7	Anthracene	86		8.3	4.1
1912-24-9	Atrazine	250	U	250	11
100-52-7	Benzaldehyde	120	U	120	15
56-55-3	Benzo[a]anthracene	360		8.3	4.1
50-32-8	Benzo[a]pyrene	310		8.3	4.1
205-99-2	Benzo[b]fluoranthene	330		8.3	4.1
191-24-2	Benzo[g,h,i]perylene	180		8.3	4.1
207-08-9	Benzo[k]fluoranthene	250		8.3	4.1

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-0-2 | Lab Sample ID: 240-820-1

Matrix: Solid | Lab File ID: 820F1A.D

Analysis Method: 8270D | Date Collected: 06/06/2011 10:47

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.09(g) | Date Analyzed: 07/04/2011 22:06

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	27
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.5
117-81-7	Bis(2-ethylhexyl) phthalate	97		62	24
85-68-7	Butyl benzyl phthalate	62	U	62	12
105-60-2	Caprolactam	410	U	410	46
86-74-8	Carbazole	45	J	62	34
218-01-9	Chrysene	360		8.3	1.4
84-74-2	Di-n-butyl phthalate	62	U	62	19
117-84-0	Di-n-octyl phthalate	62	U	62	34
53-70-3	Dibenzo(a,h)anthracene	40		8.3	4.1
132-64-9	Dibenzofuran	15	J	62	4.1
84-66-2	Diethyl phthalate	62	U	62	20
131-11-3	Dimethyl phthalate	62	U	62	21
206-44-0	Fluoranthene	730		8.3	4.1
86-73-7	Fluorene	26		8.3	4.1
118-74-1	Hexachlorobenzene	8.3	U	8.3	2.6
87-68-3	Hexachlorobutadiene	62	U	62	34
77-47-4	Hexachlorocyclopentadiene	410	U	410	34
67-72-1	Hexachloroethane	62	U	62	11
193-39-5	Indeno[1,2,3-cd]pyrene	170		8.3	4.1
78-59-1	Isophorone	62	U	62	16
621-64-7	N-Nitrosodi-n-propylamine	62	U	62	34
62-75-9	N-Nitrosodimethylamine	120	U	120	20
86-30-6	N-Nitrosodiphenylamine	62	U	62	26
91-20-3	Naphthalene	14		8.3	4.1
98-95-3	Nitrobenzene	120	U	120	2.7
87-86-5	Pentachlorophenol	190	U	190	99
85-01-8	Phenanthrene	260		8.3	4.1
108-95-2	Phenol	62	U	62	34
129-00-0	Pyrene	590		8.3	4.1
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	12
606-20-2	2,6-Dinitrotoluene	250	U	250	26
100-02-7	4-Nitrophenol	410	U	410	99

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-0-2 | Lab Sample ID: 240-820-1

Matrix: Solid | Lab File ID: 820F1A.D

Analysis Method: 8270D | Date Collected: 06/06/2011 10:47

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.09(g) | Date Analyzed: 07/04/2011 22:06

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	60		41-119
4165-62-2	Phenol-d5 (Surr)	69		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	50		24-112
367-12-4	2-Fluorophenol (Surr)	65		26-110
321-60-8	2-Fluorobiphenyl (Surr)	50		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	23		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-6-8 | Lab Sample ID: 240-820-2

Matrix: Solid | Lab File ID: 820G2A.D

Analysis Method: 8270D | Date Collected: 06/06/2011 10:50

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.01(g) | Date Analyzed: 07/04/2011 23:03

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	64	U	64	34
123-91-1	1,4-Dioxane	130	U	130	28
88-06-2	2,4,6-Trichlorophenol	190	U	190	100
95-95-4	2,4,5-Trichlorophenol	190	U	190	32
120-83-2	2,4-Dichlorophenol	190	U	190	25
105-67-9	2,4-Dimethylphenol	190	U	190	25
51-28-5	2,4-Dinitrophenol	420	U	420	100
121-14-2	2,4-Dinitrotoluene	250	U	250	34
91-58-7	2-Chloronaphthalene	64	U	64	4.2
95-57-8	2-Chlorophenol	64	U	64	34
91-57-6	2-Methylnaphthalene	8.5	U	8.5	4.2
95-48-7	2-Methylphenol	250	U	250	100
88-74-4	2-Nitroaniline	250	U	250	12
88-75-5	2-Nitrophenol	64	U	64	34
15831-10-4	3 & 4 Methylphenol	510	U	510	25
91-94-1	3,3'-Dichlorobenzidine	130	U	130	23
99-09-2	3-Nitroaniline	250	U	250	20
534-52-1	4,6-Dinitro-2-methylphenol	190	U	190	100
101-55-3	4-Bromophenyl phenyl ether	64	U	64	17
59-50-7	4-Chloro-3-methylphenol	190	U	190	27
106-47-8	4-Chloroaniline	190	U	190	22
7005-72-3	4-Chlorophenyl phenyl ether	64	U	64	17
100-01-6	4-Nitroaniline	250	U	250	33
83-32-9	Acenaphthene	8.5	U	8.5	4.2
208-96-8	Acenaphthylene	8.5	U	8.5	4.2
98-86-2	Acetophenone	130	U	130	12
120-12-7	Anthracene	8.5	U	8.5	4.2
1912-24-9	Atrazine	250	U	250	12
100-52-7	Benzaldehyde	130	U	130	15
56-55-3	Benzo[a]anthracene	8.5	U	8.5	4.2
50-32-8	Benzo[a]pyrene	8.5	U	8.5	4.2
205-99-2	Benzo[b]fluoranthene	8.5	U	8.5	4.2
191-24-2	Benzo[g,h,i]perylene	8.5	U	8.5	4.2
207-08-9	Benzo[k]fluoranthene	8.5	U	8.5	4.2

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-6-8 | Lab Sample ID: 240-820-2

Matrix: Solid | Lab File ID: 820G2A.D

Analysis Method: 8270D | Date Collected: 06/06/2011 10:50

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.01(g) | Date Analyzed: 07/04/2011 23:03

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	130	U	130	28
111-44-4	Bis(2-chloroethyl)ether	130	U	130	2.5
117-81-7	Bis(2-ethylhexyl) phthalate	64	U	64	24
85-68-7	Butyl benzyl phthalate	64	U	64	13
105-60-2	Caprolactam	420	U	420	47
86-74-8	Carbazole	64	U	64	34
218-01-9	Chrysene	8.5	U	8.5	1.4
84-74-2	Di-n-butyl phthalate	64	U	64	19
117-84-0	Di-n-octyl phthalate	64	U	64	34
53-70-3	Dibenzo(a,h)anthracene	8.5	U	8.5	4.2
132-64-9	Dibenzofuran	64	U	64	4.2
84-66-2	Diethyl phthalate	64	U	64	20
131-11-3	Dimethyl phthalate	64	U	64	22
206-44-0	Fluoranthene	8.5	U	8.5	4.2
86-73-7	Fluorene	8.5	U	8.5	4.2
118-74-1	Hexachlorobenzene	8.5	U	8.5	2.7
87-68-3	Hexachlorobutadiene	64	U	64	34
77-47-4	Hexachlorocyclopentadiene	420	U	420	34
67-72-1	Hexachloroethane	64	U	64	11
193-39-5	Indeno[1,2,3-cd]pyrene	8.5	U	8.5	4.2
78-59-1	Isophorone	64	U	64	17
621-64-7	N-Nitrosodi-n-propylamine	64	U	64	34
62-75-9	N-Nitrosodimethylamine	130	U	130	20
86-30-6	N-Nitrosodiphenylamine	64	U	64	27
91-20-3	Naphthalene	8.5	U	8.5	4.2
98-95-3	Nitrobenzene	130	U	130	2.8
87-86-5	Pentachlorophenol	190	U	190	100
85-01-8	Phenanthrene	8.5	U	8.5	4.2
108-95-2	Phenol	64	U	64	34
129-00-0	Pyrene	8.5	U	8.5	4.2
108-60-1	2,2'-oxybis[1-chloropropane]	130	U	130	12
606-20-2	2,6-Dinitrotoluene	250	U	250	27
100-02-7	4-Nitrophenol	420	U	420	100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-6-8 | Lab Sample ID: 240-820-2

Matrix: Solid | Lab File ID: 820G2A.D

Analysis Method: 8270D | Date Collected: 06/06/2011 10:50

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.01(g) | Date Analyzed: 07/04/2011 23:03

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	58		41-119
4165-62-2	Phenol-d5 (Surr)	60		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	47		24-112
367-12-4	2-Fluorophenol (Surr)	57		26-110
321-60-8	2-Fluorobiphenyl (Surr)	44		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	25		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-0-2 | Lab Sample ID: 240-820-16

Matrix: Solid | Lab File ID: 0714037.D

Analysis Method: 8270D | Date Collected: 06/06/2011 16:42

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 29.97(g) | Date ~~Analyzed~~: 07/14/2011 18:45

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	230	U *	230	130
123-91-1	1,4-Dioxane	470	U	470	100
88-06-2	2,4,6-Trichlorophenol	700	U	700	370
95-95-4	2,4,5-Trichlorophenol	700	U	700	120
120-83-2	2,4-Dichlorophenol	700	U	700	93
105-67-9	2,4-Dimethylphenol	700	U	700	93
51-28-5	2,4-Dinitrophenol	1500	U	1500	370
121-14-2	2,4-Dinitrotoluene	930	U	930	130
91-58-7	2-Chloronaphthalene	230	U	230	15
95-57-8	2-Chlorophenol	230	U	230	130
91-57-6	2-Methylnaphthalene	31	U	31	15
95-48-7	2-Methylphenol	930	U	930	370
88-74-4	2-Nitroaniline	930	U	930	42
88-75-5	2-Nitrophenol	230	U	230	130
15831-10-4	3 & 4 Methylphenol	1900	U	1900	93
91-94-1	3,3'-Dichlorobenzidine	470	U	470	84
99-09-2	3-Nitroaniline	930	U	930	75
534-52-1	4,6-Dinitro-2-methylphenol	700	U	700	370
101-55-3	4-Bromophenyl phenyl ether	230	U	230	61
59-50-7	4-Chloro-3-methylphenol	700	U	700	98
106-47-8	4-Chloroaniline	700	U	700	79
7005-72-3	4-Chlorophenyl phenyl ether	230	U	230	61
100-01-6	4-Nitroaniline	930	U	930	120
83-32-9	Acenaphthene	31	U	31	15
208-96-8	Acenaphthylene	31	U	31	15
98-86-2	Acetophenone	470	U *	470	43
120-12-7	Anthracene	34		31	15
1912-24-9	Atrazine	930	U	930	42
100-52-7	Benzaldehyde	470	U	470	56
56-55-3	Benzo[a]anthracene	120		31	15
50-32-8	Benzo[a]pyrene	120		31	15
205-99-2	Benzo[b]fluoranthene	140		31	15
191-24-2	Benzo[g,h,i]perylene	77		31	15
207-08-9	Benzo[k]fluoranthene	39		31	15

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-0-2 | Lab Sample ID: 240-820-16

Matrix: Solid | Lab File ID: 0714037.D

Analysis Method: 8270D | Date Collected: 06/06/2011 16:42

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 29.97(g) | Date Analyzed: 07/14/2011 18:45

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	470	U	470	100
111-44-4	Bis(2-chloroethyl)ether	470	U	470	9.3
117-81-7	Bis(2-ethylhexyl) phthalate	230	U	230	89
85-68-7	Butyl benzyl phthalate	230	U *	230	47
105-60-2	Caprolactam	1500	U	1500	170
86-74-8	Carbazole	230	U	230	130
218-01-9	Chrysene	130		31	5.1
84-74-2	Di-n-butyl phthalate	230	U	230	70
117-84-0	Di-n-octyl phthalate	230	U	230	130
53-70-3	Dibenzo(a,h)anthracene	20	J	31	15
132-64-9	Dibenzofuran	230	U	230	15
84-66-2	Diethyl phthalate	230	U	230	75
131-11-3	Dimethyl phthalate	230	U	230	79
206-44-0	Fluoranthene	210		31	15
86-73-7	Fluorene	31	U	31	15
118-74-1	Hexachlorobenzene	31	U	31	9.8
87-68-3	Hexachlorobutadiene	230	U	230	130
77-47-4	Hexachlorocyclopentadiene	1500	U	1500	130
67-72-1	Hexachloroethane	230	U	230	42
193-39-5	Indeno[1,2,3-cd]pyrene	66		31	15
78-59-1	Isophorone	230	U	230	61
621-64-7	N-Nitrosodi-n-propylamine	230	U	230	130
62-75-9	N-Nitrosodimethylamine	470	U	470	75
86-30-6	N-Nitrosodiphenylamine	230	U	230	98
91-20-3	Naphthalene	31	U	31	15
98-95-3	Nitrobenzene	470	U	470	10
87-86-5	Pentachlorophenol	700	U	700	370
85-01-8	Phenanthrene	96		31	15
108-95-2	Phenol	230	U	230	130
129-00-0	Pyrene	180		31	15
108-60-1	2,2'-oxybis[1-chloropropane]	470	U	470	44
606-20-2	2,6-Dinitrotoluene	930	U	930	98
100-02-7	4-Nitrophenol	1500	U	1500	370

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-0-2 | Lab Sample ID: 240-820-16

Matrix: Solid | Lab File ID: 0714037.D

Analysis Method: 8270D | Date Collected: 06/06/2011 16:42

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 29.97(g) | Date Analyzed: 07/14/2011 18:45

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 4

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	59		41-119
4165-62-2	Phenol-d5 (Surr)	50		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	35		24-112
367-12-4	2-Fluorophenol (Surr)	48		26-110
321-60-8	2-Fluorobiphenyl (Surr)	44		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	43		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-20-22 | Lab Sample ID: 240-820-18

Matrix: Solid | Lab File ID: 820F18B.D

Analysis Method: 8270D | Date Collected: 06/06/2011 16:50

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.10(g) | Date Analyzed: 07/04/2011 22:25

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	61	U	61	33
123-91-1	1,4-Dioxane	120	U	120	27
88-06-2	2,4,6-Trichlorophenol	180	U	180	98
95-95-4	2,4,5-Trichlorophenol	180	U	180	31
120-83-2	2,4-Dichlorophenol	180	U	180	25
105-67-9	2,4-Dimethylphenol	180	U	180	25
51-28-5	2,4-Dinitrophenol	400	U	400	98
121-14-2	2,4-Dinitrotoluene	250	U	250	33
91-58-7	2-Chloronaphthalene	61	U	61	4.0
95-57-8	2-Chlorophenol	61	U	61	33
91-57-6	2-Methylnaphthalene	8.2	U	8.2	4.0
95-48-7	2-Methylphenol	250	U	250	98
88-74-4	2-Nitroaniline	250	U	250	11
88-75-5	2-Nitrophenol	61	U	61	33
15831-10-4	3 & 4 Methylphenol	490	U	490	25
91-94-1	3,3'-Dichlorobenzidine	120	U	120	22
99-09-2	3-Nitroaniline	250	U	250	20
534-52-1	4,6-Dinitro-2-methylphenol	180	U	180	98
101-55-3	4-Bromophenyl phenyl ether	61	U	61	16
59-50-7	4-Chloro-3-methylphenol	180	U	180	26
106-47-8	4-Chloroaniline	180	U	180	21
7005-72-3	4-Chlorophenyl phenyl ether	61	U	61	16
100-01-6	4-Nitroaniline	250	U	250	32
83-32-9	Acenaphthene	8.2	U	8.2	4.0
208-96-8	Acenaphthylene	8.2	U	8.2	4.0
98-86-2	Acetophenone	120	U	120	11
120-12-7	Anthracene	7.4	J	8.2	4.0
1912-24-9	Atrazine	250	U	250	11
100-52-7	Benzaldehyde	120	U	120	15
56-55-3	Benzo[a]anthracene	12		8.2	4.0
50-32-8	Benzo[a]pyrene	13		8.2	4.0
205-99-2	Benzo[b]fluoranthene	13		8.2	4.0
191-24-2	Benzo[g,h,i]perylene	8.2	U	8.2	4.0
207-08-9	Benzo[k]fluoranthene	9.6		8.2	4.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-20-22 | Lab Sample ID: 240-820-18

Matrix: Solid | Lab File ID: 820F18B.D

Analysis Method: 8270D | Date Collected: 06/06/2011 16:50

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.10(g) | Date Analyzed: 07/04/2011 22:25

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 7057 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U	120	27
111-44-4	Bis(2-chloroethyl)ether	120	U	120	2.5
117-81-7	Bis(2-ethylhexyl) phthalate	61	U	61	23
85-68-7	Butyl benzyl phthalate	61	U	61	12
105-60-2	Caprolactam	400	U	400	45
86-74-8	Carbazole	61	U	61	33
218-01-9	Chrysene	14		8.2	1.3
84-74-2	Di-n-butyl phthalate	61	U	61	18
117-84-0	Di-n-octyl phthalate	61	U	61	33
53-70-3	Dibenzo(a,h)anthracene	8.2	U	8.2	4.0
132-64-9	Dibenzofuran	61	U	61	4.0
84-66-2	Diethyl phthalate	61	U	61	20
131-11-3	Dimethyl phthalate	61	U	61	21
206-44-0	Fluoranthene	33		8.2	4.0
86-73-7	Fluorene	8.2	U	8.2	4.0
118-74-1	Hexachlorobenzene	8.2	U	8.2	2.6
87-68-3	Hexachlorobutadiene	61	U	61	33
77-47-4	Hexachlorocyclopentadiene	400	U	400	33
67-72-1	Hexachloroethane	61	U	61	11
193-39-5	Indeno[1,2,3-cd]pyrene	8.2	U	8.2	4.0
78-59-1	Isophorone	61	U	61	16
621-64-7	N-Nitrosodi-n-propylamine	61	U	61	33
62-75-9	N-Nitrosodimethylamine	120	U	120	20
86-30-6	N-Nitrosodiphenylamine	61	U	61	26
91-20-3	Naphthalene	8.2	U	8.2	4.0
98-95-3	Nitrobenzene	120	U	120	2.7
87-86-5	Pentachlorophenol	180	U	180	98
85-01-8	Phenanthrene	25		8.2	4.0
108-95-2	Phenol	61	U	61	33
129-00-0	Pyrene	24		8.2	4.0
108-60-1	2,2'-oxybis[1-chloropropane]	120	U	120	12
606-20-2	2,6-Dinitrotoluene	250	U	250	26
100-02-7	4-Nitrophenol	400	U	400	98

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-820-1
SDG No.:
Client Sample ID: GSP-SB-130-20-22
Lab Sample ID: 240-820-18
Matrix: Solid
Lab File ID: 820F18B.D
Analysis Method: 8270D
Date Collected: 06/06/2011 16:50
Extract. Method: 3540C
Date Extracted: 06/17/2011 10:57
Sample wt/vol: 30.10(g)
Date Analyzed: 07/04/2011 22:25
Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture: 18.7
GPC Cleanup:(Y/N) N
Analysis Batch No.: 7057
Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	59		41-119
4165-62-2	Phenol-d5 (Surr)	62		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	49		24-112
367-12-4	2-Fluorophenol (Surr)	58		26-110
321-60-8	2-Fluorobiphenyl (Surr)	47		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	18		10-118

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-6-8 | Lab Sample ID: 240-820-17

Matrix: Solid | Lab File ID: 0714015.D

Analysis Method: 8270D | Date Collected: 06/06/2011 16:45

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 29.93(g) | Date Analyzed: 07/14/2011 13:00

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	60	U *	60	33
123-91-1	1,4-Dioxane	120	U	120	27
88-06-2	2,4,6-Trichlorophenol	180	U	180	96
95-95-4	2,4,5-Trichlorophenol	180	U	180	30
120-83-2	2,4-Dichlorophenol	180	U	180	24
105-67-9	2,4-Dimethylphenol	180	U	180	24
51-28-5	2,4-Dinitrophenol	400	U	400	96
121-14-2	2,4-Dinitrotoluene	240	U	240	33
91-58-7	2-Chloronaphthalene	60	U	60	4.0
95-57-8	2-Chlorophenol	60	U	60	33
91-57-6	2-Methylnaphthalene	8.0	U	8.0	4.0
95-48-7	2-Methylphenol	240	U	240	96
88-74-4	2-Nitroaniline	240	U	240	11
88-75-5	2-Nitrophenol	60	U	60	33
15831-10-4	3 & 4 Methylphenol	480	U	480	24
91-94-1	3,3'-Dichlorobenzidine	120	U	120	22
99-09-2	3-Nitroaniline	240	U	240	19
534-52-1	4,6-Dinitro-2-methylphenol	180	U	180	96
101-55-3	4-Bromophenyl phenyl ether	60	U	60	16
59-50-7	4-Chloro-3-methylphenol	180	U	180	25
106-47-8	4-Chloroaniline	180	U	180	21
7005-72-3	4-Chlorophenyl phenyl ether	60	U	60	16
100-01-6	4-Nitroaniline	240	U	240	31
83-32-9	Acenaphthene	8.0	U	8.0	4.0
208-96-8	Acenaphthylene	8.0	U	8.0	4.0
98-86-2	Acetophenone	120	U *	120	11
120-12-7	Anthracene	8.0	U	8.0	4.0
1912-24-9	Atrazine	240	U	240	11
100-52-7	Benzaldehyde	120	U	120	14
56-55-3	Benzo[a]anthracene	8.0	U	8.0	4.0
50-32-8	Benzo[a]pyrene	8.0	U	8.0	4.0
205-99-2	Benzo[b]fluoranthene	8.0	U	8.0	4.0
191-24-2	Benzo[g,h,i]perylene	8.0	U	8.0	4.0
207-08-9	Benzo[k]fluoranthene	8.0	U	8.0	4.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-6-8 | Lab Sample ID: 240-820-17

Matrix: Solid | Lab File ID: 0714015.D

Analysis Method: 8270D | Date Collected: 06/06/2011 16:45

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 29.93(g) | Date Analyzed: 07/14/2011 13:00

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 16.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q		RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	120	U		120	27
111-44-4	Bis(2-chloroethyl)ether	120	U		120	2.4
117-81-7	Bis(2-ethylhexyl) phthalate	60	U		60	23
85-68-7	Butyl benzyl phthalate	60	U	*	60	12
105-60-2	Caprolactam	400	U		400	45
86-74-8	Carbazole	60	U		60	33
218-01-9	Chrysene	8.0	U		8.0	1.3
84-74-2	Di-n-butyl phthalate	60	U		60	18
117-84-0	Di-n-octyl phthalate	60	U		60	33
53-70-3	Dibenzo(a,h)anthracene	8.0	U		8.0	4.0
132-64-9	Dibenzofuran	60	U		60	4.0
84-66-2	Diethyl phthalate	60	U		60	19
131-11-3	Dimethyl phthalate	60	U		60	21
206-44-0	Fluoranthene	8.0	U		8.0	4.0
86-73-7	Fluorene	8.0	U		8.0	4.0
118-74-1	Hexachlorobenzene	8.0	U		8.0	2.5
87-68-3	Hexachlorobutadiene	60	U		60	33
77-47-4	Hexachlorocyclopentadiene	400	U		400	33
67-72-1	Hexachloroethane	60	U		60	11
193-39-5	Indeno[1,2,3-cd]pyrene	8.0	U		8.0	4.0
78-59-1	Isophorone	60	U		60	16
621-64-7	N-Nitrosodi-n-propylamine	60	U		60	33
62-75-9	N-Nitrosodimethylamine	120	U		120	19
86-30-6	N-Nitrosodiphenylamine	60	U		60	25
91-20-3	Naphthalene	8.0	U		8.0	4.0
98-95-3	Nitrobenzene	120	U		120	2.7
87-86-5	Pentachlorophenol	180	U		180	96
85-01-8	Phenanthrene	8.0	U		8.0	4.0
108-95-2	Phenol	60	U		60	33
129-00-0	Pyrene	8.0	U		8.0	4.0
108-60-1	2,2'-oxybis[1-chloropropane]	120	U		120	11
606-20-2	2,6-Dinitrotoluene	240	U		240	25
100-02-7	4-Nitrophenol	400	U		400	96

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-6-8 Lab Sample ID: 240-820-17

Matrix: Solid Lab File ID: 0714015.D

Analysis Method: 8270D Date Collected: 06/06/2011 16:45

Extract. Method: 3540C Date Extracted: 06/15/2011 11:06

Sample wt/vol: 29.93(g) Date Analyzed: 07/14/2011 13:00

Con. Extract Vol.: 2.00(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: 16.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	64		41-119
4165-62-2	Phenol-d5 (Surr)	54		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	45		24-112
367-12-4	2-Fluorophenol (Surr)	59		26-110
321-60-8	2-Fluorobiphenyl (Surr)	48		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	41		10-118

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 | Lab Sample ID: 240-820-4

Matrix: Solid | Lab File ID: 06171114_019.d

Analysis Method: 8015C | Date Collected: 06/06/2011 11:55

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 14:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 9.3 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	55	U	55	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	88		64-116
460-00-4	4-Bromofluorobenzene	79		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-6-8 | Lab Sample ID: 240-820-5

Matrix: Solid | Lab File ID: 06171114_020.d

Analysis Method: 8015C | Date Collected: 06/06/2011 11:58

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 14:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 18.4 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	61	U	61	31

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	96		64-116
460-00-4	4-Bromofluorobenzene	89		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-0-2 | Lab Sample ID: 240-820-7

Matrix: Solid | Lab File ID: 06171114_021.d

Analysis Method: 8015C | Date Collected: 06/06/2011 13:05

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 15:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 9.1 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	55	U	55	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	79		64-116
460-00-4	4-Bromofluorobenzene	70		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-6-8 | Lab Sample ID: 240-820-8

Matrix: Solid | Lab File ID: 06171114_023.d

Analysis Method: 8015C | Date Collected: 06/06/2011 13:08

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 16:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 17.1 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	60	U	60	30

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	95		64-116
460-00-4	4-Bromofluorobenzene	88		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-0-2 | Lab Sample ID: 240-820-10

Matrix: Solid | Lab File ID: 06171114_024.d

Analysis Method: 8015C | Date Collected: 06/06/2011 15:05

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 17:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 9.4 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	55	U	55	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	81		64-116
460-00-4	4-Bromofluorobenzene	70		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-20-22 | Lab Sample ID: 240-820-12

Matrix: Solid | Lab File ID: 06171114_026.d

Analysis Method: 8015C | Date Collected: 06/06/2011 15:16

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 18:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 23.6 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	65	U	65	33

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	93		64-116
460-00-4	4-Bromofluorobenzene	88		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-8-10 | Lab Sample ID: 240-820-11

Matrix: Solid | Lab File ID: 06171114_025.d

Analysis Method: 8015C | Date Collected: 06/06/2011 15:13

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 17:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 15.6 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	59	U	59	30

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	93		64-116
460-00-4	4-Bromofluorobenzene	86		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-0-2 | Lab Sample ID: 240-820-13

Matrix: Solid | Lab File ID: 06171114_027.d

Analysis Method: 8015C | Date Collected: 06/06/2011 15:55

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 19:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 12.0 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	57	U	57	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	88		64-116
460-00-4	4-Bromofluorobenzene	78		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-6-8 | Lab Sample ID: 240-820-14

Matrix: Solid | Lab File ID: 06171114_028.d

Analysis Method: 8015C | Date Collected: 06/06/2011 15:58

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 19:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 20.3 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	63	U	63	31

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	94		64-116
460-00-4	4-Bromofluorobenzene	87		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-0-2 | Lab Sample ID: 240-820-1

Matrix: Solid | Lab File ID: 06171114_015.d

Analysis Method: 8015C | Date Collected: 06/06/2011 10:47

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 11:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 19.8 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	62	U	62	31

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	99		64-116
460-00-4	4-Bromofluorobenzene	91		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-6-8 | Lab Sample ID: 240-820-2

Matrix: Solid | Lab File ID: 06171114_018.d

Analysis Method: 8015C | Date Collected: 06/06/2011 10:50

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 13:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 21.4 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	64	U	64	32

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	95		64-116
460-00-4	4-Bromofluorobenzene	89		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-0-2 | Lab Sample ID: 240-820-16

Matrix: Solid | Lab File ID: 06171114_029.d

Analysis Method: 8015C | Date Collected: 06/06/2011 16:42

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 20:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 14.3 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	58	U	58	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	84		64-116
460-00-4	4-Bromofluorobenzene	75		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-20-22 | Lab Sample ID: 240-820-18

Matrix: Solid | Lab File ID: 06171114_031.d

Analysis Method: 8015C | Date Collected: 06/06/2011 16:50

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 21:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 18.7 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	62	U	62	31

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	92		64-116
460-00-4	4-Bromofluorobenzene	84		51-117

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-6-8 | Lab Sample ID: 240-820-17

Matrix: Solid | Lab File ID: 06171114_030.d

Analysis Method: 8015C | Date Collected: 06/06/2011 16:45

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 20:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: 16.9 | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	60	U	60	30

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	92		64-116
460-00-4	4-Bromofluorobenzene	87		51-117

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 | Lab Sample ID: 240-820-4

Matrix: Solid | Lab File ID: P14F0000019.D

Analysis Method: 8015C | Date Collected: 06/06/2011 11:55

Extraction Method: 3540C | Date Extracted: 06/15/2011 10:36

Sample wt/vol: 30.16(g) | Date Analyzed: 06/20/2011 19:38

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 9.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5353 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	42		18	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	45		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-6-8 | Lab Sample ID: 240-820-5

Matrix: Solid | Lab File ID: P14F0000020.D

Analysis Method: 8015C | Date Collected: 06/06/2011 11:58

Extraction Method: 3540C | Date Extracted: 06/15/2011 10:36

Sample wt/vol: 30.06(g) | Date Analyzed: 06/20/2011 20:02

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 18.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5353 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	20	U	20	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	48		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-0-2 | Lab Sample ID: 240-820-7

Matrix: Solid | Lab File ID: P14F0000021.D

Analysis Method: 8015C | Date Collected: 06/06/2011 13:05

Extraction Method: 3540C | Date Extracted: 06/15/2011 10:36

Sample wt/vol: 30.14(g) | Date Analyzed: 06/20/2011 20:26

Con. Extract Vol.: 5(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 9.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5353 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	890		180	100

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	39		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-6-8 Lab Sample ID: 240-820-8

Matrix: Solid Lab File ID: P14F0000022.D

Analysis Method: 8015C Date Collected: 06/06/2011 13:08

Extraction Method: 3540C Date Extracted: 06/15/2011 10:36

Sample wt/vol: 30.16(g) Date Analyzed: 06/20/2011 20:51

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 17.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 5353 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	20	U	20	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	42		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-0-2 | Lab Sample ID: 240-820-10

Matrix: Solid | Lab File ID: P14F0000023.D

Analysis Method: 8015C | Date Collected: 06/06/2011 15:05

Extraction Method: 3540C | Date Extracted: 06/15/2011 10:36

Sample wt/vol: 30.16(g) | Date Analyzed: 06/20/2011 21:15

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 9.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5353 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	18	U	18	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	44		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-20-22 | Lab Sample ID: 240-820-12

Matrix: Solid | Lab File ID: P14F0000025.D

Analysis Method: 8015C | Date Collected: 06/06/2011 15:16

Extraction Method: 3540C | Date Extracted: 06/15/2011 10:36

Sample wt/vol: 30.03(g) | Date Analyzed: 06/20/2011 22:04

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 23.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5353 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	22	U	22	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	46		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-8-10 | Lab Sample ID: 240-820-11

Matrix: Solid | Lab File ID: P14F0000024.D

Analysis Method: 8015C | Date Collected: 06/06/2011 15:13

Extraction Method: 3540C | Date Extracted: 06/15/2011 10:36

Sample wt/vol: 30.09(g) | Date Analyzed: 06/20/2011 21:39

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5353 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	20	U	20	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	46		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-0-2 Lab Sample ID: 240-820-13

Matrix: Solid Lab File ID: P14F0000026.D

Analysis Method: 8015C Date Collected: 06/06/2011 15:55

Extraction Method: 3540C Date Extracted: 06/15/2011 10:36

Sample wt/vol: 30.17(g) Date Analyzed: 06/20/2011 22:28

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 12.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 5353 Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	19	U	19	10

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	44		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-6-8 | Lab Sample ID: 240-820-14

Matrix: Solid | Lab File ID: P5062318.D

Analysis Method: 8015C | Date Collected: 06/06/2011 15:58

Extraction Method: 3540C | Date Extracted: 06/16/2011 11:17

Sample wt/vol: 29.90(g) | Date Analyzed: 06/23/2011 20:29

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 20.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5859 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	21	U	21	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	41		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-0-2 | Lab Sample ID: 240-820-1

Matrix: Solid | Lab File ID: P14F0000015.D

Analysis Method: 8015C | Date Collected: 06/06/2011 10:47

Extraction Method: 3540C | Date Extracted: 06/15/2011 10:36

Sample wt/vol: 30.01(g) | Date Analyzed: 06/20/2011 18:00

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 19.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5353 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	21	U	21	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	43		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-6-8 | Lab Sample ID: 240-820-2

Matrix: Solid | Lab File ID: P14F0000018.D

Analysis Method: 8015C | Date Collected: 06/06/2011 10:50

Extraction Method: 3540C | Date Extracted: 06/15/2011 10:36

Sample wt/vol: 30.13(g) | Date Analyzed: 06/20/2011 19:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5353 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	21	U	21	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	23		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-0-2 | Lab Sample ID: 240-820-16

Matrix: Solid | Lab File ID: P5062319.D

Analysis Method: 8015C | Date Collected: 06/06/2011 16:42

Extraction Method: 3540C | Date Extracted: 06/16/2011 11:17

Sample wt/vol: 29.90(g) | Date Analyzed: 06/23/2011 20:57

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 14.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5859 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	100		20	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	35		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-20-22 | Lab Sample ID: 240-820-18

Matrix: Solid | Lab File ID: P5062321.D

Analysis Method: 8015C | Date Collected: 06/06/2011 16:50

Extraction Method: 3540C | Date Extracted: 06/16/2011 11:17

Sample wt/vol: 29.99(g) | Date Analyzed: 06/23/2011 21:53

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 18.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5859 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	21	U	21	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	34		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-6-8 | Lab Sample ID: 240-820-17

Matrix: Solid | Lab File ID: P5062320.D

Analysis Method: 8015C | Date Collected: 06/06/2011 16:45

Extraction Method: 3540C | Date Extracted: 06/16/2011 11:17

Sample wt/vol: 30.06(g) | Date Analyzed: 06/23/2011 21:25

Con. Extract Vol.: 5.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 16.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5859 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	20	U	20	11

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	42		10-110

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 | Lab Sample ID: 240-820-4

Matrix: Solid | Lab File ID: P1361730.D

Analysis Method: 8082A | Date Collected: 06/06/2011 11:55

Extraction Method: 3540C | Date Extracted: 06/15/2011 11:49

Sample wt/vol: 30.00(g) | Date Analyzed: 06/17/2011 19:57

Con. Extract Vol.: 10(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 9.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5183 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*180*	*U*	*180*	*120*
11104-28-2	*Aroclor-1221*	*180*	*U*	*180*	*88*
11141-16-5	*Aroclor-1232*	*180*	*U*	*180*	*77*
53469-21-9	*Aroclor-1242*	*180*	*U*	*180*	*72*
12672-29-6	*Aroclor-1248*	*180*	*U*	*180*	*94*
11097-69-1	*Aroclor-1254*	*180*	*U*	*180*	*94*
11096-82-5	*Aroclor-1260*	*690*		*180*	*94*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	80		29-151
2051-24-3	Decachlorobiphenyl	96		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 | Lab Sample ID: 240-820-4

Matrix: Solid | Lab File ID: P1361730.D

Analysis Method: 8082A | Date Collected: 06/06/2011 11:55

Extraction Method: 3540C | Date Extracted: 06/15/2011 11:49

Sample wt/vol: 30.00(g) | Date Analyzed: 06/17/2011 19:57

Con. Extract Vol.: 10(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 9.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5183 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	180	U	180	120
11104-28-2	Aroclor-1221	180	U	180	88
11141-16-5	Aroclor-1232	180	U	180	77
53469-21-9	Aroclor-1242	180	U	180	72
12672-29-6	Aroclor-1248	180	U	180	94
11097-69-1	Aroclor-1254	180	U	180	94
11096-82-5	Aroclor-1260	640		180	94

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	86		29-151
2051-24-3	Decachlorobiphenyl	93		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-6-8 | Lab Sample ID: 240-820-5

Matrix: Solid | Lab File ID: P1361731.D

Analysis Method: 8082A | Date Collected: 06/06/2011 11:58

Extraction Method: 3540C | Date Extracted: 06/15/2011 11:49

Sample wt/vol: 30.00(g) | Date Analyzed: 06/17/2011 20:12

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 18.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5183 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*40*	*U*	*40*	*26*
11104-28-2	*Aroclor-1221*	*40*	*U*	*40*	*20*
11141-16-5	*Aroclor-1232*	*40*	*U*	*40*	*17*
53469-21-9	*Aroclor-1242*	*40*	*U*	*40*	*16*
12672-29-6	*Aroclor-1248*	*40*	*U*	*40*	*21*
11097-69-1	*Aroclor-1254*	*40*	*U*	*40*	*21*
11096-82-5	*Aroclor-1260*	*40*	*U*	*40*	*21*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	71		29-151
2051-24-3	Decachlorobiphenyl	83		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-6-8 | Lab Sample ID: 240-820-5

Matrix: Solid | Lab File ID: P1361731.D

Analysis Method: 8082A | Date Collected: 06/06/2011 11:58

Extraction Method: 3540C | Date Extracted: 06/15/2011 11:49

Sample wt/vol: 30.00(g) | Date Analyzed: 06/17/2011 20:12

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 18.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5183 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	40	U	40	26
11104-28-2	Aroclor-1221	40	U	40	20
11141-16-5	Aroclor-1232	40	U	40	17
53469-21-9	Aroclor-1242	40	U	40	16
12672-29-6	Aroclor-1248	40	U	40	21
11097-69-1	Aroclor-1254	40	U	40	21
11096-82-5	Aroclor-1260	40	U	40	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	77		29-151
2051-24-3	Decachlorobiphenyl	90		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-0-2 | Lab Sample ID: 240-820-7

Matrix: Solid | Lab File ID: P1262408.D

Analysis Method: 8082A | Date Collected: 06/06/2011 13:05

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.11(g) | Date Analyzed: 06/24/2011 14:47

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 9.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*36*	*U H*	*36*	*23*
11104-28-2	*Aroclor-1221*	*36*	*U H*	*36*	*18*
11141-16-5	*Aroclor-1232*	*36*	*U H*	*36*	*15*
53469-21-9	*Aroclor-1242*	*36*	*U H*	*36*	*14*
12672-29-6	*Aroclor-1248*	*36*	*U H*	*36*	*19*
11097-69-1	*Aroclor-1254*	*36*	*U H*	*36*	*19*
11096-82-5	*Aroclor-1260*	*36*	*U H*	*36*	*19*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	68		29-151
2051-24-3	Decachlorobiphenyl	117		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-0-2 | Lab Sample ID: 240-820-7

Matrix: Solid | Lab File ID: P1262408.D

Analysis Method: 8082A | Date Collected: 06/06/2011 13:05

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.11(g) | Date Analyzed: 06/24/2011 14:47

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 9.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	36	U H	36	23
11104-28-2	Aroclor-1221	36	U H	36	18
11141-16-5	Aroclor-1232	36	U H	36	15
53469-21-9	Aroclor-1242	36	U H	36	14
12672-29-6	Aroclor-1248	36	U H	36	19
11097-69-1	Aroclor-1254	36	U H	36	19
11096-82-5	Aroclor-1260	24	J H	36	19

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	96		29-151
2051-24-3	Decachlorobiphenyl	68		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-6-8 | Lab Sample ID: 240-820-8

Matrix: Solid | Lab File ID: P1262409.D

Analysis Method: 8082A | Date Collected: 06/06/2011 13:08

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 29.94(g) | Date Analyzed: 06/24/2011 15:02

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 17.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*40*	*U H*	*40*	*25*
11104-28-2	*Aroclor-1221*	*40*	*U H*	*40*	*19*
11141-16-5	*Aroclor-1232*	*40*	*U H*	*40*	*17*
53469-21-9	*Aroclor-1242*	*40*	*U H*	*40*	*16*
12672-29-6	*Aroclor-1248*	*40*	*U H*	*40*	*21*
11097-69-1	*Aroclor-1254*	*40*	*U H*	*40*	*21*
11096-82-5	*Aroclor-1260*	*40*	*U H*	*40*	*21*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	68		29-151
2051-24-3	Decachlorobiphenyl	70		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-6-8 | Lab Sample ID: 240-820-8

Matrix: Solid | Lab File ID: P1262409.D

Analysis Method: 8082A | Date Collected: 06/06/2011 13:08

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 29.94(g) | Date Analyzed: 06/24/2011 15:02

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 17.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	40	U H	40	25
11104-28-2	Aroclor-1221	40	U H	40	19
11141-16-5	Aroclor-1232	40	U H	40	17
53469-21-9	Aroclor-1242	40	U H	40	16
12672-29-6	Aroclor-1248	40	U H	40	21
11097-69-1	Aroclor-1254	40	U H	40	21
11096-82-5	Aroclor-1260	40	U H	40	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	64		29-151
2051-24-3	Decachlorobiphenyl	73		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-0-2 | Lab Sample ID: 240-820-10

Matrix: Solid | Lab File ID: P1262410.D

Analysis Method: 8082A | Date Collected: 06/06/2011 15:05

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.15(g) | Date Analyzed: 06/24/2011 15:17

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 9.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*36*	*U H*	*36*	*23*
11104-28-2	*Aroclor-1221*	*36*	*U H*	*36*	*18*
11141-16-5	*Aroclor-1232*	*36*	*U H*	*36*	*15*
53469-21-9	*Aroclor-1242*	*36*	*U H*	*36*	*14*
12672-29-6	*Aroclor-1248*	*36*	*U H*	*36*	*19*
11097-69-1	*Aroclor-1254*	*36*	*U H*	*36*	*19*
11096-82-5	*Aroclor-1260*	*36*	*U H*	*36*	*19*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	80		29-151
2051-24-3	Decachlorobiphenyl	80		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-0-2 | Lab Sample ID: 240-820-10

Matrix: Solid | Lab File ID: P1262410.D

Analysis Method: 8082A | Date Collected: 06/06/2011 15:05

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.15(g) | Date Analyzed: 06/24/2011 15:17

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 9.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	36	U H	36	23
11104-28-2	Aroclor-1221	36	U H	36	18
11141-16-5	Aroclor-1232	36	U H	36	15
53469-21-9	Aroclor-1242	36	U H	36	14
12672-29-6	Aroclor-1248	36	U H	36	19
11097-69-1	Aroclor-1254	36	U H	36	19
11096-82-5	Aroclor-1260	36	U H	36	19

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	79		29-151
2051-24-3	Decachlorobiphenyl	76		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-8-10 | Lab Sample ID: 240-820-11

Matrix: Solid | Lab File ID: P1262411.D

Analysis Method: 8082A | Date Collected: 06/06/2011 15:13

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.11(g) | Date Analyzed: 06/24/2011 15:31

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*39*	*U H*	*39*	*25*
11104-28-2	*Aroclor-1221*	*39*	*U H*	*39*	*19*
11141-16-5	*Aroclor-1232*	*39*	*U H*	*39*	*17*
53469-21-9	*Aroclor-1242*	*39*	*U H*	*39*	*15*
12672-29-6	*Aroclor-1248*	*39*	*U H*	*39*	*20*
11097-69-1	*Aroclor-1254*	*39*	*U H*	*39*	*20*
11096-82-5	*Aroclor-1260*	*39*	*U H*	*39*	*20*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	72		29-151
2051-24-3	Decachlorobiphenyl	73		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-126-8-10 | Lab Sample ID: 240-820-11

Matrix: Solid | Lab File ID: P1262411.D

Analysis Method: 8082A | Date Collected: 06/06/2011 15:13

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.11(g) | Date Analyzed: 06/24/2011 15:31

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 15.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	39	U H	39	25
11104-28-2	Aroclor-1221	39	U H	39	19
11141-16-5	Aroclor-1232	39	U H	39	17
53469-21-9	Aroclor-1242	39	U H	39	15
12672-29-6	Aroclor-1248	39	U H	39	20
11097-69-1	Aroclor-1254	39	U H	39	20
11096-82-5	Aroclor-1260	39	U H	39	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	72		29-151
2051-24-3	Decachlorobiphenyl	69		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-0-2 Lab Sample ID: 240-820-13

Matrix: Solid Lab File ID: P1262412.D

Analysis Method: 8082A Date Collected: 06/06/2011 15:55

Extraction Method: 3540C Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.17(g) Date Analyzed: 06/24/2011 15:46

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 12.0 GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*37*	*U H*	*37*	*24*
11104-28-2	*Aroclor-1221*	*37*	*U H*	*37*	*18*
11141-16-5	*Aroclor-1232*	*37*	*U H*	*37*	*16*
53469-21-9	*Aroclor-1242*	*37*	*U H*	*37*	*15*
12672-29-6	*Aroclor-1248*	*37*	*U H*	*37*	*19*
11097-69-1	*Aroclor-1254*	*37*	*U H*	*37*	*19*
11096-82-5	*Aroclor-1260*	*61*	*H*	*37*	*19*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	58		29-151
2051-24-3	Decachlorobiphenyl	73		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-0-2 | Lab Sample ID: 240-820-13

Matrix: Solid | Lab File ID: P1262412.D

Analysis Method: 8082A | Date Collected: 06/06/2011 15:55

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.17(g) | Date Analyzed: 06/24/2011 15:46

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 12.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	37	U H	37	24
11104-28-2	Aroclor-1221	37	U H	37	18
11141-16-5	Aroclor-1232	37	U H	37	16
53469-21-9	Aroclor-1242	37	U H	37	15
12672-29-6	Aroclor-1248	37	U H	37	19
11097-69-1	Aroclor-1254	37	U H	37	19
11096-82-5	Aroclor-1260	62	H	37	19

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	60		29-151
2051-24-3	Decachlorobiphenyl	65		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-6-8 Lab Sample ID: 240-820-14

Matrix: Solid Lab File ID: P1262413.D

Analysis Method: 8082A Date Collected: 06/06/2011 15:58

Extraction Method: 3540C Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.01(g) Date Analyzed: 06/24/2011 16:01

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 20.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*41*	*U H*	*41*	*26*
11104-28-2	*Aroclor-1221*	*41*	*U H*	*41*	*20*
11141-16-5	*Aroclor-1232*	*41*	*U H*	*41*	*18*
53469-21-9	*Aroclor-1242*	*41*	*U H*	*41*	*16*
12672-29-6	*Aroclor-1248*	*41*	*U H*	*41*	*21*
11097-69-1	*Aroclor-1254*	*41*	*U H*	*41*	*21*
11096-82-5	*Aroclor-1260*	*41*	*U H*	*41*	*21*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	86		29-151
2051-24-3	Decachlorobiphenyl	89		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-6-8 | Lab Sample ID: 240-820-14

Matrix: Solid | Lab File ID: P1262413.D

Analysis Method: 8082A | Date Collected: 06/06/2011 15:58

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.01(g) | Date Analyzed: 06/24/2011 16:01

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 20.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	41	U H	41	26
11104-28-2	Aroclor-1221	41	U H	41	20
11141-16-5	Aroclor-1232	41	U H	41	18
53469-21-9	Aroclor-1242	41	U H	41	16
12672-29-6	Aroclor-1248	41	U H	41	21
11097-69-1	Aroclor-1254	41	U H	41	21
11096-82-5	Aroclor-1260	41	U H	41	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	79		29-151
2051-24-3	Decachlorobiphenyl	80		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-0-2 | Lab Sample ID: 240-820-1

Matrix: Solid | Lab File ID: P1361728.D

Analysis Method: 8082A | Date Collected: 06/06/2011 10:47

Extraction Method: 3540C | Date Extracted: 06/15/2011 11:49

Sample wt/vol: 29.96(g) | Date Analyzed: 06/17/2011 19:27

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 19.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5183 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	41	U	41	26
11104-28-2	Aroclor-1221	41	U	41	20
11141-16-5	Aroclor-1232	41	U	41	17
53469-21-9	Aroclor-1242	41	U	41	16
12672-29-6	Aroclor-1248	41	U	41	21
11097-69-1	Aroclor-1254	41	U	41	21
11096-82-5	Aroclor-1260	27	J	41	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	75		29-151
2051-24-3	Decachlorobiphenyl	75		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-0-2 | Lab Sample ID: 240-820-1

Matrix: Solid | Lab File ID: P1361728.D

Analysis Method: 8082A | Date Collected: 06/06/2011 10:47

Extraction Method: 3540C | Date Extracted: 06/15/2011 11:49

Sample wt/vol: 29.96(g) | Date Analyzed: 06/17/2011 19:27

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 19.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5183 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	41	U	41	26
11104-28-2	Aroclor-1221	41	U	41	20
11141-16-5	Aroclor-1232	41	U	41	17
53469-21-9	Aroclor-1242	41	U	41	16
12672-29-6	Aroclor-1248	41	U	41	21
11097-69-1	Aroclor-1254	41	U	41	21
11096-82-5	Aroclor-1260	30	J	41	21

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	80		29-151
2051-24-3	Decachlorobiphenyl	77		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-6-8 | Lab Sample ID: 240-820-2

Matrix: Solid | Lab File ID: P1361729.D

Analysis Method: 8082A | Date Collected: 06/06/2011 10:50

Extraction Method: 3540C | Date Extracted: 06/15/2011 11:49

Sample wt/vol: 30.02(g) | Date Analyzed: 06/17/2011 19:43

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5183 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*42*	*U*	*42*	*27*
11104-28-2	*Aroclor-1221*	*42*	*U*	*42*	*20*
11141-16-5	*Aroclor-1232*	*42*	*U*	*42*	*18*
53469-21-9	*Aroclor-1242*	*42*	*U*	*42*	*17*
12672-29-6	*Aroclor-1248*	*42*	*U*	*42*	*22*
11097-69-1	*Aroclor-1254*	*42*	*U*	*42*	*22*
11096-82-5	*Aroclor-1260*	*42*	*U*	*42*	*22*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	82		29-151
2051-24-3	Decachlorobiphenyl	89		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-6-8 | Lab Sample ID: 240-820-2

Matrix: Solid | Lab File ID: P1361729.D

Analysis Method: 8082A | Date Collected: 06/06/2011 10:50

Extraction Method: 3540C | Date Extracted: 06/15/2011 11:49

Sample wt/vol: 30.02(g) | Date Analyzed: 06/17/2011 19:43

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 21.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5183 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	42	U	42	27
11104-28-2	Aroclor-1221	42	U	42	20
11141-16-5	Aroclor-1232	42	U	42	18
53469-21-9	Aroclor-1242	42	U	42	17
12672-29-6	Aroclor-1248	42	U	42	22
11097-69-1	Aroclor-1254	42	U	42	22
11096-82-5	Aroclor-1260	42	U	42	22

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	89		29-151
2051-24-3	Decachlorobiphenyl	90		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-0-2 | Lab Sample ID: 240-820-16

Matrix: Solid | Lab File ID: P1262414.D

Analysis Method: 8082A | Date Collected: 06/06/2011 16:42

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.11(g) | Date Analyzed: 06/24/2011 16:15

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 14.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	38	U H	38	24
11104-28-2	Aroclor-1221	38	U H	38	19
11141-16-5	Aroclor-1232	38	U H	38	16
53469-21-9	Aroclor-1242	38	U H	38	15
12672-29-6	Aroclor-1248	38	U H	38	20
11097-69-1	Aroclor-1254	38	U H	38	20
11096-82-5	Aroclor-1260	58	H	38	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	82		29-151
2051-24-3	Decachlorobiphenyl	92		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-0-2 | Lab Sample ID: 240-820-16

Matrix: Solid | Lab File ID: P1262414.D

Analysis Method: 8082A | Date Collected: 06/06/2011 16:42

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.11(g) | Date Analyzed: 06/24/2011 16:15

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 14.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	38	U H	38	24
11104-28-2	Aroclor-1221	38	U H	38	19
11141-16-5	Aroclor-1232	38	U H	38	16
53469-21-9	Aroclor-1242	38	U H	38	15
12672-29-6	Aroclor-1248	38	U H	38	20
11097-69-1	Aroclor-1254	38	U H	38	20
11096-82-5	Aroclor-1260	56	H	38	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	96		29-151
2051-24-3	Decachlorobiphenyl	84		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-6-8 | Lab Sample ID: 240-820-17

Matrix: Solid | Lab File ID: P1262415.D

Analysis Method: 8082A | Date Collected: 06/06/2011 16:45

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.04(g) | Date Analyzed: 06/24/2011 16:29

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 16.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*40*	*U H*	*40*	*25*
11104-28-2	*Aroclor-1221*	*40*	*U H*	*40*	*19*
11141-16-5	*Aroclor-1232*	*40*	*U H*	*40*	*17*
53469-21-9	*Aroclor-1242*	*40*	*U H*	*40*	*16*
12672-29-6	*Aroclor-1248*	*40*	*U H*	*40*	*20*
11097-69-1	*Aroclor-1254*	*40*	*U H*	*40*	*20*
11096-82-5	*Aroclor-1260*	*40*	*U H*	*40*	*20*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	72		29-151
2051-24-3	Decachlorobiphenyl	69		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-6-8 | Lab Sample ID: 240-820-17

Matrix: Solid | Lab File ID: P1262415.D

Analysis Method: 8082A | Date Collected: 06/06/2011 16:45

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30.04(g) | Date Analyzed: 06/24/2011 16:29

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 16.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	40	U H	40	25
11104-28-2	Aroclor-1221	40	U H	40	19
11141-16-5	Aroclor-1232	40	U H	40	17
53469-21-9	Aroclor-1242	40	U H	40	16
12672-29-6	Aroclor-1248	40	U H	40	20
11097-69-1	Aroclor-1254	40	U H	40	20
11096-82-5	Aroclor-1260	40	U H	40	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	70		29-151
2051-24-3	Decachlorobiphenyl	68		14-163

APPENDIX C

SUPPORT DOCUMENTATION

HOLDTIM

PROJ_NO 03279

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-820-1	HG	MG/KG	GSP-SB-128-6-8	240-820-2	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-127-0-2	240-820-13	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-126-8-10	240-820-11	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-126-0-2	240-820-10	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-127-6-8	240-820-14	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-124-6-8	240-820-8	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-128-0-2	240-820-1	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-130-0-2	240-820-16	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-124-0-2	240-820-7	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-130-6-8	240-820-17	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-123-6-8	240-820-5	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-123-0-2	240-820-4	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	M	MG/KG	GSP-SB-130-0-2	240-820-16	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-126-8-10	240-820-11	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-128-0-2	240-820-1	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-127-6-8	240-820-14	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-820-1	M	MG/KG	GSP-SB-130-6-8	240-820-17	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-127-0-2	240-820-13	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-128-6-8	240-820-2	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-124-0-2	240-820-7	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-126-0-2	240-820-10	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-123-6-8	240-820-5	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-124-6-8	240-820-8	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-123-0-2	240-820-4	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	OS	UG/KG	GSP-SB-123-0-2	240-820-4	NM	06/06/2011	06/17/2011	06/29/2011	11	12	23
240-820-1	OS	UG/KG	GSP-SB-126-8-10	240-820-11	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-126-20-22	240-820-12	NM	06/06/2011	06/17/2011	06/29/2011	11	12	23
240-820-1	OS	UG/KG	GSP-SB-123-6-8	240-820-5	NM	06/06/2011	06/17/2011	07/04/2011	11	17	28
240-820-1	OS	UG/KG	GSP-SB-128-6-8	240-820-2	NM	06/06/2011	06/17/2011	07/04/2011	11	17	28
240-820-1	OS	UG/KG	GSP-SB-127-0-2	240-820-13	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-127-6-8	240-820-14	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-130-6-8	240-820-17	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-126-0-2	240-820-10	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-124-0-2	240-820-7	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-128-0-2	240-820-1	NM	06/06/2011	06/17/2011	07/04/2011	11	17	28

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-820-1	OS	UG/KG	GSP-SB-130-0-2	240-820-16	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-124-6-8	240-820-8	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-130-20-22	240-820-18	NM	06/06/2011	06/17/2011	07/04/2011	11	17	28
240-820-1	OV	UG/KG	GSP-SB-126-20-22	240-820-12	NM	06/07/2011	06/07/2011	06/17/2011	0	10	10
240-820-1	OV	UG/KG	GSP-SB-126-0-2	240-820-10	NM	06/07/2011	06/07/2011	06/17/2011	0	10	10
240-820-1	OV	UG/KG	GSP-SB-124-0-2	240-820-7	NM	06/07/2011	06/07/2011	06/16/2011	0	9	9
240-820-1	OV	UG/KG	GSP-SB-124-6-8	240-820-8	NM	06/07/2011	06/07/2011	06/16/2011	0	9	9
240-820-1	OV	UG/KG	GSP-SB-123-0-2	240-820-4	NM	06/07/2011	06/07/2011	06/16/2011	0	9	9
240-820-1	OV	UG/KG	GSP-SB-127-6-8	240-820-14	NM	06/07/2011	06/07/2011	06/17/2011	0	10	10
240-820-1	OV	UG/KG	GSP-SB-130-6-8	240-820-17	NM	06/07/2011	06/07/2011	06/17/2011	0	10	10
240-820-1	OV	UG/KG	GSP-SB-127-0-2	240-820-13	NM	06/07/2011	06/07/2011	06/17/2011	0	10	10
240-820-1	OV	UG/KG	GSP-SB-130-20-22	240-820-18	NM	06/07/2011	06/07/2011	06/17/2011	0	10	10
240-820-1	OV	UG/KG	GSP-SB-123-6-8	240-820-5	NM	06/07/2011	06/07/2011	06/16/2011	0	9	9
240-820-1	OV	UG/KG	GSP-SB-130-0-2	240-820-16	NM	06/07/2011	06/07/2011	06/17/2011	0	10	10
240-820-1	OV	UG/KG	GSP-SB-128-0-2	240-820-1	NM	06/07/2011	06/07/2011	06/16/2011	0	9	9
240-820-1	OV	UG/KG	GSP-SB-128-6-8	240-820-2	NM	06/07/2011	06/07/2011	06/16/2011	0	9	9
240-820-1	OV	UG/KG	GSP-SB-126-8-10	240-820-11	NM	06/07/2011	06/07/2011	06/17/2011	0	10	10
240-820-1	PCB	UG/KG	GSP-SB-123-0-2	240-820-4	NM	06/06/2011	06/15/2011	06/17/2011	9	2	11
240-820-1	PCB	UG/KG	GSP-SB-124-0-2	240-820-7	NM	06/06/2011	06/22/2011	06/24/2011	16	2	18

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-820-1	PCB	UG/KG	GSP-SB-123-6-8	240-820-5	NM	06/06/2011	06/15/2011	06/17/2011	9	2	11
240-820-1	PCB	UG/KG	GSP-SB-128-6-8	240-820-2	NM	06/06/2011	06/15/2011	06/17/2011	9	2	11
240-820-1	PCB	UG/KG	GSP-SB-127-6-8	240-820-14	NM	06/06/2011	06/22/2011	06/24/2011	16	2	18
240-820-1	PCB	UG/KG	GSP-SB-124-6-8	240-820-8	NM	06/06/2011	06/22/2011	06/24/2011	16	2	18
240-820-1	PCB	UG/KG	GSP-SB-130-6-8	240-820-17	NM	06/06/2011	06/22/2011	06/24/2011	16	2	18
240-820-1	PCB	UG/KG	GSP-SB-127-0-2	240-820-13	NM	06/06/2011	06/22/2011	06/24/2011	16	2	18
240-820-1	PCB	UG/KG	GSP-SB-128-0-2	240-820-1	NM	06/06/2011	06/15/2011	06/17/2011	9	2	11
240-820-1	PCB	UG/KG	GSP-SB-126-0-2	240-820-10	NM	06/06/2011	06/22/2011	06/24/2011	16	2	18
240-820-1	PCB	UG/KG	GSP-SB-130-0-2	240-820-16	NM	06/06/2011	06/22/2011	06/24/2011	16	2	18
240-820-1	PCB	UG/KG	GSP-SB-126-8-10	240-820-11	NM	06/06/2011	06/22/2011	06/24/2011	16	2	18
240-820-1	DRO	MG/KG	GSP-SB-128-6-8	240-820-2	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	DRO	MG/KG	GSP-SB-130-0-2	240-820-16	NM	06/06/2011	06/16/2011	06/23/2011	10	7	17
240-820-1	DRO	MG/KG	GSP-SB-127-0-2	240-820-13	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	DRO	MG/KG	GSP-SB-130-20-22	240-820-18	NM	06/06/2011	06/16/2011	06/23/2011	10	7	17
240-820-1	DRO	MG/KG	GSP-SB-126-8-10	240-820-11	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	DRO	MG/KG	GSP-SB-128-0-2	240-820-1	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	DRO	MG/KG	GSP-SB-124-0-2	240-820-7	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	DRO	MG/KG	GSP-SB-123-0-2	240-820-4	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	DRO	MG/KG	GSP-SB-130-6-8	240-820-17	NM	06/06/2011	06/16/2011	06/23/2011	10	7	17

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-820-1	DRO	MG/KG	GSP-SB-123-6-8	240-820-5	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	DRO	MG/KG	GSP-SB-126-20-22	240-820-12	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	DRO	MG/KG	GSP-SB-124-6-8	240-820-8	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	DRO	MG/KG	GSP-SB-126-0-2	240-820-10	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	DRO	MG/KG	GSP-SB-127-6-8	240-820-14	NM	06/06/2011	06/16/2011	06/23/2011	10	7	17
240-820-1	GRO	UG/KG	GSP-SB-130-0-2	240-820-16	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-128-0-2	240-820-1	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-128-6-8	240-820-2	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-123-6-8	240-820-5	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-127-6-8	240-820-14	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-124-0-2	240-820-7	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-130-6-8	240-820-17	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-130-20-22	240-820-18	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-127-0-2	240-820-13	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-123-0-2	240-820-4	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-124-6-8	240-820-8	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-126-0-2	240-820-10	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-126-8-10	240-820-11	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	GRO	UG/KG	GSP-SB-126-20-22	240-820-12	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-820-1	TPH	MG/KG	GSP-SB-130-6-8	240-820-17	NM	06/06/2011	06/16/2011	06/23/2011	10	7	17
240-820-1	TPH	MG/KG	GSP-SB-124-0-2	240-820-7	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	TPH	MG/KG	GSP-SB-124-6-8	240-820-8	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	TPH	MG/KG	GSP-SB-127-6-8	240-820-14	NM	06/06/2011	06/16/2011	06/23/2011	10	7	17
240-820-1	TPH	MG/KG	GSP-SB-123-6-8	240-820-5	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	TPH	MG/KG	GSP-SB-128-0-2	240-820-1	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	TPH	MG/KG	GSP-SB-126-0-2	240-820-10	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	TPH	MG/KG	GSP-SB-126-20-22	240-820-12	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	TPH	MG/KG	GSP-SB-126-8-10	240-820-11	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	TPH	MG/KG	GSP-SB-130-20-22	240-820-18	NM	06/06/2011	06/16/2011	06/23/2011	10	7	17
240-820-1	TPH	MG/KG	GSP-SB-130-0-2	240-820-16	NM	06/06/2011	06/16/2011	06/23/2011	10	7	17
240-820-1	TPH	MG/KG	GSP-SB-127-0-2	240-820-13	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	TPH	MG/KG	GSP-SB-123-0-2	240-820-4	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	TPH	MG/KG	GSP-SB-128-6-8	240-820-2	NM	06/06/2011	06/15/2011	06/20/2011	9	5	14
240-820-1	TPH	UG/KG	GSP-SB-130-6-8	240-820-17	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	TPH	UG/KG	GSP-SB-123-6-8	240-820-5	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	TPH	UG/KG	GSP-SB-124-6-8	240-820-8	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	TPH	UG/KG	GSP-SB-130-0-2	240-820-16	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	TPH	UG/KG	GSP-SB-124-0-2	240-820-7	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-820-1	TPH	UG/KG	GSP-SB-130-20-22	240-820-18	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	TPH	UG/KG	GSP-SB-123-0-2	240-820-4	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	TPH	UG/KG	GSP-SB-126-0-2	240-820-10	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	TPH	UG/KG	GSP-SB-126-20-22	240-820-12	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	TPH	UG/KG	GSP-SB-128-0-2	240-820-1	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	TPH	UG/KG	GSP-SB-126-8-10	240-820-11	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	TPH	UG/KG	GSP-SB-127-6-8	240-820-14	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	TPH	UG/KG	GSP-SB-127-0-2	240-820-13	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	TPH	UG/KG	GSP-SB-128-6-8	240-820-2	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	OV	UG/KG	GSP-SB-123-0-2	240-820-4	NM	06/07/2011	06/07/2011	06/16/2011	0	9	9
240-820-1	OV	UG/KG	GSP-SB-128-0-2	240-820-1	NM	06/07/2011	06/07/2011	06/16/2011	0	9	9

CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: MSA Greater Strawberry Point PH. II 2011

Report Number: 240-820-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 06/07/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.7 and 3.1 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-126-20-22 (240-820-12), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17) and GSP-SB-130-20-22 (240-820-18) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/16/2011 and 06/17/2011.

Methylene Chloride was detected in method blank MB 240-5027/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

o Acetone and Naphthalene were detected in method blank MB 240-5027/6 at levels that were above the method detection limit but below the reporting limit.
o 1,2,4-Trichlorobenzene, 2-Butanone and Naphthalene were detected in method blank MB 240-5087/7 at levels that were above the method detection limit but below the reporting limit.

In these cases, the values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Chloroethane failed the recovery criteria high for LCS 240-5027/5. Refer to the QC report for details.

Chloroethane failed the recovery criteria high for the MS and MSD of sample 240-787-9 in batch 240-5027. Refer to the QC report for details.

Insufficient sample volume was provided to perform matrix spike/matrix spike duplicate (MS/MSD) for batch 240-5087.

No other difficulties were encountered during the volatiles analyses.

All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-126-20-22 (240-820-12), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17) and GSP-SB-130-20-22 (240-820-18) were analyzed for Semi volatiles in accordance with 8270D. The samples were analyzed on 06/29/2011, 07/04/2011 and 07/14/2011.

1,1'-Biphenyl, Acetophenone and Butyl benzyl phthalate failed the recovery criteria low for LCS 240-4859/24-A. Refer to the QC report for details.

o Several analytes failed the recovery criteria low for the MS of sample GSP-SB-123-0-2MS (240-820-4) in batch 240-7057. Refer to the QC report for details.
o Several analytes failed the recovery criteria low for the MSD of sample GSP-SB-123-0-2MSD (240-820-4) in batch 240-6612. Several analytes exceeded the rpd limit.

Refer to the QC report for details.

Samples GSP-SB-124-0-2 (240-820-7)[20X] and GSP-SB-130-0-2 (240-820-16)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The generic batch MS/MSD for batch 240-4859 was extracted and analyzed, but unable to be reported due to LIMS limitation.

No other difficulties were encountered during the Semi volatiles analyses.

All other quality control parameters were within the acceptance limits.

GRO

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-126-20-22 (240-820-12), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17) and GSP-SB-130-20-22 (240-820-18) were analyzed for GRO in accordance with 8015C. The samples were analyzed on 06/17/2011.

No difficulties were encountered during the GRO analyses.

All quality control parameters were within the acceptance limits.

DRO

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-126-20-22 (240-820-12), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17) and GSP-SB-130-20-22 (240-820-18) were analyzed for DRO in accordance with 8015C. The samples were analyzed on 06/20/2011 and 06/23/2011.

Sample GSP-SB-124-0-2 (240-820-7)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the DRO analyses.

All quality control parameters were within the acceptance limits.

PCBS

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16) and GSP-SB-130-6-8 (240-820-17) were analyzed for PCBs in accordance with 8082A. The samples were analyzed on 06/17/2011 and 06/24/2011.

Due to a laboratory batching error, the following samples were prepped after the method recommended holding time had expired: GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17).

The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), (CCV 240-5999/3), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8

(240-820-5), (240-820-5 MS), (240-820-5 MSD), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17).

Sample GSP-SB-123-0-2 (240-820-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the PCBs analyses.

All quality control parameters were within the acceptance limits.

METALS (ICP)

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16) and GSP-SB-130-6-8 (240-820-17) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were analyzed on 07/08/2011.

Several analytes were detected in method blank MB 240-5161/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

MERCURY

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16) and GSP-SB-130-6-8 (240-820-17) were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were analyzed on 06/17/2011.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-126-20-22 (240-820-12), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17) and GSP-SB-130-20-22 (240-820-18) were analyzed for percent solids in accordance with EPA SW846 3550C. The samples were analyzed on 06/08/2011.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

No other analytical or quality issues were noted.

SAMPLE SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-820-1	GSP-SB-128-0-2	Solid	06/06/2011 1047	06/07/2011 0800
240-820-2	GSP-SB-128-6-8	Solid	06/06/2011 1050	06/07/2011 0800
240-820-4	GSP-SB-123-0-2	Solid	06/06/2011 1155	06/07/2011 0800
240-820-5	GSP-SB-123-6-8	Solid	06/06/2011 1158	06/07/2011 0800
240-820-7	GSP-SB-124-0-2	Solid	06/06/2011 1305	06/07/2011 0800
240-820-8	GSP-SB-124-6-8	Solid	06/06/2011 1308	06/07/2011 0800
240-820-10	GSP-SB-126-0-2	Solid	06/06/2011 1505	06/07/2011 0800
240-820-11	GSP-SB-126-8-10	Solid	06/06/2011 1513	06/07/2011 0800
240-820-12	GSP-SB-126-20-22	Solid	06/06/2011 1516	06/07/2011 0800
240-820-13	GSP-SB-127-0-2	Solid	06/06/2011 1555	06/07/2011 0800
240-820-14	GSP-SB-127-6-8	Solid	06/06/2011 1558	06/07/2011 0800
240-820-16	GSP-SB-130-0-2	Solid	06/06/2011 1642	06/07/2011 0800
240-820-17	GSP-SB-130-6-8	Solid	06/06/2011 1645	06/07/2011 0800
240-820-18	GSP-SB-130-20-22	Solid	06/06/2011 1650	06/07/2011 0800

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-820-1	**GSP-SB-128-0-2**					
Methylene Chloride		3.4	J B	5.3	ug/Kg	8260B
Toluene		0.37	J	5.3	ug/Kg	8260B
2-Methylnaphthalene		15		8.3	ug/Kg	8270D
Acenaphthene		24		8.3	ug/Kg	8270D
Acenaphthylene		23		8.3	ug/Kg	8270D
Anthracene		86		8.3	ug/Kg	8270D
Benzo[a]anthracene		360		8.3	ug/Kg	8270D
Benzo[a]pyrene		310		8.3	ug/Kg	8270D
Benzo[b]fluoranthene		330		8.3	ug/Kg	8270D
Benzo[g,h,i]perylene		180		8.3	ug/Kg	8270D
Benzo[k]fluoranthene		250		8.3	ug/Kg	8270D
Bis(2-ethylhexyl) phthalate		97		62	ug/Kg	8270D
Carbazole		45	J	62	ug/Kg	8270D
Chrysene		360		8.3	ug/Kg	8270D
Dibenzo(a,h)anthracene		40		8.3	ug/Kg	8270D
Dibenzofuran		15	J	62	ug/Kg	8270D
Fluoranthene		730		8.3	ug/Kg	8270D
Fluorene		26		8.3	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		170		8.3	ug/Kg	8270D
Naphthalene		14		8.3	ug/Kg	8270D
Phenanthrene		260		8.3	ug/Kg	8270D
Pyrene		590		8.3	ug/Kg	8270D
Aroclor-1260		30	J	41	ug/Kg	8082A
Arsenic		3.7		1.9	mg/Kg	6010C
Barium		8.3	J B	25	mg/Kg	6010C
Chromium		11		1.2	mg/Kg	6010C
Cobalt		0.53	J	1.2	mg/Kg	6010C
Copper		3.4		3.1	mg/Kg	6010C
Lead		2.3	B	1.2	mg/Kg	6010C
Nickel		0.95	J	4.9	mg/Kg	6010C
Vanadium		22		1.2	mg/Kg	6010C
Zinc		5.5	J B	6.2	mg/Kg	6010C
Percent Solids		80		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-820-2	**GSP-SB-128-6-8**					
Acetone		46	B	21	ug/Kg	8260B
Methylene Chloride		4.8	J B	5.2	ug/Kg	8260B
Toluene		0.40	J	5.2	ug/Kg	8260B
Arsenic		1.3	J	1.8	mg/Kg	6010C
Barium		3.3	J B	24	mg/Kg	6010C
Chromium		2.5		1.2	mg/Kg	6010C
Cobalt		0.20	J	1.2	mg/Kg	6010C
Copper		1.6	J	3.1	mg/Kg	6010C
Lead		0.73	J B	1.2	mg/Kg	6010C
Vanadium		5.3		1.2	mg/Kg	6010C
Zinc		3.5	J B	6.1	mg/Kg	6010C
Percent Solids		79		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-820-4	**GSP-SB-123-0-2**					
4-Methyl-2-pentanone		0.58	J	18	ug/Kg	8260B
Acetone		17	J B	18	ug/Kg	8260B
Methylene Chloride		3.7	J B	4.6	ug/Kg	8260B
2-Methylnaphthalene		9.3		7.3	ug/Kg	8270D
Acenaphthene		28		7.3	ug/Kg	8270D
Acenaphthylene		13		7.3	ug/Kg	8270D
Anthracene		68		7.3	ug/Kg	8270D
Benzo[a]anthracene		230		7.3	ug/Kg	8270D
Benzo[a]pyrene		220		7.3	ug/Kg	8270D
Benzo[b]fluoranthene		270		7.3	ug/Kg	8270D
Benzo[g,h,i]perylene		120		7.3	ug/Kg	8270D
Benzo[k]fluoranthene		150		7.3	ug/Kg	8270D
Bis(2-ethylhexyl) phthalate		24	J	55	ug/Kg	8270D
Carbazole		30	J	55	ug/Kg	8270D
Chrysene		230		7.3	ug/Kg	8270D
Dibenzo(a,h)anthracene		42		7.3	ug/Kg	8270D
Fluoranthene		470		7.3	ug/Kg	8270D
Fluorene		23		7.3	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		110		7.3	ug/Kg	8270D
Phenanthrene		230		7.3	ug/Kg	8270D
Pyrene		410		7.3	ug/Kg	8270D
Total Petroleum Hydrocarbons (C10-C32)		42		18	mg/Kg	8015C
Aroclor-1260		640		180	ug/Kg	8082A
Antimony		0.42	J	2.0	mg/Kg	6010C
Arsenic		3.2		1.5	mg/Kg	6010C
Barium		30	B	20	mg/Kg	6010C
Beryllium		0.24	J	0.51	mg/Kg	6010C
Chromium		14		1.0	mg/Kg	6010C
Cobalt		2.4		1.0	mg/Kg	6010C
Copper		8.8		2.6	mg/Kg	6010C
Lead		15	B	1.0	mg/Kg	6010C
Molybdenum		0.31	J B	4.1	mg/Kg	6010C
Nickel		4.4		4.1	mg/Kg	6010C
Vanadium		21		1.0	mg/Kg	6010C
Zinc		29	B	5.1	mg/Kg	6010C
Hg		0.053	J	0.10	mg/Kg	7471B
Percent Solids		91		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-820-5	**GSP-SB-123-6-8**					
Acetone		9.8	J	18	ug/Kg	8260B
Toluene		0.36	J	4.5	ug/Kg	8260B
Arsenic		1.1	J	1.8	mg/Kg	6010C
Barium		4.1	J B	24	mg/Kg	6010C
Chromium		3.6		1.2	mg/Kg	6010C
Copper		1.4	J	3.0	mg/Kg	6010C
Lead		1.1	J B	1.2	mg/Kg	6010C
Molybdenum		0.63	J B	4.9	mg/Kg	6010C
Vanadium		15		1.2	mg/Kg	6010C
Zinc		3.2	J B	6.1	mg/Kg	6010C
Percent Solids		82		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-820-7	**GSP-SB-124-0-2**					
2-Butanone		1.6	J B	18	ug/Kg	8260B
2-Methylnaphthalene		360		150	ug/Kg	8270D
Acenaphthene		240		150	ug/Kg	8270D
Acenaphthylene		300		150	ug/Kg	8270D
Anthracene		1200		150	ug/Kg	8270D
Benzo[a]anthracene		3700		150	ug/Kg	8270D
Benzo[a]pyrene		4000		150	ug/Kg	8270D
Benzo[b]fluoranthene		4000		150	ug/Kg	8270D
Benzo[g,h,i]perylene		2500		150	ug/Kg	8270D
Benzo[k]fluoranthene		1100		150	ug/Kg	8270D
Chrysene		4200		150	ug/Kg	8270D
Dibenzo(a,h)anthracene		780		150	ug/Kg	8270D
Fluoranthene		5000		150	ug/Kg	8270D
Fluorene		450		150	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		1900		150	ug/Kg	8270D
Naphthalene		400		150	ug/Kg	8270D
Phenanthrene		3500		150	ug/Kg	8270D
Pyrene		7800		150	ug/Kg	8270D
Total Petroleum Hydrocarbons (C10-C32)		890		180	mg/Kg	8015C
Aroclor-1260		24	J H	36	ug/Kg	8082A
Antimony		1.1	J	2.1	mg/Kg	6010C
Arsenic		4.1		1.6	mg/Kg	6010C
Barium		72	B	21	mg/Kg	6010C
Beryllium		0.37	J	0.53	mg/Kg	6010C
Chromium		13		1.1	mg/Kg	6010C
Cobalt		3.8		1.1	mg/Kg	6010C
Copper		12		2.6	mg/Kg	6010C
Lead		34	B	1.1	mg/Kg	6010C
Molybdenum		0.31	J B	4.2	mg/Kg	6010C
Nickel		5.2		4.2	mg/Kg	6010C
Selenium		0.61	J	2.1	mg/Kg	6010C
Vanadium		23		1.1	mg/Kg	6010C
Zinc		41	B	5.3	mg/Kg	6010C
Percent Solids		91		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-820-8	**GSP-SB-124-6-8**					
Trichloroethene		19		4.6	ug/Kg	8260B
Arsenic		1.7		1.7	mg/Kg	6010C
Barium		8.1	J B	23	mg/Kg	6010C
Chromium		10		1.1	mg/Kg	6010C
Cobalt		0.34	J	1.1	mg/Kg	6010C
Copper		4.5		2.8	mg/Kg	6010C
Lead		3.1	B	1.1	mg/Kg	6010C
Nickel		0.62	J	4.6	mg/Kg	6010C
Vanadium		27		1.1	mg/Kg	6010C
Zinc		2.9	J B	5.7	mg/Kg	6010C
Percent Solids		83		0.10	%	Moisture
240-820-10	**GSP-SB-126-0-2**					
Anthracene		10		7.4	ug/Kg	8270D
Benzo[a]anthracene		42		7.4	ug/Kg	8270D
Benzo[a]pyrene		41		7.4	ug/Kg	8270D
Benzo[b]fluoranthene		50		7.4	ug/Kg	8270D
Benzo[g,h,i]perylene		31		7.4	ug/Kg	8270D
Benzo[k]fluoranthene		30		7.4	ug/Kg	8270D
Chrysene		45		7.4	ug/Kg	8270D
Dibenzo(a,h)anthracene		7.5		7.4	ug/Kg	8270D
Fluoranthene		88		7.4	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		26		7.4	ug/Kg	8270D
Phenanthrene		43		7.4	ug/Kg	8270D
Pyrene		73		7.4	ug/Kg	8270D
Arsenic		4.5		1.5	mg/Kg	6010C
Barium		20	J B	21	mg/Kg	6010C
Beryllium		0.081	J	0.52	mg/Kg	6010C
Chromium		11		1.0	mg/Kg	6010C
Cobalt		1.1		1.0	mg/Kg	6010C
Copper		7.2		2.6	mg/Kg	6010C
Lead		5.7	B	1.0	mg/Kg	6010C
Nickel		2.4	J	4.1	mg/Kg	6010C
Vanadium		16		1.0	mg/Kg	6010C
Zinc		15	B	5.2	mg/Kg	6010C
Percent Solids		91		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-820-11	**GSP-SB-126-8-10**					
Acetone		22		19	ug/Kg	8260B
Trichloroethene		0.81	J	4.8	ug/Kg	8260B
Arsenic		0.65	J	1.6	mg/Kg	6010C
Barium		3.1	J B	21	mg/Kg	6010C
Chromium		5.8		1.1	mg/Kg	6010C
Cobalt		0.42	J	1.1	mg/Kg	6010C
Copper		1.2	J	2.7	mg/Kg	6010C
Lead		1.5	B	1.1	mg/Kg	6010C
Molybdenum		0.48	J B	4.3	mg/Kg	6010C
Nickel		0.36	J	4.3	mg/Kg	6010C
Vanadium		10		1.1	mg/Kg	6010C
Zinc		1.9	J B	5.3	mg/Kg	6010C
Percent Solids		84		0.10	%	Moisture
240-820-12	**GSP-SB-126-20-22**					
Trichloroethene		10		5.2	ug/Kg	8260B
Percent Solids		76		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-820-13	**GSP-SB-127-0-2**					
Anthracene		20		7.6	ug/Kg	8270D
Benzo[a]anthracene		62		7.6	ug/Kg	8270D
Benzo[a]pyrene		55		7.6	ug/Kg	8270D
Benzo[b]fluoranthene		72		7.6	ug/Kg	8270D
Benzo[g,h,i]perylene		38		7.6	ug/Kg	8270D
Benzo[k]fluoranthene		31		7.6	ug/Kg	8270D
Chrysene		57		7.6	ug/Kg	8270D
Dibenzo(a,h)anthracene		10		7.6	ug/Kg	8270D
Fluoranthene		130		7.6	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		32		7.6	ug/Kg	8270D
Phenanthrene		68		7.6	ug/Kg	8270D
Pyrene		99		7.6	ug/Kg	8270D
Aroclor-1260		62	H	37	ug/Kg	8082A
Arsenic		1.9		1.5	mg/Kg	6010C
Barium		20	B	20	mg/Kg	6010C
Beryllium		0.088	J	0.50	mg/Kg	6010C
Chromium		6.7		1.0	mg/Kg	6010C
Cobalt		0.88	J	1.0	mg/Kg	6010C
Copper		4.0		2.5	mg/Kg	6010C
Lead		7.9	B	1.0	mg/Kg	6010C
Molybdenum		0.47	J B	4.0	mg/Kg	6010C
Nickel		2.0	J	4.0	mg/Kg	6010C
Vanadium		13		1.0	mg/Kg	6010C
Zinc		29	B	5.0	mg/Kg	6010C
Percent Solids		88		0.10	%	Moisture
240-820-14	**GSP-SB-127-6-8**					
Arsenic		0.98	J	1.7	mg/Kg	6010C
Barium		3.9	J B	23	mg/Kg	6010C
Chromium		3.5		1.2	mg/Kg	6010C
Copper		1.6	J	2.9	mg/Kg	6010C
Lead		1.1	J B	1.2	mg/Kg	6010C
Nickel		0.36	J	4.6	mg/Kg	6010C
Vanadium		8.3		1.2	mg/Kg	6010C
Zinc		2.4	J B	5.8	mg/Kg	6010C
Percent Solids		80		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-820-16	**GSP-SB-130-0-2**					
Anthracene		34		31	ug/Kg	8270D
Benzo[a]anthracene		120		31	ug/Kg	8270D
Benzo[a]pyrene		120		31	ug/Kg	8270D
Benzo[b]fluoranthene		140		31	ug/Kg	8270D
Benzo[g,h,i]perylene		77		31	ug/Kg	8270D
Benzo[k]fluoranthene		39		31	ug/Kg	8270D
Chrysene		130		31	ug/Kg	8270D
Dibenzo(a,h)anthracene		20	J	31	ug/Kg	8270D
Fluoranthene		210		31	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		66		31	ug/Kg	8270D
Phenanthrene		96		31	ug/Kg	8270D
Pyrene		180		31	ug/Kg	8270D
Total Petroleum Hydrocarbons (C10-C32)		100		20	mg/Kg	8015C
Aroclor-1260		56	H	38	ug/Kg	8082A
Arsenic		2.4		1.7	mg/Kg	6010C
Barium		26	B	22	mg/Kg	6010C
Beryllium		0.24	J	0.55	mg/Kg	6010C
Cadmium		1.0		0.55	mg/Kg	6010C
Chromium		9.6		1.1	mg/Kg	6010C
Cobalt		1.7		1.1	mg/Kg	6010C
Copper		7.8		2.8	mg/Kg	6010C
Lead		19	B	1.1	mg/Kg	6010C
Molybdenum		0.32	J B	4.4	mg/Kg	6010C
Nickel		5.1		4.4	mg/Kg	6010C
Silver		0.26	J	1.1	mg/Kg	6010C
Vanadium		18		1.1	mg/Kg	6010C
Zinc		44	B	5.5	mg/Kg	6010C
Hg		0.10	J	0.11	mg/Kg	7471B
Percent Solids		86		0.10	%	Moisture
240-820-17	**GSP-SB-130-6-8**					
Acetone		14	J	19	ug/Kg	8260B
Barium		3.4	J B	22	mg/Kg	6010C
Cadmium		0.070	J	0.54	mg/Kg	6010C
Chromium		3.2		1.1	mg/Kg	6010C
Lead		0.84	J B	1.1	mg/Kg	6010C
Silver		0.18	J	1.1	mg/Kg	6010C
Vanadium		4.2		1.1	mg/Kg	6010C
Zinc		2.6	J B	5.4	mg/Kg	6010C
Percent Solids		83		0.10	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-820-18	**GSP-SB-130-20-22**					
Acetone		9.6	J	19	ug/Kg	8260B
Naphthalene		1.3	J B	4.9	ug/Kg	8260B
Trichloroethene		5.5		4.9	ug/Kg	8260B
Anthracene		7.4	J	8.2	ug/Kg	8270D
Benzo[a]anthracene		12		8.2	ug/Kg	8270D
Benzo[a]pyrene		13		8.2	ug/Kg	8270D
Benzo[b]fluoranthene		13		8.2	ug/Kg	8270D
Benzo[k]fluoranthene		9.6		8.2	ug/Kg	8270D
Chrysene		14		8.2	ug/Kg	8270D
Fluoranthene		33		8.2	ug/Kg	8270D
Phenanthrene		25		8.2	ug/Kg	8270D
Pyrene		24		8.2	ug/Kg	8270D
Percent Solids		81		0.10	%	Moisture

METHOD SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Description	Lab Location	Method	Preparation Method
Matrix Solid			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Closed System Purge and Trap			SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Soxhlet Extraction			SW846 3540C
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL NC	SW846 8015C	
Soxhlet Extraction			SW846 3540C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL NC	SW846 8082A	
Soxhlet Extraction			SW846 3540C
Metals (ICP)	TAL NC	SW846 6010C	
Preparation, Metals			SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL NC	SW846 7471B	
Preparation, Mercury			SW846 7471B
Percent Moisture	TAL NC	EPA Moisture	
Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	TAL CHI	SW846 8015C	
Purge and Trap	TAL CHI		SW846 5030C

Lab References:

TAL CHI = TestAmerica Chicago

TAL NC = TestAmerica North Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Method	Analyst	Analyst ID
SW846 8260B	Lata, Todd	TL
SW846 8260B	Macenczak, Steven	SM
SW846 8270D	Gruber, John	JG
SW846 8270D	Ulman, Mark	MU
SW846 8015C	Estes, William R	WRE
SW846 8015C	Geis, Sharon	SG
SW846 8082A	Hass, Lori	LH
SW846 6010C	Counts, Karen	KC
SW846 7471B	Davies, Brian	BD
EPA Moisture	Martin, Aaron	AM

DATA REPORTING QUALIFIERS

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Section	Qualifier	Description
GC/MS VOA		
	B	Compound was found in the blank and sample.
	J	Indicates an Estimated Value for TICs
	U	Indicates the analyte was analyzed for but not detected.
	*	LCS or LCSD exceeds the control limits
	F	MS or MSD exceeds the control limits
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	N	This flag indicates the presumptive evidence of a compound.
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	*	LCS or LCSD exceeds the control limits
	F	MS or MSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	F	RPD of the MS and MSD exceeds the control limits
GC VOA		
	U	Indicates the analyte was analyzed for but not detected.
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	H	Sample was prepped or analyzed beyond the specified holding time

DATA REPORTING QUALIFIERS

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Section	Qualifier	Description
Metals		
	B	Compound was found in the blank and sample.
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab File ID: BFB14821.D BFB Injection Date: 05/13/2011

Instrument ID: A3UX14 BFB Injection Time: 10:01

Analysis Batch No.: 1969

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.9	
75	30.0 - 60.0 % of mass 95	45.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	79.5	
175	5.0 - 9.0 % of mass 174	5.8	(7.3)1
176	95.0 - 101.0 % of mass 174	77.0	(96.9)1
177	5.0 - 9.0 % of mass 176	5.0	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-1969/3	148155.D	05/13/2011	10:44
	STD8260 240-1969/4	148156.D	05/13/2011	11:06
	STD8260 240-1969/5	148157.D	05/13/2011	11:27
	STD8260 240-1969/6	148158.D	05/13/2011	11:49
	STD8260 240-1969/7	148159.D	05/13/2011	12:10
	STD8260 240-1969/8	148160.D	05/13/2011	12:31
	STD8260 240-1969/9	148161.D	05/13/2011	12:53
	STD8260 240-1969/10	148162.D	05/13/2011	13:14
	ICV 240-1969/11	148163.D	05/13/2011	13:36
	STD8A9 240-1969/13	148164.D	05/13/2011	13:57
	STD7A9 240-1969/14	148165.D	05/13/2011	14:19
	STD6A9 240-1969/15	148166.D	05/13/2011	14:40
	STD5A9 240-1969/16	148167.D	05/13/2011	15:02
	STD4A9 240-1969/17	148168.D	05/13/2011	15:23
	STD3A9 240-1969/18	148169.D	05/13/2011	15:44
	STD2A9 240-1969/19	148170.D	05/13/2011	16:06
	STD1A9 240-1969/20	148171.D	05/13/2011	16:27

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-1969/10	148162.D
Level 2	STD8260 240-1969/9	148161.D
Level 3	STD8260 240-1969/8	148160.D
Level 4	STD8260 240-1969/7	148159.D
Level 5	STD8260 240-1969/6	148158.D
Level 6	STD8260 240-1969/5	148157.D
Level 7	STD8260 240-1969/4	148156.D
Level 8	STD8260 240-1969/3	148155.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dichlorodifluoromethane	+++++	0.1307	0.1813	0.1935	0.1905	Ave		0.1809				12.0		15.0			
	0.1910	0.1876	0.1917														
Chloromethane	0.3183	0.2746	0.2949	0.2980	0.2897	Ave		0.2918			0.1000	4.4		15.0			
	0.2888	0.2850	0.2852														
Vinyl chloride	0.2115	0.1963	0.2324	0.2339	0.2328	Ave		0.2223				5.9		15.0			
	0.2285	0.2237	0.2193														
Bromomethane	+++++	+++++	0.0802	0.0741	0.0726	Ave		0.0706				8.8		15.0			
	0.0670	0.0659	0.0635														
Chloroethane	+++++	0.0616	0.0517	0.0536	0.0498	Ave		0.0509				11.0		15.0			
	0.0491	0.0451	0.0455														
Trichlorofluoromethane	0.1628	0.1645	0.2193	0.2342	0.2237	Ave		0.2149				15.0		15.0			
	0.2383	0.2350	0.2411														
~~Acrolein~~	0.0438	0.0390	0.0403	0.0394	0.0411	Ave		~~0.0402~~				4.1		15.0			
	0.0387	0.0394	0.0401														
1,1-Dichloroethene	0.1825	0.1653	0.2063	0.1906	0.1861	Ave		0.1866				6.1		15.0			
	0.1926	0.1838	0.1855														
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1552	0.1274	0.2001	0.1855	0.1814	Ave		0.1753				13.0		15.0			
	0.1873	0.1828	0.1831														
Acetone	0.1352	0.1017	0.0883	0.0916	0.0946	Lin1	0.4864	0.0818							0.9980		0.9900
	0.0835	0.0851	0.0825														
Iodomethane	0.3452	0.3376	0.3939	0.3758	0.3610	Ave		0.3631				4.8		15.0			
	0.3704	0.3620	0.3593														
Carbon disulfide	0.3858	0.3626	0.4688	0.4573	0.4652	Ave		0.4616				13.0		15.0			
	0.5030	0.5187	0.5315														
~~Acetonitrile~~	0.0465	0.0390	0.0352	0.0353	0.0360	Ave		~~0.0383~~				13.0		15.0			
	0.0325	0.0328	0.0328														
Methyl acetate	0.2396	0.2188	0.2257	0.2123	0.2208	Ave		0.2191				4.8		15.0			
	0.2042	0.2136	0.2180														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
tert-Butyl alcohol	0.0220	0.0203	0.0215	0.0212	0.0224	Ave		0.0217				6.6		15.0			
	0.0192	0.0230	0.0236														
Acrylonitrile	0.1161	0.1061	0.1061	0.1047	0.1060	Ave		0.1046				5.5		15.0			
	0.0979	0.1004	0.0993														
trans-1,2-Dichloroethene	0.2375	0.2083	0.2518	0.2275	0.2254	Ave		0.2275				5.7		15.0			
	0.2281	0.2212	0.2204														
Methyl tert-butyl ether	0.5833	0.5341	0.5924	0.5609	0.5714	Ave		0.5685				3.2		15.0			
	0.5556	0.5732	0.5770														
Hexane	0.0388	0.0386	0.0568	0.0546	0.0515	Ave		0.0501				14.0		15.0			
	0.0532	0.0532	0.0541														
1,1-Dichloroethane	0.3859	0.3709	0.4539	0.4277	0.4229	Ave		0.4178			0.1000	6.4		15.0			
	0.4303	0.4229	0.4280														
Vinyl acetate	0.0354	0.0292	0.0259	0.0286	0.0307	Ave		0.0316				12.0		15.0			
	0.0308	0.0356	0.0367														
2,2-Dichloropropane	0.1247	0.1337	0.1588	0.1527	0.1561	Ave		0.1535				11.0		15.0			
	0.1678	0.1684	0.1656														
cis-1,2-Dichloroethene	0.2399	0.2284	0.2726	0.2462	0.2467	Ave		0.2456				5.2		15.0			
	0.2500	0.2408	0.2399														
2-Butanone	0.1370	0.1203	0.1136	0.1204	0.1187	Ave		0.1203				6.5		15.0			
	0.1102	0.1204	0.1218														
Bromochloromethane	0.1367	0.1233	0.1399	0.1309	0.1300	Ave		0.1307				4.1		15.0			
	0.1293	0.1279	0.1275														
Tetrahydrofuran	+++++	0.0761	0.0931	0.0811	0.0776	Ave		0.0799				8.3		15.0			
	0.0717	0.0791	0.0806														
Chloroform	0.3577	0.3286	0.3971	0.3589	0.3673	Ave		0.3650				5.2		15.0			
	0.3701	0.3691	0.3712														
1,1,1-Trichloroethane	0.2243	0.2320	0.2950	0.2924	0.2941	Ave		0.2857				13.0		15.0			
	0.3146	0.3171	0.3165														
Cyclohexane	0.3955	0.3242	0.5235	0.4931	0.4835	Ave		0.4625				15.0		15.0			
	0.5007	0.4878	0.4917														
Carbon tetrachloride	+++++	+++++	0.2718	0.2675	0.2786	Ave		0.2938				8.2		15.0			
	0.3061	0.3162	0.3225														
1,1-Dichloropropene	0.2512	0.2451	0.3099	0.2800	0.2821	Ave		0.2791				7.6		15.0			
	0.2939	0.2837	0.2865														
Benzene	0.9367	0.8077	0.9426	0.8592	0.8405	Ave		0.8703				5.3		15.0			
	0.8594	0.8486	0.8677														
1,2-Dichloroethane	0.3610	0.3234	0.3750	0.3268	0.3387	Ave		0.3410				5.2		15.0			
	0.3297	0.3352	0.3387														
Trichloroethene	0.2480	0.2251	0.2912	0.2569	0.2553	Ave		0.2582				7.2		15.0			
	0.2692	0.2589	0.2607														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Methylcyclohexane	+++++	0.2626	0.4415	0.3974	0.3950	Ave		0.3865				15.0		15.0			
	0.4093	0.4016	0.3981														
1,2-Dichloropropane	0.2291	0.2260	0.2529	0.2372	0.2228	Ave		0.2331				4.0		15.0			
	0.2280	0.2354	0.2334														
Dibromomethane	0.1140	0.1172	0.1238	0.1241	0.1236	Ave		0.1218				3.3		15.0			
	0.1227	0.1257	0.1232														
~~1,4-Dioxane~~	0.0023	0.0025	0.0025	0.0024	0.0024	Ave		~~0.0023~~				4.9		15.0			
	0.0021	0.0023	0.0022														
Bromodichloromethane	0.1842	0.1814	0.2199	0.2049	0.2169	Ave		0.2201				13.0		15.0			
	0.2400	0.2538	0.2597														
2-Chloroethyl vinyl ether	0.1201	0.1129	0.1024	0.1270	0.1037	Ave		0.1159				9.9		15.0			
	0.1052	0.1323	0.1235														
cis-1,3-Dichloropropene	+++++	0.2163	0.2481	0.2518	0.2532	Ave		0.2676				13.0		15.0			
	0.2809	0.3106	0.3122														
4-Methyl-2-pentanone	0.2914	0.2977	0.3153	0.3153	0.3391	Ave		0.3207				6.6		15.0			
	0.3159	0.3375	0.3537														
Toluene	1.3797	1.1975	1.4438	1.2030	1.2369	Ave		1.2828				6.8		15.0			
	1.2781	1.2323	1.2907														
trans-1,3-Dichloropropene	0.2288	0.2213	0.2588	0.2740	0.2849	Lin1	-0.301	0.3618							0.9940		0.9900
	0.3204	0.3613	0.3771														
Ethyl methacrylate	0.2341	0.2570	0.3081	0.2879	0.2864	Ave		0.2919				12.0		15.0			
	0.2877	0.3373	0.3365														
1,1,2-Trichloroethane	0.2269	0.2238	0.2486	0.2237	0.2209	Ave		0.2271				4.1		15.0			
	0.2175	0.2267	0.2289														
Tetrachloroethene	0.2466	0.2328	0.3191	0.2613	0.2722	Ave		0.2700				9.6		15.0			
	0.2851	0.2696	0.2733														
1,3-Dichloropropane	0.3855	0.3693	0.4084	0.3691	0.3606	Ave		0.3779				4.2		15.0			
	0.3629	0.3850	0.3819														
2-Hexanone	0.1867	0.1953	0.2006	0.2184	0.2103	Ave		0.2080				8.3		15.0			
	0.1916	0.2308	0.2307														
Dibromochloromethane	+++++	+++++	0.2290	0.2069	0.2361	Ave		0.2553				15.0		15.0			
	0.2647	0.2895	0.3055														
1,2-Dibromoethane	0.2185	0.2084	0.2478	0.2257	0.2236	Ave		0.2310				6.4		15.0			
	0.2299	0.2463	0.2477														
Chlorobenzene	0.9274	0.8393	0.9758	0.8681	0.8514	Ave		0.8850			0.3000	5.1		15.0			
	0.8639	0.8712	0.8825														
1,1,1,2-Tetrachloroethane	+++++	+++++	0.2895	0.2495	0.2979	Ave		0.2996				9.5		15.0			
	0.3204	0.3112	0.3289														
Ethylbenzene	0.4701	0.4216	0.4985	0.4497	0.4424	Ave		0.4558				4.9		15.0			
	0.4565	0.4523	0.4551														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
m-Xylene & p-Xylene	0.5516 0.5569	0.5079 0.5488	0.6088 0.5499	0.5483	0.5344	Ave		0.5508				5.1		15.0			
o-Xylene	0.5646 0.5652	0.5079 0.5334	0.6234 0.5321	0.5321	0.5541	Ave		0.5516				6.3		15.0			
Styrene	0.8149 0.8802	0.7539 0.9285	0.9192 0.9239	0.8589	0.8639	Ave		0.8679				7.0		15.0			
Bromoform	0.0856 0.1469	0.0938 0.1780	0.1141 0.1879	0.1157	0.1287	Qua	-0.352	0.1602	0.0001		0.1000				0.9990		0.9900
Isopropylbenzene	1.2781 1.5490	1.2333 1.4885	1.6120 1.5613	1.4126	1.4701	Ave		1.4506				9.3		15.0			
1,1,2,2-Tetrachloroethane	0.4608 0.5165	0.4211 0.5093	0.5159 0.5146	0.4928	0.4989	Ave		0.4912			0.3000	6.9		15.0			
Bromobenzene	0.7470 0.7148	0.6925 0.7174	0.7921 0.7008	0.7563	0.7003	Ave		0.7277				4.7		15.0			
1,2,3-Trichloropropane	0.2089 0.1764	0.1790 0.1831	0.1944 0.1786	0.1892	0.1833	Ave		0.1866				5.8		15.0			
trans-1,4-Dichloro-2-butene	0.1636 0.1691	0.1704 0.2159	0.1683 0.2131	0.1701	0.1698	Ave		0.1800				12.0		15.0			
n-Propylbenzene	0.7738 0.8272	0.7050 0.7944	0.8646 0.7944	0.7963	0.7847	Ave		0.7926				5.7		15.0			
2-Chlorotoluene	0.7565 0.7429	0.6995 0.7115	0.8022 0.7134	0.7326	0.7184	Ave		0.7346				4.5		15.0			
1,3,5-Trimethylbenzene	2.0302 2.4951	1.9774 2.2842	2.4837 2.4078	2.2922	2.3398	Ave		2.2888				8.4		15.0			
4-Chlorotoluene	0.7661 0.7198	0.6853 0.7200	0.7828 0.7152	0.7401	0.7067	Ave		0.7295				4.4		15.0			
tert-Butylbenzene	1.8911 2.3939	1.9120 2.1518	2.3161 2.3077	2.0751	2.1555	Ave		2.1504				8.6		15.0			
1,2,4-Trimethylbenzene	2.1779 2.4862	2.0485 2.3360	2.5549 2.4254	2.3446	2.3266	Ave		2.3375				7.0		15.0			
sec-Butylbenzene	2.4199 3.2401	2.3931 2.9565	3.2020 3.1679	2.8781	2.9685	Ave		2.9033				11.0		15.0			
1,3-Dichlorobenzene	1.4217 1.3933	1.3260 1.3602	1.5660 1.3460	1.3769	1.3557	Ave		1.3932				5.4		15.0			
p-Isopropyltoluene	2.1473 2.7849	2.0718 2.6216	2.7358 2.7414	2.5559	2.5552	Ave		2.5268				11.0		15.0			
1,4-Dichlorobenzene	1.4903 1.3883	1.3816 1.3867	1.5928 1.3833	1.3848	1.3745	Ave		1.4228				5.5		15.0			
n-Butylbenzene	1.7590 2.2383	1.7428 2.1573	2.2739 2.2436	2.0719	2.1098	Ave		2.0746				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
1,2-Dichlorobenzene	1.3968	1.2998	1.4899	1.3053	1.3320	Ave		1.3478				5.0		15.0			
	1.3577	1.2950	1.3060														
1,2-Dibromo-3-Chloropropane	0.0707	0.0876	0.0952	0.0857	0.0954	Lin1	-0.109	0.1254							0.9900		0.9900
	0.1046	0.1247	0.1329														
1,3,5-Trichlorobenzene	0.9946	0.9513	1.1209	1.0151	1.0582	Ave		1.0419				5.4		15.0			
	1.1061	1.0267	1.0624														
1,2,4-Trichlorobenzene	0.9861	0.8526	1.0951	0.9084	1.0057	Ave		0.9729				7.8		15.0			
	1.0305	0.9312	0.9734														
Hexachlorobutadiene	0.3762	0.3615	0.5023	0.4571	0.4662	Ave		0.4515				12.0		15.0			
	0.5137	0.4619	0.4733														
Naphthalene	2.2685	2.1387	2.5447	2.1018	2.3987	Ave		2.3372				7.0		15.0			
	2.4252	2.3049	2.5154														
1,2,3-Trichlorobenzene	0.9222	0.8033	1.0574	0.8671	0.9714	Ave		0.9257				8.4		15.0			
	0.9831	0.8870	0.9142														
Dibromofluoromethane (Surr)	0.2238	0.2114	0.2193	0.2214	0.2271	Qua	-0.161	0.2546	0						1.0000		0.9900
	0.2544	0.2370	0.2265														
1,2-Dichloroethane-d4 (Surr)	0.2940	0.2856	0.2688	0.2569	0.2604	Qua	-0.052	0.2774	0						1.0000		0.9900
	0.2809	0.2666	0.2610														
Toluene-d8 (Surr)	1.1464	1.0512	1.1588	1.0183	1.0737	Qua	-0.404	1.1914	0						0.9990		0.9900
	1.2650	1.1381	1.1451														
4-Bromofluorobenzene (Surr)	1.0754	0.8867	0.8327	0.8199	0.7755	Qua	-0.431	0.8899	0						1.0000		0.9900
	0.8680	0.8378	0.7886														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-1969/10	148162.D
Level 2	STD8260 240-1969/9	148161.D
Level 3	STD8260 240-1969/8	148160.D
Level 4	STD8260 240-1969/7	148159.D
Level 5	STD8260 240-1969/6	148158.D
Level 6	STD8260 240-1969/5	148157.D
Level 7	STD8260 240-1969/4	148156.D
Level 8	STD8260 240-1969/3	148155.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 356795	9849 731002	34698 1505420	71409	138895	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
Chloromethane	FB	Ave	11851 539501	20697 1110906	56426 2239878	109992	211218	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Vinyl chloride	FB	Ave	7873 426999	14791 871763	44464 1722469	86335	169710	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Bromomethane	FB	Ave	+++++ 125197	+++++ 256953	15342 498881	27348	52915	+++++ 50.0	+++++ 100	5.00 200	10.0	20.0
Chloroethane	FB	Ave	+++++ 91662	4643 175679	9897 357171	19798	36281	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
Trichlorofluoromethane	FB	Ave	6062 445167	12394 915808	41962 1893601	86439	163071	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Acrolein	FB	Ave	16312 722901	29363 1535052	77104 3145757	145434	299603	10.0 500	20.0 1000	50.0 2000	100	200
1,1-Dichloroethene	FB	Ave	6795 359759	12461 716532	39479 1456794	70340	135657	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	FB	Ave	5779 349958	9600 712263	38295 1437690	68461	132256	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Acetone	FB	Lin1	50343 311847	76666 663416	135160 1296346	202843	275807	10.0 100	20.0 200	40.0 400	60.0	80.0
Iodomethane	FB	Ave	12853 692079	25444 1410938	75363 2821313	138693	263152	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Carbon disulfide	FB	Ave	14365 939798	27325 2021426	89704 4173744	168773	339161	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Acetonitrile	FB	Ave	17308 607932	29408 1278853	67449 2577172	130436	262368	10.0 500	20.0 1000	50.0 2000	100	200
Methyl acetate	FB	Ave	17838 762947	32975 1664754	86359 3423724	156676	321935	2.00 100	4.00 200	10.0 400	20.0	40.0
tert-Butyl alcohol	FB	Ave	16351 717848	30641 1792132	82322 3712426	156738	327066	20.0 1000	40.0 2000	100 4000	200	400

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Acrylonitrile	FB	Ave	8642	15999	40610	77255	154539	2.00	4.00	10.0	20.0	40.0
			365808	782583	1560298			100	200	400		
trans-1,2-Dichloroethene	FB	Ave	8842	15696	48187	83974	164310	1.00	2.00	5.00	10.0	20.0
			426082	861932	1730771			50.0	100	200		
Methyl tert-butyl ether	FB	Ave	21718	40251	113353	207005	416553	1.00	2.00	5.00	10.0	20.0
			1038033	2233941	4531154			50.0	100	200		
Hexane	FB	Ave	1443	2911	10864	20134	37577	1.00	2.00	5.00	10.0	20.0
			99469	207392	425091			50.0	100	200		
1,1-Dichloroethane	FB	Ave	14368	27951	86851	157829	308274	1.00	2.00	5.00	10.0	20.0
			803915	1648398	3361082			50.0	100	200		
Vinyl acetate	FB	Ave	1318	2202	4956	10563	22380	1.00	2.00	5.00	10.0	20.0
			57630	138636	288112			50.0	100	200		
2,2-Dichloropropane	FB	Ave	4644	10075	30378	56367	113823	1.00	2.00	5.00	10.0	20.0
			313532	656398	1300451			50.0	100	200		
cis-1,2-Dichloroethene	FB	Ave	8932	17213	52165	90871	179852	1.00	2.00	5.00	10.0	20.0
			467105	938617	1883929			50.0	100	200		
2-Butanone	FB	Ave	51000	90667	173948	266691	346161	10.0	20.0	40.0	60.0	80.0
			411603	938685	1912591			100	200	400		
Bromochloromethane	FB	Ave	5091	9294	26773	48291	94755	1.00	2.00	5.00	10.0	20.0
			241494	498635	1001261			50.0	100	200		
Tetrahydrofuran	FB	Ave	+++++	5734	17811	29943	56540	+++++	2.00	5.00	10.0	20.0
			134030	308258	632999			50.0	100	200		
Chloroform	FB	Ave	13317	24768	75981	132459	267772	1.00	2.00	5.00	10.0	20.0
			691512	1438506	2914731			50.0	100	200		
1,1,1-Trichloroethane	FB	Ave	8351	17482	56455	107921	214366	1.00	2.00	5.00	10.0	20.0
			587770	1235750	2485376			50.0	100	200		
Cyclohexane	FB	Ave	14725	24430	100167	181987	352453	1.00	2.00	5.00	10.0	20.0
			935506	1901244	3861567			50.0	100	200		
Carbon tetrachloride	FB	Ave	+++++	+++++	52006	98725	203075	+++++	+++++	5.00	10.0	20.0
			571821	1232486	2532291			50.0	100	200		
1,1-Dichloropropene	FB	Ave	9354	18475	59291	103321	205671	1.00	2.00	5.00	10.0	20.0
			549117	1105814	2249595			50.0	100	200		
Benzene	FB	Ave	34876	60874	180362	317094	612703	1.00	2.00	5.00	10.0	20.0
			1605631	3307296	6813692			50.0	100	200		
1,2-Dichloroethane	FB	Ave	13440	24371	71746	120623	246911	1.00	2.00	5.00	10.0	20.0
			615993	1306291	2659451			50.0	100	200		
Trichloroethene	FB	Ave	9233	16962	55729	94818	186079	1.00	2.00	5.00	10.0	20.0
			503010	1009190	2047039			50.0	100	200		
Methylcyclohexane	FB	Ave	+++++	19791	84481	146654	287986	+++++	2.00	5.00	10.0	20.0
			764717	1565362	3125994			50.0	100	200		
1,2-Dichloropropane	FB	Ave	8529	17034	48399	87529	162425	1.00	2.00	5.00	10.0	20.0
			425941	917347	1832626			50.0	100	200		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dibromomethane	FB	Ave	4245	8830	23692	45805	90134	1.00	2.00	5.00	10.0	20.0
			229254	489774	967475			50.0	100	200		
1,4-Dioxane	FB	Ave	4302	9264	23607	43724	86844	50.0	100	250	500	1000
			199899	455747	868037			2500	5000	10000		
Bromodichloromethane	FB	Ave	6859	13669	42082	75627	158131	1.00	2.00	5.00	10.0	20.0
			448388	989263	2039428			50.0	100	200		
2-Chloroethyl vinyl ether	FB	Ave	8945	17023	39187	93751	151164	2.00	4.00	10.0	20.0	40.0
			393076	1031526	1940089			100	200	400		
cis-1,3-Dichloropropene	FB	Ave	+++++	16302	47482	92925	184608	+++++	2.00	5.00	10.0	20.0
			524840	1210365	2451663			50.0	100	200		
4-Methyl-2-pentanone	CBZ	Ave	85065	177952	335728	560172	698967	10.0	20.0	40.0	60.0	80.0
			826473	2021717	4012894			100	200	400		
Toluene	CBZ	Ave	40282	71581	192175	356266	637439	1.00	2.00	5.00	10.0	20.0
			1671785	3690632	7322088			50.0	100	200		
trans-1,3-Dichloropropene	CBZ	Lin1	6679	13227	34451	81132	146807	1.00	2.00	5.00	10.0	20.0
			419128	1081882	2139542			50.0	100	200		
Ethyl methacrylate	CBZ	Ave	6835	15360	41010	85253	147619	1.00	2.00	5.00	10.0	20.0
			376318	1010031	1909248			50.0	100	200		
1,1,2-Trichloroethane	CBZ	Ave	6624	13377	33095	66240	113838	1.00	2.00	5.00	10.0	20.0
			284461	679015	1298780			50.0	100	200		
Tetrachloroethene	CBZ	Ave	7199	13915	42476	77370	140279	1.00	2.00	5.00	10.0	20.0
			372869	807412	1550390			50.0	100	200		
1,3-Dichloropropane	CBZ	Ave	11255	22075	54364	109307	185850	1.00	2.00	5.00	10.0	20.0
			474673	1153063	2166700			50.0	100	200		
2-Hexanone	CBZ	Ave	54496	116751	213554	388131	433533	10.0	20.0	40.0	60.0	80.0
			501317	1382223	2617421			100	200	400		
Dibromochloromethane	CBZ	Ave	+++++	+++++	30482	61268	121680	+++++	+++++	5.00	10.0	20.0
			346262	866988	1733038			50.0	100	200		
1,2-Dibromoethane	CBZ	Ave	6380	12458	32983	66844	115233	1.00	2.00	5.00	10.0	20.0
			300668	737684	1404972			50.0	100	200		
Chlorobenzene	CBZ	Ave	27078	50167	129882	257078	438769	1.00	2.00	5.00	10.0	20.0
			1130081	2609134	5006716			50.0	100	200		
1,1,1,2-Tetrachloroethane	CBZ	Ave	+++++	+++++	38532	73895	153506	+++++	+++++	5.00	10.0	20.0
			419050	931960	1866126			50.0	100	200		
Ethylbenzene	CBZ	Ave	13724	25201	66350	133177	227988	1.00	2.00	5.00	10.0	20.0
			597119	1354582	2581591			50.0	100	200		
m-Xylene & p-Xylene	CBZ	Ave	32208	60714	162062	324753	550813	2.00	4.00	10.0	20.0	40.0
			1456814	3286981	6238867			100	200	400		
o-Xylene	CBZ	Ave	16485	30359	82979	157580	285538	1.00	2.00	5.00	10.0	20.0
			739292	1597442	3018953			50.0	100	200		
Styrene	CBZ	Ave	23793	45065	122341	254343	445206	1.00	2.00	5.00	10.0	20.0
			1151362	2780714	5241358			50.0	100	200		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Bromoform	CBZ	Qua	2498 192175	5608 533050	15181 1065843	34263	66339	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Isopropylbenzene	CBZ	Ave	37316 2026207	73722 4457748	214559 8857494	418334	757640	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,2,2-Tetrachloroethane	DCB	Ave	6809 343549	12754 807923	36223 1538339	74159	134825	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Bromobenzene	DCB	Ave	11038 475428	20972 1138086	55619 2094873	113818	189278	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,3-Trichloropropane	DCB	Ave	3087 117350	5422 290489	13653 533873	28476	49547	1.00 50.0	2.00 100	5.00 200	10.0	20.0
trans-1,4-Dichloro-2-butene	DCB	Ave	2418 112479	5161 342476	11814 637124	25601	45879	1.00 50.0	2.00 100	5.00 200	10.0	20.0
n-Propylbenzene	DCB	Ave	11433 550253	21353 1260258	60704 2374680	119837	212095	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2-Chlorotoluene	DCB	Ave	11178 494147	21186 1128727	56326 2132403	110252	194166	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,3,5-Trimethylbenzene	DCB	Ave	29998 1659654	59887 3623498	174392 7197407	344960	632389	1.00 50.0	2.00 100	5.00 200	10.0	20.0
4-Chlorotoluene	DCB	Ave	11320 478752	20756 1142122	54962 2137738	111376	190993	1.00 50.0	2.00 100	5.00 200	10.0	20.0
tert-Butylbenzene	DCB	Ave	27942 1592368	57907 3413432	162623 6898207	312282	582569	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,4-Trimethylbenzene	DCB	Ave	32180 1653733	62040 3705692	179386 7249885	352849	628822	1.00 50.0	2.00 100	5.00 200	10.0	20.0
sec-Butylbenzene	DCB	Ave	35755 2155184	72477 4690034	224827 9469527	433135	802287	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,3-Dichlorobenzene	DCB	Ave	21006 926777	40161 2157784	109953 4023329	207216	366393	1.00 50.0	2.00 100	5.00 200	10.0	20.0
p-Isopropyltoluene	DCB	Ave	31728 1852387	62747 4158799	192093 8194617	384642	690608	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,4-Dichlorobenzene	DCB	Ave	22020 923453	41844 2199739	111837 4135009	208405	371480	1.00 50.0	2.00 100	5.00 200	10.0	20.0
n-Butylbenzene	DCB	Ave	25990 1488843	52784 3422233	159661 6706550	311807	570224	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dichlorobenzene	DCB	Ave	20638 903080	39367 2054259	104609 3903851	196439	360006	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCB	Lin1	1045 69586	2653 197799	6682 397341	12891	25791	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,3,5-Trichlorobenzene	DCB	Ave	14696 735707	28812 1628652	78701 3175797	152772	285995	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,4-Trichlorobenzene	DCB	Ave	14570 685419	25823 1477129	76888 2909633	136706	271813	1.00 50.0	2.00 100	5.00 200	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 10:44 Calibration End Date: 05/13/2011 13:14 Calibration ID: 985

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Hexachlorobutadiene	DCB	Ave	5559 341694	10950 732719	35269 1414919	68783	125992	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Naphthalene	DCB	Ave	33518 1613135	64772 3656364	178672 7518982	316311	648312	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,3-Trichlorobenzene	DCB	Ave	13626 653890	24328 1407038	74246 2732713	130487	262553	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Dibromofluoromethane (Surr)	FB	Qua	8333 475221	15935 923821	41961 1778783	81709	165559	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Qua	10945 524830	21526 1039210	51431 2049787	94812	189823	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Toluene-d8 (Surr)	CBZ	Qua	33472 1654693	62832 3408414	154238 6496327	301566	553311	1.00 50.0	2.00 100	5.00 200	10.0	20.0
4-Bromofluorobenzene (Surr)	DCB	Qua	15890 577351	26856 1329052	58464 2357233	123390	209607	1.00 50.0	2.00 100	5.00 200	10.0	20.0

Curve Type Legend:
Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 13:57 Calibration End Date: 05/13/2011 16:27 Calibration ID: 987

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1A9 240-1969/20	148171.D
Level 2	STD2A9 240-1969/19	148170.D
Level 3	STD3A9 240-1969/18	148169.D
Level 4	STD4A9 240-1969/17	148168.D
Level 5	STD5A9 240-1969/16	148167.D
Level 6	STD6A9 240-1969/15	148166.D
Level 7	STD7A9 240-1969/14	148165.D
Level 8	STD8A9 240-1969/13	148164.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dichlorofluoromethane	0.3307	0.2526	0.2552	0.2634	0.2556	Ave		0.2683				9.6		15.0			
	0.2592	0.2622	0.2677														
Ethyl ether	0.2444	0.2216	0.2105	0.2175	0.2109	Ave		0.2111				8.6		15.0			
	0.1903	0.2071	0.1866														
3-Chloro-1-propene	0.0919	0.0769	0.0810	0.0945	0.0950	Ave		0.0947				12.0		15.0			
	0.0996	0.1071	0.1116														
Methylene Chloride	0.2962	0.2181	0.2173	0.2215	0.2173	Ave		0.2286				12.0		15.0			
	0.2168	0.2234	0.2182														
2-Chloro-1,3-butadiene	0.3698	0.3394	0.3825	0.4155	0.4091	Ave		0.4092				11.0		15.0			
	0.4360	0.4568	0.4648														
Diisopropyl ether	0.1961	0.1770	0.1837	0.1942	0.1894	Ave		0.1893				3.4		15.0			
	0.1929	0.1941	0.1866														
Ethyl-t-butyl ether (ETBE)	0.6828	0.6579	0.6589	0.7073	0.7035	Ave		0.7157				7.4		15.0			
	0.7382	0.7700	0.8071														
~~Propionitrile~~	0.0390	0.0395	0.0358	0.0358	0.0355	Ave		~~0.0368~~				4.5		15.0			
	0.0375	0.0364	0.0352														
Ethyl acetate	0.1831	0.1796	0.1900	0.2155	0.2123	Ave		0.2096				11.0		15.0			
	0.2330	0.2325	0.2311														
Methacrylonitrile	0.1228	0.1452	0.1353	0.1473	0.1506	Ave		0.1462				8.2		15.0			
	0.1529	0.1572	0.1584														
~~Isobutyl alcohol~~	0.0060	0.0069	0.0070	0.0072	0.0076	Ave		~~0.0077~~				15.0		15.0			
	0.0086	0.0092	0.0090														
Tert-amyl-methyl ether (TAME)	0.4511	0.4394	0.4308	0.4700	0.4748	Ave		0.4743				7.2		15.0			
	0.4885	0.5147	0.5252														
n-Heptane	0.0512	0.0372	0.0575	0.0601	0.0578	Ave		0.0560				15.0		15.0			
	0.0612	0.0610	0.0622														
~~n-Butanol~~	0.0060	0.0085	0.0068	0.0061	0.0079	Lin1	-0.101	~~0.0068~~							0.9950		0.9900
	0.0080	0.0090	0.0091														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 13:57 Calibration End Date: 05/13/2011 16:27 Calibration ID: 987

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Methyl methacrylate	0.1770 0.2231	0.1634 0.2265	0.1737 0.2260	0.2207	0.1790	Ave		0.1987				14.0		15.0			
~~2-Nitropropane~~	0.0285 0.0323	0.0235 0.0414	0.0250 0.0511	0.0283	0.0255	Qua	-0.092	~~-0.0302~~	0.0001						1.0000		0.9900
n-Butyl acetate	0.3656 0.4982	0.4015 0.5066	0.3763 0.5120	0.4143	0.4242	Ave		0.4373				14.0		15.0			
~~Cyclohexanone~~	0.0227 0.0277	0.0195 0.0298	0.0245 0.0291	0.0247	0.0273	Ave		~~0.0257~~				14.0		15.0			
1,2,3-Trimethylbenzene	1.9349 2.1478	1.9001 2.2411	1.9102 2.2835	2.1068	2.0922	Ave		2.0771				7.2		15.0			
2-Methylnaphthalene	1.4494 1.3723	1.3533 1.5439	1.2640 1.4798	1.2633	1.3960	Ave		1.3902				7.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 13:57 Calibration End Date: 05/13/2011 16:27 Calibration ID: 987

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1A9 240-1969/20	148171.D
Level 2	STD2A9 240-1969/19	148170.D
Level 3	STD3A9 240-1969/18	148169.D
Level 4	STD4A9 240-1969/17	148168.D
Level 5	STD5A9 240-1969/16	148167.D
Level 6	STD6A9 240-1969/15	148166.D
Level 7	STD7A9 240-1969/14	148165.D
Level 8	STD8A9 240-1969/13	148164.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorofluoromethane	FB	Ave	11562 476869	18514 936178	46659 1953757	96356	190674	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Ethyl ether	FB	Ave	8543 350164	16241 739301	38491 1361952	79569	157322	1.00 50.0	2.00 100	5.00 200	10.0	20.0
3-Chloro-1-propene	FB	Ave	3212 183315	5637 382489	14802 814509	34554	70852	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Methylene Chloride	FB	Ave	51768 797994	159824 1595095	317816 3184535	486183	648440	5.00 100	20.0 200	40.0 400	60.0	80.0
2-Chloro-1,3-butadiene	FB	Ave	12928 802203	24874 1630700	69926 3392406	151981	305164	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Diisopropyl ether	FB	Ave	34277 1774855	64849 3465390	167953 6809108	355214	706186	5.00 250	10.0 500	25.0 1000	50.0	100
Ethyl-t-butyl ether (ETBE)	FB	Ave	23872 1358411	48215 2748972	120469 5890002	258702	524718	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Propionitrile	FB	Ave	2726 138042	5784 260109	13078 514053	26160	52968	2.00 100	4.00 200	10.0 400	20.0	40.0
Ethyl acetate	FB	Ave	12799 857582	26321 1660071	69485 3372846	157660	316666	2.00 100	4.00 200	10.0 400	20.0	40.0
Methacrylonitrile	FB	Ave	4293 281317	10642 561125	24733 1155918	53870	112331	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Isobutyl alcohol	FB	Ave	4185 315778	10076 658051	25612 1318836	52954	113557	20.0 1000	40.0 2000	100 4000	200	400
Tert-amyl-methyl ether (TAME)	FB	Ave	15771 898873	32206 1837513	78763 3832731	171930	354134	1.00 50.0	2.00 100	5.00 200	10.0	20.0
n-Heptane	FB	Ave	1789 112589	2726 217864	10519 453655	21997	43150	1.00 50.0	2.00 100	5.00 200	10.0	20.0
n-Butanol	CBZ	Lin1	2763 229732	8349 499949	18206 1028013	36564	82582	20.0 1000	40.0 2000	100 4000	200	400
Methyl methacrylate	FB	Ave	6187 410543	11976 808422	31755 1649508	80740	133511	1.00 50.0	2.00 100	5.00 200	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1969

SDG No.:

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 05/13/2011 13:57 Calibration End Date: 05/13/2011 16:27 Calibration ID: 987

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Nitropropane	FB	Qua	1991 119003	3449 295557	9146 745244	20713	38109	2.00 100	4.00 200	10.0 400	20.0	40.0
n-Butyl acetate	CBZ	Ave	16976 1434827	39626 2807789	101360 5806930	248102	445981	2.00 100	4.00 200	10.0 400	20.0	40.0
Cyclohexanone	CBZ	Ave	5266 398835	9604 827123	32989 1649798	74031	143607	10.0 500	20.0 1000	50.0 2000	100	200
1,2,3-Trimethylbenzene	DCB	Ave	23726 1654400	50061 3266502	137203 6643280	317942	602970	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2-Methylnaphthalene	DCB	Ave	35545 2114019	71310 4500581	181571 8609987	381291	804615	2.00 100	4.00 200	10.0 400	20.0	40.0

Curve Type Legend:
Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1969/11 Calibration Date: 05/13/2011 13:36

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148163.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1809	0.1714		47400	50000	-5.2	50.0
Chloromethane	Ave	0.2918	0.2785	0.1000	47700	50000	-4.6	50.0
Vinyl chloride	Ave	0.2223	0.2152		48400	50000	-3.2	20.0
Bromomethane	Ave	0.0706	0.0622		44100	50000	-11.8	50.0
Chloroethane	Ave	0.0509	0.0444		43600	50000	-12.8	50.0
Trichlorofluoromethane	Ave	0.2149	0.2429		56500	50000	13.0	50.0
Acrolein	Ave	0.0402	0.0393		146000	150000	-2.4	50.0
1,1-Dichloroethene	Ave	0.1866	0.2081		55800	50000	11.5	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1753	0.2091		59600	50000	19.2	50.0
Acetone	Lin1		0.0853		98300	100000	-1.7	50.0
Iodomethane	Ave	0.3631	0.4066		56000	50000	12.0	50.0
Carbon disulfide	Ave	0.4616	0.5060		54800	50000	9.6	50.0
Acetonitrile	Ave	0.0363	0.0348		144000	150000	-4.1	50.0
Methyl acetate	Ave	0.2191	0.2252		51400	50000	2.8	50.0
tert-Butyl alcohol	Ave	0.0217	0.0223		1030000	1000000	3.0	50.0
Acrylonitrile	Ave	0.1046	0.1012		145000	150000	-3.2	50.0
trans-1,2-Dichloroethene	Ave	0.2275	0.2306		50700	50000	1.4	50.0
Methyl tert-butyl ether	Ave	0.5685	0.5747		50500	50000	1.1	50.0
Hexane	Ave	0.0501	0.0561		56000	50000	12.0	20.0
1,1-Dichloroethane	Ave	0.4178	0.4336	0.1000	51900	50000	3.8	50.0
Vinyl acetate	Ave	0.0316	0.0332		52500	50000	4.9	50.0
2,2-Dichloropropane	Ave	0.1535	0.1471		47900	50000	-4.1	50.0
cis-1,2-Dichloroethene	Ave	0.2456	0.2479		50500	50000	1.0	50.0
2-Butanone	Ave	0.1203	0.1115		92700	100000	-7.3	50.0
Bromochloromethane	Ave	0.1307	0.1294		49500	50000	-1.0	50.0
Tetrahydrofuran	Ave	0.0799	0.0797		49900	50000	-0.3	50.0
Chloroform	Ave	0.3650	0.3722		51000	50000	2.0	20.0
1,1,1-Trichloroethane	Ave	0.2857	0.3007		52600	50000	5.2	50.0
Cyclohexane	Ave	0.4625	0.5050		54600	50000	9.2	50.0
1,1-Dichloropropene	Ave	0.2791	0.2861		51300	50000	2.5	50.0
Carbon tetrachloride	Ave	0.2938	0.2949		50200	50000	0.4	50.0
Benzene	Ave	0.8703	0.8392		48200	50000	-3.6	50.0
1,2-Dichloroethane	Ave	0.3410	0.3395		49800	50000	-0.5	50.0
Trichloroethene	Ave	0.2582	0.2622		50800	50000	1.5	50.0
Methylcyclohexane	Ave	0.3865	0.4050		52400	50000	4.8	50.0
1,2-Dichloropropane	Ave	0.2331	0.2274		48800	50000	-2.5	20.0
Dibromomethane	Ave	0.1218	0.1278		52500	50000	4.9	50.0
Bromodichloromethane	Ave	0.2201	0.2314		52600	50000	5.1	50.0
2-Chloroethyl vinyl ether	Ave	0.1159	0.1029		44400	50000	-11.2	50.0
cis-1,3-Dichloropropene	Ave	0.2676	0.2522		47100	50000	-5.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1969/11 Calibration Date: 05/13/2011 13:36

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148163.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Methyl-2-pentanone	Ave	0.3207	0.3246		101000	100000	1.2	50.0
Toluene	Ave	1.283	1.237		48200	50000	-3.6	20.0
trans-1,3-Dichloropropene	Lin1		0.3046		42900	50000	-14.2	50.0
1,1,2-Trichloroethane	Ave	0.2271	0.2258		49700	50000	-0.6	50.0
Tetrachloroethene	Ave	0.2700	0.2778		51400	50000	2.9	50.0
1,3-Dichloropropane	Ave	0.3779	0.3691		48800	50000	-2.3	50.0
2-Hexanone	Ave	0.2080	0.2004		96300	100000	-3.7	50.0
Dibromochloromethane	Ave	0.2553	0.2494		48900	50000	-2.3	50.0
1,2-Dibromoethane	Ave	0.2310	0.2313		50100	50000	0.1	50.0
Chlorobenzene	Ave	0.8850	0.8444	0.3000	47700	50000	-4.6	50.0
1,1,1,2-Tetrachloroethane	Ave	0.2996	0.3092		51600	50000	3.2	50.0
Ethylbenzene	Ave	0.4558	0.4441		48700	50000	-2.6	20.0
m-Xylene & p-Xylene	Ave	0.5508	0.5403		98100	100000	-1.9	50.0
o-Xylene	Ave	0.5516	0.5538		50200	50000	0.4	50.0
Styrene	Ave	0.8679	0.8479		48800	50000	-2.3	50.0
Bromoform	Qua		0.1386	0.1000	43700	50000	-12.6	50.0
Isopropylbenzene	Ave	1.451	1.487		51200	50000	2.5	50.0
1,1,2,2-Tetrachloroethane	Ave	0.4912	0.5016	0.3000	51100	50000	2.1	50.0
Bromobenzene	Ave	0.7277	0.7047		48400	50000	-3.2	50.0
1,2,3-Trichloropropane	Ave	0.1866	0.1847		49500	50000	-1.0	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1800	0.1839		102000	100000	2.1	50.0
n-Propylbenzene	Ave	0.7926	0.8123		51200	50000	2.5	50.0
2-Chlorotoluene	Ave	0.7346	0.7204		49000	50000	-1.9	50.0
1,3,5-Trimethylbenzene	Ave	2.289	2.364		51600	50000	3.3	50.0
4-Chlorotoluene	Ave	0.7295	0.6905		47300	50000	-5.3	50.0
tert-Butylbenzene	Ave	2.150	2.293		53300	50000	6.6	50.0
1,2,4-Trimethylbenzene	Ave	2.338	2.419		51700	50000	3.5	50.0
sec-Butylbenzene	Ave	2.903	3.072		52900	50000	5.8	50.0
1,3-Dichlorobenzene	Ave	1.393	1.334		47900	50000	-4.2	50.0
p-Isopropyltoluene	Ave	2.527	2.726		53900	50000	7.9	50.0
1,4-Dichlorobenzene	Ave	1.423	1.337		47000	50000	-6.1	50.0
n-Butylbenzene	Ave	2.075	2.151		51800	50000	3.7	50.0
1,2-Dichlorobenzene	Ave	1.348	1.307		48500	50000	-3.0	50.0
1,2-Dibromo-3-Chloropropane	Lin1		0.1066		43400	50000	-13.2	50.0
1,2,4-Trichlorobenzene	Ave	0.9729	1.017		52200	50000	4.5	50.0
Hexachlorobutadiene	Ave	0.4515	0.4695		52000	50000	4.0	50.0
Naphthalene	Ave	2.337	2.454		52500	50000	5.0	50.0
1,2,3-Trichlorobenzene	Ave	0.9257	0.9622		52000	50000	3.9	50.0
Dibromofluoromethane (Surr)	Qua		0.2552		52200	50000	4.4	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2845		52300	50000	4.6	50.0
Toluene-d8 (Surr)	Qua		1.268		54100	50000	8.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1969/11 Calibration Date: 05/13/2011 13:36

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 148163.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Bromofluorobenzene (Surr)	Qua		0.8627		50400	50000	0.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1969/11 Calibration Date: 05/13/2011 13:36

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 13:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 16:27

Lab File ID: 148163.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.2111	0.1902		45000	50000	-9.9	50.0
Methylene Chloride	Ave	0.2286	0.2191		47900	50000	-4.1	50.0
Diisopropyl ether	Ave	0.1893	0.1964		51900	50000	3.8	50.0
Isobutyl alcohol	Ave	0.0077	0.0091		2970000	2500000	18.7	50.0
Cyclohexanone	Ave	0.0257	0.0129		504000	1000000	-49.6	50.0
1,2,3-Trimethylbenzene	Ave	2.077	2.474		59500	50000	19.1	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab File ID: BFB14853.D BFB Injection Date: 06/16/2011

Instrument ID: A3UX14 BFB Injection Time: 11:37

Analysis Batch No.: 5027

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.8	
75	30.0 - 60.0 % of mass 95	45.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	86.9	
175	5.0 - 9.0 % of mass 174	6.4	(7.3)1
176	95.0 - 101.0 % of mass 174	83.8	(96.5)1
177	5.0 - 9.0 % of mass 176	5.4	(6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-5027/3	149043.D	06/16/2011	12:19
	CCV 240-5027/4	149044.D	06/16/2011	12:40
	LCS 240-5027/5	149045.D	06/16/2011	13:02
	MB 240-5027/6	149046.D	06/16/2011	13:23
	240-787-A-9 MS	149058.D	06/16/2011	17:41
	240-787-A-9 MSD	149059.D	06/16/2011	18:02
GSP-SB-128-0-2	240-820-1	149072.D	06/16/2011	22:41
GSP-SB-128-6-8	240-820-2	149073.D	06/16/2011	23:02
GSP-SB-123-0-2	240-820-4	149074.D	06/16/2011	23:24

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5027/3 Calibration Date: 06/16/2011 12:19

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 149043.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.1809	0.2126		58800	50000	17.5	50.0
Chloromethane	Ave	0.2918	0.3430	0.1000	58800	50000	17.5	50.0
Vinyl chloride	Ave	0.2223	0.2469		55500	50000	11.0	20.0
Bromomethane	Ave	0.0706	0.0836		59300	50000	18.5	50.0
Chloroethane	Ave	0.0509	0.1267		124000	50000	148.8*	50.0
Trichlorofluoromethane	Ave	0.2149	0.2454		57100	50000	14.2	50.0
Acrolein	Ave	0.0402	0.0294		366000	500000	-26.9	50.0
1,1-Dichloroethene	Ave	0.1866	0.1813		48600	50000	-2.9	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1753	0.1938		55300	50000	10.5	50.0
Acetone	Lin1		0.0918		106000	100000	6.2	50.0
Iodomethane	Ave	0.3631	0.3434		47300	50000	-5.4	50.0
Carbon disulfide	Ave	0.4616	0.3384		36700	50000	-26.7	50.0
Acetonitrile	Ave	0.0363	0.0322		444000	500000	-11.2	50.0
Methyl acetate	Ave	0.2191	0.2434		111000	100000	11.1	50.0
tert-Butyl alcohol	Ave	0.0217	0.0164		755000	1000000	-24.5	50.0
Acrylonitrile	Ave	0.1046	0.1047		100000	100000	0.1	50.0
trans-1,2-Dichloroethene	Ave	0.2275	0.2173		47800	50000	-4.5	50.0
Methyl tert-butyl ether	Ave	0.5685	0.5204		45800	50000	-8.5	50.0
Hexane	Ave	0.0501	0.0557		55500	50000	11.1	20.0
1,1-Dichloroethane	Ave	0.4178	0.4250	0.1000	50900	50000	1.7	50.0
Vinyl acetate	Ave	0.0316	0.0228		36000	50000	-28.0	50.0
2,2-Dichloropropane	Ave	0.1535	0.1525		49700	50000	-0.6	50.0
cis-1,2-Dichloroethene	Ave	0.2456	0.2371		48300	50000	-3.5	50.0
2-Butanone	Ave	0.1203	0.1212		101000	100000	0.8	50.0
Bromochloromethane	Ave	0.1307	0.1272		48700	50000	-2.7	50.0
Tetrahydrofuran	Ave	0.0799	0.0796		49800	50000	-0.3	50.0
Chloroform	Ave	0.3650	0.3684		50500	50000	0.9	20.0
1,1,1-Trichloroethane	Ave	0.2857	0.3068		53700	50000	7.4	50.0
Cyclohexane	Ave	0.4625	0.5338		57700	50000	15.4	50.0
1,1-Dichloropropene	Ave	0.2791	0.2874		51500	50000	3.0	50.0
Carbon tetrachloride	Ave	0.2938	0.2936		50000	50000	-0.0	50.0
Benzene	Ave	0.8703	0.8623		49500	50000	-0.9	50.0
1,2-Dichloroethane	Ave	0.3410	0.3604		52800	50000	5.7	50.0
Trichloroethene	Ave	0.2582	0.2678		51900	50000	3.7	50.0
Methylcyclohexane	Ave	0.3865	0.3919		50700	50000	1.4	50.0
1,2-Dichloropropane	Ave	0.2331	0.2376		51000	50000	1.9	20.0
Dibromomethane	Ave	0.1218	0.1220		50100	50000	0.2	50.0
1,4-Dioxane	Ave	0.0023	0.0019		2010000	2500000	-19.7	50.0
Bromodichloromethane	Ave	0.2201	0.2181		49500	50000	-0.9	50.0
2-Chloroethyl vinyl ether	Ave	0.1159	0.1047		90300	100000	-9.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5027/3 Calibration Date: 06/16/2011 12:19

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 149043.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
cis-1,3-Dichloropropene	Ave	0.2676	0.2685		50200	50000	0.3	50.0
4-Methyl-2-pentanone	Ave	0.3207	0.3268		102000	100000	1.9	50.0
Toluene	Ave	1.283	1.263		49200	50000	-1.6	20.0
trans-1,3-Dichloropropene	Lin1		0.3072		43300	50000	-13.4	50.0
Ethyl methacrylate	Ave	0.2919	0.2771		47500	50000	-5.1	50.0
1,1,2-Trichloroethane	Ave	0.2271	0.2293		50500	50000	0.9	50.0
Tetrachloroethene	Ave	0.2700	0.2867		53100	50000	6.2	50.0
1,3-Dichloropropane	Ave	0.3779	0.3735		49400	50000	-1.2	50.0
2-Hexanone	Ave	0.2080	0.2116		102000	100000	1.7	50.0
Dibromochloromethane	Ave	0.2553	0.2271		44500	50000	-11.1	50.0
1,2-Dibromoethane	Ave	0.2310	0.2316		50100	50000	0.2	50.0
Chlorobenzene	Ave	0.8850	0.8695	0.3000	49100	50000	-1.7	50.0
1,1,1,2-Tetrachloroethane	Ave	0.2996	0.3036		50700	50000	1.4	50.0
Ethylbenzene	Ave	0.4558	0.4570		50100	50000	0.3	20.0
m-Xylene & p-Xylene	Ave	0.5508	0.5581		101000	100000	1.3	50.0
o-Xylene	Ave	0.5516	0.5433		49200	50000	-1.5	50.0
Styrene	Ave	0.8679	0.8760		50500	50000	0.9	50.0
Bromoform	Qua		0.1140	0.1000	36500	50000	-27.0	50.0
Isopropylbenzene	Ave	1.451	1.507		51900	50000	3.9	50.0
1,1,2,2-Tetrachloroethane	Ave	0.4912	0.4938	0.3000	50300	50000	0.5	50.0
Bromobenzene	Ave	0.7277	0.7277		50000	50000	0.0	50.0
1,2,3-Trichloropropane	Ave	0.1866	0.1858		49800	50000	-0.5	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1800	0.1948		54100	50000	8.2	50.0
n-Propylbenzene	Ave	0.7926	0.8193		51700	50000	3.4	50.0
2-Chlorotoluene	Ave	0.7346	0.7287		49600	50000	-0.8	50.0
1,3,5-Trimethylbenzene	Ave	2.289	2.394		52300	50000	4.6	50.0
4-Chlorotoluene	Ave	0.7295	0.7351		50400	50000	0.8	50.0
tert-Butylbenzene	Ave	2.150	2.241		52100	50000	4.2	50.0
1,2,4-Trimethylbenzene	Ave	2.338	2.350		50300	50000	0.5	50.0
sec-Butylbenzene	Ave	2.903	3.009		51800	50000	3.7	50.0
1,3-Dichlorobenzene	Ave	1.393	1.380		49500	50000	-1.0	50.0
p-Isopropyltoluene	Ave	2.527	2.612		51700	50000	3.4	50.0
1,4-Dichlorobenzene	Ave	1.423	1.387		48700	50000	-2.5	50.0
n-Butylbenzene	Ave	2.075	2.106		50700	50000	1.5	50.0
1,2-Dichlorobenzene	Ave	1.348	1.304		48400	50000	-3.2	50.0
1,2-Dibromo-3-Chloropropane	Lin1		0.0779		31900	50000	-36.2	50.0
1,3,5-Trichlorobenzene	Ave	1.042	0.9756		46800	50000	-6.4	50.0
1,2,4-Trichlorobenzene	Ave	0.9729	0.8566		44000	50000	-11.9	50.0
Hexachlorobutadiene	Ave	0.4515	0.4544		50300	50000	0.6	50.0
Naphthalene	Ave	2.337	1.996		42700	50000	-14.6	50.0
1,2,3-Trichlorobenzene	Ave	0.9257	0.8140		44000	50000	-12.1	50.0

FORM VII 8260B

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5027/3 Calibration Date: 06/16/2011 12:19

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 149043.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Qua		0.2409		49300	50000	-1.4	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2933		53900	50000	7.8	50.0
Toluene-d8 (Surr)	Qua		1.233		52600	50000	5.2	50.0
4-Bromofluorobenzene (Surr)	Qua		0.8527		49800	50000	-0.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5027/4 Calibration Date: 06/16/2011 12:40

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 10:44

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 13:14

Lab File ID: 149044.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Qua		0.2225		45400	50000	-9.2	50.0
1,2-Dichloroethane-d4 (Surr)	Qua		0.2848		52300	50000	4.6	50.0
Toluene-d8 (Surr)	Qua		1.211		51700	50000	3.4	50.0
4-Bromofluorobenzene (Surr)	Qua		0.8736		51000	50000	2.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5027/4 Calibration Date: 06/16/2011 12:40

Instrument ID: A3UX14 Calib Start Date: 05/13/2011 13:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/13/2011 16:27

Lab File ID: 149044.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.2683	0.2755		51300	50000	2.7	50.0
Ethyl ether	Ave	0.2111	0.1965		46500	50000	-6.9	50.0
3-Chloro-1-propene	Ave	0.0947	0.0815		43000	50000	-14.0	50.0
Methylene Chloride	Ave	0.2286	0.2213		96800	100000	-3.2	50.0
2-Chloro-1,3-butadiene	Ave	0.4092	0.4304		52600	50000	5.2	50.0
Diisopropyl ether	Ave	0.1893	0.1789		236000	250000	-5.5	50.0
Ethyl-t-butyl ether (ETBE)	Ave	0.7157	0.6873		48000	50000	-4.0	50.0
Propionitrile	Ave	0.0368	0.0367		99500	100000	-0.5	50.0
Ethyl acetate	Ave	0.2096	0.2301		110000	100000	9.7	50.0
Methacrylonitrile	Ave	0.1462	0.1569		53700	50000	7.3	50.0
Isobutyl alcohol	Ave	0.0077	0.0090		1170000	1000000	16.7	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.4743	0.4315		45500	50000	-9.0	50.0
n-Heptane	Ave	0.0560	0.0591		52800	50000	5.5	50.0
n-Butanol	Lin1		0.0080		1030000	1000000	3.4	50.0
Methyl methacrylate	Ave	0.1987	0.1870		47100	50000	-5.9	50.0
2-Nitropropane	Qua		0.0335		97400	100000	-2.6	50.0
Cyclohexanone	Ave	0.0257	0.0226		636000	500000	27.2	50.0
1,2,3-Trimethylbenzene	Ave	2.077	2.214		53300	50000	6.6	50.0
2-Methylnaphthalene	Ave	1.390	1.216		87400	100000	-12.6	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Lab File ID: 149046.D | Lab Sample ID: MB 240-5027/6

Matrix: Solid | Heated Purge: (Y/N) Y

Instrument ID: A3UX14 | Date Analyzed: 06/16/2011 13:23

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-5027/5	149045.D	06/16/2011 13:02
	240-787-A-9 MS	149058.D	06/16/2011 17:41
	240-787-A-9 MSD	149059.D	06/16/2011 18:02
GSP-SB-128-0-2	240-820-1	149072.D	06/16/2011 22:41
GSP-SB-128-6-8	240-820-2	149073.D	06/16/2011 23:02
GSP-SB-123-0-2	240-820-4	149074.D	06/16/2011 23:24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5027/6

Matrix: Solid | Lab File ID: 149046.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/16/2011 13:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 5027 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	0.62
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	0.56
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.34
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroeth ane	5.0	U	5.0	1.3
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.36
75-35-4	1,1-Dichloroethene	5.0	U	5.0	0.52
563-58-6	1,1-Dichloropropene	5.0	U	5.0	0.30
87-61-6	1,2,3-Trichlorobenzene	5.0	U	5.0	0.38
96-18-4	1,2,3-Trichloropropane	5.0	U	5.0	0.90
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.17
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	0.27
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.65
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	1.3
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	0.36
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.34
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.69
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	0.35
142-28-9	1,3-Dichloropropane	5.0	U	5.0	0.34
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	0.66
594-20-7	2,2-Dichloropropane	5.0	U	5.0	0.94
78-93-3	2-Butanone	20	U	20	1.4
110-75-8	2-Chloroethyl vinyl ether	50	U	50	1.4
95-49-8	2-Chlorotoluene	5.0	U	5.0	0.40
591-78-6	2-Hexanone	20	U	20	0.63
106-43-4	4-Chlorotoluene	5.0	U	5.0	0.41
99-87-6	p-Isopropyltoluene	5.0	U	5.0	0.21
108-10-1	4-Methyl-2-pentanone	20	U	20	0.54
67-64-1	Acetone	13.3	J	20	6.3
71-43-2	Benzene	5.0	U	5.0	0.23
108-86-1	Bromobenzene	5.0	U	5.0	0.33
75-25-2	Bromoform	5.0	U	5.0	0.33
74-83-9	Bromomethane	5.0	U	5.0	0.54
75-15-0	Carbon disulfide	5.0	U	5.0	0.44
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.37
108-90-7	Chlorobenzene	5.0	U	5.0	0.33

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5027/6

Matrix: Solid | Lab File ID: 149046.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/16/2011 13:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 5027 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.0	U	5.0	0.55
75-00-3	Chloroethane	5.0	U	5.0	0.86
67-66-3	Chloroform	5.0	U	5.0	0.29
74-87-3	Chloromethane	5.0	U	5.0	0.41
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.36
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.34
74-95-3	Dibromomethane	5.0	U	5.0	0.63
74-97-5	Bromochloromethane	5.0	U	5.0	0.71
75-71-8	Dichlorodifluoromethane	5.0	U	5.0	0.50
75-27-4	Bromodichloromethane	5.0	U	5.0	0.28
75-65-0	tert-Butyl alcohol	200	U	200	7.6
100-41-4	Ethylbenzene	5.0	U	5.0	0.26
87-68-3	Hexachlorobutadiene	5.0	U	5.0	1.2
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	5.0	U	5.0	0.16
1634-04-4	Methyl tert-butyl ether	20	U	20	0.43
75-09-2	Methylene Chloride	5.88		5.0	0.67
179601-23-1	m-Xylene & p-Xylene	10	U	10	1.2
91-20-3	Naphthalene	0.448	J	5.0	0.19
104-51-8	n-Butylbenzene	5.0	U	5.0	0.23
103-65-1	n-Propylbenzene	5.0	U	5.0	0.40
95-47-6	o-Xylene	5.0	U	5.0	0.35
135-98-8	sec-Butylbenzene	5.0	U	5.0	0.18
100-42-5	Styrene	5.0	U	5.0	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.37
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.22
127-18-4	Tetrachloroethene	5.0	U	5.0	0.52
108-88-3	Toluene	5.0	U	5.0	0.27
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.41
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.54
79-01-6	Trichloroethene	5.0	U	5.0	0.42
75-69-4	Trichlorofluoromethane	5.0	U	5.0	0.34
108-05-4	Vinyl acetate	10	U	10	0.25
75-01-4	Vinyl chloride	5.0	U	5.0	0.39
1330-20-7	Xylenes, Total	10	U	10	0.67

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-5027/6

Matrix: Solid Lab File ID: 149046.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 06/16/2011 13:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 5027 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.0	U	5.0	0.29
106-93-4	1,2-Dibromoethane	5.0	U	5.0	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		67-125
1868-53-7	Dibromofluoromethane (Surr)	91		37-132
460-00-4	4-Bromofluorobenzene (Surr)	94		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 240-5027/6

Matrix: Solid Lab File ID: 149046.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 06/16/2011 13:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 5027 Units: ug/Kg

Number TICs Found: 0 TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149045.D

Lab ID: LCS 240-5027/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	50.5	101	81-119	
1,1,1-Trichloroethane	50.0	52.3	105	77-126	
1,1,2,2-Tetrachloroethane	50.0	50.1	100	77-123	
1,1,2-Trichloro-1,2,2-trichfluoroethane	50.0	58.9	118	82-138	
1,1-Dichloroethane	50.0	51.7	103	76-115	
1,1-Dichloroethene	50.0	51.3	103	75-135	
1,1-Dichloropropene	50.0	50.4	101	80-120	
1,2,3-Trichlorobenzene	50.0	47.1	94	61-121	
1,2,3-Trichloropropane	50.0	49.8	100	84-126	
1,2,3-Trimethylbenzene	50.0	57.2	114	70-130	
1,2,4-Trichlorobenzene	50.0	44.7	89	64-124	
1,2,4-Trimethylbenzene	50.0	50.2	100	80-129	
1,2-Dibromo-3-Chloropropane	50.0	35.8	72	61-132	
1,2-Dichlorobenzene	50.0	47.9	96	76-110	
1,2-Dichloroethane	50.0	52.7	105	72-120	
1,2-Dichloropropane	50.0	49.4	99	87-113	
1,3-Dichlorobenzene	50.0	47.7	95	78-111	
1,3-Dichloropropane	50.0	48.7	97	82-118	
1,4-Dichlorobenzene	50.0	45.9	92	75-110	
2,2-Dichloropropane	50.0	47.5	95	69-135	
2-Butanone	100	102	102	52-131	
2-Chloroethyl vinyl ether	50.0	43.8 J	88	28-173	
2-Chlorotoluene	50.0	48.0	96	78-119	
2-Hexanone	100	103	103	64-136	
4-Chlorotoluene	50.0	47.3	95	79-118	
p-Isopropyltoluene	50.0	52.5	105	77-131	
4-Methyl-2-pentanone	100	109	109	67-135	
Acetone	100	114	114	41-137	
Benzene	50.0	48.2	96	79-112	
Bromobenzene	50.0	47.5	95	81-115	
Bromoform	50.0	35.6	71	62-133	
Bromomethane	50.0	52.2	104	42-136	
Carbon disulfide	50.0	38.2	76	62-146	
Carbon tetrachloride	50.0	50.1	100	71-129	
Chlorobenzene	50.0	47.2	94	78-110	
Dibromochloromethane	50.0	42.5	85	72-127	
Chloroethane	50.0	113	226	58-117	*
Chloroform	50.0	51.4	103	77-114	
Chloromethane	50.0	54.2	108	50-110	
cis-1,2-Dichloroethene	50.0	48.0	96	76-113	
cis-1,3-Dichloropropene	50.0	44.8	90	74-128	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149045.D

Lab ID: LCS 240-5027/5 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dibromomethane	50.0	51.4	103	85-120	
Bromochloromethane	50.0	47.5	95	79-111	
Dichlorodifluoromethane	50.0	48.3	97	26-113	
Bromodichloromethane	50.0	47.9	96	84-122	
tert-Butyl alcohol	1000	791	79	60-125	
Ethylbenzene	50.0	47.1	94	79-117	
Hexachlorobutadiene	50.0	47.8	96	54-131	
Diisopropyl ether	50.0	49.0	98	82-119	
Isopropylbenzene	50.0	49.2	98	76-122	
Methyl tert-butyl ether	50.0	46.9	94	49-165	
Methylene Chloride	50.0	50.1	100	75-118	
m-Xylene & p-Xylene	100	94.0	94	80-117	
Naphthalene	50.0	45.4	91	65-123	
n-Butylbenzene	50.0	49.5	99	68-135	
n-Propylbenzene	50.0	49.6	99	81-129	
o-Xylene	50.0	47.4	95	80-120	
sec-Butylbenzene	50.0	50.5	101	74-129	
Styrene	50.0	46.2	92	87-117	
Tetrachloroethene	50.0	51.4	103	79-114	
Toluene	50.0	47.3	95	75-111	
trans-1,2-Dichloroethene	50.0	48.5	97	78-117	
trans-1,3-Dichloropropene	50.0	42.2	84	73-131	
Trichloroethene	50.0	50.2	100	79-113	
Trichlorofluoromethane	50.0	54.5	109	57-146	
Vinyl acetate	50.0	50.6	101	70-130	
Vinyl chloride	50.0	51.8	104	57-114	
tert-Butylbenzene	50.0	51.1	102	76-126	
1,2-Dibromoethane	50.0	48.7	97	83-117	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab File ID: BFB8710.D BFB Injection Date: 06/10/2011

Instrument ID: A3UX8 BFB Injection Time: 01:06

Analysis Batch No.: 4259

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.3	
75	30.0 - 60.0 % of mass 95	51.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	68.9	
175	5.0 - 9.0 % of mass 174	5.1	(7.3)1
176	95.0 - 101.0 % of mass 174	66.8	(96.9)1
177	5.0 - 9.0 % of mass 176	4.4	(6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-4259/3	UX82538.D	06/10/2011	01:49
	STD8260 240-4259/4	UX82539.D	06/10/2011	02:10
	STD8260 240-4259/5	UX82540.D	06/10/2011	02:32
	STD8260 240-4259/6	UX82541.D	06/10/2011	02:53
	STD8260 240-4259/7	UX82542.D	06/10/2011	03:14
	STD8260 240-4259/8	UX82543.D	06/10/2011	03:35
	STD8260 240-4259/9	UX82544.D	06/10/2011	03:56
	STD8260 240-4259/10	UX82545.D	06/10/2011	04:18
	STDA9 240-4259/11	UX82546.D	06/10/2011	04:39
	STDA9 240-4259/12	UX82547.D	06/10/2011	05:00
	STDA9 240-4259/13	UX82548.D	06/10/2011	05:21
	STDA9 240-4259/14	UX82549.D	06/10/2011	05:42
	STDA9 240-4259/15	UX82550.D	06/10/2011	06:04
	STDA9 240-4259/16	UX82551.D	06/10/2011	06:25
	ICV 240-4259/17	UX82552.D	06/10/2011	06:46

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-4259/10	UX82545.D
Level 2	STD8260 240-4259/9	UX82544.D
Level 3	STD8260 240-4259/8	UX82543.D
Level 4	STD8260 240-4259/7	UX82542.D
Level 5	STD8260 240-4259/6	UX82541.D
Level 6	STD8260 240-4259/5	UX82540.D
Level 7	STD8260 240-4259/4	UX82539.D
Level 8	STD8260 240-4259/3	UX82538.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Chloromethane	+++++	0.4253	0.3552	0.3591	0.3512	Ave		0.3506			0.1000	12.0		15.0			
	0.3556	0.3171	0.2906														
Dichlorodifluoromethane	0.3145	0.3131	0.2884	0.2629	0.2650	Ave		0.2686				13.0		15.0			
	0.2572	0.2366	0.2114														
Vinyl chloride	0.2589	0.2426	0.2653	0.2739	0.2746	Ave		0.2587				7.7		15.0			
	0.2836	0.2472	0.2240														
Bromomethane	0.2209	0.1827	0.1526	0.1400	0.1231	Qua	0.0911	0.1319	0						1.0000		0.9900
	0.1148	0.0929															
Acetone	+++++	+++++	0.2886	0.1726	0.1444	Lin1	1.8605	0.0969							0.9940		0.9900
	0.1246	0.1128	0.0966														
Chloroethane	0.1485	0.1650	0.1691	0.1704	0.1638	Ave		0.1532				12.0		15.0			
	0.1553	0.1300	0.1231														
~~Acetonitrile~~	+++++	+++++	0.0649	0.0536	0.0508	Lin1	1.4818	~~0.0408~~							0.9930		0.9900
	0.0486	0.0449	0.0390														
Methylene Chloride	+++++	+++++	1.0069	0.5928	0.5068	Qua	3.1541	0.3278	0						0.9990		0.9900
	0.3562	0.3218	0.2606														
Trichlorofluoromethane	0.2510	0.2451	0.2695	0.2658	0.2681	Ave		0.2483				12.0		15.0			
	0.2723	0.2280	0.1866														
Acrolein	0.0677	0.0635	0.0678	0.0588	0.0577	Ave		0.0585				14.0		15.0			
	0.0561	0.0527	0.0441														
1,1-Dichloroethene	0.2225	0.2388	0.2488	0.2541	0.2617	Ave		0.2383				10.0		15.0			
	0.2626	0.2275	0.1903														
1,1,2-Trichloro-1,2,2-trichfluoroethane	0.1324	0.1362	0.1467	0.1581	0.1651	Ave		0.1502				11.0		15.0			
	0.1761	0.1531	0.1339														
Acrylonitrile	+++++	0.1662	0.1709	0.1418	0.1384	Ave		0.1408				15.0		15.0			
	0.1298	0.1262	0.1126														
Iodomethane	0.3428	0.3612	0.3851	0.3867	0.3997	Ave		0.3639				9.6		15.0			
	0.3949	0.3435	0.2973														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Carbon disulfide	0.7963	0.8661	0.8975	0.9028	0.9592	Ave		0.8711				10.0		15.0			
	0.9898	0.8376	0.7195														
Methyl acetate	0.2692	0.2768	0.3106	0.2663	0.2650	Ave		0.2678				7.7		15.0			
	0.2612	0.2555	0.2381														
tert-Butyl alcohol	0.0402	0.0404	0.0471	0.0408	0.0403	Ave		0.0393				12.0		15.0			
	0.0381	0.0369	0.0307														
Methyl tert-butyl ether	0.8744	0.9394	1.0300	0.9911	0.9954	Ave		0.9294				8.2		15.0			
	0.8992	0.9103	0.7952														
trans-1,2-Dichloroethene	0.2769	0.2728	0.2993	0.2968	0.3000	Ave		0.2797				9.0		15.0			
	0.2982	0.2660	0.2273														
Hexane	0.0455	0.0529	0.0644	0.0578	0.0606	Ave		0.0568				10.0		15.0			
	0.0597	0.0580	0.0556														
2-Butanone	+++++	0.1625	0.1665	0.1396	0.1249	Ave		0.1372				14.0		15.0			
	0.1224	0.1243	0.1201														
1,1-Dichloroethane	0.4986	0.4930	0.5318	0.5314	0.5498	Ave		0.5117			0.1000	6.0		15.0			
	0.5343	0.5003	0.4547														
Vinyl acetate	0.0425	0.0404	0.0478	0.0457	0.0418	Ave		0.0437				5.7		15.0			
	0.0417	0.0447	0.0452														
Tetrahydrofuran	+++++	0.1822	0.1350	0.1123	0.0977	Lin1	0.2027	0.0898							0.9980		0.9900
	0.0966	0.0965	0.0879														
cis-1,2-Dichloroethene	0.2885	0.2950	0.3149	0.3075	0.3184	Ave		0.2954				7.0		15.0			
	0.3007	0.2847	0.2538														
2,2-Dichloropropane	0.3908	0.3945	0.3861	0.3720	0.3944	Ave		0.3695				11.0		15.0			
	0.4040	0.3344	0.2797														
Bromochloromethane	0.1381	0.1224	0.1357	0.1242	0.1275	Ave		0.1246				7.5		15.0			
	0.1209	0.1191	0.1089														
Chloroform	0.4807	0.4294	0.4674	0.4611	0.4602	Ave		0.4485				5.4		15.0			
	0.4472	0.4374	0.4048														
2-Chloroethyl vinyl ether	+++++	+++++	0.0079	0.0075	0.0071	Qua	0.0210	0.0058	0						1.0000		0.9900
	0.0069	0.0084	0.0106														
1,1,1-Trichloroethane	0.3307	0.3691	0.3870	0.3939	0.4232	Ave		0.3798				10.0		15.0			
	0.4302	0.3781	0.3264														
Cyclohexane	0.4552	0.4991	0.5746	0.5673	0.6006	Ave		0.5442				12.0		15.0			
	0.6366	0.5439	0.4763														
1,1-Dichloropropene	0.2765	0.2692	0.3023	0.2991	0.3228	Ave		0.3009				6.7		15.0			
	0.3259	0.3116	0.2997														
Carbon tetrachloride	0.2558	0.2844	0.2910	0.3011	0.3213	Ave		0.2929				9.7		15.0			
	0.3382	0.2933	0.2580														
1,2-Dichloroethane	0.3262	0.3059	0.3597	0.3421	0.3504	Ave		0.3387				5.0		15.0			
	0.3328	0.3501	0.3424														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Benzene	0.9689	0.9556	1.0328	0.9834	1.0066	Ave		0.9830				3.3		15.0			
	1.0085	0.9766	0.9319														
Trichloroethene	0.1479	0.1678	0.1949	0.1869	0.1906	Ave		0.1842				9.5		15.0			
	0.1975	0.1955	0.1926														
Methylcyclohexane	0.4728	0.4189	0.5093	0.5154	0.5323	Ave		0.4882				10.0		15.0			
	0.5564	0.4809	0.4195														
1,2-Dichloropropane	0.2175	0.2228	0.2422	0.2333	0.2344	Ave		0.2302				3.3		15.0			
	0.2332	0.2312	0.2273														
Dibromomethane	0.1343	0.1223	0.1336	0.1308	0.1292	Ave		0.1284				3.4		15.0			
	0.1248	0.1282	0.1242														
~~1,4-Dioxane~~	0.0021	0.0027	0.0029	0.0027	0.0026	Ave		~~0.0025~~				11.0		15.0			
	0.0025	0.0024	0.0022														
Bromodichloromethane	0.2988	0.2787	0.2891	0.2850	0.2829	Ave		0.2864				2.5		15.0			
	0.2768	0.2887	0.2912														
Ethyl methacrylate	+++++	0.5543	0.5392	0.5043	0.4881	Ave		0.4934				8.4		15.0			
	0.4484	0.4598	0.4595														
2-Hexanone	+++++	0.3498	0.4014	0.3192	0.3027	Lin1	0.7604	0.2628							0.9970		0.9900
	0.2761	0.2676	0.2592														
cis-1,3-Dichloropropene	0.2913	0.3010	0.3267	0.3175	0.3074	Ave		0.3148				5.1		15.0			
	0.3081	0.3249	0.3418														
4-Methyl-2-pentanone	0.3352	0.2991	0.3617	0.2898	0.2766	Ave		0.2960				12.0		15.0			
	0.2661	0.2737	0.2658														
Toluene	1.3531	1.3205	1.3565	1.3471	1.4141	Ave		1.3929				4.0		15.0			
	1.4697	1.4458	1.4363														
trans-1,3-Dichloropropene	0.3998	0.4277	0.4682	0.4596	0.4467	Ave		0.4536				6.5		15.0			
	0.4576	0.4728	0.4964														
1,1,2-Trichloroethane	0.2495	0.2541	0.2641	0.2554	0.2531	Ave		0.2592				3.2		15.0			
	0.2560	0.2674	0.2738														
1,3-Dichloropropane	0.4537	0.4540	0.4967	0.4810	0.4742	Ave		0.4755				3.5		15.0			
	0.4671	0.4808	0.4969														
Tetrachloroethene	0.1630	0.1610	0.2116	0.2135	0.2335	Ave		0.2116				15.0		15.0			
	0.2434	0.2367	0.2300														
Dibromochloromethane	0.2058	0.2431	0.2589	0.2562	0.2665	Ave		0.2577				9.7		15.0			
	0.2650	0.2802	0.2861														
1,2-Dibromoethane	0.2753	0.2322	0.2911	0.2607	0.2621	Ave		0.2642				6.3		15.0			
	0.2609	0.2636	0.2680														
Chlorobenzene	0.8139	0.8310	0.8637	0.8517	0.8884	Ave		0.8588			0.3000	3.2		15.0			
	0.8954	0.8559	0.8705														
1,1,1,2-Tetrachloroethane	0.3302	0.2830	0.3468	0.3401	0.3620	Ave		0.3401				8.2		15.0			
	0.3712	0.3599	0.3279														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethylbenzene	0.4766	0.4923	0.4868	0.5014	0.5301	Ave		0.5041				4.5		15.0			
	0.5439	0.5077	0.4944														
trans-1,4-Dichloro-2-butene	+++++	0.3589	0.3474	0.3094	0.2928	Ave		0.3128				9.1		15.0			
	0.2882	0.2944	0.2982														
m-Xylene & p-Xylene	0.5855	0.5784	0.6193	0.6340	0.6595	Ave		0.6208				5.6		15.0			
	0.6746	0.6230	0.5922														
o-Xylene	0.6196	0.6301	0.6571	0.6707	0.7238	Ave		0.6652				6.3		15.0			
	0.7219	0.6800	0.6185														
Styrene	1.0614	0.9715	1.0655	1.0540	1.1337	Ave		1.0552				5.0		15.0			
	1.1050	1.0544	0.9963														
Bromoform	0.1453	0.1554	0.1847	0.1888	0.1973	Ave		0.1841			0.1000	12.0		15.0			
	0.1940	0.2041	0.2028														
Isopropylbenzene	1.4263	1.5118	1.7099	1.7286	1.9389	Ave		1.7331				11.0		15.0			
	2.0011	1.8652	1.6833														
1,1,2,2-Tetrachloroethane	0.9112	0.7452	0.8474	0.7878	0.7644	Ave		0.8004			0.3000	6.7		15.0			
	0.7696	0.7827	0.7947														
Bromobenzene	0.5824	0.6145	0.6532	0.6828	0.6884	Ave		0.6603				6.2		15.0			
	0.6889	0.6768	0.6956														
1,2,3-Trichloropropane	0.2074	0.2364	0.2466	0.2412	0.2176	Ave		0.2305				5.5		15.0			
	0.2312	0.2307	0.2331														
n-Propylbenzene	0.7279	0.7193	0.7768	0.7928	0.8430	Ave		0.7989				7.0		15.0			
	0.8808	0.8206	0.8301														
Hexachlorobutadiene	+++++	+++++	0.4209	0.4728	0.5055	Ave		0.4931				8.4		15.0			
	0.5389	0.5201	0.5003														
2-Chlorotoluene	0.6428	0.5972	0.6483	0.6805	0.6960	Ave		0.6741				6.2		15.0			
	0.7236	0.7050	0.6990														
1,3,5-Trimethylbenzene	2.2722	2.2078	2.4932	2.5843	2.7657	Ave		2.6162				11.0		15.0			
	2.9633	2.8643	2.7792														
4-Chlorotoluene	0.6473	0.6473	0.6419	0.6940	0.6894	Ave		0.6741				3.7		15.0			
	0.7061	0.6769	0.6902														
tert-Butylbenzene	1.7611	1.8780	2.0810	2.2327	2.4002	Ave		2.2373				14.0		15.0			
	2.6068	2.4813	2.4571														
1,2,4-Trimethylbenzene	2.4778	2.2997	2.5786	2.6385	2.8164	Ave		2.6758				8.1		15.0			
	2.9475	2.8465	2.8018														
1,2-Dibromo-3-Chloropropane	+++++	0.1215	0.1512	0.1468	0.1520	Ave		0.1496				8.9		15.0			
	0.1556	0.1625	0.1579														
sec-Butylbenzene	2.6806	2.5570	3.1578	3.3106	3.6143	Ave		3.3148				15.0		15.0			
	3.9014	3.7273	3.5696														
1,3-Dichlorobenzene	1.3535	1.1959	1.2943	1.2805	1.3150	Ave		1.2907				3.6		15.0			
	1.3261	1.2916	1.2685														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
p-Isopropyltoluene	2.1021	2.0473	2.5066	2.5817	2.8052	Ave		2.5842				14.0		15.0			
	3.0137	2.8719	2.7449														
1,4-Dichlorobenzene	1.3535	1.2002	1.2869	1.2788	1.3355	Ave		1.3036				3.9		15.0			
	1.3530	1.3083	1.3129														
n-Butylbenzene	2.0947	1.9594	2.3584	2.5441	2.7369	Ave		2.5136				14.0		15.0			
	2.9478	2.7803	2.6876														
1,2-Dichlorobenzene	1.1742	1.1260	1.2635	1.2749	1.2836	Ave		1.2459				5.2		15.0			
	1.3156	1.2913	1.2377														
1,3,5-Trichlorobenzene	0.7695	0.7299	0.9266	0.9694	1.0218	Ave		0.9443				14.0		15.0			
	1.0632	1.0516	1.0225														
1,2,4-Trichlorobenzene	0.7714	0.7272	0.8058	0.8437	0.8715	Ave		0.8498				9.0		15.0			
	0.9240	0.9291	0.9255														
Naphthalene	2.2546	2.0637	2.2223	2.2293	2.2456	Ave		2.2454				3.8		15.0			
	2.3075	2.3605	2.2799														
1,2,3-Trichlorobenzene	0.7467	0.6637	0.7606	0.7784	0.8089	Ave		0.7840				7.8		15.0			
	0.8254	0.8492	0.8393														
Dibromofluoromethane (Surr)	+++++	+++++	+++++	0.2444	0.2214	Ave		0.2097				11.0		15.0			
	0.1897	0.2019	0.1911														
1,2-Dichloroethane-d4 (Surr)	+++++	+++++	+++++	0.3088	0.2744	Ave		0.2673				11.0		15.0			
	0.2295	0.2608	0.2631														
Toluene-d8 (Surr)	+++++	+++++	+++++	1.1591	1.1552	Ave		1.1597				0.7		15.0			
	1.1494	1.1663	1.1685														
4-Bromofluorobenzene (Surr)	+++++	+++++	+++++	0.5558	0.5293	Ave		0.4955				9.0		15.0			
	0.4746	0.4611	0.4570														

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-4259/10	UX82545.D
Level 2	STD8260 240-4259/9	UX82544.D
Level 3	STD8260 240-4259/8	UX82543.D
Level 4	STD8260 240-4259/7	UX82542.D
Level 5	STD8260 240-4259/6	UX82541.D
Level 6	STD8260 240-4259/5	UX82540.D
Level 7	STD8260 240-4259/4	UX82539.D
Level 8	STD8260 240-4259/3	UX82538.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chloromethane	FB	Ave	+++++ 391694	18256 788838	40277 1570371	80953	157078	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
Dichlorodifluoromethane	FB	Ave	7369 283316	13439 588495	32699 1142774	59257	118503	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Vinyl chloride	FB	Ave	6066 312363	10411 614814	30076 1210426	61745	122809	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Bromomethane	FB	Qua	5175 126476	7842 231042	17308	31566	55063	1.00 50.0	2.00 100	5.00	10.0	20.0
Acetone	FB	Lin1	+++++ 274436	+++++ 561376	65447 1044507	77811	129196	+++++ 100	+++++ 200	10.0 400	20.0	40.0
Chloroethane	FB	Ave	3480 171109	7081 323442	19177 665064	38418	73250	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Acetonitrile	FB	Lin1	+++++ 535716	+++++ 1117910	73604 2106918	120767	227379	+++++ 500	+++++ 1000	50.0 2000	100	200
Methylene Chloride	FB	Qua	+++++ 392389	+++++ 800438	114171 1408442	133636	226645	+++++ 50.0	+++++ 100	5.00 200	10.0	20.0
Trichlorofluoromethane	FB	Ave	5880 299906	10519 567271	30561 1008388	59925	119920	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Acrolein	FB	Ave	15852 617405	27251 1310787	76875 2384723	132554	258120	10.0 500	20.0 1000	50.0 2000	100	200
1,1-Dichloroethene	FB	Ave	5214 289236	10248 565824	28213 1028272	57276	117057	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	FB	Ave	3101 193935	5848 380740	16639 723564	35631	73819	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Acrylonitrile	FB	Ave	+++++ 285972	14265 627756	38747 1216633	63921	123784	+++++ 100	4.00 200	10.0 400	20.0	40.0
Iodomethane	FB	Ave	8032 434937	15503 854524	43659 1606954	87174	178779	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Carbon disulfide	FB	Ave	18657 1090284	37173 2083743	101759 3888688	203513	428990	1.00 50.0	2.00 100	5.00 200	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Methyl acetate	FB	Ave	12615 575393	23761 1271089	70438 2573483	120077	237011	2.00 100	4.00 200	10.0 400	20.0	40.0
tert-Butyl alcohol	FB	Ave	18829 838548	34692 1836923	106766 3319513	184116	360136	20.0 1000	40.0 2000	100 4000	200	400
Methyl tert-butyl ether	FB	Ave	20486 990441	40320 2264581	116782 4297739	223407	445157	1.00 50.0	2.00 100	5.00 200	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	6487 328445	11711 661798	33933 1228351	66900	134172	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Hexane	FB	Ave	1066 65794	2271 144196	7305 300466	13029	27089	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2-Butanone	FB	Ave	+++++ 269758	13949 618465	37755 1297908	62951	111707	+++++ 100	4.00 200	10.0 400	20.0	40.0
1,1-Dichloroethane	FB	Ave	11682 588500	21159 1244626	60296 2457691	119777	245871	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Vinyl acetate	FB	Ave	995 45953	1733 111205	5417 244540	10304	18706	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Tetrahydrofuran	FB	Lin1	+++++ 106359	7819 240026	15307 475180	25317	43682	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	6760 331250	12663 708190	35702 1371846	69324	142389	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2,2-Dichloropropane	FB	Ave	9157 444972	16931 831778	43774 1511465	83849	176398	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Bromochloromethane	FB	Ave	3236 133153	5253 296166	15388 588509	27986	57002	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Chloroform	FB	Ave	11263 492565	18432 1088187	52990 2187969	103935	205798	1.00 50.0	2.00 100	5.00 200	10.0	20.0
2-Chloroethyl vinyl ether	FB	Qua	+++++ 15099	+++++ 41743	1791 114168	3397	6356	+++++ 100	+++++ 200	10.0 400	20.0	40.0
1,1,1-Trichloroethane	FB	Ave	7747 473884	15841 940679	43876 1763852	88794	189257	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Cyclohexane	FB	Ave	10664 701166	21421 1352911	65145 2574163	127870	268584	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1-Dichloropropene	FB	Ave	6479 359009	11556 775155	34272 1619576	67415	144364	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Carbon tetrachloride	FB	Ave	5994 372575	12206 729639	32995 1394420	67863	143707	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dichloroethane	FB	Ave	7642 366599	13130 870825	40786 1850599	77113	156711	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Benzene	FB	Ave	22701 1110911	41014 2429321	117101 5036413	221667	450166	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Trichloroethene	FB	Ave	3466 217533	7201 486420	22099 1040976	42137	85258	1.00 50.0	2.00 100	5.00 200	10.0	20.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Methylcyclohexane	FB	Ave	11077 612925	17982 1196249	57741 2267446	116187	238048	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dichloropropane	FB	Ave	5097 256856	9564 575143	27466 1228357	52595	104829	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Dibromomethane	FB	Ave	3147 137466	5249 318812	15150 671477	29474	57784	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,4-Dioxane	FB	Ave	2419 139177	5833 298931	16262 595225	29896	58222	50.0 2500	100 5000	250 10000	500	1000
Bromodichloromethane	FB	Ave	7000 304852	11963 718247	32784 1573919	64249	126522	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Ethyl methacrylate	CBZ	Ave	+++++ 290441	16193 669547	39669 1455815	72267	130834	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
2-Hexanone	CBZ	Lin1	+++++ 357660	20439 779401	59059 1642539	91488	162263	+++++ 100	4.00 200	10.0 400	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	6825 339350	12920 808297	37045 1847299	71565	137486	1.00 50.0	2.00 100	5.00 200	10.0	20.0
4-Methyl-2-pentanone	FB	Ave	15707 586184	25679 1361848	82024 2873085	130659	247448	2.00 100	4.00 200	10.0 400	20.0	40.0
Toluene	CBZ	Ave	21120 952032	38579 2105310	99796 4550556	193028	379034	1.00 50.0	2.00 100	5.00 200	10.0	20.0
trans-1,3-Dichloropropene	CBZ	Ave	6240 296412	12495 688546	34446 1572681	65855	119731	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,2-Trichloroethane	CBZ	Ave	3895 165865	7424 389455	19427 867577	36594	67836	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,3-Dichloropropane	CBZ	Ave	7082 302560	13265 700086	36544 1574218	68920	127099	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Tetrachloroethene	CBZ	Ave	2545 157659	4705 344611	15565 728625	30594	62589	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Dibromochloromethane	CBZ	Ave	3212 171660	7102 408095	19047 906470	36707	71420	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2-Dibromoethane	CBZ	Ave	4297 169016	6783 383795	21413 849081	37362	70262	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Chlorobenzene	CBZ	Ave	12705 580005	24277 1246296	63544 2757893	122045	238114	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	5154 240444	8269 524113	25514 1038856	48731	97034	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Ethylbenzene	CBZ	Ave	7440 352350	14382 739244	35814 1566430	71840	142090	1.00 50.0	2.00 100	5.00 200	10.0	20.0
trans-1,4-Dichloro-2-butene	DCB	Ave	+++++ 104294	5774 233871	14456 474820	25217	45733	+++++ 50.0	2.00 100	5.00 200	10.0	20.0
m-Xylene & p-Xylene	CBZ	Ave	18279 874044	33799 1814441	91128 3752466	181683	353564	2.00 100	4.00 200	10.0 400	20.0	40.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
o-Xylene	CBZ	Ave	9671	18408	48343	96100	194014	1.00	2.00	5.00	10.0	20.0
			467662	990209	1959588			50.0	100	200		
Styrene	CBZ	Ave	16568	28384	78392	151022	303868	1.00	2.00	5.00	10.0	20.0
			715789	1535445	3156368			50.0	100	200		
Bromoform	CBZ	Ave	2268	4541	13588	27047	52889	1.00	2.00	5.00	10.0	20.0
			125681	297199	642502			50.0	100	200		
Isopropylbenzene	CBZ	Ave	22263	44168	125799	247696	519701	1.00	2.00	5.00	10.0	20.0
			1296262	2716045	5332841			50.0	100	200		
1,1,2,2-Tetrachloroethane	DCB	Ave	7819	11988	35261	64198	119405	1.00	2.00	5.00	10.0	20.0
			278491	621789	1265527			50.0	100	200		
Bromobenzene	DCB	Ave	4997	9885	27180	55641	107538	1.00	2.00	5.00	10.0	20.0
			249279	537701	1107772			50.0	100	200		
1,2,3-Trichloropropane	DCB	Ave	1780	3803	10261	19658	33996	1.00	2.00	5.00	10.0	20.0
			83669	183255	371272			50.0	100	200		
n-Propylbenzene	DCB	Ave	6246	11571	32322	64604	131673	1.00	2.00	5.00	10.0	20.0
			318743	651926	1321977			50.0	100	200		
Hexachlorobutadiene	DCB	Ave	+++++	+++++	17512	38532	78963	+++++	+++++	5.00	10.0	20.0
			195007	413209	796686			50.0	100	200		
2-Chlorotoluene	DCB	Ave	5516	9606	26976	55459	108715	1.00	2.00	5.00	10.0	20.0
			261864	560074	1113139			50.0	100	200		
1,3,5-Trimethylbenzene	DCB	Ave	19497	35515	103737	210598	432007	1.00	2.00	5.00	10.0	20.0
			1072312	2275506	4425790			50.0	100	200		
4-Chlorotoluene	DCB	Ave	5554	10412	26707	56555	107691	1.00	2.00	5.00	10.0	20.0
			255525	537775	1099196			50.0	100	200		
tert-Butylbenzene	DCB	Ave	15111	30209	86586	181944	374914	1.00	2.00	5.00	10.0	20.0
			943339	1971218	3912977			50.0	100	200		
1,2,4-Trimethylbenzene	DCB	Ave	21261	36992	107294	215014	439938	1.00	2.00	5.00	10.0	20.0
			1066602	2261370	4461817			50.0	100	200		
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++	1955	6291	11963	23736	+++++	2.00	5.00	10.0	20.0
			56317	129064	251516			50.0	100	200		
sec-Butylbenzene	DCB	Ave	23001	41132	131391	269787	564562	1.00	2.00	5.00	10.0	20.0
			1411802	2961163	5684553			50.0	100	200		
1,3-Dichlorobenzene	DCB	Ave	11614	19237	53855	104349	205416	1.00	2.00	5.00	10.0	20.0
			479863	1026135	2020042			50.0	100	200		
p-Isopropyltoluene	DCB	Ave	18037	32933	104295	210386	438186	1.00	2.00	5.00	10.0	20.0
			1090576	2281530	4371279			50.0	100	200		
1,4-Dichlorobenzene	DCB	Ave	11614	19306	53545	104214	208614	1.00	2.00	5.00	10.0	20.0
			489627	1039378	2090704			50.0	100	200		
n-Butylbenzene	DCB	Ave	17974	31518	98128	207319	427517	1.00	2.00	5.00	10.0	20.0
			1066703	2208802	4279927			50.0	100	200		
1,2-Dichlorobenzene	DCB	Ave	10075	18112	52573	103896	200509	1.00	2.00	5.00	10.0	20.0
			476088	1025828	1971097			50.0	100	200		

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 01:49 Calibration End Date: 06/10/2011 04:18 Calibration ID: 1462

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,3,5-Trichlorobenzene	DCB	Ave	6603 384742	11741 835451	38556 1628401	78996	159610	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,4-Trichlorobenzene	DCB	Ave	6619 334375	11697 738112	33528 1473793	68757	136133	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Naphthalene	DCB	Ave	19346 835009	33196 1875302	92465 3630772	181666	350774	1.00 50.0	2.00 100	5.00 200	10.0	20.0
1,2,3-Trichlorobenzene	DCB	Ave	6407 298694	10677 674675	31649 1336626	63434	126348	1.00 50.0	2.00 100	5.00 200	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 208986	+++++ 502255	+++++ 1032636	55099	99010	+++++ 50.0	+++++ 100	+++++ 200	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 252800	+++++ 648836	+++++ 1421732	69615	122732	+++++ 50.0	+++++ 100	+++++ 200	10.0	20.0
Toluene-d8 (Surr)	CBZ	Ave	+++++ 744594	+++++ 1698354	+++++ 3702164	166088	309629	+++++ 50.0	+++++ 100	+++++ 200	10.0	20.0
4-Bromofluorobenzene (Surr)	CBZ	Ave	+++++ 307409	+++++ 671419	+++++ 1447764	79634	141862	+++++ 50.0	+++++ 100	+++++ 200	10.0	20.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 04:39 Calibration End Date: 06/10/2011 06:25 Calibration ID: 1464

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-4259/16	UX82551.D
Level 2	STDA9 240-4259/15	UX82550.D
Level 3	STDA9 240-4259/14	UX82549.D
Level 4	STDA9 240-4259/13	UX82548.D
Level 5	STDA9 240-4259/12	UX82547.D
Level 6	STDA9 240-4259/11	UX82546.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6																
Dichlorofluoromethane	0.4383	0.3342	0.3940	0.3958	0.3593	Ave		0.3725				12.0		15.0			
	0.3130																
Ethyl ether	0.2152	0.2826	0.2213	0.2223	0.2124	Ave		0.2242				14.0		15.0			
	0.1916																
3-Chloro-1-propene	0.1591	0.1558	0.1759	0.1773	0.1764	Ave		0.1690				5.6		15.0			
	0.1697																
Diisopropyl ether	0.2464	0.2556	0.2765	0.2790	0.2664	Ave		0.2575				8.5		15.0			
	0.2207																
2-Chloro-1,3-butadiene	0.4384	0.4342	0.4656	0.4706	0.4470	Ave		0.4515				3.2		15.0			
	0.4531																
Ethyl-t-butyl ether (ETBE)	1.0412	1.0681	1.1602	1.1965	1.1822	Ave		1.1262				5.6		15.0			
	1.1091																
Ethyl acetate	0.2322	0.2250	0.2274	0.2169	0.2018	Ave		0.2166				6.8		15.0			
	0.1960																
~~Propionitrile~~	0.0474	0.0428	0.0479	0.0448	0.0416	Ave		~~0.0441~~				7.3		15.0			
	0.0399																
Methacrylonitrile	0.1614	0.1599	0.1664	0.1623	0.1592	Ave		0.1606				2.5		15.0			
	0.1543																
~~Isobutyl alcohol~~	0.0132	0.0115	0.0115	0.0118	0.0110	Ave		~~0.0115~~				8.3		15.0			
	0.0103																
Tert-amyl-methyl ether (TAME)	0.8434	0.8775	0.9610	1.0068	0.9956	Ave		0.9320				7.1		15.0			
	0.9078																
~~n-Heptane~~	0.0463	0.0410	0.0501	0.0498	0.0480	Ave		~~0.0475~~				7.4		15.0			
	0.0498																
~~n-Butanol~~	0.0118	0.0115	0.0098	0.0094	0.0083	Lin1	0.5922	~~0.0078~~							0.9940		0.9900
	0.0076																
Ethyl acrylate	0.3519	0.3049	0.3123	0.2918	0.2531	Ave		0.2928				14.0		15.0			
	0.2427																
Methyl methacrylate	0.2015	0.2120	0.2109	0.2080	0.1864	Ave		0.1992				7.3		15.0			
	0.1767																

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 04:39 Calibration End Date: 06/10/2011 06:25 Calibration ID: 1464

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Nitropropane	0.0644 0.0626	0.0651	0.0695	0.0675	0.0651	Ave		0.0657				3.8		15.0			
n-Butyl acetate	0.4672 0.3347	0.4355	0.4724	0.4364	0.3838	Ave		0.4217				13.0		15.0			
Cyclohexanone	0.0560 0.0591	0.0585	0.0568	0.0570	0.0569	Ave		0.0574				2.0		15.0			
1,2,3-Trimethylbenzene	2.5131 2.7915	2.5252	2.6342	2.7330	2.6717	Ave		2.6448				4.2		15.0			
2-Methylnaphthalene	1.0709 1.1222	0.9504	1.0303	1.1381	1.0262	Ave		1.0563				6.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 04:39 Calibration End Date: 06/10/2011 06:25 Calibration ID: 1464

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STDA9 240-4259/16	UX82551.D
Level 2	STDA9 240-4259/15	UX82550.D
Level 3	STDA9 240-4259/14	UX82549.D
Level 4	STDA9 240-4259/13	UX82548.D
Level 5	STDA9 240-4259/12	UX82547.D
Level 6	STDA9 240-4259/11	UX82546.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6					LVL 6				
Dichlorofluoromethane	FB	Ave	51242	82753	177785	441807	798547	5.00	10.0	20.0	50.0	100
			1483225					200				
Ethyl ether	FB	Ave	25162	69966	99867	248075	471944	5.00	10.0	20.0	50.0	100
			907707					200				
3-Chloro-1-propene	FB	Ave	18598	38588	79385	197915	391978	5.00	10.0	20.0	50.0	100
			803915					200				
Diisopropyl ether	FB	Ave	144010	316465	623928	1557330	2960564	25.0	50.0	100	250	500
			5229086					1000				
2-Chloro-1,3-butadiene	FB	Ave	51253	107496	210092	525217	993353	5.00	10.0	20.0	50.0	100
			2146603					200				
Ethyl-t-butyl ether (ETBE)	FB	Ave	121718	264447	523584	1335474	2627224	5.00	10.0	20.0	50.0	100
			5254937					200				
Ethyl acetate	FB	Ave	54294	111425	205213	484247	896938	10.0	20.0	40.0	100	200
			1857722					400				
Propionitrile	FB	Ave	11078	21208	43272	99927	184950	10.0	20.0	40.0	100	200
			378124					400				
Methacrylonitrile	FB	Ave	18864	39583	75073	181118	353804	5.00	10.0	20.0	50.0	100
			731125					200				
Isobutyl alcohol	FB	Ave	30828	56821	103506	263749	490614	100	200	400	1000	2000
			976304					4000				
Tert-amyl-methyl ether (TAME)	FB	Ave	98594	217260	433672	1123800	2212493	5.00	10.0	20.0	50.0	100
			4301214					200				
n-Heptane	FB	Ave	5417	10142	22631	55565	106697	5.00	10.0	20.0	50.0	100
			235857					200				
n-Butanol	FB	Lin1	27599	56845	88721	209261	368904	100	200	400	1000	2000
			722724					4000				
Ethyl acrylate	FB	Ave	41143	75494	140952	325694	562352	5.00	10.0	20.0	50.0	100
			1149991					200				
Methyl methacrylate	FB	Ave	23553	52496	95169	232140	414188	5.00	10.0	20.0	50.0	100
			837255					200				
2-Nitropropane	FB	Ave	15051	32225	62748	150788	289156	10.0	20.0	40.0	100	200
			592938					400				

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4259

SDG No.:

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/10/2011 04:39 Calibration End Date: 06/10/2011 06:25 Calibration ID: 1464

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butyl acetate	FB	Ave	109227 3171303	215658	426378	974168	1705634	10.0 400	20.0	40.0	100	200
Cyclohexanone	CBZ	Ave	43739 1678566	94050	174221	415826	812278	50.0 2000	100	200	500	1000
1,2,3-Trimethylbenzene	DCB	Ave	106226 4568598	222016	440020	1154078	2232544	5.00 200	10.0	20.0	50.0	100
2-Methylnaphthalene	DCB	Ave	90531 3673344	167123	344188	961182	1715010	10.0 400	20.0	40.0	100	200

Curve Type Legend:
Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4259/17 Calibration Date: 06/10/2011 06:46

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82552.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2686	0.2205		41000	50000	-17.9	50.0
Chloromethane	Ave	0.3506	0.3538	0.1000	50500	50000	0.9	50.0
Vinyl chloride	Ave	0.2587	0.2672		51600	50000	3.3	20.0
Bromomethane	Qua		0.1119		49000	50000	-2.0	50.0
Chloroethane	Ave	0.1532	0.1571		51300	50000	2.5	50.0
Trichlorofluoromethane	Ave	0.2483	0.2712		54600	50000	9.2	50.0
1,1-Dichloroethene	Ave	0.2383	0.2674		56100	50000	12.2	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1502	0.1757		58500	50000	17.0	50.0
Acetone	Lin1		0.1217		106000	100000	6.3	50.0
Iodomethane	Ave	0.3639	0.4540		62400	50000	24.8	50.0
Carbon disulfide	Ave	0.8711	0.9654		55400	50000	10.8	50.0
Methyl acetate	Ave	0.2678	0.2814		52500	50000	5.1	50.0
Methylene Chloride	Qua		0.3844		52500	50000	5.0	50.0
tert-Butyl alcohol	Ave	0.0393	0.0436		1110000	1000000	10.9	50.0
Methyl tert-butyl ether	Ave	0.9294	1.024		55100	50000	10.2	50.0
trans-1,2-Dichloroethene	Ave	0.2797	0.2956		52900	50000	5.7	50.0
Hexane	Ave	0.0568	0.0570		50100	50000	0.3	20.0
1,1-Dichloroethane	Ave	0.5117	0.5571	0.1000	54400	50000	8.9	50.0
Vinyl acetate	Ave	0.0437	0.0439		50200	50000	0.4	50.0
2-Butanone	Ave	0.1372	0.1220		88900	100000	-11.1	50.0
cis-1,2-Dichloroethene	Ave	0.2954	0.3179		53800	50000	7.6	50.0
2,2-Dichloropropane	Ave	0.3695	0.3741		50600	50000	1.3	50.0
Bromochloromethane	Ave	0.1246	0.1309		52500	50000	5.1	50.0
Tetrahydrofuran	Lin1		0.0973		51900	50000	3.8	50.0
Chloroform	Ave	0.4485	0.4841		54000	50000	7.9	20.0
1,1,1-Trichloroethane	Ave	0.3798	0.4053		53400	50000	6.7	50.0
Cyclohexane	Ave	0.5442	0.5592		51400	50000	2.8	50.0
1,1-Dichloropropene	Ave	0.3009	0.3020		50200	50000	0.4	50.0
Carbon tetrachloride	Ave	0.2929	0.3106		53000	50000	6.0	50.0
1,2-Dichloroethane	Ave	0.3387	0.3521		52000	50000	3.9	50.0
Benzene	Ave	0.9830	1.000		50900	50000	1.7	50.0
Trichloroethene	Ave	0.1842	0.1871		50800	50000	1.5	50.0
Methylcyclohexane	Ave	0.4882	0.4972		50900	50000	1.8	50.0
1,2-Dichloropropane	Ave	0.2302	0.2442		53000	50000	6.1	20.0
Dibromomethane	Ave	0.1284	0.1367		53200	50000	6.4	50.0
Bromodichloromethane	Ave	0.2864	0.2901		50700	50000	1.3	50.0
2-Chloroethyl vinyl ether	Qua		0.0074		53600	50000	7.2	50.0
cis-1,3-Dichloropropene	Ave	0.3148	0.3017		47900	50000	-4.2	50.0
4-Methyl-2-pentanone	Ave	0.2960	0.2894		97800	100000	-2.2	50.0
Toluene	Ave	1.393	1.360		48800	50000	-2.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4259/17 Calibration Date: 06/10/2011 06:46

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82552.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
trans-1,3-Dichloropropene	Ave	0.4536	0.4494		49500	50000	-0.9	50.0
1,1,2-Trichloroethane	Ave	0.2592	0.2709		52300	50000	4.5	50.0
1,3-Dichloropropane	Ave	0.4755	0.4872		51200	50000	2.5	50.0
Tetrachloroethene	Ave	0.2116	0.2119		50100	50000	0.1	50.0
2-Hexanone	Lin1		0.2839		105000	100000	5.1	50.0
Dibromochloromethane	Ave	0.2577	0.2716		52700	50000	5.4	50.0
1,2-Dibromoethane	Ave	0.2642	0.2723		51500	50000	3.1	50.0
Chlorobenzene	Ave	0.8588	0.8840	0.3000	51500	50000	2.9	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3401	0.3845		56500	50000	13.0	50.0
Ethylbenzene	Ave	0.5041	0.5125		50800	50000	1.6	20.0
m-Xylene & p-Xylene	Ave	0.6208	0.6190		99700	100000	-0.3	50.0
o-Xylene	Ave	0.6652	0.7273		54700	50000	9.3	50.0
Styrene	Ave	1.055	1.120		53100	50000	6.1	50.0
Bromoform	Ave	0.1841	0.2109	0.1000	57300	50000	14.6	50.0
Isopropylbenzene	Ave	1.733	1.838		53000	50000	6.1	50.0
1,1,2,2-Tetrachloroethane	Ave	0.8004	0.7978	0.3000	49800	50000	-0.3	50.0
Bromobenzene	Ave	0.6603	0.6931		52500	50000	5.0	50.0
1,2,3-Trichloropropane	Ave	0.2305	0.2429		52700	50000	5.4	50.0
trans-1,4-Dichloro-2-butene	Ave	0.3128	0.3100		99100	100000	-0.9	50.0
n-Propylbenzene	Ave	0.7989	0.8030		50300	50000	0.5	50.0
2-Chlorotoluene	Ave	0.6741	0.6942		51500	50000	3.0	50.0
1,3,5-Trimethylbenzene	Ave	2.616	2.767		52900	50000	5.8	50.0
4-Chlorotoluene	Ave	0.6741	0.6906		51200	50000	2.4	50.0
tert-Butylbenzene	Ave	2.237	2.310		51600	50000	3.3	50.0
1,2,4-Trimethylbenzene	Ave	2.676	2.842		53100	50000	6.2	50.0
sec-Butylbenzene	Ave	3.315	3.468		52300	50000	4.6	50.0
1,3-Dichlorobenzene	Ave	1.291	1.296		50200	50000	0.4	50.0
p-Isopropyltoluene	Ave	2.584	2.809		54300	50000	8.7	50.0
1,4-Dichlorobenzene	Ave	1.304	1.302		49900	50000	-0.1	50.0
n-Butylbenzene	Ave	2.514	2.588		51500	50000	3.0	50.0
1,2-Dichlorobenzene	Ave	1.246	1.323		53100	50000	6.2	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1496	0.1587		53000	50000	6.0	50.0
1,2,4-Trichlorobenzene	Ave	0.8498	0.8281		48700	50000	-2.5	50.0
Hexachlorobutadiene	Ave	0.4931	0.4574		46400	50000	-7.2	50.0
Naphthalene	Ave	2.245	2.328		51800	50000	3.7	50.0
1,2,3-Trichlorobenzene	Ave	0.7840	0.8296		52900	50000	5.8	50.0
Dibromofluoromethane (Surr)	Ave	0.2097	0.1977		47100	50000	-5.7	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2673	0.2311		43200	50000	-13.6	50.0
Toluene-d8 (Surr)	Ave	1.160	1.115		48100	50000	-3.8	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4955	0.4656		47000	50000	-6.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4259/17 Calibration Date: 06/10/2011 06:46

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 04:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 06:25

Lab File ID: UX82552.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethyl ether	Ave	0.2242	0.2335		52100	50000	4.2	50.0
Diisopropyl ether	Ave	0.2575	0.2908		56500	50000	13.0	50.0
Isobutyl alcohol	Ave	0.0115	0.0121		2610000	2500000	4.5	50.0
Cyclohexanone	Ave	0.0574	0.0191		333000	1000000	-66.7*	50.0
1,2,3-Trimethylbenzene	Ave	2.645	3.074		58100	50000	16.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5087/4 Calibration Date: 06/16/2011 18:52

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82730.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2097	0.1886		47300	50000	-10.1	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2673	0.2570		49100	50000	-3.9	50.0
Toluene-d8 (Surr)	Ave	1.160	1.069		44000	50000	-7.8	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4955	0.4641		49300	50000	-6.3	50.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab File ID: BFB8717.D BFB Injection Date: 06/16/2011

Instrument ID: A3UX8 BFB Injection Time: 17:46

Analysis Batch No.: 5087

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.6	
75	30.0 - 60.0 % of mass 95	53.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.2	(0.3)1
174	50.0 - 120.00 % of mass 95	70.3	
175	5.0 - 9.0 % of mass 174	5.1	(7.2)1
176	95.0 - 101.0 % of mass 174	68.0	(96.7)1
177	5.0 - 9.0 % of mass 176	4.6	(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-5087/4	UX82730.D	06/16/2011	18:52
	CCVIS 240-5087/5	UX82731.D	06/16/2011	19:16
	LCS 240-5087/6	UX82732.D	06/16/2011	19:37
	MB 240-5087/7	UX82733.D	06/16/2011	19:59
GSP-SB-123-6-8	240-820-5	UX82740.D	06/16/2011	22:47
GSP-SB-124-0-2	240-820-7	UX82742.D	06/16/2011	23:30
GSP-SB-124-6-8	240-820-8	UX82743.D	06/16/2011	23:51
GSP-SB-126-0-2	240-820-10	UX82746.D	06/17/2011	00:55
GSP-SB-126-8-10	240-820-11	UX82747.D	06/17/2011	01:16
GSP-SB-126-20-22	240-820-12	UX82748.D	06/17/2011	01:37
GSP-SB-127-0-2	240-820-13	UX82749.D	06/17/2011	01:58
GSP-SB-127-6-8	240-820-14	UX82750.D	06/17/2011	02:20
GSP-SB-130-0-2	240-820-16	UX82752.D	06/17/2011	03:02
GSP-SB-130-6-8	240-820-17	UX82753.D	06/17/2011	03:23
GSP-SB-130-20-22	240-820-18	UX82754.D	06/17/2011	03:45

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5087/4 Calibration Date: 06/16/2011 18:52

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 04:39

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 06:25

Lab File ID: UX82730.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	0.3725	0.3906		52400	50000	4.9	50.0
Ethyl ether	Ave	0.2242	0.2632		58700	50000	17.4	50.0
3-Chloro-1-propene	Ave	0.1690	0.1536		45400	50000	-9.1	50.0
Diisopropyl ether	Ave	0.2575	0.2646		257000	250000	2.8	50.0
2-Chloro-1,3-butadiene	Ave	0.4515	0.4712		52200	50000	4.4	50.0
Ethyl-t-butyl ether (ETBE)	Ave	1.126	1.122		49800	50000	-0.4	50.0
Ethyl acetate	Ave	0.2166	0.2162		99800	100000	-0.2	50.0
Propionitrile	Ave	0.0441	0.0411		93200	100000	-6.8	50.0
Methacrylonitrile	Ave	0.1606	0.1715		53400	50000	6.8	50.0
Isobutyl alcohol	Ave	0.0115	0.0078		672000	1000000	-32.8	50.0
Tert-amyl-methyl ether (TAME)	Ave	0.9320	0.9344		50100	50000	0.3	50.0
n-Heptane	Ave	0.0475	0.0588		61900	50000	23.7	50.0
n-Butanol	Lin1		0.0058		659000	1000000	-34.1	50.0
Methyl methacrylate	Ave	0.1992	0.2072		52000	50000	4.0	50.0
2-Nitropropane	Ave	0.0657	0.0209		31100	100000	-68.3	50.0
Cyclohexanone	Ave	0.0574	0.0583		508000	500000	1.6	50.0
1,2,3-Trimethylbenzene	Ave	2.645	2.755		52100	50000	4.2	50.0
2-Methylnaphthalene	Ave	1.056	1.174		111000	100000	11.1	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCVIS 240-5087/5 Calibration Date: 06/16/2011 19:16

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82731.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2686	0.2460		45800	50000	-8.4	50.0
Chloromethane	Ave	0.3506	0.3520	0.1000	50200	50000	0.4	50.0
Vinyl chloride	Ave	0.2587	0.2957		57100	50000	14.3	20.0
Bromomethane	Qua		0.1406		65600	50000	31.2	50.0
Chloroethane	Ave	0.1532	0.1819		59400	50000	18.8	50.0
Trichlorofluoromethane	Ave	0.2483	0.3092		62300	50000	24.5	50.0
Acrolein	Ave	0.0585	0.0423		362000	500000	-27.7	50.0
1,1-Dichloroethene	Ave	0.2383	0.2701		56700	50000	13.3	20.0
1,1,2-Trichloro-1,2,2-trichfluoroethane	Ave	0.1502	0.1899		63200	50000	26.4	50.0
Acetone	Lin1		0.1292		114000	100000	14.1	50.0
Iodomethane	Ave	0.3639	0.4205		57800	50000	15.6	50.0
Carbon disulfide	Ave	0.8711	0.9467		54300	50000	8.7	50.0
Acetonitrile	Lin1		0.0482		554000	500000	10.8	50.0
Methyl acetate	Ave	0.2678	0.2829		106000	100000	5.6	50.0
Methylene Chloride	Qua		0.3838		52400	50000	4.8	50.0
tert-Butyl alcohol	Ave	0.0393	0.0327		831000	1000000	-16.9	50.0
Acrylonitrile	Ave	0.1408	0.1323		93900	100000	-6.1	50.0
Methyl tert-butyl ether	Ave	0.9294	1.093		58800	50000	17.6	50.0
trans-1,2-Dichloroethene	Ave	0.2797	0.3206		57300	50000	14.6	50.0
Hexane	Ave	0.0568	0.0710		62500	50000	25.0	20.0
1,1-Dichloroethane	Ave	0.5117	0.5836	0.1000	57000	50000	14.0	50.0
Vinyl acetate	Ave	0.0437	0.0288		32900	50000	-34.2	50.0
2-Butanone	Ave	0.1372	0.1367		99600	100000	-0.4	50.0
cis-1,2-Dichloroethene	Ave	0.2954	0.3305		55900	50000	11.9	50.0
2,2-Dichloropropane	Ave	0.3695	0.3674		49700	50000	-0.6	50.0
Bromochloromethane	Ave	0.1246	0.1380		55400	50000	10.7	50.0
Tetrahydrofuran	Lin1		0.0998		53300	50000	6.6	50.0
Chloroform	Ave	0.4485	0.5041		56200	50000	12.4	20.0
1,1,1-Trichloroethane	Ave	0.3798	0.4086		53800	50000	7.6	50.0
Cyclohexane	Ave	0.5442	0.6380		58600	50000	17.2	50.0
1,1-Dichloropropene	Ave	0.3009	0.3560		59200	50000	18.3	50.0
Carbon tetrachloride	Ave	0.2929	0.2471		42200	50000	-15.7	50.0
1,2-Dichloroethane	Ave	0.3387	0.4121		60800	50000	21.7	50.0
Benzene	Ave	0.9830	1.115		56700	50000	13.4	50.0
Trichloroethene	Ave	0.1842	0.2236		60700	50000	21.4	50.0
Methylcyclohexane	Ave	0.4882	0.5840		59800	50000	19.6	50.0
1,2-Dichloropropane	Ave	0.2302	0.2672		58000	50000	16.0	20.0
1,4-Dioxane	Ave	0.0025	0.0028		2790000	2500000	11.7	50.0
Dibromomethane	Ave	0.1284	0.1510		58800	50000	17.5	50.0
Bromodichloromethane	Ave	0.2864	0.2743		47900	50000	-4.2	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCVIS 240-5087/5 Calibration Date: 06/16/2011 19:16

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82731.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloroethyl vinyl ether	Qua		0.0120		154000	100000	54.0*	50.0
cis-1,3-Dichloropropene	Ave	0.3148	0.3535		56100	50000	12.3	50.0
4-Methyl-2-pentanone	Ave	0.2960	0.3010		102000	100000	1.7	50.0
Toluene	Ave	1.393	1.520		54600	50000	9.1	20.0
trans-1,3-Dichloropropene	Ave	0.4536	0.4535		50000	50000	-0.0	50.0
Ethyl methacrylate	Ave	0.4934	0.4510		45700	50000	-8.6	50.0
1,1,2-Trichloroethane	Ave	0.2592	0.2886		55700	50000	11.3	50.0
1,3-Dichloropropane	Ave	0.4755	0.5350		56300	50000	12.5	50.0
Tetrachloroethene	Ave	0.2116	0.2600		61400	50000	22.9	50.0
2-Hexanone	Lin1		0.2762		102000	100000	2.2	50.0
Dibromochloromethane	Ave	0.2577	0.1928		37400	50000	-25.2	50.0
1,2-Dibromoethane	Ave	0.2642	0.2919		55200	50000	10.5	50.0
Chlorobenzene	Ave	0.8588	0.9640	0.3000	56100	50000	12.3	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3401	0.2759		40600	50000	-18.9	50.0
Ethylbenzene	Ave	0.5041	0.5692		56500	50000	12.9	20.0
m-Xylene & p-Xylene	Ave	0.6208	0.6876		111000	100000	10.8	50.0
o-Xylene	Ave	0.6652	0.7331		55100	50000	10.2	50.0
Styrene	Ave	1.055	1.142		54100	50000	8.2	50.0
Bromoform	Ave	0.1841	0.1059	0.1000	28800	50000	-42.5	50.0
Isopropylbenzene	Ave	1.733	1.948		56200	50000	12.4	50.0
1,1,2,2-Tetrachloroethane	Ave	0.8004	0.7709	0.3000	48200	50000	-3.7	50.0
Bromobenzene	Ave	0.6603	0.7668		58100	50000	16.1	50.0
1,2,3-Trichloropropane	Ave	0.2305	0.2534		55000	50000	9.9	50.0
trans-1,4-Dichloro-2-butene	Ave	0.3128	0.2572		41100	50000	-17.8	50.0
n-Propylbenzene	Ave	0.7989	0.9101		57000	50000	13.9	50.0
2-Chlorotoluene	Ave	0.6741	0.7713		57200	50000	14.4	50.0
1,3,5-Trimethylbenzene	Ave	2.616	3.077		58800	50000	17.6	50.0
4-Chlorotoluene	Ave	0.6741	0.7586		56300	50000	12.5	50.0
tert-Butylbenzene	Ave	2.237	2.645		59100	50000	18.2	50.0
1,2,4-Trimethylbenzene	Ave	2.676	3.078		57500	50000	15.0	50.0
sec-Butylbenzene	Ave	3.315	3.942		59500	50000	18.9	50.0
1,3-Dichlorobenzene	Ave	1.291	1.414		54800	50000	9.5	50.0
p-Isopropyltoluene	Ave	2.584	3.067		59300	50000	18.7	50.0
1,4-Dichlorobenzene	Ave	1.304	1.439		55200	50000	10.4	50.0
n-Butylbenzene	Ave	2.514	2.987		59400	50000	18.8	50.0
1,2-Dichlorobenzene	Ave	1.246	1.394		56000	50000	11.9	50.0
1,2-Dibromo-3-Chloropropane	Ave	0.1496	0.1009		33700	50000	-32.6	50.0
1,3,5-Trichlorobenzene	Ave	0.9443	1.133		60000	50000	20.0	50.0
1,2,4-Trichlorobenzene	Ave	0.8498	0.9799		57700	50000	15.3	50.0
Hexachlorobutadiene	Ave	0.4931	0.5212		52800	50000	5.7	50.0
Naphthalene	Ave	2.245	2.245		50000	50000	-0.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCVIS 240-5087/5 Calibration Date: 06/16/2011 19:16

Instrument ID: A3UX8 Calib Start Date: 06/10/2011 01:49

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 06/10/2011 04:18

Lab File ID: UX82731.D Conc. Units: ng/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichlorobenzene	Ave	0.7840	0.8602		54900	50000	9.7	50.0
Dibromofluoromethane (Surr)	Ave	0.2097	0.1917		48100	50000	-8.6	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2673	0.2654		50800	50000	-0.7	50.0
Toluene-d8 (Surr)	Ave	1.160	1.082		44500	50000	-6.7	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4955	0.4554		48400	50000	-8.1	50.0

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Lab File ID: UX82733.D | Lab Sample ID: MB 240-5087/7

Matrix: Solid | Heated Purge:(Y/N) Y

Instrument ID: A3UX8 | Date Analyzed: 06/16/2011 19:59

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-5087/6	UX82732.D	06/16/2011 19:37
GSP-SB-123-6-8	240-820-5	UX82740.D	06/16/2011 22:47
GSP-SB-124-0-2	240-820-7	UX82742.D	06/16/2011 23:30
GSP-SB-124-6-8	240-820-8	UX82743.D	06/16/2011 23:51
GSP-SB-126-0-2	240-820-10	UX82746.D	06/17/2011 00:55
GSP-SB-126-8-10	240-820-11	UX82747.D	06/17/2011 01:16
GSP-SB-126-20-22	240-820-12	UX82748.D	06/17/2011 01:37
GSP-SB-127-0-2	240-820-13	UX82749.D	06/17/2011 01:58
GSP-SB-127-6-8	240-820-14	UX82750.D	06/17/2011 02:20
GSP-SB-130-0-2	240-820-16	UX82752.D	06/17/2011 03:02
GSP-SB-130-6-8	240-820-17	UX82753.D	06/17/2011 03:23
GSP-SB-130-20-22	240-820-18	UX82754.D	06/17/2011 03:45

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5087/7

Matrix: Solid | Lab File ID: UX82733.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/16/2011 19:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	0.62
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	0.56
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.34
76-13-1	1,1,2-Trichloro-1,2,2-trichfluoroethane	5.0	U	5.0	1.3
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.36
75-35-4	1,1-Dichloroethene	5.0	U	5.0	0.52
563-58-6	1,1-Dichloropropene	5.0	U	5.0	0.30
87-61-6	1,2,3-Trichlorobenzene	5.0	U	5.0	0.38
96-18-4	1,2,3-Trichloropropane	5.0	U	5.0	0.90
526-73-8	1,2,3-Trimethylbenzene	5.0	U	5.0	0.17
120-82-1	1,2,4-Trichlorobenzene	0.349	J	5.0	0.27
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.65
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	10	1.3
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	0.36
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.34
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.69
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	0.35
142-28-9	1,3-Dichloropropane	5.0	U	5.0	0.34
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	0.66
594-20-7	2,2-Dichloropropane	5.0	U	5.0	0.94
78-93-3	2-Butanone	1.90	J	20	1.4
110-75-8	2-Chloroethyl vinyl ether	50	U	50	1.4
95-49-8	2-Chlorotoluene	5.0	U	5.0	0.40
591-78-6	2-Hexanone	20	U	20	0.63
106-43-4	4-Chlorotoluene	5.0	U	5.0	0.41
99-87-6	p-Isopropyltoluene	5.0	U	5.0	0.21
108-10-1	4-Methyl-2-pentanone	20	U	20	0.54
67-64-1	Acetone	20	U	20	6.3
71-43-2	Benzene	5.0	U	5.0	0.23
108-86-1	Bromobenzene	5.0	U	5.0	0.33
75-25-2	Bromoform	5.0	U	5.0	0.33
74-83-9	Bromomethane	5.0	U	5.0	0.54
75-15-0	Carbon disulfide	5.0	U	5.0	0.44
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.37
108-90-7	Chlorobenzene	5.0	U	5.0	0.33

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5087/7

Matrix: Solid | Lab File ID: UX82733.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/16/2011 19:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	5.0	U	5.0	0.55
75-00-3	Chloroethane	5.0	U	5.0	0.86
67-66-3	Chloroform	5.0	U	5.0	0.29
74-87-3	Chloromethane	5.0	U	5.0	0.41
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.36
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.34
74-95-3	Dibromomethane	5.0	U	5.0	0.63
74-97-5	Bromochloromethane	5.0	U	5.0	0.71
75-71-8	Dichlorodifluoromethane	5.0	U	5.0	0.50
75-27-4	Bromodichloromethane	5.0	U	5.0	0.28
75-65-0	tert-Butyl alcohol	200	U	200	7.6
100-41-4	Ethylbenzene	5.0	U	5.0	0.26
87-68-3	Hexachlorobutadiene	5.0	U	5.0	1.2
108-20-3	Diisopropyl ether	10	U	10	1.5
98-82-8	Isopropylbenzene	5.0	U	5.0	0.16
1634-04-4	Methyl tert-butyl ether	20	U	20	0.43
75-09-2	Methylene Chloride	5.0	U	5.0	0.67
179601-23-1	m-Xylene & p-Xylene	10	U	10	1.2
91-20-3	Naphthalene	0.533	J	5.0	0.19
104-51-8	n-Butylbenzene	5.0	U	5.0	0.23
103-65-1	n-Propylbenzene	5.0	U	5.0	0.40
95-47-6	o-Xylene	5.0	U	5.0	0.35
135-98-8	sec-Butylbenzene	5.0	U	5.0	0.18
100-42-5	Styrene	5.0	U	5.0	0.15
994-05-8	Tert-amyl-methyl ether (TAME)	5.0	U	5.0	0.37
637-92-3	Ethyl-t-butyl ether (ETBE)	5.0	U	5.0	0.22
127-18-4	Tetrachloroethene	5.0	U	5.0	0.52
108-88-3	Toluene	5.0	U	5.0	0.27
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.41
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.54
79-01-6	Trichloroethene	5.0	U	5.0	0.42
75-69-4	Trichlorofluoromethane	5.0	U	5.0	0.34
108-05-4	Vinyl acetate	10	U	10	0.25
75-01-4	Vinyl chloride	5.0	U	5.0	0.39
1330-20-7	Xylenes, Total	10	U	10	0.67

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5087/7

Matrix: Solid | Lab File ID: UX82733.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/16/2011 19:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
98-06-6	tert-Butylbenzene	5.0	U	5.0	0.29
106-93-4	1,2-Dibromoethane	5.0	U	5.0	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	91		67-125
1868-53-7	Dibromofluoromethane (Surr)	93		37-132
460-00-4	4-Bromofluorobenzene (Surr)	97		52-136
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		58-123

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5087/7

Matrix: Solid | Lab File ID: UX82733.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 06/16/2011 19:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 5087 | Units: ug/Kg

Number TICs Found: 0 | TIC Result Total: 0

CAS NO.	COMPOUND NAME	RT	RESULT	Q
Tentatively Identified Compound			None	

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82732.D

Lab ID: LCS 240-5087/6 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	50.0	40.6	81	81-119	
1,1,1-Trichloroethane	50.0	46.9	94	77-126	
1,1,2,2-Tetrachloroethane	50.0	52.6	105	77-123	
1,1,2-Trichloro-1,2,2-trichfluoroethane	50.0	55.7	111	82-138	
1,1-Dichloroethane	50.0	51.2	102	76-115	
1,1-Dichloroethene	50.0	49.7	99	75-135	
1,1-Dichloropropene	50.0	56.0	112	80-120	
1,2,3-Trichlorobenzene	50.0	54.3	109	61-121	
1,2,3-Trichloropropane	50.0	59.6	119	84-126	
1,2,3-Trimethylbenzene	50.0	57.6	115	70-130	
1,2,4-Trichlorobenzene	50.0	51.7	103	64-124	
1,2,4-Trimethylbenzene	50.0	53.5	107	80-129	
1,2-Dibromo-3-Chloropropane	50.0	39.3	79	61-132	
1,2-Dichlorobenzene	50.0	53.2	106	76-110	
1,2-Dichloroethane	50.0	59.7	119	72-120	
1,2-Dichloropropane	50.0	54.5	109	87-113	
1,3-Dichlorobenzene	50.0	51.7	103	78-111	
1,3-Dichloropropane	50.0	57.4	115	82-118	
1,4-Dichlorobenzene	50.0	51.8	104	75-110	
2,2-Dichloropropane	50.0	41.3	83	69-135	
2-Butanone	100	109	109	52-131	
2-Chloroethyl vinyl ether	50.0	86.7	173	28-173	
2-Chlorotoluene	50.0	53.6	107	78-119	
2-Hexanone	100	121	121	64-136	
4-Chlorotoluene	50.0	53.2	106	79-118	
p-Isopropyltoluene	50.0	54.9	110	77-131	
4-Methyl-2-pentanone	100	110	110	67-135	
Acetone	100	128	128	41-137	
Benzene	50.0	51.0	102	79-112	
Bromobenzene	50.0	57.1	114	81-115	
Bromoform	50.0	32.1	64	62-133	
Bromomethane	50.0	50.1	100	42-136	
Carbon disulfide	50.0	45.3	91	62-146	
Carbon tetrachloride	50.0	39.4	79	71-129	
Chlorobenzene	50.0	52.9	106	78-110	
Dibromochloromethane	50.0	39.9	80	72-127	
Chloroethane	50.0	50.5	101	58-117	
Chloroform	50.0	52.9	106	77-114	
Chloromethane	50.0	41.8	84	50-110	
cis-1,2-Dichloroethene	50.0	49.9	100	76-113	
cis-1,3-Dichloropropene	50.0	50.9	102	74-128	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: UX82732.D

Lab ID: LCS 240-5087/6 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dibromomethane	50.0	57.8	116	85-120	
Bromochloromethane	50.0	50.8	102	79-111	
Dichlorodifluoromethane	50.0	33.3	67	26-113	
Bromodichloromethane	50.0	46.5	93	84-122	
tert-Butyl alcohol	1000	960	96	60-125	
Ethylbenzene	50.0	50.2	100	79-117	
Hexachlorobutadiene	50.0	46.3	93	54-131	
Diisopropyl ether	50.0	53.4	107	82-119	
Isopropylbenzene	50.0	49.0	98	76-122	
Methyl tert-butyl ether	50.0	54.7	109	49-165	
Methylene Chloride	50.0	44.6	89	75-118	
m-Xylene & p-Xylene	100	98.6	99	80-117	
Naphthalene	50.0	53.3	107	65-123	
n-Butylbenzene	50.0	52.9	106	68-135	
n-Propylbenzene	50.0	53.9	108	81-129	
o-Xylene	50.0	49.9	100	80-120	
sec-Butylbenzene	50.0	53.3	107	74-129	
Styrene	50.0	50.8	102	87-117	
Tetrachloroethene	50.0	54.8	110	79-114	
Toluene	50.0	50.5	101	75-111	
trans-1,2-Dichloroethene	50.0	48.6	97	78-117	
trans-1,3-Dichloropropene	50.0	50.8	102	73-131	
Trichloroethene	50.0	55.1	110	79-113	
Trichlorofluoromethane	50.0	54.3	109	57-146	
Vinyl acetate	50.0	54.2	108	70-130	
Vinyl chloride	50.0	47.8	96	57-114	
tert-Butylbenzene	50.0	53.8	108	76-126	
1,2-Dibromoethane	50.0	55.2	110	83-117	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149058.D

Lab ID: 240-787-A-9 MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	55.8	5.6 U	42.7	77	34-135	
1,1,1-Trichloroethane	55.8	5.6 U	46.9	84	51-128	
1,1,2,2-Tetrachloroethane	55.8	5.6 U	47.0	84	16-179	
1,1,2-Trichloro-1,2,2-trichfluoroethane	55.8	5.6 U	56.3	101	50-147	
1,1-Dichloroethane	55.8	5.6 U	49.6	89	54-122	
1,1-Dichloroethene	55.8	5.6 U	47.5	85	49-157	
1,1-Dichloropropene	55.8	5.6 U	45.2	81	50-122	
1,2,3-Trichlorobenzene	55.8	5.6 U	26.6	48	10-110	
1,2,3-Trichloropropane	55.8	5.6 U	47.4	85	32-174	
1,2,3-Trimethylbenzene	55.8	5.6 U	42.2	76	70-130	
1,2,4-Trichlorobenzene	55.8	5.6 U	24.8	44	10-111	
1,2,4-Trimethylbenzene	55.8	5.6 U	35.5	64	10-173	
1,2-Dibromo-3-Chloropropane	55.8	11 U	28.3	51	10-153	
1,2-Dichlorobenzene	55.8	5.6 U	34.7	62	17-122	
1,2-Dichloroethane	55.8	5.6 U	51.1	92	49-123	
1,2-Dichloropropane	55.8	5.6 U	46.1	83	61-117	
1,3-Dichlorobenzene	55.8	5.6 U	33.8	61	16-126	
1,3-Dichloropropane	55.8	5.6 U	45.0	81	54-128	
1,4-Dichlorobenzene	55.8	5.6 U	32.8	59	15-121	
2,2-Dichloropropane	55.8	5.6 U	41.9	75	49-132	
2-Butanone	112	22 U	104	93	30-143	
2-Chloroethyl vinyl ether	55.8	56 U	41.5 J	74	10-162	
2-Chlorotoluene	55.8	5.6 U	35.9	64	11-162	
2-Hexanone	112	22 U	102	91	37-147	
4-Chlorotoluene	55.8	5.6 U	34.7	62	15-149	
p-Isopropyltoluene	55.8	5.6 U	32.9	59	10-165	
4-Methyl-2-pentanone	112	22 U	106	95	43-147	
Acetone	112	37	137	90	24-140	
Benzene	55.8	5.6 U	45.1	81	53-118	
Bromobenzene	55.8	5.6 U	39.1	70	24-144	
Bromoform	55.8	5.6 U	31.3	56	18-129	
Bromomethane	55.8	5.6 U	49.6	89	33-130	
Carbon disulfide	55.8	5.6 U	30.0	54	20-151	
Carbon tetrachloride	55.8	5.6 U	44.3	79	32-137	
Chlorobenzene	55.8	5.6 U	38.2	68	37-116	
Dibromochloromethane	55.8	5.6 U	36.9	66	29-135	
Chloroethane	55.8	5.6 U	110	197	45-118	F
Chloroform	55.8	5.6 U	48.9	88	53-119	
Chloromethane	55.8	5.6 U	52.9	95	34-117	
cis-1,2-Dichloroethene	55.8	5.6 U	45.5	82	50-119	
cis-1,3-Dichloropropene	55.8	5.6 U	40.3	72	27-133	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149058.D

Lab ID: 240-787-A-9 MS Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Dibromomethane	55.8	5.6 U	49.1	88	52-123	
Bromochloromethane	55.8	5.6 U	45.5	82	53-116	
Dichlorodifluoromethane	55.8	5.6 U	46.2	83	17-115	
Bromodichloromethane	55.8	5.6 U	43.5	78	35-132	
tert-Butyl alcohol	1120	220 U	780	70	60-125	
Ethylbenzene	55.8	5.6 U	37.6	67	30-131	
Hexachlorobutadiene	55.8	5.6 U	22.5	40	10-131	
Diisopropyl ether	55.8	11 U	46.4	83	62-128	
Isopropylbenzene	55.8	5.6 U	35.6	64	21-134	
Methyl tert-butyl ether	55.8	22 U	46.5	83	51-157	
Methylene Chloride	55.8	6.4	48.9	76	54-115	
m-Xylene & p-Xylene	112	11 U	74.4	67	29-131	
Naphthalene	55.8	5.6 U	30.8	55	10-124	
n-Butylbenzene	55.8	5.6 U	28.6	51	10-148	
n-Propylbenzene	55.8	5.6 U	35.3	63	10-178	
o-Xylene	55.8	5.6 U	37.5	67	29-134	
sec-Butylbenzene	55.8	5.6 U	32.9	59	10-172	
Styrene	55.8	5.6 U	36.5	65	27-127	
Tetrachloroethene	55.8	5.6 U	42.1	75	31-135	
Toluene	55.8	5.6 U	40.8	73	39-129	
trans-1,2-Dichloroethene	55.8	5.6 U	45.2	81	50-123	
trans-1,3-Dichloropropene	55.8	5.6 U	36.9	66	28-137	
Trichloroethene	55.8	5.6 U	45.3	81	10-177	
Trichlorofluoromethane	55.8	5.6 U	49.3	88	36-142	
Vinyl acetate	55.8	11 U	39.5	71	70-130	
Vinyl chloride	55.8	5.6 U	49.3	88	42-117	
tert-Butylbenzene	55.8	5.6 U	35.7	64	10-163	
1,2-Dibromoethane	55.8	5.6 U	45.6	82	45-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149059.D

Lab ID: 240-787-A-9 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	55.8	45.9	82	7	30	34-135	
1,1,1-Trichloroethane	55.8	50.7	91	8	30	51-128	
1,1,2,2-Tetrachloroethane	55.8	46.9	84	0	30	16-179	
1,1,2-Trichloro-1,2,2-trichfluoroethane	55.8	59.9	107	6	30	50-147	
1,1-Dichloroethane	55.8	52.7	94	6	30	54-122	
1,1-Dichloroethene	55.8	51.2	92	7	30	49-157	
1,1-Dichloropropene	55.8	48.2	86	6	30	50-122	
1,2,3-Trichlorobenzene	55.8	28.7	51	8	30	10-110	
1,2,3-Trichloropropane	55.8	47.5	85	0	30	32-174	
1,2,3-Trimethylbenzene	55.8	44.3	79	5	30	70-130	
1,2,4-Trichlorobenzene	55.8	26.9	48	8	30	10-111	
1,2,4-Trimethylbenzene	55.8	38.1	68	7	30	10-173	
1,2-Dibromo-3-Chloropropane	55.8	31.1	56	9	30	10-153	
1,2-Dichlorobenzene	55.8	36.9	66	6	30	17-122	
1,2-Dichloroethane	55.8	53.2	95	4	30	49-123	
1,2-Dichloropropane	55.8	49.4	89	7	30	61-117	
1,3-Dichlorobenzene	55.8	36.8	66	9	30	16-126	
1,3-Dichloropropane	55.8	46.2	83	3	30	54-128	
1,4-Dichlorobenzene	55.8	35.3	63	7	30	15-121	
2,2-Dichloropropane	55.8	46.2	83	10	30	49-132	
2-Butanone	112	103	92	1	30	30-143	
2-Chloroethyl vinyl ether	55.8	41.5 J	74	0	30	10-162	
2-Chlorotoluene	55.8	38.5	69	7	30	11-162	
2-Hexanone	112	97.3	87	5	30	37-147	
4-Chlorotoluene	55.8	37.1	66	7	30	15-149	
p-Isopropyltoluene	55.8	35.4	63	7	30	10-165	
4-Methyl-2-pentanone	112	104	93	2	30	43-147	
Acetone	112	128	82	7	30	24-140	
Benzene	55.8	47.7	85	6	30	53-118	
Bromobenzene	55.8	41.2	74	5	30	24-144	
Bromoform	55.8	33.3	60	6	30	18-129	
Bromomethane	55.8	53.7	96	8	30	33-130	
Carbon disulfide	55.8	35.6	64	17	30	20-151	
Carbon tetrachloride	55.8	47.5	85	7	30	32-137	
Chlorobenzene	55.8	40.8	73	7	30	37-116	
Dibromochloromethane	55.8	40.1	72	8	30	29-135	
Chloroethane	55.8	118	212	7	30	45-118	F
Chloroform	55.8	51.9	93	6	30	53-119	
Chloromethane	55.8	56.0	100	6	30	34-117	
cis-1,2-Dichloroethene	55.8	48.2	86	6	30	50-119	
cis-1,3-Dichloropropene	55.8	42.3	76	5	30	27-133	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 149059.D

Lab ID: 240-787-A-9 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Dibromomethane	55.8	50.7	91	3	30	52-123	
Bromochloromethane	55.8	48.8	87	7	30	53-116	
Dichlorodifluoromethane	55.8	49.6	89	7	30	17-115	
Bromodichloromethane	55.8	45.6	82	5	30	35-132	
tert-Butyl alcohol	1120	744	67	5	30	60-125	
Ethylbenzene	55.8	39.4	71	5	30	30-131	
Hexachlorobutadiene	55.8	23.8	43	5	30	10-131	
Diisopropyl ether	55.8	49.7	89	7	30	62-128	
Isopropylbenzene	55.8	38.1	68	7	30	21-134	
Methyl tert-butyl ether	55.8	47.5	85	2	30	51-157	
Methylene Chloride	55.8	51.7	81	6	30	54-115	
m-Xylene & p-Xylene	112	77.8	70	4	30	29-131	
Naphthalene	55.8	32.0	57	4	30	10-124	
n-Butylbenzene	55.8	30.2	54	6	30	10-148	
n-Propylbenzene	55.8	37.6	67	6	30	10-178	
o-Xylene	55.8	40.5	73	8	30	29-134	
sec-Butylbenzene	55.8	35.0	63	6	30	10-172	
Styrene	55.8	38.4	69	5	30	27-127	
Tetrachloroethene	55.8	44.3	79	5	30	31-135	
Toluene	55.8	43.4	78	6	30	39-129	
trans-1,2-Dichloroethene	55.8	47.9	86	6	30	50-123	
trans-1,3-Dichloropropene	55.8	39.2	70	6	30	28-137	
Trichloroethene	55.8	47.1	84	4	30	10-177	
Trichlorofluoromethane	55.8	54.5	98	10	30	36-142	
Vinyl acetate	55.8	42.3	76	7	30	70-130	
Vinyl chloride	55.8	52.8	95	7	30	42-117	
tert-Butylbenzene	55.8	37.6	67	5	30	10-163	
1,2-Dibromoethane	55.8	47.5	85	4	30	45-127	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM	#	DCA	#	TOL	#	BFB	#
GSP-SB-128-0-2	240-820-1	86		109		106		96	
GSP-SB-128-6-8	240-820-2	87		110		103		92	
GSP-SB-123-0-2	240-820-4	85		109		108		99	
GSP-SB-123-6-8	240-820-5	88		98		88		98	
GSP-SB-124-0-2	240-820-7	89		103		87		95	
GSP-SB-124-6-8	240-820-8	90		102		87		96	
GSP-SB-126-0-2	240-820-10	90		101		87		97	
GSP-SB-126-8-10	240-820-11	92		99		88		95	
GSP-SB-126-20-22	240-820-12	94		102		89		99	
GSP-SB-127-0-2	240-820-13	93		106		88		98	
GSP-SB-127-6-8	240-820-14	93		105		89		100	
GSP-SB-130-0-2	240-820-16	90		105		87		99	
GSP-SB-130-6-8	240-820-17	93		105		88		99	
GSP-SB-130-20-22	240-820-18	92		102		87		101	
	MB 240-5027/6	91		110		104		94	
	MB 240-5087/7	93		103		91		97	
	LCS 240-5027/5	102		111		108		102	
	LCS 240-5087/6	98		103		94		99	
	240-787-A-9 MS	97		107		103		101	
	240-787-A-9 MSD	98		105		105		101	

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	37-132
DCA = 1,2-Dichloroethane-d4 (Surr)	58-123
TOL = Toluene-d8 (Surr)	67-125
BFB = 4-Bromofluorobenzene (Surr)	52-136

Column to be used to flag recovery values

FORM II 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: STD8260 240-1969/5 Date Analyzed: 05/13/2011 11:27

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 148157.D Heated Purge: (Y/N) Y

Calibration ID: 985

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1868366	6.90	1308047	9.61	665164	11.57
UPPER LIMIT		3736732	7.40	2616094	10.11	1330328	12.07
LOWER LIMIT		934183	6.40	654024	9.11	332582	11.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-1969/11		1872329	6.90	1293714	9.61	666495	11.57

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: CCV 240-5027/3 Date Analyzed: 06/16/2011 12:19

Instrument ID: A3UX14 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 149043.D Heated Purge: (Y/N) Y

Calibration ID: 987

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1453332	6.90	1056502	9.61	549361	11.57
UPPER LIMIT		2906664	7.40	2113004	10.11	1098722	12.07
LOWER LIMIT		726666	6.40	528251	9.11	274681	11.07
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-5027/4		1459242	6.90	1020713	9.61	506638	11.57
LCS 240-5027/5		1442265	6.90	1019687	9.61	518108	11.57
MB 240-5027/6		1320634	6.90	916685	9.61	474281	11.57
240-787-A-9 MS		1441022	6.90	1046679	9.61	523489	11.57
240-787-A-9 MSD		1414470	6.90	988790	9.61	490895	11.57
240-820-1	GSP-SB-128-0-2	1263182	6.90	846237	9.61	409482	11.57
240-820-2	GSP-SB-128-6-8	1257979	6.90	882922	9.61	452578	11.57
240-820-4	GSP-SB-123-0-2	1308989	6.90	851214	9.61	386408	11.57

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: STD8260 240-4259/5 Date Analyzed: 06/10/2011 02:32

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX82540.D Heated Purge: (Y/N) Y

Calibration ID: 1462

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1101507	5.14	647790	7.68	361870	9.88
UPPER LIMIT		2203014	5.64	1295580	8.18	723740	10.38
LOWER LIMIT		550754	4.64	323895	7.18	180935	9.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-4259/17		1135485	5.15	701577	7.68	400592	9.88

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: CCVIS 240-5087/5 Date Analyzed: 06/16/2011 19:16

Instrument ID: A3UX8 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UX82731.D Heated Purge: (Y/N) Y

Calibration ID: 1464

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		929597	5.16	637019	7.68	341171	9.88
UPPER LIMIT		1859194	5.66	1274038	8.18	682342	10.38
LOWER LIMIT		464799	4.66	318510	7.18	170586	9.38
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-5087/4		978301	5.15	679107	7.68	368912	9.87
LCS 240-5087/6		1021069	5.16	671103	7.68	338282	9.88
MB 240-5087/7		1007101	5.15	715455	7.68	355391	9.88
240-820-5	GSP-SB-123-6-8	948012	5.15	658962	7.68	353586	9.87
240-820-7	GSP-SB-124-0-2	991772	5.16	704419	7.68	358500	9.88
240-820-8	GSP-SB-124-6-8	1005610	5.15	715958	7.68	364674	9.88
240-820-10	GSP-SB-126-0-2	916396	5.15	658402	7.68	346929	9.88
240-820-11	GSP-SB-126-8-10	933617	5.15	666253	7.68	350190	9.88
240-820-12	GSP-SB-126-20-22	914825	5.15	651400	7.68	343934	9.87
240-820-13	GSP-SB-127-0-2	920807	5.15	668202	7.68	356602	9.88
240-820-14	GSP-SB-127-6-8	932555	5.15	667380	7.68	362258	9.88
240-820-16	GSP-SB-130-0-2	931801	5.15	665122	7.68	354310	9.87
240-820-17	GSP-SB-130-6-8	883451	5.15	646258	7.68	346467	9.88
240-820-18	GSP-SB-130-20-22	929282	5.15	672595	7.68	349660	9.88

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab File ID: 0706001.D DFTPP Injection Date: 07/06/2011

Instrument ID: A4HP7 DFTPP Injection Time: 09:23

Analysis Batch No.: 7270

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	47.7	
68	Less than 2.0% of mass 69	0.8	(2.0)1
69	Mass 69 relative abundance	42.3	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	50.7	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	24.5	
365	Greater than 0.75% of mass 198	2.5	
441	Present, but less than mass 443	9.5	
442	40.0 - 110.0% of mass 198	67.1	
443	15.0 - 24.0% of mass 442	13.0	(19.3)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-7270/2	0706002.D	07/06/2011	09:41
	STD4 240-7270/3	0706003.D	07/06/2011	10:00
	STD3 240-7270/4	0706004.D	07/06/2011	10:18
	STD2 240-7270/5	0706005.D	07/06/2011	10:37
	STD1 240-7270/6	0706006.D	07/06/2011	10:55
	STD9 240-7270/7	0706007.D	07/06/2011	11:14
	STD8 240-7270/8	0706008.D	07/06/2011	11:32
	STD7 240-7270/9	0706009.D	07/06/2011	11:51
	STD6 240-7270/10	0706010.D	07/06/2011	12:10
	ICV 240-7270/13	0706011.D	07/06/2011	12:28

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-7270/6	0706006.D
Level 2	STD2 240-7270/5	0706005.D
Level 3	STD3 240-7270/4	0706004.D
Level 4	STD4 240-7270/3	0706003.D
Level 5	STD5 240-7270/2	0706002.D
Level 6	STD6 240-7270/10	0706010.D
Level 7	STD7 240-7270/9	0706009.D
Level 8	STD8 240-7270/8	0706008.D
Level 9	STD9 240-7270/7	0706007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane		0.5524	0.4337	0.5207	0.4471	Ave		0.4732				9.1		20.0			
	0.4762	0.4669	0.4615	0.4271													
N-Nitrosodimethylamine		0.8030	0.8353	0.8667	0.7791	Ave		0.8168				3.2		20.0			
	0.8248	0.8134	0.8116	0.8006													
Pyridine		1.1913	1.3217	1.4317	1.3198	Ave		1.3438				5.3		20.0			
	1.3648	1.3538	1.3873	1.3802													
Ethyl methacrylate		1.1670	1.1719	1.2127	1.0939	Ave		1.1445				4.6		20.0			
	1.1685	1.1497	1.1493	1.0428													
3-Chloropropionitrile		1.0919	1.0532	1.0626	0.9601	Ave		1.0276				4.0		20.0			
	1.0023	1.0098	1.0238	1.0168													
Malononitrile		1.8142	1.6565	1.7218	1.6643	Ave		1.6710				4.0		20.0			
	1.6340	1.6266	1.6385	1.6121													
Benzoic acid		+++++	+++++	0.1377	0.2017	Qua	0.1332	0.1515	0.0026						0.9950		0.9900
	0.2326	0.2344	0.2448	0.2926													
Benzaldehyde		1.3053	1.2148	1.2693	1.1888	Ave		1.0954			0.0100	16.0		20.0			
	1.0470	0.9685	0.9000	0.8696													
Phenol		1.6914	1.6878	1.8048	1.6808	Ave		1.7463			0.8000	5.1		20.0			
	1.6811	1.7127	1.7796	1.9322													
Aniline		2.0921	2.1237	2.2863	2.0990	Ave		2.2369				7.7		20.0			
	2.2619	2.1675	2.2437	2.6209													
Bis(2-chloroethyl)ether		1.4290	1.4408	1.4840	1.3731	Ave		1.4386			0.7000	5.4		20.0			
	1.3238	1.4009	1.5760	1.4812													
2-Chlorophenol		1.4177	1.3940	1.4526	1.3431	Ave		1.4245			0.8000	4.1		20.0			
	1.4044	1.3953	1.4507	1.5384													
1,3-Dichlorobenzene		1.5006	1.4809	1.5099	1.4101	Ave		1.4825				2.8		20.0			
	1.4553	1.4605	1.4954	1.5469													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,4-Dichlorobenzene		1.4940	1.5082	1.5524	1.4682	Ave		1.5344				3.3		20.0			
	1.5278	1.5263	1.5676	1.6305													
Benzyl alcohol		0.8911	0.8713	0.9031	0.8687	Ave		0.9049				5.8		20.0			
	0.8575	0.9065	0.9186	1.0228													
1,2-Dichlorobenzene		1.3902	1.4629	1.4581	1.3454	Ave		1.4529				4.8		20.0			
	1.4249	1.4613	1.5039	1.5768													
2-Methylphenol		1.2253	1.2842	1.3055	1.2384	Ave		1.3110			0.7000	6.4		20.0			
	1.2804	1.3123	1.3455	1.4963													
2,2'-oxybis[1-chloropropane]		3.1017	2.8994	3.1408	2.9347	Ave		3.0257				8.5		20.0			
	2.5188	3.0127	3.2059	3.3917													
3 & 4 Methylphenol		1.3295	1.3030	1.3524	1.2947	Ave		1.3690				5.7		20.0			
	1.3622	1.3659	1.4030	1.5409													
N-Nitrosodi-n-propylamine		1.1180	1.1449	1.1943	1.1308	Ave		1.1963			0.5000	7.4		20.0			
	1.1558	1.1936	1.2391	1.3936													
Acetophenone		1.9912	1.9301	2.0008	1.8760	Ave		2.0104			0.0100	6.6		20.0			
	1.9376	1.9773	2.0608	2.3093													
Hexachloroethane		0.5777	0.5768	0.6054	0.5412	Ave		0.5887			0.3000	4.2		20.0			
	0.5886	0.5925	0.6031	0.6248													
Nitrobenzene		0.4065	0.3984	0.4166	0.4018	Ave		0.4135			0.2000	3.5		20.0			
	0.4081	0.4133	0.4176	0.4454													
Isophorone		0.7177	0.7293	0.7563	0.7304	Ave		0.7545			0.4000	4.4		20.0			
	0.7508	0.7545	0.7750	0.8222													
2,4-Dimethylphenol		0.3738	0.3834	0.3981	0.3879	Ave		0.4069			0.2000	7.1		20.0			
	0.4068	0.4143	0.4279	0.4633													
2-Nitrophenol		0.1696	0.1852	0.1958	0.1955	Ave		0.2041			0.1000	11.0		20.0			
	0.2076	0.2168	0.2228	0.2397													
1,3,5-Trichlorobenzene		0.3147	0.3098	0.3222	0.3110	Ave		0.3287				5.5		20.0			
	0.3287	0.3393	0.3420	0.3616													
Bis(2-chloroethoxy)methane		0.4053	0.4089	0.4239	0.3979	Ave		0.4208			0.3000	4.1		20.0			
	0.4236	0.4225	0.4321	0.4523													
2,4-Dichlorophenol		0.2556	0.2732	0.2870	0.2765	Ave		0.2858			0.2000	6.4		20.0			
	0.2889	0.2938	0.2928	0.3185													
1,2,4-Trichlorobenzene		0.3154	0.3107	0.3160	0.3106	Ave		0.3214				3.6		20.0			
	0.3193	0.3288	0.3251	0.3451													
Naphthalene	1.1204	1.0824	1.0430	1.0922	1.0448	Ave		1.0962			0.7000	4.0		20.0			
	1.0720	1.1052	1.1208	1.1852													
4-Chloroaniline		0.4528	0.4290	0.4751	0.4637	Ave		0.4664			0.0100	6.0		20.0			
	0.4504	0.4599	0.4754	0.5251													
Hexachlorobutadiene		0.1666	0.1733	0.1802	0.1707	Ave		0.1800			0.0100	5.2		20.0			
	0.1811	0.1848	0.1879	0.1950													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,2,3-Trichlorobenzene		0.2855	0.2872	0.2941	0.2876	Ave		0.3003				5.1		20.0			
	0.2994	0.3078	0.3114	0.3292													
Caprolactam		0.0853	0.1000	0.1025	0.1104	Ave		0.1086			0.0100	11.0		20.0			
	0.1184	0.1197	0.1171	0.1154													
4-Chloro-3-methylphenol		0.3150	0.3151	0.3273	0.3251	Ave		0.3361			0.2000	6.3		20.0			
	0.3366	0.3440	0.3464	0.3794													
2-Methylnaphthalene	0.6319	0.5823	0.5772	0.6018	0.5813	Ave		0.6107			0.4000	5.0		20.0			
	0.6059	0.6145	0.6301	0.6717													
1-Methylnaphthalene	0.7709	0.6686	0.6497	0.6819	0.6689	Ave		0.7047				6.6		20.0			
	0.6970	0.7048	0.7150	0.7852													
2,4-Dinitrophenol		+++++	0.1259	0.1828	0.2152	Qua	-0.123	0.2059	0.0021		0.0100				0.9990		0.9900
	0.2476	0.2677	0.2807	0.3118													
4-Nitrophenol		+++++	0.1461	0.2159	0.2187	Ave		0.2007				16.0		20.0			
	0.1781	0.1844	0.2199	0.2419													
1,2,3,5-Tetrachlorobenzene		0.5141	0.5062	0.5306	0.5176	Ave		0.5496				7.6		20.0			
	0.5470	0.5730	0.5813	0.6271													
Hexachlorocyclopentadiene		0.3247	0.3274	0.3820	0.3723	Ave		0.3872			0.0500	12.0		20.0			
	0.3983	0.4185	0.4222	0.4523													
2,4,6-Trichlorophenol		0.3316	0.3429	0.3558	0.3490	Ave		0.3644			0.2000	6.6		20.0			
	0.3710	0.3770	0.3819	0.4061													
2,4,5-Trichlorophenol		0.3798	0.3742	0.3864	0.3726	Ave		0.3923			0.2000	5.4		20.0			
	0.3928	0.3865	0.4107	0.4358													
2,4-Toluene diamine		0.2746	0.3124	0.3197	0.2646	Ave		0.2574				18.0		20.0			
	0.2639	0.2208	0.2070	0.1966													
1,1'-Biphenyl	1.6193	1.4884	1.4432	1.5276	1.4746	Ave		1.6042			0.0100	8.8		20.0			
	1.6083	1.6741	1.7157	1.8869													
1,2,3,4 -Tetrachlorobenzene		0.5080	0.5053	0.5148	0.5007	Ave		0.5387				7.8		20.0			
	0.5322	0.5564	0.5694	0.6227													
2-Chloronaphthalene	1.2910	1.0896	1.1088	1.1217	1.0691	Ave		1.1457			0.8000	6.3		20.0			
	1.1062	1.1433	1.1445	1.2375													
2-Nitroaniline		0.4159	0.4385	0.4648	0.4549	Ave		0.4598			0.0100	5.4		20.0			
	0.4716	0.4598	0.4751	0.4981													
Dimethyl phthalate		1.2659	1.2421	1.3343	1.2733	Ave		1.3220			0.0100	4.6		20.0			
	1.3272	1.3564	1.3463	1.4308													
2,6-Dinitrotoluene		0.2533	0.2571	0.2867	0.2834	Ave		0.2888				8.5		20.0			
	0.2954	0.3032	0.3042	0.3269													
1,2-Dinitrobenzene		0.1251	0.1299	0.1456	0.1414	Ave		0.1448				8.5		20.0			
	0.1492	0.1541	0.1512	0.1618													
Acenaphthylene	2.0165	1.8279	1.7901	1.8514	1.7914	Ave		1.8970			0.9000	5.3		20.0			
	1.8643	1.9206	1.9304	2.0802													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
3-Nitroaniline		0.3050	0.3062	0.3423	0.3347	Ave		0.3397			0.0100	7.1		20.0			
	0.3510	0.3518	0.3503	0.3762													
Acenaphthene	1.2798	1.1784	1.1510	1.1949	1.1442	Ave		1.2314			0.9000	7.3		20.0			
	1.1974	1.2112	1.2974	1.4280													
2,4-Dinitrotoluene		0.3331	0.3639	0.3924	0.3921	Ave		0.3940			0.2000	8.3		20.0			
	0.4106	0.4155	0.4066	0.4375													
Dibenzofuran	1.8779	1.5931	1.5978	1.6189	1.5293	Ave		1.6584			0.8000	6.6		20.0			
	1.6255	1.6363	1.6507	1.7958													
2,3,5,6-Tetrachlorophenol		0.2938	0.2746	0.3014	0.3086	Ave		0.3217				10.0		20.0			
	0.3317	0.3390	0.3446	0.3797													
Diethyl phthalate		1.3205	1.3305	1.3899	1.3470	Ave		1.3757			0.0100	5.4		20.0			
	1.3522	1.3611	1.3515	1.5525													
4-Chlorophenyl phenyl ether		0.5986	0.6015	0.6278	0.6062	Ave		0.6355			0.4000	6.3		20.0			
	0.6339	0.6469	0.6465	0.7225													
4-Nitroaniline		0.3135	0.3416	0.3612	0.3651	Ave		0.3758			0.0100	11.0		20.0			
	0.3845	0.3992	0.3944	0.4471													
Fluorene	1.4546	1.2747	1.3115	1.3561	1.3211	Ave		1.3916			0.9000	6.8		20.0			
	1.3853	1.4175	1.4109	1.5930													
4,6-Dinitro-2-methylphenol		0.0856	0.0975	0.1241	0.1337	Qua	-0.035	0.1405	0.0013		0.0100				0.9990		0.9900
	0.1575	0.1575	0.1600	0.1727													
N-Nitrosodiphenylamine		0.5453	0.5584	0.5782	0.5499	Ave		0.5818			0.0100	5.7		20.0			
	0.5866	0.5894	0.5989	0.6479													
1,2-Diphenylhydrazine(as Azobenzene)		0.8869	0.8405	0.9066	0.8894	Ave		0.8778				5.9		20.0			
	0.8349	0.8269	0.8336	0.9794													
Azobenzene		0.8980	0.8529	0.9060	0.8908	Ave		0.8778				5.9		20.0			
	0.8349	0.8270	0.8337	0.9794													
4-Bromophenyl phenyl ether		0.2014	0.1912	0.1991	0.2012	Ave		0.2073			0.1000	5.8		20.0			
	0.2099	0.2096	0.2151	0.2306													
Hexachlorobenzene	0.2477	0.1884	0.2012	0.2007	0.1992	Ave		0.2080			0.1000	8.7		20.0			
	0.2002	0.2027	0.2043	0.2276													
Atrazine		0.1983	0.2052	0.2222	0.2135	Ave		0.2123			0.0100	3.9		20.0			
	0.2228	0.2147	0.2090	0.2124													
Pentachlorophenol		0.1232	0.1110	0.1279	0.1438	Ave		0.1429			0.0500	15.0		20.0			
	0.1528	0.1530	0.1557	0.1755													
Phenanthrene	1.3196	1.1404	1.1494	1.1487	1.1169	Ave		1.1759			0.7000	5.4		20.0			
	1.1510	1.1464	1.1687	1.2420													
Anthracene	1.3180	1.1170	1.1414	1.1648	1.1117	Ave		1.1858			0.7000	5.7		20.0			
	1.1807	1.1897	1.1851	1.2641													
Carbazole		1.0299	1.0665	1.0839	1.0350	Ave		1.0830			0.0100	4.0		20.0			
	1.0850	1.0938	1.1027	1.1674													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Di-n-butyl phthalate		1.3062	1.2900	1.3380	1.2903	Ave		1.3419			0.0100	3.5		20.0			
	1.3581	1.3584	1.3641	1.4300													
Fluoranthene	1.3251	1.1554	1.1677	1.1780	1.1453	Ave		1.2112			0.6000	5.1		20.0			
	1.2054	1.2120	1.2156	1.2962													
Benzidine		0.5175	0.6099	0.6869	0.6879	Ave		0.6571				9.7		20.0			
	0.7087	0.6677	0.6970	0.6809													
Pyrene	1.3129	1.1210	1.1026	1.1277	1.1156	Ave		1.1411			0.6000	5.9		20.0			
	1.1049	1.1028	1.1214	1.1608													
Butyl benzyl phthalate		0.6974	0.7533	0.5352	0.5232	Ave		0.5787			0.0100	16.0		20.0			
	0.5221	0.5181	0.5262	0.5541													
3,3'-Dimethoxybenzidine		0.2018	0.2390	0.2487	0.2462	Ave		0.2416				7.4		20.0			
	0.2639	0.2489	0.2455	0.2385													
Bis(2-ethylhexyl) phthalate		0.7149	0.7112	0.7607	0.7642	Ave		0.7514			0.0100	3.7		20.0			
	0.7536	0.7474	0.7622	0.7969													
4,4'-Methylene bis(2-chloroaniline)		0.1994	0.1998	0.2195	0.2164	Ave		0.2172				5.7		20.0			
	0.2197	0.2215	0.2247	0.2367													
3,3'-Dichlorobenzidine		0.3922	0.3880	0.4125	0.4132	Ave		0.4175			0.0100	5.0		20.0			
	0.4229	0.4264	0.4337	0.4514													
Benzo[a]anthracene	1.3248	1.0712	1.0896	1.0981	1.0769	Ave		1.1160			0.8000	7.3		20.0			
	1.0756	1.0782	1.0906	1.1389													
Chrysene	1.2087	1.0328	1.0369	1.0697	1.0322	Ave		1.0631			0.7000	5.6		20.0			
	1.0257	1.0180	1.0452	1.0984													
Di-n-octyl phthalate		1.4007	1.3184	1.4616	1.4699	Ave		1.4722			0.0100	5.8		20.0			
	1.4857	1.5054	1.5309	1.6050													
Benzo[b]fluoranthene	1.3108	1.1722	1.2747	1.2664	1.2327	Ave		1.2882			0.7000	7.5		20.0			
	1.2255	1.3036	1.2890	1.5191													
Benzo[k]fluoranthene	1.4909	1.2695	1.1798	1.2817	1.2401	Ave		1.2885			0.7000	6.7		20.0			
	1.3193	1.2706	1.2998	1.2450													
Benzo[a]pyrene	1.2912	1.0900	1.1350	1.1501	1.1435	Ave		1.1782			0.7000	5.3		20.0			
	1.1706	1.1793	1.1853	1.2584													
Indeno[1,2,3-cd]pyrene	1.4352	1.1466	1.2350	1.2668	1.2573	Ave		1.2871			0.5000	6.2		20.0			
	1.2897	1.2911	1.2993	1.3632													
Dibenzo(a,h)anthracene	1.1437	1.0114	1.0396	1.0735	1.0583	Ave		1.0904			0.4000	4.6		20.0			
	1.1042	1.1043	1.1101	1.1689													
Benzo[g,h,i]perylene	1.1334	0.9948	1.0011	1.0513	1.0290	Ave		1.0570			0.5000	4.6		20.0			
	1.0580	1.0607	1.0567	1.1283													
2-Fluorophenol (Surr)		1.2268	1.1572	1.2309	1.1224	Ave		1.1886				3.0		20.0			
	1.1868	1.1850	1.1902	1.2095													
Phenol-d5 (Surr)		1.6180	1.6158	1.6936	1.5821	Ave		1.6594				4.7		20.0			
	1.6170	1.6486	1.6700	1.8302													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Nitrobenzene-d5 (Surr)	0.4928 0.4386	0.4244 0.4119	0.4255 0.4452	0.4503 0.4700	0.4280	Ave		0.4430				5.7		20.0			
2-Fluorobiphenyl (Surr)	1.4318 1.2975	1.2830 1.3185	1.2819 1.3449	1.2995 1.4297	1.2558	Ave		1.3269				4.8		20.0			
2,4,6-Tribromophenol (Surr)	 0.1586	0.1431 0.1596	0.1381 0.1615	0.1436 0.1831	0.1519	Ave		0.1549				9.2		20.0			
Terphenyl-d14 (Surr)	0.7665 0.6757	0.6727 0.6812	0.6601 0.6912	0.7075 0.7178	0.6752	Ave		0.6942				4.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-7270/6	0706006.D
Level 2	STD2 240-7270/5	0706005.D
Level 3	STD3 240-7270/4	0706004.D
Level 4	STD4 240-7270/3	0706003.D
Level 5	STD5 240-7270/2	0706002.D
Level 6	STD6 240-7270/10	0706010.D
Level 7	STD7 240-7270/9	0706009.D
Level 8	STD8 240-7270/8	0706008.D
Level 9	STD9 240-7270/7	0706007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	161069	9239 257813	12928 304762	33250 337358	67037	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	278970	13429 449178	24902 535988	55347 632277	116808	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	461590	19923 747624	39400 916188	91430 1090044	197877	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Ethyl methacrylate	DCB	Ave	395196	19517 634931	34935 758977	77441 823595	164014	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Chloropropionitrile	DCB	Ave	339002	18261 557659	31397 676110	67860 803041	143945	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Malononitrile	DCB	Ave	552644	30340 898269	49381 1082094	109958 1273257	249527	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Qua	603601	+++++ 998201	+++++ 1275141	69219 1901522	233170	20.0	+++++ 30.0	+++++ 40.0	4.00 50.0	10.0
Benzaldehyde	DCB	Ave	354112	21829 534846	36215 594383	81056 686771	178242	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol	DCB	Ave	568561	28287 945789	50316 1175247	115255 1526053	251998	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	764994	34988 1196995	63311 1481761	146003 2069958	314696	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	447710	23899 773629	42951 1040812	94766 1169859	205868	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	474975	23710 770557	41558 958075	92765 1215007	201368	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	492205	25096 806564	44147 987577	96420 1221768	211415	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	516706	24986 842901	44961 1035222	99140 1287750	220121	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Benzyl alcohol	DCB	Ave		14902	25974	57671	130246		0.500	1.00	2.00	5.00
			290001	500597	606620	807782		10.0	15.0	20.0	25.0	
1,2-Dichlorobenzene	DCB	Ave		23250	43612	93118	201711		0.500	1.00	2.00	5.00
			481907	806976	993203	1245321		10.0	15.0	20.0	25.0	
2-Methylphenol	DCB	Ave		20491	38282	83367	185672		0.500	1.00	2.00	5.00
			433032	724695	888567	1181780		10.0	15.0	20.0	25.0	
2,2'-oxybis[1-chloropropane]	DCB	Ave		51872	86434	200570	439999		0.500	1.00	2.00	5.00
			851867	1663721	2117167	2678740		10.0	15.0	20.0	25.0	
3 & 4 Methylphenol	DCB	Ave		22234	38845	86367	194114		0.500	1.00	2.00	5.00
			460713	754293	926552	1216975		10.0	15.0	20.0	25.0	
N-Nitrosodi-n-propylamine	DCB	Ave		18697	34130	76269	169545		0.500	1.00	2.00	5.00
			390913	659159	818294	1100636		10.0	15.0	20.0	25.0	
Acetophenone	DCB	Ave		33300	57539	127770	281272		0.500	1.00	2.00	5.00
			655299	1091916	1360944	1823913		10.0	15.0	20.0	25.0	
Hexachloroethane	DCB	Ave		9661	17194	38658	81142		0.500	1.00	2.00	5.00
			199054	327176	398280	493454		10.0	15.0	20.0	25.0	
Nitrobenzene	NPT	Ave		26690	46600	104713	232212		0.500	1.00	2.00	5.00
			529577	880298	1087730	1447321		10.0	15.0	20.0	25.0	
Isophorone	NPT	Ave		47127	85313	190094	422096		0.500	1.00	2.00	5.00
			974408	1606959	2018404	2671938		10.0	15.0	20.0	25.0	
2,4-Dimethylphenol	NPT	Ave		24541	44847	100060	224158		0.500	1.00	2.00	5.00
			527926	882382	1114343	1505755		10.0	15.0	20.0	25.0	
2-Nitrophenol	NPT	Ave		11136	21670	49224	112955		0.500	1.00	2.00	5.00
			269437	461654	580300	779065		10.0	15.0	20.0	25.0	
1,3,5-Trichlorobenzene	NPT	Ave		20663	36237	80995	179711		0.500	1.00	2.00	5.00
			426538	722690	890646	1175166		10.0	15.0	20.0	25.0	
Bis(2-chloroethoxy)methane	NPT	Ave		26615	47832	106564	229939		0.500	1.00	2.00	5.00
			549761	899839	1125483	1469935		10.0	15.0	20.0	25.0	
2,4-Dichlorophenol	NPT	Ave		16782	31965	72152	159781		0.500	1.00	2.00	5.00
			374918	625691	762671	1035124		10.0	15.0	20.0	25.0	
1,2,4-Trichlorobenzene	NPT	Ave		20711	36343	79421	179520		0.500	1.00	2.00	5.00
			414362	700206	846835	1121426		10.0	15.0	20.0	25.0	
Naphthalene	NPT	Ave	12424	71074	122018	274545	603800	0.100	0.500	1.00	2.00	5.00
			1391205	2353792	2918980	3851478		10.0	15.0	20.0	25.0	
4-Chloroaniline	NPT	Ave		29732	50190	119429	267960		0.500	1.00	2.00	5.00
			584527	979440	1238275	1706350		10.0	15.0	20.0	25.0	
Hexachlorobutadiene	NPT	Ave		10941	20273	45301	98667		0.500	1.00	2.00	5.00
			235079	393649	489412	633689		10.0	15.0	20.0	25.0	
1,2,3-Trichlorobenzene	NPT	Ave		18744	33592	73920	166196		0.500	1.00	2.00	5.00
			388592	655611	811157	1069885		10.0	15.0	20.0	25.0	
Caprolactam	NPT	Ave		5599	11704	25758	63824		0.500	1.00	2.00	5.00
			153679	254916	304951	374992		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chloro-3-methylphenol	NPT	Ave		20684	36867	82272	187872		0.500	1.00	2.00	5.00
			436826	732618	902102	1232914		10.0	15.0	20.0	25.0	
2-Methylnaphthalene	NPT	Ave	7007	38233	67521	151268	335926	0.100	0.500	1.00	2.00	5.00
			786303	1308774	1641137	2182868		10.0	15.0	20.0	25.0	
1-Methylnaphthalene	NPT	Ave	8548	43901	75998	171401	386551	0.100	0.500	1.00	2.00	5.00
			904573	1501058	1862150	2551677		10.0	15.0	20.0	25.0	
2,4-Dinitrophenol	ANT	Qua		+++++	16667	52531	144523		+++++	2.00	4.00	10.0
			374718	667452	871325	1220980		20.0	30.0	40.0	50.0	
4-Nitrophenol	ANT	Ave		+++++	9671	31013	73444		+++++	1.00	2.00	5.00
			134733	229860	341427	473595		10.0	15.0	20.0	25.0	
1,2,3,5-Tetrachlorobenzene	ANT	Ave		19325	33507	76221	173854		0.500	1.00	2.00	5.00
			413889	714335	902395	1227967		10.0	15.0	20.0	25.0	
Hexachlorocyclopentadiene	ANT	Ave		12203	21670	54881	125045		0.500	1.00	2.00	5.00
			301401	521665	655385	885729		10.0	15.0	20.0	25.0	
2,4,6-Trichlorophenol	ANT	Ave		12466	22702	51114	117220		0.500	1.00	2.00	5.00
			280731	469980	592825	795126		10.0	15.0	20.0	25.0	
2,4,5-Trichlorophenol	ANT	Ave		14275	24773	55505	125123		0.500	1.00	2.00	5.00
			297173	481847	637516	853310		10.0	15.0	20.0	25.0	
2,4-Toluene diamine	NPT	Ave		18028	36542	80360	152919		0.500	1.00	2.00	5.00
			342444	470306	539242	638924		10.0	15.0	20.0	25.0	
1,1'-Biphenyl	ANT	Ave	10175	55944	95539	219446	495260	0.100	0.500	1.00	2.00	5.00
			1216907	2086938	2663348	3694983		10.0	15.0	20.0	25.0	
1,2,3,4 -Tetrachlorobenzene	ANT	Ave		19093	33453	73951	168154		0.500	1.00	2.00	5.00
			402679	693626	883877	1219319		10.0	15.0	20.0	25.0	
2-Chloronaphthalene	ANT	Ave	8112	40957	73401	161139	359077	0.100	0.500	1.00	2.00	5.00
			836961	1425221	1776650	2423335		10.0	15.0	20.0	25.0	
2-Nitroaniline	ANT	Ave		15631	29027	66771	152778		0.500	1.00	2.00	5.00
			356803	573254	737509	975297		10.0	15.0	20.0	25.0	
Dimethyl phthalate	ANT	Ave		47584	82227	191678	427657		0.500	1.00	2.00	5.00
			1004238	1690863	2089843	2801738		10.0	15.0	20.0	25.0	
2,6-Dinitrotoluene	ANT	Ave		9521	17021	41190	95172		0.500	1.00	2.00	5.00
			223543	378014	472248	640105		10.0	15.0	20.0	25.0	
1,2-Dinitrobenzene	ANT	Ave		4703	8600	20918	47500		0.500	1.00	2.00	5.00
			112911	192052	234653	316891		10.0	15.0	20.0	25.0	
Acenaphthylene	ANT	Ave	12671	68708	118499	265955	601644	0.100	0.500	1.00	2.00	5.00
			1410600	2394293	2996519	4073380		10.0	15.0	20.0	25.0	
3-Nitroaniline	ANT	Ave		11464	20270	49177	112424		0.500	1.00	2.00	5.00
			265600	438503	543816	736761		10.0	15.0	20.0	25.0	
Acenaphthene	ANT	Ave	8042	44294	76193	171653	384300	0.100	0.500	1.00	2.00	5.00
			906017	1509885	2013982	2796213		10.0	15.0	20.0	25.0	
2,4-Dinitrotoluene	ANT	Ave		12520	24088	56376	131691		0.500	1.00	2.00	5.00
			310642	517947	631244	856785		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Dibenzofuran	ANT	Ave	11800 1229894	59882 2039823	105768 2562375	232563 3516491	513630	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,5,6-Tetrachlorophenol	ANT	Ave	 250990	11044 422612	18179 534993	43294 743443	103652	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	 1023133	49636 1696780	88078 2097966	199666 3040008	452391	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chlorophenyl phenyl ether	ANT	Ave	 479626	22500 806416	39818 1003530	90183 1414791	203581	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	 290905	11784 497608	22613 612172	51884 875545	122610	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	9140 1048164	47913 1767118	86816 2190210	194803 3119422	443682	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Qua	 205826	5362 341808	10723 427697	30116 589120	76833	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodiphenylamine	PHN	Ave	 766501	34143 1279479	61440 1601349	140315 2210308	315929	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	 1090895	55535 1794886	92479 2229022	220026 3341150	510990	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	 1090943	56232 1795184	93845 2229114	219863 3341300	511819	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	 274295	12614 455075	21043 575225	48311 786759	115569	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	2627 261586	11797 439891	22137 546131	48700 776468	114463	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	 291180	12420 465960	22580 558772	53936 724676	122644	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pentachlorophenol	PHN	Ave	 399419	15433 664130	24427 832563	62093 1197753	165217	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Phenanthrene	PHN	Ave	13995 1503949	71407 2488568	126477 3125013	278765 4236979	641678	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	13978 1542756	69943 2582439	125593 3168682	282682 4312367	638691	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	 1417716	64491 2374311	117350 2948352	263039 3982421	594636	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	 1774514	81795 2948600	141940 3647446	324709 4878441	741321	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	14053 1574969	72347 2630875	128484 3250373	285882 4422011	658014	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzidine	CRY	Ave	 1090693	36158 1714502	75312 2189331	185286 2764362	435205	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyrene	CRY	Ave	15252 1700366	78320 2831814	136161 3522561	304201 4713034	705762	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 Calibration End Date: 07/06/2011 12:10 Calibration ID: 2192

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Butyl benzyl phthalate	CRY	Ave		48723	93018	144386	331011		0.500	1.00	2.00	5.00
			803525	1330335	1652993	2249723		10.0	15.0	20.0	25.0	
3,3'-Dimethoxybenzidine	CRY	Ave		14099	29509	67076	155742		0.500	1.00	2.00	5.00
			406171	639097	771305	968519		10.0	15.0	20.0	25.0	
Bis(2-ethylhexyl) phthalate	CRY	Ave		49949	87826	205203	483469		0.500	1.00	2.00	5.00
			1159700	1919077	2394281	3235363		10.0	15.0	20.0	25.0	
4,4'-Methylene bis(2-chloroaniline)	CRY	Ave		13929	24678	59202	136927		0.500	1.00	2.00	5.00
			338077	568783	705904	961139		10.0	15.0	20.0	25.0	
3,3'-Dichlorobenzidine	CRY	Ave		27404	47908	111277	261408		0.500	1.00	2.00	5.00
			650810	1094970	1362280	1832809		10.0	15.0	20.0	25.0	
Benzo[a]anthracene	CRY	Ave	15391	74843	134548	296206	681270	0.100	0.500	1.00	2.00	5.00
			1655321	2768526	3426023	4624011		10.0	15.0	20.0	25.0	
Chrysene	CRY	Ave	14042	72157	128040	288565	653047	0.100	0.500	1.00	2.00	5.00
			1578444	2613842	3283257	4459463		10.0	15.0	20.0	25.0	
Di-n-octyl phthalate	PRY	Ave		82867	140856	337607	793377		0.500	1.00	2.00	5.00
			1929607	3235241	4043308	5439854		10.0	15.0	20.0	25.0	
Benzo[b]fluoranthene	PRY	Ave	13099	69349	136188	292520	665337	0.100	0.500	1.00	2.00	5.00
			1591696	2801516	3404516	5148628		10.0	15.0	20.0	25.0	
Benzo[k]fluoranthene	PRY	Ave	14899	75108	126050	296053	669347	0.100	0.500	1.00	2.00	5.00
			1713473	2730634	3433015	4219547		10.0	15.0	20.0	25.0	
Benzo[a]pyrene	PRY	Ave	12903	64485	121265	265659	617181	0.100	0.500	1.00	2.00	5.00
			1520283	2534450	3130662	4265132		10.0	15.0	20.0	25.0	
Indeno[1,2,3-cd]pyrene	PRY	Ave	14342	67834	131947	292616	678584	0.100	0.500	1.00	2.00	5.00
			1675011	2774659	3431599	4620227		10.0	15.0	20.0	25.0	
Dibenzo(a,h)anthracene	PRY	Ave	11429	59835	111069	247973	571187	0.100	0.500	1.00	2.00	5.00
			1434127	2373244	2931846	3961778		10.0	15.0	20.0	25.0	
Benzo[g,h,i]perylene	PRY	Ave	11326	58856	106956	242850	555372	0.100	0.500	1.00	2.00	5.00
			1374140	2279442	2790950	3824030		10.0	15.0	20.0	25.0	
2-Fluorophenol (Surr)	DCB	Ave		20517	34498	78608	168278		0.500	1.00	2.00	5.00
			401385	654403	785982	955253		10.0	15.0	20.0	25.0	
Phenol-d5 (Surr)	DCB	Ave		27060	48169	108156	237202		0.500	1.00	2.00	5.00
			546883	910414	1102889	1445455		10.0	15.0	20.0	25.0	
Nitrobenzene-d5 (Surr)	NPT	Ave	5464	27865	49771	113177	247375	0.100	0.500	1.00	2.00	5.00
			569238	877126	1159611	1527484		10.0	15.0	20.0	25.0	
2-Fluorobiphenyl (Surr)	ANT	Ave	8997	48224	84856	186676	421756	0.100	0.500	1.00	2.00	5.00
			981728	1643653	2087723	2799575		10.0	15.0	20.0	25.0	
2,4,6-Tribromophenol (Surr)	ANT	Ave		5379	9142	20624	51022		0.500	1.00	2.00	5.00
			119995	199007	250679	358479		10.0	15.0	20.0	25.0	
Terphenyl-d14 (Surr)	CRY	Ave	8905	46997	81516	190844	427185	0.100	0.500	1.00	2.00	5.00
			1039795	1749019	2171365	2914267		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton | Job No.: 240-820-1 | Analy Batch No.: 7270

SDG No.:

Instrument ID: A4HP7 | GC Column: RXI-5SILMS ID: 0.45(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 07/06/2011 09:41 | Calibration End Date: 07/06/2011 12:10 | Calibration ID: 2192

Curve Type Legend:
Ave = Average ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-7270/13 Calibration Date: 07/06/2011 12:28

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0706011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.4732	0.4562		9.64	10.0	-3.6	30.0
N-Nitrosodimethylamine	Ave	0.8168	0.8050		9.86	10.0	-1.4	30.0
Pyridine	Ave	1.344	1.338		9.95	10.0	-0.5	30.0
Ethyl methacrylate	Ave	1.144	1.134		9.91	10.0	-0.9	30.0
3-Chloropropionitrile	Ave	1.028	0.9839		9.58	10.0	-4.2	30.0
Malononitrile	Ave	1.671	1.576		9.43	10.0	-5.7	30.0
Benzaldehyde	Ave	1.095	1.041	0.0100	9.50	10.0	-5.0	30.0
Phenol	Ave	1.746	1.638	0.8000	9.38	10.0	-6.2	30.0
Aniline	Ave	2.237	2.021		9.04	10.0	-9.6	30.0
Bis(2-chloroethyl)ether	Ave	1.439	1.475	0.7000	10.3	10.0	2.5	30.0
2-Chlorophenol	Ave	1.425	1.369	0.8000	9.61	10.0	-3.9	30.0
1,3-Dichlorobenzene	Ave	1.482	1.440		9.71	10.0	-2.9	30.0
1,4-Dichlorobenzene	Ave	1.534	1.477		9.63	10.0	-3.7	30.0
Benzyl alcohol	Ave	0.9049	0.8304		9.18	10.0	-8.2	30.0
1,2-Dichlorobenzene	Ave	1.453	1.385		9.53	10.0	-4.7	30.0
2-Methylphenol	Ave	1.311	1.260	0.7000	9.61	10.0	-3.9	30.0
2,2'-oxybis[1-chloropropane]	Ave	3.026	2.448		8.09	10.0	-19.1	30.0
3 & 4 Methylphenol	Ave	1.369	1.282		9.37	10.0	-6.3	30.0
N-Nitrosodi-n-propylamine	Ave	1.196	1.058	0.5000	8.85	10.0	-11.5	30.0
Acetophenone	Ave	2.010	1.821	0.0100	9.06	10.0	-9.4	30.0
Hexachloroethane	Ave	0.5887	0.5407	0.3000	9.18	10.0	-8.2	30.0
Nitrobenzene	Ave	0.4135	0.3797	0.2000	9.18	10.0	-8.2	30.0
Isophorone	Ave	0.7545	0.7117	0.4000	9.43	10.0	-5.7	30.0
2,4-Dimethylphenol	Ave	0.4069	0.3834	0.2000	9.42	10.0	-5.8	30.0
2-Nitrophenol	Ave	0.2041	0.1986	0.1000	9.73	10.0	-2.7	30.0
1,3,5-Trichlorobenzene	Ave	0.3287	0.3186		9.69	10.0	-3.1	30.0
Bis(2-chloroethoxy)methane	Ave	0.4208	0.4026	0.3000	9.57	10.0	-4.3	30.0
Benzoic acid	Qua		0.2317		21.6	20.0	8.0	30.0
2,4-Dichlorophenol	Ave	0.2858	0.2834	0.2000	9.92	10.0	-0.8	30.0
1,2,4-Trichlorobenzene	Ave	0.3214	0.3095		9.63	10.0	-3.7	30.0
Naphthalene	Ave	1.096	1.074	0.7000	9.80	10.0	-2.0	30.0
4-Chloroaniline	Ave	0.4664	0.4459	0.0100	9.56	10.0	-4.4	30.0
Hexachlorobutadiene	Ave	0.1800	0.1772	0.0100	9.84	10.0	-1.6	30.0
1,2,3-Trichlorobenzene	Ave	0.3003	0.2917		9.71	10.0	-2.9	30.0
Caprolactam	Ave	0.1086	0.1163	0.0100	10.7	10.0	7.1	30.0
4-Chloro-3-methylphenol	Ave	0.3361	0.3325	0.2000	9.89	10.0	-1.1	30.0
2-Methylnaphthalene	Ave	0.6107	0.5864	0.4000	9.60	10.0	-4.0	30.0
1-Methylnaphthalene	Ave	0.7047	0.6789		9.63	10.0	-3.7	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5496	0.5356		9.74	10.0	-2.6	30.0
Hexachlorocyclopentadiene	Ave	0.3872	0.3856	0.0500	9.96	10.0	-0.4	30.0
2,4,6-Trichlorophenol	Ave	0.3644	0.3621	0.2000	9.94	10.0	-0.6	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-7270/13 Calibration Date: 07/06/2011 12:28

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0706011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3923	0.3874	0.2000	9.87	10.0	-1.3	30.0
2,4-Toluene diamine	Ave	0.2574	0.2501		9.71	10.0	-2.9	30.0
1,1'-Biphenyl	Ave	1.604	1.577	0.0100	9.83	10.0	-1.7	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5387	0.5271		9.78	10.0	-2.2	30.0
2-Chloronaphthalene	Ave	1.146	1.099	0.8000	9.59	10.0	-4.1	30.0
2-Nitroaniline	Ave	0.4598	0.4604	0.0100	10.0	10.0	0.1	30.0
Dimethyl phthalate	Ave	1.322	1.316	0.0100	9.96	10.0	-0.4	30.0
2,6-Dinitrotoluene	Ave	0.2888	0.2919		10.1	10.0	1.1	30.0
1,2-Dinitrobenzene	Ave	0.1448	0.1447		10.0	10.0	-0.0	30.0
Acenaphthylene	Ave	1.897	1.848	0.9000	9.74	10.0	-2.6	30.0
3-Nitroaniline	Ave	0.3397	0.3445	0.0100	10.1	10.0	1.4	30.0
2,4-Dinitrophenol	Qua		0.2545	0.0100	20.9	20.0	4.5	30.0
Acenaphthene	Ave	1.231	1.194	0.9000	9.70	10.0	-3.0	30.0
4-Nitrophenol	Ave	0.2007	0.2026		10.1	10.0	1.0	30.0
2,4-Dinitrotoluene	Ave	0.3940	0.3984	0.2000	10.1	10.0	1.1	30.0
Dibenzofuran	Ave	1.658	1.574	0.8000	9.49	10.0	-5.1	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3217	0.3209		9.97	10.0	-0.3	30.0
Diethyl phthalate	Ave	1.376	1.368	0.0100	9.95	10.0	-0.5	30.0
4-Chlorophenyl phenyl ether	Ave	0.6355	0.6277	0.4000	9.88	10.0	-1.2	30.0
4-Nitroaniline	Ave	0.3758	0.3819	0.0100	10.2	10.0	1.6	30.0
Fluorene	Ave	1.392	1.365	0.9000	9.81	10.0	-1.9	30.0
4,6-Dinitro-2-methylphenol	Qua		0.1475	0.0100	9.86	10.0	-1.4	30.0
N-Nitrosodiphenylamine	Ave	0.5818	0.5779	0.0100	9.93	10.0	-0.7	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.8778	0.9021		10.3	10.0	2.8	30.0
Azobenzene	Ave	0.8778	0.9023		10.3	10.0	2.8	30.0
4-Bromophenyl phenyl ether	Ave	0.2073	0.2061	0.1000	9.94	10.0	-0.6	30.0
Hexachlorobenzene	Ave	0.2080	0.2012	0.1000	9.67	10.0	-3.3	30.0
Atrazine	Ave	0.2123	0.2190	0.0100	10.3	10.0	3.2	30.0
Pentachlorophenol	Ave	0.1429	0.1502	0.0500	21.0	20.0	5.1	30.0
Phenanthrene	Ave	1.176	1.127	0.7000	9.58	10.0	-4.2	30.0
Anthracene	Ave	1.186	1.153	0.7000	9.72	10.0	-2.8	30.0
Carbazole	Ave	1.083	1.066	0.0100	9.84	10.0	-1.6	30.0
Di-n-butyl phthalate	Ave	1.342	1.338	0.0100	9.97	10.0	-0.3	30.0
Fluoranthene	Ave	1.211	1.187	0.6000	9.80	10.0	-2.0	30.0
Benzidine	Ave	0.6571	0.6625		10.1	10.0	0.8	30.0
Pyrene	Ave	1.141	1.090	0.6000	9.55	10.0	-4.5	30.0
Butyl benzyl phthalate	Ave	0.5787	0.5504	0.0100	9.51	10.0	-4.9	30.0
3,3'-Dimethoxybenzidine	Ave	0.2416	0.2454		10.2	10.0	1.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.7514	0.7386	0.0100	9.83	10.0	-1.7	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2172	0.2150		9.90	10.0	-1.0	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-7270/13 Calibration Date: 07/06/2011 12:28

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0706011.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4175	0.4240	0.0100	10.2	10.0	1.5	30.0
Benzo[a]anthracene	Ave	1.116	1.045	0.8000	9.37	10.0	-6.3	30.0
Chrysene	Ave	1.063	1.027	0.7000	9.66	10.0	-3.4	30.0
Di-n-octyl phthalate	Ave	1.472	1.480	0.0100	10.1	10.0	0.5	30.0
Benzo[b]fluoranthene	Ave	1.288	1.294	0.7000	10.0	10.0	0.4	30.0
Benzo[k]fluoranthene	Ave	1.289	1.252	0.7000	9.72	10.0	-2.8	30.0
Benzo[a]pyrene	Ave	1.178	1.171	0.7000	9.94	10.0	-0.6	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.287	1.268	0.5000	9.85	10.0	-1.5	30.0
Dibenzo(a,h)anthracene	Ave	1.090	1.080	0.4000	9.90	10.0	-1.0	30.0
Benzo[g,h,i]perylene	Ave	1.057	1.040	0.5000	9.84	10.0	-1.6	30.0
2-Fluorophenol (Surr)	Ave	1.189	1.169		9.84	10.0	-1.6	30.0
Phenol-d5 (Surr)	Ave	1.659	1.574		9.48	10.0	-5.2	30.0
Nitrobenzene-d5 (Surr)	Ave	0.4430	0.4045		9.13	10.0	-8.7	30.0
2-Fluorobiphenyl (Surr)	Ave	1.327	1.261		9.50	10.0	-5.0	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1549	0.1550		10.0	10.0	0.0	30.0
Terphenyl-d14 (Surr)	Ave	0.6942	0.6722		9.68	10.0	-3.2	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab File ID: 0714001.D DFTPP Injection Date: 07/14/2011

Instrument ID: A4HP7 DFTPP Injection Time: 08:45

Analysis Batch No.: 8375

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	49.5	
68	Less than 2.0% of mass 69	0.8	(1.8)1
69	Mass 69 relative abundance	42.9	
70	Less than 2.0% of mass 69	0.2	(0.5)1
127	25.0 - 75.0% of mass 198	51.9	
197	Less than 1.0% of mass 198	0.4	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	26.3	
365	Greater than 0.75% of mass 198	2.8	
441	Present, but less than mass 443	9.9	
442	40.0 - 110.0% of mass 198	70.5	
443	15.0 - 24.0% of mass 442	13.3	(18.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-8375/2	0714002.D	07/14/2011	09:03
	CCV 240-8375/3	0714003.D	07/14/2011	09:22
	CCV 240-8375/4	0714004.D	07/14/2011	09:40
	MB 240-4859/23-A	0714005.D	07/14/2011	09:58
	LCS 240-4859/24-A	0714006.D	07/14/2011	10:16
GSP-SB-126-8-10	240-820-11	0714012.D	07/14/2011	12:05
GSP-SB-124-6-8	240-820-8	0714013.D	07/14/2011	12:23
GSP-SB-127-6-8	240-820-14	0714014.D	07/14/2011	12:42
GSP-SB-130-6-8	240-820-17	0714015.D	07/14/2011	13:00
GSP-SB-126-0-2	240-820-10	0714019.D	07/14/2011	13:18
GSP-SB-127-0-2	240-820-13	0714020.D	07/14/2011	13:54
GSP-SB-124-0-2	240-820-7	0714036.D	07/14/2011	18:27
GSP-SB-130-0-2	240-820-16	0714037.D	07/14/2011	18:45

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-8375/2 Calibration Date: 07/14/2011 09:03

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0714002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.4732	0.4874		10.3	10.0	3.0	20.0
N-Nitrosodimethylamine	Ave	0.8168	0.8910		10.9	10.0	9.1	20.0
Pyridine	Ave	1.344	1.445		10.8	10.0	7.5	20.0
Ethyl methacrylate	Ave	1.144	1.212		10.6	10.0	5.9	20.0
3-Chloropropionitrile	Ave	1.028	1.095		10.7	10.0	6.6	20.0
Malononitrile	Ave	1.671	1.765		10.6	10.0	5.6	20.0
Benzaldehyde	Ave	1.095	0.8502	0.0100	7.76	10.0	-22.4*	20.0
Phenol	Ave	1.746	1.782	0.8000	10.2	10.0	2.1	20.0
Aniline	Ave	2.237	2.250		10.1	10.0	0.6	20.0
Bis(2-chloroethyl)ether	Ave	1.439	1.528	0.7000	10.6	10.0	6.2	20.0
2-Chlorophenol	Ave	1.425	1.447	0.8000	10.2	10.0	1.6	20.0
1,3-Dichlorobenzene	Ave	1.482	1.523		10.3	10.0	2.7	20.0
1,4-Dichlorobenzene	Ave	1.534	1.586		10.3	10.0	3.4	20.0
Benzyl alcohol	Ave	0.9049	0.5593		6.18	10.0	-38.2*	20.0
1,2-Dichlorobenzene	Ave	1.453	1.478		10.2	10.0	1.7	20.0
2-Methylphenol	Ave	1.311	1.512	0.7000	11.5	10.0	15.4	20.0
2,2'-oxybis[1-chloropropane]	Ave	3.026	2.758		9.11	10.0	-8.9	20.0
3 & 4 Methylphenol	Ave	1.369	1.444		10.6	10.0	5.5	20.0
N-Nitrosodi-n-propylamine	Ave	1.196	1.160	0.5000	9.70	10.0	-3.0	20.0
Acetophenone	Ave	2.010	2.037	0.0100	10.1	10.0	1.3	20.0
Hexachloroethane	Ave	0.5887	0.5811	0.3000	9.87	10.0	-1.3	20.0
Nitrobenzene	Ave	0.4135	0.4051	0.2000	9.80	10.0	-2.0	20.0
Isophorone	Ave	0.7545	0.7563	0.4000	10.0	10.0	0.2	20.0
2-Nitrophenol	Ave	0.2041	0.2162	0.1000	10.6	10.0	5.9	20.0
2,4-Dimethylphenol	Ave	0.4069	0.3996	0.2000	9.82	10.0	-1.8	20.0
1,3,5-Trichlorobenzene	Ave	0.3287	0.3517		10.7	10.0	7.0	20.0
Bis(2-chloroethoxy)methane	Ave	0.4208	0.4350	0.3000	10.3	10.0	3.4	20.0
Benzoic acid	Qua		0.2178		20.5	20.0	2.5	20.0
2,4-Dichlorophenol	Ave	0.2858	0.3072	0.2000	10.7	10.0	7.5	20.0
1,2,4-Trichlorobenzene	Ave	0.3214	0.3348		10.4	10.0	4.2	20.0
Naphthalene	Ave	1.096	1.109	0.7000	10.1	10.0	1.2	20.0
4-Chloroaniline	Ave	0.4664	0.4865	0.0100	10.4	10.0	4.3	20.0
Hexachlorobutadiene	Ave	0.1800	0.1858	0.0100	10.3	10.0	3.2	20.0
1,2,3-Trichlorobenzene	Ave	0.3003	0.3154		10.5	10.0	5.0	20.0
Caprolactam	Ave	0.1086	0.1263	0.0100	11.6	10.0	16.3	20.0
4-Chloro-3-methylphenol	Ave	0.3361	0.3346	0.2000	9.96	10.0	-0.4	20.0
2-Methylnaphthalene	Ave	0.6107	0.6357	0.4000	10.4	10.0	4.1	20.0
1-Methylnaphthalene	Ave	0.7047	0.7229		10.3	10.0	2.6	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5496	0.5685		10.3	10.0	3.4	20.0
Hexachlorocyclopentadiene	Ave	0.3872	0.3710	0.0500	9.58	10.0	-4.2	20.0
2,4,6-Trichlorophenol	Ave	0.3644	0.3695	0.2000	10.1	10.0	1.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-8375/2 Calibration Date: 07/14/2011 09:03

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0714002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3923	0.4137	0.2000	10.5	10.0	5.4	20.0
2,4-Toluene diamine	Ave	0.2574	0.1829		7.10	10.0	-29.0*	20.0
1,1'-Biphenyl	Ave	1.604	1.636	0.0100	10.2	10.0	2.0	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.5387	0.5534		10.3	10.0	2.7	20.0
2-Chloronaphthalene	Ave	1.146	1.176	0.8000	10.3	10.0	2.7	20.0
2-Nitroaniline	Ave	0.4598	0.4276	0.0100	9.30	10.0	-7.0	20.0
Dimethyl phthalate	Ave	1.322	1.371	0.0100	10.4	10.0	3.7	20.0
2,6-Dinitrotoluene	Ave	0.2888	0.3172		11.0	10.0	9.8	20.0
1,2-Dinitrobenzene	Ave	0.1448	0.1626		11.2	10.0	12.3	20.0
Acenaphthylene	Ave	1.897	1.986	0.9000	10.5	10.0	4.7	20.0
3-Nitroaniline	Ave	0.3397	0.3660	0.0100	10.8	10.0	7.7	20.0
2,4-Dinitrophenol	Qua		0.2560	0.0100	21.0	20.0	5.0	20.0
Acenaphthene	Ave	1.231	1.250	0.9000	10.1	10.0	1.5	20.0
4-Nitrophenol	Ave	0.2007	0.1965		9.79	10.0	-2.1	20.0
2,4-Dinitrotoluene	Ave	0.3940	0.4263	0.2000	10.8	10.0	8.2	20.0
Dibenzofuran	Ave	1.658	1.660	0.8000	10.0	10.0	0.1	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3217	0.3159		9.82	10.0	-1.8	20.0
Diethyl phthalate	Ave	1.376	1.414	0.0100	10.3	10.0	2.8	20.0
4-Chlorophenyl phenyl ether	Ave	0.6355	0.6680	0.4000	10.5	10.0	5.1	20.0
Fluorene	Ave	1.392	1.436	0.9000	10.3	10.0	3.2	20.0
4-Nitroaniline	Ave	0.3758	0.4044	0.0100	10.8	10.0	7.6	20.0
4,6-Dinitro-2-methylphenol	Qua		0.1605	0.0100	10.6	10.0	6.0	20.0
N-Nitrosodiphenylamine	Ave	0.5818	0.6094	0.0100	10.5	10.0	4.7	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	0.8778	0.8496		9.68	10.0	-3.2	20.0
Azobenzene	Ave	0.8778	0.8498		9.68	10.0	-3.2	20.0
4-Bromophenyl phenyl ether	Ave	0.2073	0.2178	0.1000	10.5	10.0	5.1	20.0
Hexachlorobenzene	Ave	0.2080	0.2144	0.1000	10.3	10.0	3.1	20.0
Atrazine	Ave	0.2123	0.2199	0.0100	10.4	10.0	3.6	20.0
Pentachlorophenol	Ave	0.1429	0.1424	0.0500	19.9	20.0	-0.4	20.0
Phenanthrene	Ave	1.176	1.195	0.7000	10.2	10.0	1.7	20.0
Anthracene	Ave	1.186	1.229	0.7000	10.4	10.0	3.6	20.0
Carbazole	Ave	1.083	1.139	0.0100	10.5	10.0	5.1	20.0
Di-n-butyl phthalate	Ave	1.342	1.407	0.0100	10.5	10.0	4.8	20.0
Fluoranthene	Ave	1.211	1.269	0.6000	10.5	10.0	4.8	20.0
Benzidine	Ave	0.6571	0.7258		11.0	10.0	10.5	20.0
Pyrene	Ave	1.141	1.189	0.6000	10.4	10.0	4.2	20.0
Butyl benzyl phthalate	Ave	0.5787	0.5902	0.0100	10.2	10.0	2.0	20.0
3,3'-Dimethoxybenzidine	Ave	0.2416	0.2969		12.3	10.0	22.9*	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.7514	0.8261	0.0100	11.0	10.0	9.9	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2172	0.2382		11.0	10.0	9.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-8375/2 Calibration Date: 07/14/2011 09:03

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0714002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4175	0.4593	0.0100	11.0	10.0	10.0	20.0
Benzo[a]anthracene	Ave	1.116	1.156	0.8000	10.4	10.0	3.6	20.0
Chrysene	Ave	1.063	1.136	0.7000	10.7	10.0	6.9	20.0
Di-n-octyl phthalate	Ave	1.472	1.603	0.0100	10.9	10.0	8.9	20.0
Benzo[b]fluoranthene	Ave	1.288	1.444	0.7000	11.2	10.0	12.1	20.0
Benzo[k]fluoranthene	Ave	1.289	1.316	0.7000	10.2	10.0	2.1	20.0
Benzo[a]pyrene	Ave	1.178	1.255	0.7000	10.7	10.0	6.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.287	1.412	0.5000	11.0	10.0	9.7	20.0
Dibenzo(a,h)anthracene	Ave	1.090	1.207	0.4000	11.1	10.0	10.7	20.0
Benzo[g,h,i]perylene	Ave	1.057	1.156	0.5000	10.9	10.0	9.3	20.0
2-Fluorophenol (Surr)	Ave	1.189	1.248		10.5	10.0	5.0	20.0
Phenol-d5 (Surr)	Ave	1.659	1.709		10.3	10.0	3.0	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4430	0.3955		8.93	10.0	-10.7	20.0
2-Fluorobiphenyl (Surr)	Ave	1.327	1.360		10.2	10.0	2.5	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1549	0.1513		9.77	10.0	-2.3	20.0
Terphenyl-d14 (Surr)	Ave	0.6942	0.7369		10.6	10.0	6.1	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab File ID: 0714005.D Lab Sample ID: MB 240-4859/23-A

Matrix: Solid Date Extracted: 06/15/2011 11:06

Instrument ID: A4HP7 Date Analyzed: 07/14/2011 09:58

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-4859/24-A	0714006.D	07/14/2011 10:16
GSP-SB-126-8-10	240-820-11	0714012.D	07/14/2011 12:05
GSP-SB-124-6-8	240-820-8	0714013.D	07/14/2011 12:23
GSP-SB-127-6-8	240-820-14	0714014.D	07/14/2011 12:42
GSP-SB-130-6-8	240-820-17	0714015.D	07/14/2011 13:00
GSP-SB-126-0-2	240-820-10	0714019.D	07/14/2011 13:18
GSP-SB-127-0-2	240-820-13	0714020.D	07/14/2011 13:54
GSP-SB-124-0-2	240-820-7	0714036.D	07/14/2011 18:27
GSP-SB-130-0-2	240-820-16	0714037.D	07/14/2011 18:45

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-820-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-4859/23-A
Matrix: Solid
Lab File ID: 0714005.D
Analysis Method: 8270D
Date Collected:
Extract. Method: 3540C
Date Extracted: 06/15/2011 11:06
Sample wt/vol: 30.00(g)
Date Analyzed: 07/14/2011 09:58
Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 8375
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	50	U	50	27
123-91-1	1,4-Dioxane	100	U	100	22
88-06-2	2,4,6-Trichlorophenol	150	U	150	80
95-95-4	2,4,5-Trichlorophenol	150	U	150	25
120-83-2	2,4-Dichlorophenol	150	U	150	20
105-67-9	2,4-Dimethylphenol	150	U	150	20
51-28-5	2,4-Dinitrophenol	330	U	330	80
121-14-2	2,4-Dinitrotoluene	200	U	200	27
91-58-7	2-Chloronaphthalene	50	U	50	3.3
95-57-8	2-Chlorophenol	50	U	50	27
91-57-6	2-Methylnaphthalene	6.7	U	6.7	3.3
95-48-7	2-Methylphenol	200	U	200	80
88-74-4	2-Nitroaniline	200	U	200	9.1
88-75-5	2-Nitrophenol	50	U	50	27
15831-10-4	3 & 4 Methylphenol	400	U	400	20
91-94-1	3,3'-Dichlorobenzidine	100	U	100	18
99-09-2	3-Nitroaniline	200	U	200	16
534-52-1	4,6-Dinitro-2-methylphenol	150	U	150	80
101-55-3	4-Bromophenyl phenyl ether	50	U	50	13
59-50-7	4-Chloro-3-methylphenol	150	U	150	21
106-47-8	4-Chloroaniline	150	U	150	17
7005-72-3	4-Chlorophenyl phenyl ether	50	U	50	13
100-01-6	4-Nitroaniline	200	U	200	26
83-32-9	Acenaphthene	6.7	U	6.7	3.3
208-96-8	Acenaphthylene	6.7	U	6.7	3.3
98-86-2	Acetophenone	100	U	100	9.2
120-12-7	Anthracene	6.7	U	6.7	3.3
1912-24-9	Atrazine	200	U	200	9.1
100-52-7	Benzaldehyde	100	U	100	12
56-55-3	Benzo[a]anthracene	6.7	U	6.7	3.3
50-32-8	Benzo[a]pyrene	6.7	U	6.7	3.3
205-99-2	Benzo[b]fluoranthene	6.7	U	6.7	3.3
191-24-2	Benzo[g,h,i]perylene	6.7	U	6.7	3.3
207-08-9	Benzo[k]fluoranthene	6.7	U	6.7	3.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4859/23-A

Matrix: Solid | Lab File ID: 0714005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.00(g) | Date Analyzed: 07/14/2011 09:58

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	100	U	100	22
111-44-4	Bis(2-chloroethyl)ether	100	U	100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	50	U	50	19
85-68-7	Butyl benzyl phthalate	50	U	50	10
105-60-2	Caprolactam	330	U	330	37
86-74-8	Carbazole	50	U	50	27
218-01-9	Chrysene	6.7	U	6.7	1.1
84-74-2	Di-n-butyl phthalate	50	U	50	15
117-84-0	Di-n-octyl phthalate	50	U	50	27
53-70-3	Dibenzo(a,h)anthracene	6.7	U	6.7	3.3
132-64-9	Dibenzofuran	50	U	50	3.3
84-66-2	Diethyl phthalate	50	U	50	16
131-11-3	Dimethyl phthalate	50	U	50	17
206-44-0	Fluoranthene	6.7	U	6.7	3.3
86-73-7	Fluorene	6.7	U	6.7	3.3
118-74-1	Hexachlorobenzene	6.7	U	6.7	2.1
87-68-3	Hexachlorobutadiene	50	U	50	27
77-47-4	Hexachlorocyclopentadiene	330	U	330	27
67-72-1	Hexachloroethane	50	U	50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	6.7	U	6.7	3.3
78-59-1	Isophorone	50	U	50	13
621-64-7	N-Nitrosodi-n-propylamine	50	U	50	27
62-75-9	N-Nitrosodimethylamine	100	U	100	16
86-30-6	N-Nitrosodiphenylamine	50	U	50	21
91-20-3	Naphthalene	6.7	U	6.7	3.3
98-95-3	Nitrobenzene	100	U	100	2.2
87-86-5	Pentachlorophenol	150	U	150	80
85-01-8	Phenanthrene	6.7	U	6.7	3.3
108-95-2	Phenol	50	U	50	27
129-00-0	Pyrene	6.7	U	6.7	3.3
108-60-1	2,2'-oxybis[1-chloropropane]	100	U	100	9.5
606-20-2	2,6-Dinitrotoluene	200	U	200	21
100-02-7	4-Nitrophenol	330	U	330	80

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4859/23-A

Matrix: Solid | Lab File ID: 0714005.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.00(g) | Date Analyzed: 07/14/2011 09:58

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	68		41-119
4165-62-2	Phenol-d5 (Surr)	54		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	45		24-112
367-12-4	2-Fluorophenol (Surr)	59		26-110
321-60-8	2-Fluorobiphenyl (Surr)	49		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	42		10-118

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0714006.D

Lab ID: LCS 240-4859/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	667	310	46	50-130	*
1,4-Dioxane	667	178	27	10-110	
2,4,6-Trichlorophenol	667	337	51	37-110	
2,4,5-Trichlorophenol	667	387	58	42-110	
2,4-Dichlorophenol	667	369	55	40-110	
2,4-Dimethylphenol	667	233	35	28-110	
2,4-Dinitrophenol	667	331	50	10-110	
2,4-Dinitrotoluene	667	422	63	55-116	
2-Chloronaphthalene	667	332	50	46-110	
2-Chlorophenol	667	341	51	39-110	
2-Methylnaphthalene	667	409	61	46-110	
2-Methylphenol	667	404	61	36-110	
2-Nitroaniline	667	330	49	47-124	
2-Nitrophenol	667	336	50	35-110	
3 & 4 Methylphenol	1330	720	54	40-110	
3,3'-Dichlorobenzidine	667	283	42	31-110	
3-Nitroaniline	667	358	54	44-110	
4,6-Dinitro-2-methylphenol	667	387	58	21-110	
4-Bromophenyl phenyl ether	667	397	59	53-112	
4-Chloro-3-methylphenol	667	367	55	42-110	
4-Chloroaniline	667	283	42	25-110	
4-Chlorophenyl phenyl ether	667	378	57	53-110	
4-Nitroaniline	667	373	56	50-110	
Acenaphthene	667	326	49	46-110	
Acenaphthylene	667	343	51	47-110	
Acetophenone	667	330	49	50-130	*
Anthracene	667	380	57	56-111	
Atrazine	667	434	65	50-130	
Benzaldehyde	667	357	54	10-130	
Benzo[a]anthracene	667	399	60	58-111	
Benzo[a]pyrene	667	349	52	44-115	
Benzo[b]fluoranthene	667	387	58	43-124	
Benzo[g,h,i]perylene	667	432	65	44-120	
Benzo[k]fluoranthene	667	411	62	38-122	
Bis(2-chloroethoxy)methane	667	336	50	42-110	
Bis(2-chloroethyl)ether	667	339	51	41-110	
Bis(2-ethylhexyl) phthalate	667	431	65	56-123	
Butyl benzyl phthalate	667	369	55	57-121	*
Caprolactam	667	441	66	50-130	
Carbazole	667	395	59	56-115	
Chrysene	667	401	60	56-111	
Di-n-butyl phthalate	667	415	62	57-119	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 0714006.D

Lab ID: LCS 240-4859/24-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	667	411	62	45-123	
Dibenzo(a,h)anthracene	667	429	64	45-122	
Dibenzofuran	667	346	52	50-110	
Diethyl phthalate	667	387	58	55-114	
Dimethyl phthalate	667	381	57	54-112	
Fluoranthene	667	412	62	55-118	
Fluorene	667	361	54	51-110	
Hexachlorobenzene	667	379	57	51-110	
Hexachlorobutadiene	667	329	49	39-110	
Hexachlorocyclopentadiene	667	240 J	36	10-110	
Hexachloroethane	667	305	46	38-110	
Indeno[1,2,3-cd]pyrene	667	422	63	45-121	
Isophorone	667	325	49	46-117	
N-Nitrosodi-n-propylamine	667	320	48	40-114	
N-Nitrosodimethylamine	667	350	52	10-130	
N-Nitrosodiphenylamine	667	373	56	54-112	
Naphthalene	667	327	49	42-110	
Nitrobenzene	667	322	48	40-110	
Pentachlorophenol	667	262	39	10-110	
Phenanthrene	667	376	56	54-110	
Phenol	667	358	54	39-110	
Pyrene	667	387	58	58-113	
2,2'-oxybis[1-chloropropane]	667	294	44	36-116	
2,6-Dinitrotoluene	667	412	62	54-115	
4-Nitrophenol	667	365	55	24-117	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab File ID: 9DF0625.D DFTPP Injection Date: 06/25/2011

Instrument ID: A4HP9 DFTPP Injection Time: 10:36

Analysis Batch No.: 6131

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.0	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	63.6	
70	Less than 2.0% of mass 69	0.2	(0.2)1
127	25.0 - 75.0% of mass 198	55.3	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.4	
275	10.0- 30.0% of mass 198	25.8	
365	Greater than 0.75% of mass 198	3.5	
441	Present, but less than mass 443	13.8	
442	40.0 - 110.0% of mass 198	86.4	
443	15.0 - 24.0% of mass 442	15.8	(18.3)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-6131/5	9SMH0625.D	06/25/2011	10:53
	STD5 240-6131/6	9SMM0625.D	06/25/2011	11:13
	STD4 240-6131/7	9SM0625.D	06/25/2011	11:33
	STD3 240-6131/8	9SML0625.D	06/25/2011	11:52
	STD2 240-6131/9	9SL0625.D	06/25/2011	12:12
	STD1 240-6131/10	9SLL0625.D	06/25/2011	12:31
	STD7 240-6131/4	9SH0625.D	06/25/2011	13:05
	STD8 240-6131/3	9SHH0625.D	06/25/2011	13:24
	STD9 240-6131/2	9HHH0625.D	06/25/2011	13:43
	ICV 240-6131/11	9TCLICV.D	06/25/2011	14:03

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6131/10	9SLL0625.D
Level 2	STD2 240-6131/9	9SL0625.D
Level 3	STD3 240-6131/8	9SML0625.D
Level 4	STD4 240-6131/7	9SM0625.D
Level 5	STD5 240-6131/6	9SMM0625.D
Level 6	STD6 240-6131/5	9SMH0625.D
Level 7	STD7 240-6131/4	9SH0625.D
Level 8	STD8 240-6131/3	9SHH0625.D
Level 9	STD9 240-6131/2	9HHH0625.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,4-Dioxane		0.8560	0.8337	0.8909	0.8098	Ave		0.8138				5.4		20.0			
	0.7953	0.7930	0.7548	0.7769													
N-Nitrosodimethylamine		1.5042	1.5350	1.5528	1.4994	Ave		1.4862				3.1		20.0			
	1.4539	1.4569	1.4084	1.4786													
Pyridine		2.3892	2.2358	2.4903	2.2632	Ave		2.3314				3.6		20.0			
	2.3007	2.3281	2.2633	2.3803													
Ethyl methacrylate		2.1120	2.0835	2.1465	1.9741	Ave		2.0109				4.5		20.0			
	1.9580	1.9493	1.8858	1.9782													
3-Chloropropionitrile		0.8717	0.8655	0.8657	0.8107	Ave		0.8257				4.4		20.0			
	0.7997	0.7919	0.7836	0.8164													
Malononitrile		2.4341	2.4742	2.6427	2.4957	Ave		2.4549				3.6		20.0			
	2.4434	2.4145	2.3433	2.3918													
Benzaldehyde		2.0014	1.8459	1.9677	1.7004	Qua	0.1616	1.9023	-0.057		0.0100				0.9990		0.9900
	1.3149	1.0605	+++++														
Phenol		2.5904	2.5946	2.6114	2.4650	Ave		2.5137			0.8000	3.0		20.0			
	2.4693	2.4418	2.4265	2.5102													
Aniline		3.2547	3.1592	3.3132	3.1131	Ave		3.2041				3.2		20.0			
	3.1147	3.1316	3.1566	3.3897													
Bis(2-chloroethyl)ether		2.1075	2.0635	2.0723	1.9633	Ave		1.9749			0.7000	4.7		20.0			
	1.8892	1.9143	1.8802	1.9085													
2-Chlorophenol		1.4258	1.4801	1.5480	1.4228	Ave		1.4295			0.8000	4.1		20.0			
	1.4044	1.3916	1.3587	1.4047													
1,3-Dichlorobenzene		1.4839	1.4304	1.4712	1.3654	Ave		1.3797				5.3		20.0			
	1.3174	1.3198	1.2959	1.3536													
1,4-Dichlorobenzene		1.4752	1.4926	1.4902	1.4116	Ave		1.4163				4.3		20.0			
	1.3680	1.3589	1.3432	1.3906													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Benzyl alcohol		1.1622	1.0989	1.1599	1.1307	Ave		1.1257				2.3		20.0			
	1.1075	1.1149	1.0948	1.1372													
1,2-Dichlorobenzene		1.4094	1.3476	1.3814	1.2718	Ave		1.2932				5.8		20.0			
	1.2364	1.2327	1.2116	1.2543													
2-Methylphenol		1.6792	1.6454	1.6975	1.5685	Ave		1.6018			0.7000	4.0		20.0			
	1.5645	1.5418	1.5310	1.5866													
2,2'-oxybis[1-chloropropane]		1.8444	1.7601	1.8180	1.6928	Ave		1.7024				5.6		20.0			
	1.6566	1.6114	1.5929	1.6428													
3 & 4 Methylphenol		1.7052	1.7198	1.7443	1.6762	Ave		1.6703				3.0		20.0			
	1.6329	1.6210	1.6056	1.6572													
N-Nitrosodi-n-propylamine		1.6219	1.6799	1.7254	1.6162	Ave		1.5782			0.5000	6.3		20.0			
	1.5584	1.4938	1.4581	1.4715													
Acetophenone		2.4368	2.4041	2.4680	2.3105	Ave		2.2881			0.0100	5.8		20.0			
	2.2020	2.1754	2.1351	2.1730													
Hexachloroethane		0.6163	0.6514	0.6662	0.6304	Ave		0.6203			0.3000	4.4		20.0			
	0.6067	0.5974	0.5849	0.6088													
Nitrobenzene		0.6395	0.6234	0.6280	0.5906	Ave		0.6057			0.2000	3.7		20.0			
	0.5917	0.5880	0.5761	0.6083													
Isophorone		1.1094	1.1091	1.1421	1.0805	Ave		1.1002			0.4000	2.4		20.0			
	1.0864	1.0782	1.0674	1.1287													
2-Nitrophenol		0.1867	0.1915	0.1941	0.1946	Ave		0.1885			0.1000	2.6		20.0			
	0.1903	0.1855	0.1812	0.1839													
2,4-Dimethylphenol		0.4525	0.4702	0.4803	0.4504	Ave		0.4428			0.2000	5.9		20.0			
	0.4425	0.4269	0.4096	0.4104													
1,3,5-Trichlorobenzene		0.2942	0.3027	0.2991	0.2864	Ave		0.2827				5.2		20.0			
	0.2720	0.2725	0.2637	0.2710													
Bis(2-chloroethoxy)methane		0.6046	0.6068	0.6114	0.5806	Ave		0.5796			0.3000	4.4		20.0			
	0.5643	0.5550	0.5437	0.5705													
Benzoic acid		0.0909	0.1271	0.1722	0.2668	Qua	-0.250	0.2731	0.0016						0.9980		0.9900
	0.3085	0.3153	0.3141	0.3521													
2,4-Dichlorophenol		0.2459	0.2632	0.2867	0.2649	Ave		0.2643			0.2000	4.3		20.0			
	0.2652	0.2637	0.2583	0.2669													
1,2,4-Trichlorobenzene		0.3013	0.2970	0.3007	0.2871	Ave		0.2885				3.5		20.0			
	0.2777	0.2817	0.2765	0.2862													
Naphthalene	1.2945	1.1449	1.1364	1.1326	1.0807	Ave		1.1090			0.7000	7.6		20.0			
	1.0810	1.0730	1.0432	0.9943													
4-Chloroaniline		0.4627	0.4765	0.5139	0.4706	Ave		0.4709			0.0100	4.8		20.0			
	0.4783	0.4453	0.4425	0.4778													
Hexachlorobutadiene		0.1655	0.1627	0.1652	0.1584	Ave		0.1598			0.0100	3.0		20.0			
	0.1527	0.1579	0.1540	0.1616													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,2,3-Trichlorobenzene		0.2864	0.2718	0.2833	0.2637	Ave		0.2701				3.7		20.0			
	0.2649	0.2646	0.2576	0.2688													
1,1'-Biphenyl	+++++	1.5463	1.5122	1.5347	1.4428	Ave		1.4584			0.0100	4.4		20.0			
	1.4207	1.3990	1.3796	1.4318													
2-Chloronaphthalene	+++++	1.1077	1.0977	1.1113	1.0394	Ave		1.0737			0.8000	2.7		20.0			
	1.0516	1.0622	1.0459	1.0734													
Caprolactam		0.1116	0.1340	0.1542	0.1503	Ave		0.1439			0.0100	10.0		20.0			
	0.1522	0.1477	0.1468	0.1542													
4-Chloro-3-methylphenol		0.3761	0.3903	0.3975	0.3925	Ave		0.3865			0.2000	2.2		20.0			
	0.3839	0.3827	0.3743	0.3946													
2-Methylnaphthalene	0.6370	0.5840	0.5612	0.5839	0.5679	Ave		0.5720			0.4000	4.9		20.0			
	0.5537	0.5535	0.5422	0.5645													
1-Methylnaphthalene	0.7121	0.6896	0.6399	0.6761	0.6433	Ave		0.6522				5.1		20.0			
	0.6301	0.6283	0.6111	0.6395													
1,2,3,5-Tetrachlorobenzene		0.5213	0.4882	0.5059	0.4799	Ave		0.4909				3.5		20.0			
	0.4701	0.4790	0.4818	0.5011													
Hexachlorocyclopentadiene		0.3050	0.3235	0.3358	0.3308	Ave		0.3328			0.0500	4.3		20.0			
	0.3381	0.3352	0.3386	0.3551													
2,4,6-Trichlorophenol		0.3303	0.3428	0.3760	0.3440	Ave		0.3515			0.2000	3.9		20.0			
	0.3612	0.3498	0.3580	0.3499													
Dibenzofuran	+++++	1.7252	1.6657	1.7307	1.5848	Ave		1.6457			0.8000	3.4		20.0			
	1.5993	1.6133	1.6095	1.6369													
2,4,5-Trichlorophenol		0.3220	0.3598	0.3828	0.3705	Ave		0.3656			0.2000	5.6		20.0			
	0.3581	0.3871	0.3678	0.3768													
~~2,4-Toluene diamine~~		0.3153	0.3410	0.3603	0.2914	Ave		0.3017				~~21.0~~ *		20.0			
	0.2004																
1,2,3,4 -Tetrachlorobenzene		0.5017	0.4864	0.4924	0.4453	Ave		0.4648				5.5		20.0			
	0.4389	0.4452	0.4416	0.4668													
2-Nitroaniline		0.5328	0.5404	0.5402	0.5319	Ave		0.5329			0.0100	1.3		20.0			
	0.5379	0.5250	0.5216	0.5334													
Dimethyl phthalate		1.3017	1.2503	1.2998	1.2215	Ave		1.2627			0.0100	2.2		20.0			
	1.2443	1.2499	1.2546	1.2798													
2,6-Dinitrotoluene		0.2637	0.2667	0.2772	0.2783	Ave		0.2778				3.1		20.0			
	0.2806	0.2821	0.2852	0.2884													
1,2-Dinitrobenzene		0.1413	0.1432	0.1570	0.1544	Ave		0.1542				5.1		20.0			
	0.1578	0.1576	0.1584	0.1639													
Acenaphthylene	2.1641	1.9461	1.9597	1.9662	1.8683	Ave		1.9318			0.9000	5.3		20.0			
	1.8937	1.9095	1.8876	1.7912													
3-Nitroaniline		0.3335	0.3379	0.3591	0.3504	Ave		0.3507			0.0100	2.8		20.0			
	0.3589	0.3529	0.3532	0.3600													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,4-Dinitrophenol		0.1066	0.1316	0.1769	0.2042	Qua	-0.231	0.2450	0		0.0100				1.0000		0.9900
	0.2362	0.2307	0.2327	0.2310													
Acenaphthene	1.4518	1.2539	1.2030	1.2200	1.1521	Ave		1.1829			0.9000	10.0		20.0			
	1.1276	1.0849	1.0633	1.0895													
4-Nitrophenol		0.1967	0.1979	0.2457	0.2591	Ave		0.2448				12.0		20.0			
	0.2704	0.2636	0.2618	0.2633													
2,4-Dinitrotoluene		0.3482	0.3694	0.3878	0.3702	Ave		0.3756			0.2000	3.7		20.0			
	0.3751	0.3788	0.3804	0.3950													
2,3,5,6-Tetrachlorophenol		0.2914	0.2908	0.3038	0.2993	Ave		0.3038				3.1		20.0			
	0.3096	0.3073	0.3101	0.3179													
Diethyl phthalate		1.3963	1.3467	1.3687	1.3146	Ave		1.3498			0.0100	2.0		20.0			
	1.3434	1.3354	1.3254	1.3679													
4-Chlorophenyl phenyl ether		0.6270	0.6327	0.6368	0.5964	Ave		0.6125			0.4000	2.8		20.0			
	0.6007	0.6027	0.5921	0.6120													
4-Nitroaniline		0.3473	0.3607	0.3962	0.3685	Ave		0.3627			0.0100	4.2		20.0			
	0.3667	0.3547	0.3504	0.3570													
Fluorene	1.4172	1.2884	1.3031	1.2750	1.2205	Ave		1.2604			0.9000	5.6		20.0			
	1.2254	1.1979	1.1893	1.2269													
4,6-Dinitro-2-methylphenol		0.0833	0.1071	0.1229	0.1379	Ave		0.1303			0.0100	19.0		20.0			
	0.1481	0.1458	0.1470	0.1505													
N-Nitrosodiphenylamine		0.5871	0.5968	0.5983	0.5716	Ave		0.5824			0.0100	2.2		20.0			
	0.5715	0.5712	0.5696	0.5929													
Azobenzene		1.3751	1.3937	1.4201	1.3575	Ave		1.3406				6.3		20.0			
	1.3876	1.3441	1.2908	1.1558													
4-Bromophenyl phenyl ether		0.1956	0.1986	0.1965	0.1846	Ave		0.1912			0.1000	2.8		20.0			
	0.1905	0.1859	0.1860	0.1919													
Hexachlorobenzene	0.2122	0.1866	0.1862	0.1889	0.1742	Ave		0.1851			0.1000	6.3		20.0			
	0.1781	0.1774	0.1750	0.1873													
Atrazine		0.1859	0.1980	0.2070	0.1963	Ave		0.1866			0.0100	7.8		20.0			
	0.1875	0.1824	0.1753	0.1604													
Pentachlorophenol		0.1163	0.1092	0.1228	0.1331	Ave		0.1317			0.0500	11.0		20.0			
	0.1400	0.1406	0.1396	0.1523													
Phenanthrene	1.2968	1.1263	1.0701	1.1269	1.0601	Ave		1.1002			0.7000	7.2		20.0			
	1.0580	1.0629	1.0501	1.0507													
Anthracene	1.1594	1.1377	1.1090	1.1348	1.0788	Ave		1.1021			0.7000	3.4		20.0			
	1.1002	1.0850	1.0751	1.0387													
Carbazole		1.0692	1.0952	1.1385	1.0743	Ave		1.0856			0.0100	2.2		20.0			
	1.0966	1.0706	1.0681	1.0723													
Di-n-butyl phthalate		1.3187	1.2973	1.3899	1.3279	Ave		1.3082			0.0100	6.1		20.0			
	1.3672	1.3324	1.3072	1.1254													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Fluoranthene	1.3293	1.1774	1.1741	1.1988	1.1411	Ave		1.1874			0.6000	4.9		20.0			
	1.1923	1.1689	1.1787	1.1259													
Benzidine		0.6364	0.6660	0.7033	0.7066	Ave		0.7031				5.1		20.0			
	0.7453	0.7115	0.7181	0.7378													
Pyrene	1.3903	1.2319	1.2422	1.2700	1.2171	Ave		1.2591			0.6000	4.1		20.0			
	1.2549	1.2410	1.2435	1.2412													
Butyl benzyl phthalate		0.5883	0.5544	0.5968	0.5858	Ave		0.5808			0.0100	2.6		20.0			
	0.5982	0.5720	0.5682	0.5826													
3,3'-Dimethoxybenzidine		0.2285	0.2622	0.2968	0.2842	Ave		0.2665				7.9		20.0			
	0.2826	0.2622	0.2591	0.2561													
Bis(2-ethylhexyl) phthalate		0.8238	0.8005	0.8235	0.8121	Ave		0.8071			0.0100	2.4		20.0			
	0.8300	0.7949	0.7710	0.8009													
4,4'-Methylene bis(2-chloroaniline)		0.1979	0.2036	0.2113	0.2144	Ave		0.2133				5.0		20.0			
	0.2165	0.2138	0.2148	0.2343													
3,3'-Dichlorobenzidine		0.4040	0.3987	0.4354	0.4132	Ave		0.4199			0.0100	3.7		20.0			
	0.4303	0.4142	0.4199	0.4432													
Benzo[a]anthracene	1.4265	1.2156	1.1774	1.2251	1.1588	Ave		1.2229			0.8000	6.7		20.0			
	1.1726	1.1978	1.1751	1.2577													
Chrysene	1.3026	1.1039	1.1329	1.1648	1.0509	Ave		1.1408			0.7000	6.2		20.0			
	1.1299	1.0968	1.1189	1.1666													
Di-n-octyl phthalate		1.4464	1.4591	1.5896	1.5771	Ave		1.5712			0.0100	5.0		20.0			
	1.6646	1.5917	1.5956	1.6451													
Benzo[b]fluoranthene	1.3325	1.2326	1.3287	1.4202	1.3542	Ave		1.3459			0.7000	4.2		20.0			
	1.4151	1.3306	1.3192	1.3796													
Benzo[k]fluoranthene	1.4532	1.2356	1.2173	1.2427	1.1584	Ave		1.2571			0.7000	7.4		20.0			
	1.1505	1.2518	1.2605	1.3444													
Benzo[a]pyrene	1.1924	1.1376	1.1499	1.1873	1.1240	Ave		1.1734			0.7000	3.0		20.0			
	1.1767	1.1796	1.1688	1.2440													
Indeno[1,2,3-cd]pyrene	1.2189	1.1723	1.2248	1.2809	1.2291	Ave		1.2648			0.5000	4.6		20.0			
	1.2990	1.2954	1.2950	1.3682													
Dibenzo(a,h)anthracene	1.0014	0.9224	0.9635	1.0459	1.0120	Ave		1.0297			0.4000	6.0		20.0			
	1.0761	1.0655	1.0581	1.1224													
Benzo[g,h,i]perylene	1.0262	1.0096	1.0192	1.0439	1.0182	Ave		1.0461			0.5000	3.2		20.0			
	1.0655	1.0576	1.0571	1.1178													
2-Fluorophenol (Surr)		1.5045	1.5928	1.6618	1.6081	Ave		1.5626				3.5		20.0			
	1.5327	1.5416	1.5083	1.5513													
Phenol-d5 (Surr)		2.2809	2.2422	2.2951	2.1422	Ave		2.1874				3.5		20.0			
	2.1466	2.1204	2.0887	2.1829													
Nitrobenzene-d5 (Surr)	0.7409	0.6136	0.6263	0.6399	0.6019	Ave		0.6185				8.2		20.0			
	0.6015	0.5922	0.5829	0.5671													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Fluorobiphenyl (Surr)	1.5275 1.2717	1.3583 1.2738	1.3482 1.2557	1.3325 1.3093	1.2503	Ave		1.3253				6.5		20.0			
2,4,6-Tribromophenol (Surr)	0.1401	0.1339 0.1466	0.1345 0.1439	0.1462 0.1550	0.1366	Ave		0.1421				5.1		20.0			
Terphenyl-d14 (Surr)	0.7575 0.7144	0.7411 0.7167	0.7084 0.7108	0.7240 0.7641	0.6811	Ave		0.7242				3.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-6131/10	9SLL0625.D
Level 2	STD2 240-6131/9	9SL0625.D
Level 3	STD3 240-6131/8	9SML0625.D
Level 4	STD4 240-6131/7	9SM0625.D
Level 5	STD5 240-6131/6	9SMM0625.D
Level 6	STD6 240-6131/5	9SMH0625.D
Level 7	STD7 240-6131/4	9SH0625.D
Level 8	STD8 240-6131/3	9SHH0625.D
Level 9	STD9 240-6131/2	9HHH0625.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE						CONCENTRATION (NG/UL)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	
			LVL 6	LVL 7	LVL 8	LVL 9			LVL 7	LVL 8	LVL 9		
1,4-Dioxane	DCB	Ave		26700	49218	102625	223391		0.500	1.00	2.00	5.00	
			481357	806241	1045805	1307118		10.0	15.0	20.0	25.0		
N-Nitrosodimethylamine	DCB	Ave		46919	90619	178872	413640		0.500	1.00	2.00	5.00	
			879982	1481219	1951441	2487853		10.0	15.0	20.0	25.0		
Pyridine	DCB	Ave		74525	131989	286856	624359		0.500	1.00	2.00	5.00	
			1392529	2367037	3135974	4005013		10.0	15.0	20.0	25.0		
Ethyl methacrylate	DCB	Ave		65880	122998	247253	544607		0.500	1.00	2.00	5.00	
			1185096	1981922	2612909	3328468		10.0	15.0	20.0	25.0		
3-Chloropropionitrile	DCB	Ave		27192	51093	99719	223646		0.500	1.00	2.00	5.00	
			484044	805120	1085738	1373626		10.0	15.0	20.0	25.0		
Malononitrile	DCB	Ave		75925	146060	304413	688479		0.500	1.00	2.00	5.00	
			1478877	2454900	3246743	4024273		10.0	15.0	20.0	25.0		
Benzaldehyde	DCB	Qua		62429	108973	226662	469082		0.500	1.00	2.00	5.00	
			795877	1078250	+++++			10.0	15.0	+++++			
Phenol	DCB	Ave		80803	153167	300807	680020		0.500	1.00	2.00	5.00	
			1494576	2482609	3362116	4223568		10.0	15.0	20.0	25.0		
Aniline	DCB	Ave		101522	186499	381650	858811		0.500	1.00	2.00	5.00	
			1885223	3184002	4373615	5703242		10.0	15.0	20.0	25.0		
Bis(2-chloroethyl)ether	DCB	Ave		65740	121815	238705	541628		0.500	1.00	2.00	5.00	
			1143460	1946317	2605103	3211203		10.0	15.0	20.0	25.0		
2-Chlorophenol	DCB	Ave		44474	87376	178320	392498		0.500	1.00	2.00	5.00	
			850047	1414882	1882588	2363379		10.0	15.0	20.0	25.0		
1,3-Dichlorobenzene	DCB	Ave		46287	84444	169467	376679		0.500	1.00	2.00	5.00	
			797338	1341844	1795606	2277491		10.0	15.0	20.0	25.0		
1,4-Dichlorobenzene	DCB	Ave		46015	88114	171656	389426		0.500	1.00	2.00	5.00	
			827973	1381637	1861084	2339795		10.0	15.0	20.0	25.0		
Benzyl alcohol	DCB	Ave		36252	64870	133604	311917		0.500	1.00	2.00	5.00	
			670305	1133498	1516923	1913313		10.0	15.0	20.0	25.0		

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,2-Dichlorobenzene	DCB	Ave		43963	79555	159122	350849		0.500	1.00	2.00	5.00
			748357	1253277	1678801	2110486		10.0	15.0	20.0	25.0	
2-Methylphenol	DCB	Ave		52378	97134	195537	432705		0.500	1.00	2.00	5.00
			946909	1567600	2121329	2669528		10.0	15.0	20.0	25.0	
2,2'-oxybis[1-chloropropane]	DCB	Ave		57531	103904	209421	466997		0.500	1.00	2.00	5.00
			1002645	1638310	2207051	2764124		10.0	15.0	20.0	25.0	
3 & 4 Methylphenol	DCB	Ave		53189	101529	200930	462417		0.500	1.00	2.00	5.00
			988304	1648164	2224631	2788249		10.0	15.0	20.0	25.0	
N-Nitrosodi-n-propylamine	DCB	Ave		50590	99174	198752	445861		0.500	1.00	2.00	5.00
			943230	1518760	2020340	2475884		10.0	15.0	20.0	25.0	
Acetophenone	DCB	Ave		76012	141924	284290	637400		0.500	1.00	2.00	5.00
			1332797	2211749	2958305	3656215		10.0	15.0	20.0	25.0	
Hexachloroethane	DCB	Ave		19225	38454	76737	173918		0.500	1.00	2.00	5.00
			367238	607365	810379	1024254		10.0	15.0	20.0	25.0	
Nitrobenzene	NPT	Ave		77497	140937	278472	622771		0.500	1.00	2.00	5.00
			1346790	2258534	3058146	3928733		10.0	15.0	20.0	25.0	
Isophorone	NPT	Ave		134446	250714	506429	1139266		0.500	1.00	2.00	5.00
			2472835	4141423	5666041	7289619		10.0	15.0	20.0	25.0	
2-Nitrophenol	NPT	Ave		22629	43286	86093	205166		0.500	1.00	2.00	5.00
			433231	712613	961867	1187803		10.0	15.0	20.0	25.0	
2,4-Dimethylphenol	NPT	Ave		54843	106300	212965	474861		0.500	1.00	2.00	5.00
			1007094	1639907	2174037	2650272		10.0	15.0	20.0	25.0	
1,3,5-Trichlorobenzene	NPT	Ave		35650	68425	132638	301993		0.500	1.00	2.00	5.00
			618986	1046662	1399575	1750512		10.0	15.0	20.0	25.0	
Bis(2-chloroethoxy)methane	NPT	Ave		73269	137164	271137	612197		0.500	1.00	2.00	5.00
			1284312	2131755	2886090	3684612		10.0	15.0	20.0	25.0	
Benzoic acid	NPT	Qua		22023	57487	152737	562612		1.00	2.00	4.00	10.0
			1404497	2422140	3335023	4548559		20.0	30.0	40.0	50.0	
2,4-Dichlorophenol	NPT	Ave		29797	59498	127144	279326		0.500	1.00	2.00	5.00
			603525	1012833	1370934	1723802		10.0	15.0	20.0	25.0	
1,2,4-Trichlorobenzene	NPT	Ave		36508	67140	133331	302733		0.500	1.00	2.00	5.00
			632081	1081959	1467719	1848637		10.0	15.0	20.0	25.0	
Naphthalene	NPT	Ave	30098	138751	256898	502214	1139493	0.100	0.500	1.00	2.00	5.00
			2460482	4121531	5537474	6421774		10.0	15.0	20.0	25.0	
4-Chloroaniline	NPT	Ave		56071	107708	227862	496157		0.500	1.00	2.00	5.00
			1088658	1710582	2348784	3085841		10.0	15.0	20.0	25.0	
Hexachlorobutadiene	NPT	Ave		20060	36789	73261	166984		0.500	1.00	2.00	5.00
			347578	606361	817696	1043978		10.0	15.0	20.0	25.0	
1,2,3-Trichlorobenzene	NPT	Ave		34704	61435	125616	278043		0.500	1.00	2.00	5.00
			602982	1016269	1367673	1735750		10.0	15.0	20.0	25.0	
1,1'-Biphenyl	ANT	Ave	+++++	101335	189196	378532	850269	+++++	0.500	1.00	2.00	5.00
			1775042	2940672	3989860	5203037		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
2-Chloronaphthalene	ANT	Ave	+++++ 1313955	72596 2232815	137341 3024724	274097 3900716	612535	+++++ 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	 346339	13525 567462	30286 779150	68386 996028	158525	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloro-3-methylphenol	NPT	Ave	 873834	45579 1469882	88221 1987122	176266 2548278	413881	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	14809 1260378	70779 2126130	126868 2878021	258940 3645564	598834	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1-Methylnaphthalene	NPT	Ave	16557 1434188	83571 2413521	144659 3243825	299816 4130006	678310	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,3,5-Tetrachlorobenzene	ANT	Ave	 587383	34164 1006853	61082 1393482	124775 1820943	282788	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	 422468	19990 704482	40473 979166	82835 1290421	194951	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	 451272	21647 735297	42890 1035301	92745 1271662	202719	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	+++++ 1998299	113060 3391226	208402 4654701	426874 5948388	933930	+++++ 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	 447451	21100 813697	45020 1063750	94416 1369345	218359	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Toluene diamine	NPT	Ave	 456134	38205	77081	159786	307253	 10.0	0.500	1.00	2.00	5.00
1,2,3,4 -Tetrachlorobenzene	ANT	Ave	 548339	32881 935730	60856 1277227	121441 1696156	262443	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	 672045	34915 1103480	67611 1508552	133252 1938351	313448	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	 1554714	85310 2627247	156429 3628374	320597 4650768	719838	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	 350655	17284 592869	33365 824787	68374 1048096	163981	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dinitrobenzene	ANT	Ave	 197120	9258 331183	17911 458169	38713 595552	91006	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	27563 2366113	127541 4013793	245186 5459006	484952 6508860	1100965	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	 448426	21858 741804	42276 1021470	88565 1308353	206513	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Qua	 590308	13970 969991	32940 1346037	87273 1678945	240699	 20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Acenaphthene	ANT	Ave	18490 1408916	82178 2280370	150518 3075030	300917 3958976	678907	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	 337860	12890 554107	24761 757091	60602 956783	152669	 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
2,4-Dinitrotoluene	ANT	Ave		22817	46223	95642	218157		0.500	1.00	2.00	5.00
			468686	796195	1100096	1435393		10.0	15.0	20.0	25.0	
2,3,5,6-Tetrachlorophenol	ANT	Ave		19097	36378	74943	176384		0.500	1.00	2.00	5.00
			386827	645988	896686	1155323		10.0	15.0	20.0	25.0	
Diethyl phthalate	ANT	Ave		91508	168500	337597	774694		0.500	1.00	2.00	5.00
			1678515	2807018	3832953	4970717		10.0	15.0	20.0	25.0	
4-Chlorophenyl phenyl ether	ANT	Ave		41089	79162	157064	351436		0.500	1.00	2.00	5.00
			750489	1266912	1712417	2223793		10.0	15.0	20.0	25.0	
4-Nitroaniline	ANT	Ave		22759	45125	97713	217159		0.500	1.00	2.00	5.00
			458128	745662	1013433	1297378		10.0	15.0	20.0	25.0	
Fluorene	ANT	Ave	18050	84435	163039	314472	719256	0.100	0.500	1.00	2.00	5.00
			1531131	2517885	3439274	4458552		10.0	15.0	20.0	25.0	
4,6-Dinitro-2-methylphenol	PHN	Ave		9411	22709	50895	138358		0.500	1.00	2.00	5.00
			312778	530141	745097	948169		10.0	15.0	20.0	25.0	
N-Nitrosodiphenylamine	PHN	Ave		66294	126517	247837	573662		0.500	1.00	2.00	5.00
			1206599	2076476	2886280	3735529		10.0	15.0	20.0	25.0	
Azobenzene	PHN	Ave		155259	295465	588277	1362350		0.500	1.00	2.00	5.00
			2929803	4885600	6540758	7281309		10.0	15.0	20.0	25.0	
4-Bromophenyl phenyl ether	PHN	Ave		22080	42092	81420	185285		0.500	1.00	2.00	5.00
			402213	675698	942343	1209074		10.0	15.0	20.0	25.0	
Hexachlorobenzene	PHN	Ave	4615	21074	39476	78256	174776	0.100	0.500	1.00	2.00	5.00
			376074	644843	886503	1179889		10.0	15.0	20.0	25.0	
Atrazine	PHN	Ave		20995	41966	85742	196995		0.500	1.00	2.00	5.00
			395862	663161	888463	1010264		10.0	15.0	20.0	25.0	
Pentachlorophenol	PHN	Ave		26274	46321	101703	267161		1.00	2.00	4.00	10.0
			591079	1021936	1414685	1918973		20.0	30.0	40.0	50.0	
Phenanthrene	PHN	Ave	28206	127175	226864	466833	1063871	0.100	0.500	1.00	2.00	5.00
			2233778	3863775	5320887	6619467		10.0	15.0	20.0	25.0	
Anthracene	PHN	Ave	25216	128453	235096	470111	1082654	0.100	0.500	1.00	2.00	5.00
			2323014	3943953	5447587	6543536		10.0	15.0	20.0	25.0	
Carbazole	PHN	Ave		120726	232181	471639	1078120		0.500	1.00	2.00	5.00
			2315375	3891549	5412372	6755406		10.0	15.0	20.0	25.0	
Di-n-butyl phthalate	PHN	Ave		148892	275031	575769	1332629		0.500	1.00	2.00	5.00
			2886601	4843223	6623884	7090305		10.0	15.0	20.0	25.0	
Fluoranthene	PHN	Ave	28911	132940	248910	496597	1145234	0.100	0.500	1.00	2.00	5.00
			2517376	4249015	5972579	7093093		10.0	15.0	20.0	25.0	
Benzidine	CRY	Ave		72670	142527	296699	716617		0.500	1.00	2.00	5.00
			1585210	2598561	3654583	4661185		10.0	15.0	20.0	25.0	
Pyrene	CRY	Ave	30551	140673	265849	535771	1234377	0.100	0.500	1.00	2.00	5.00
			2668989	4532555	6328211	7841661		10.0	15.0	20.0	25.0	
Butyl benzyl phthalate	CRY	Ave		67175	118652	251770	594107		0.500	1.00	2.00	5.00
			1272331	2089070	2891597	3680962		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 6131

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/25/2011 10:53 Calibration End Date: 06/25/2011 13:43 Calibration ID: 1751

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dimethoxybenzidine	CRY	Ave		26098	56110	125215	288277		0.500	1.00	2.00	5.00
			601081	957792	1318652	1617904		10.0	15.0	20.0	25.0	
Bis(2-ethylhexyl) phthalate	CRY	Ave		94077	171311	347423	823583		0.500	1.00	2.00	5.00
			1765338	2903057	3923612	5060286		10.0	15.0	20.0	25.0	
4,4'-Methylene bis(2-chloroaniline)	CRY	Ave		22596	43574	89139	217480		0.500	1.00	2.00	5.00
			460425	780750	1093306	1480366		10.0	15.0	20.0	25.0	
3,3'-Dichlorobenzidine	CRY	Ave		46140	85331	183676	419060		0.500	1.00	2.00	5.00
			915252	1512622	2137076	2800114		10.0	15.0	20.0	25.0	
Benzo[a]anthracene	CRY	Ave	31347	138811	251977	516802	1175176	0.100	0.500	1.00	2.00	5.00
			2493956	4374554	5979882	7946408		10.0	15.0	20.0	25.0	
Chrysene	CRY	Ave	28624	126058	242463	491383	1065783	0.100	0.500	1.00	2.00	5.00
			2402989	4005821	5693868	7370677		10.0	15.0	20.0	25.0	
Di-n-octyl phthalate	PRY	Ave		139192	269428	573800	1381592		0.500	1.00	2.00	5.00
			3082598	5070197	7085779	9083067		10.0	15.0	20.0	25.0	
Benzo[b]fluoranthene	PRY	Ave	24939	118615	245342	512658	1186340	0.100	0.500	1.00	2.00	5.00
			2620588	4238354	5858307	7617531		10.0	15.0	20.0	25.0	
Benzo[k]fluoranthene	PRY	Ave	27197	118908	224769	448568	1014763	0.100	0.500	1.00	2.00	5.00
			2130549	3987436	5597525	7423163		10.0	15.0	20.0	25.0	
Benzo[a]pyrene	PRY	Ave	22316	109471	212322	428575	984652	0.100	0.500	1.00	2.00	5.00
			2179136	3757595	5190433	6868604		10.0	15.0	20.0	25.0	
Indeno[1,2,3-cd]pyrene	PRY	Ave	22812	112809	226156	462370	1076748	0.100	0.500	1.00	2.00	5.00
			2405574	4126225	5750605	7554414		10.0	15.0	20.0	25.0	
Dibenzo(a,h)anthracene	PRY	Ave	18742	88765	177905	377520	886558	0.100	0.500	1.00	2.00	5.00
			1992727	3393989	4698815	6197320		10.0	15.0	20.0	25.0	
Benzo[g,h,i]perylene	PRY	Ave	19206	97155	188197	376816	891952	0.100	0.500	1.00	2.00	5.00
			1973264	3368766	4694199	6172026		10.0	15.0	20.0	25.0	
2-Fluorophenol (Surr)	DCB	Ave		46928	94031	191427	443620		0.500	1.00	2.00	5.00
			927658	1567405	2089862	2610183		10.0	15.0	20.0	25.0	
Phenol-d5 (Surr)	DCB	Ave		71146	132364	264372	590985		0.500	1.00	2.00	5.00
			1299224	2155913	2894000	3672807		10.0	15.0	20.0	25.0	
Nitrobenzene-d5 (Surr)	NPT	Ave	17225	74356	141573	283766	634701	0.100	0.500	1.00	2.00	5.00
			1369110	2274854	3094023	3662692		10.0	15.0	20.0	25.0	
2-Fluorobiphenyl (Surr)	ANT	Ave	19455	89019	168681	328654	736780	0.100	0.500	1.00	2.00	5.00
			1588917	2677496	3631542	4757943		10.0	15.0	20.0	25.0	
2,4,6-Tribromophenol (Surr)	ANT	Ave		8778	16833	36050	80520		0.500	1.00	2.00	5.00
			175074	308246	416071	563303		10.0	15.0	20.0	25.0	
Terphenyl-d14 (Surr)	CRY	Ave	16646	84633	151614	305428	690707	0.100	0.500	1.00	2.00	5.00
			1519396	2617393	3617086	4827871		10.0	15.0	20.0	25.0	

Curve Type Legend:
Ave = Average ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-6131/11 Calibration Date: 06/25/2011 14:03

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8138	0.7962		9.78	10.0	-2.2	30.0
N-Nitrosodimethylamine	Ave	1.486	1.472		9.91	10.0	-0.9	30.0
Pyridine	Ave	2.331	2.302		9.88	10.0	-1.2	30.0
Ethyl methacrylate	Ave	2.011	2.008		9.98	10.0	-0.2	30.0
3-Chloropropionitrile	Ave	0.8257	0.8021		9.71	10.0	-2.9	30.0
Malononitrile	Ave	2.455	2.443		9.95	10.0	-0.5	30.0
Benzaldehyde	Qua		1.252	0.0100	8.87	10.0	-11.3	30.0
Phenol	Ave	2.514	2.498	0.8000	9.94	10.0	-0.6	30.0
Aniline	Ave	3.204	3.193		9.96	10.0	-0.4	30.0
Bis(2-chloroethyl)ether	Ave	1.975	1.918	0.7000	9.71	10.0	-2.9	30.0
2-Chlorophenol	Ave	1.430	1.424	0.8000	9.96	10.0	-0.4	30.0
1,3-Dichlorobenzene	Ave	1.380	1.363		9.88	10.0	-1.2	30.0
1,4-Dichlorobenzene	Ave	1.416	1.423		10.0	10.0	0.5	30.0
Benzyl alcohol	Ave	1.126	1.096		9.74	10.0	-2.6	30.0
1,2-Dichlorobenzene	Ave	1.293	1.277		9.88	10.0	-1.2	30.0
2-Methylphenol	Ave	1.602	1.588	0.7000	9.91	10.0	-0.9	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.702	1.649		9.69	10.0	-3.1	30.0
3 & 4 Methylphenol	Ave	1.670	1.650		9.88	10.0	-1.2	30.0
N-Nitrosodi-n-propylamine	Ave	1.578	1.556	0.5000	9.86	10.0	-1.4	30.0
Acetophenone	Ave	2.288	2.219	0.0100	9.70	10.0	-3.0	30.0
Hexachloroethane	Ave	0.6203	0.6102	0.3000	9.84	10.0	-1.6	30.0
Nitrobenzene	Ave	0.6057	0.6096	0.2000	10.1	10.0	0.6	30.0
Isophorone	Ave	1.100	1.109	0.4000	10.1	10.0	0.8	30.0
2-Nitrophenol	Ave	0.1885	0.1920	0.1000	10.2	10.0	1.8	30.0
2,4-Dimethylphenol	Ave	0.4428	0.4322	0.2000	9.76	10.0	-2.4	30.0
1,3,5-Trichlorobenzene	Ave	0.2827	0.2823		9.98	10.0	-0.2	30.0
Bis(2-chloroethoxy)methane	Ave	0.5796	0.5684	0.3000	9.81	10.0	-1.9	30.0
Benzoic acid	Qua		0.2971		20.3	20.0	1.5	30.0
2,4-Dichlorophenol	Ave	0.2643	0.2672	0.2000	10.1	10.0	1.1	30.0
1,2,4-Trichlorobenzene	Ave	0.2885	0.2912		10.1	10.0	0.9	30.0
Naphthalene	Ave	1.109	1.088	0.7000	9.81	10.0	-1.9	30.0
4-Chloroaniline	Ave	0.4709	0.4645	0.0100	9.86	10.0	-1.4	30.0
Hexachlorobutadiene	Ave	0.1598	0.1605	0.0100	10.0	10.0	0.5	30.0
1,2,3-Trichlorobenzene	Ave	0.2701	0.2702		10.0	10.0	0.0	30.0
Caprolactam	Ave	0.1439	0.1543	0.0100	10.7	10.0	7.3	30.0
4-Chloro-3-methylphenol	Ave	0.3865	0.3975	0.2000	10.3	10.0	2.8	30.0
2-Methylnaphthalene	Ave	0.5720	0.5641	0.4000	9.86	10.0	-1.4	30.0
1-Methylnaphthalene	Ave	0.6522	0.6450		9.89	10.0	-1.1	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4909	0.4827		9.83	10.0	-1.7	30.0
Hexachlorocyclopentadiene	Ave	0.3328	0.3283	0.0500	9.86	10.0	-1.4	30.0
2,4,6-Trichlorophenol	Ave	0.3515	0.3452	0.2000	9.82	10.0	-1.8	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-6131/11 Calibration Date: 06/25/2011 14:03

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3656	0.3824	0.2000	10.5	10.0	4.6	30.0
2,4-Toluene diamine	Ave	0.3017	0.1261		4.18	10.0	-58.2*	30.0
1,1'-Biphenyl	Ave	1.458	1.439	0.0100	9.87	10.0	-1.3	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4648	0.4491		9.66	10.0	-3.4	30.0
2-Chloronaphthalene	Ave	1.074	1.074	0.8000	10.0	10.0	0.0	30.0
2-Nitroaniline	Ave	0.5329	0.5380	0.0100	10.1	10.0	1.0	30.0
Dimethyl phthalate	Ave	1.263	1.274	0.0100	10.1	10.0	0.9	30.0
2,6-Dinitrotoluene	Ave	0.2778	0.2915		10.5	10.0	5.0	30.0
1,2-Dinitrobenzene	Ave	0.1542	0.1626		10.5	10.0	5.5	30.0
Acenaphthylene	Ave	1.932	1.960	0.9000	10.1	10.0	1.4	30.0
3-Nitroaniline	Ave	0.3507	0.3656	0.0100	10.4	10.0	4.2	30.0
2,4-Dinitrophenol	Qua		0.2315	0.0100	20.1	20.0	0.5	30.0
Acenaphthene	Ave	1.183	1.110	0.9000	9.38	10.0	-6.2	30.0
4-Nitrophenol	Ave	0.2448	0.2447		10.0	10.0	-0.0	30.0
2,4-Dinitrotoluene	Ave	0.3756	0.3958	0.2000	10.5	10.0	5.4	30.0
Dibenzofuran	Ave	1.646	1.662	0.8000	10.1	10.0	1.0	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3038	0.3117		10.3	10.0	2.6	30.0
Diethyl phthalate	Ave	1.350	1.369	0.0100	10.1	10.0	1.4	30.0
4-Chlorophenyl phenyl ether	Ave	0.6125	0.6250	0.4000	10.2	10.0	2.0	30.0
4-Nitroaniline	Ave	0.3627	0.3680	0.0100	10.1	10.0	1.5	30.0
Fluorene	Ave	1.260	1.241	0.9000	9.85	10.0	-1.5	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1303	0.1479	0.0100	11.3	10.0	13.5	30.0
N-Nitrosodiphenylamine	Ave	0.5824	0.5881	0.0100	10.1	10.0	1.0	30.0
Azobenzene	Ave	1.341	1.369		10.2	10.0	2.1	30.0
4-Bromophenyl phenyl ether	Ave	0.1912	0.1959	0.1000	10.2	10.0	2.5	30.0
Hexachlorobenzene	Ave	0.1851	0.1852	0.1000	10.0	10.0	0.0	30.0
Atrazine	Ave	0.1866	0.1853	0.0100	9.93	10.0	-0.7	30.0
Pentachlorophenol	Ave	0.1317	0.1410	0.0500	21.4	20.0	7.0	30.0
Phenanthrene	Ave	1.100	1.091	0.7000	9.92	10.0	-0.8	30.0
Anthracene	Ave	1.102	1.108	0.7000	10.1	10.0	0.6	30.0
Carbazole	Ave	1.086	1.109	0.0100	10.2	10.0	2.1	30.0
Di-n-butyl phthalate	Ave	1.308	1.382	0.0100	10.6	10.0	5.7	30.0
Fluoranthene	Ave	1.187	1.219	0.6000	10.3	10.0	2.7	30.0
Benzidine	Ave	0.7031	0.7269		10.3	10.0	3.4	30.0
Pyrene	Ave	1.259	1.247	0.6000	9.90	10.0	-1.0	30.0
Butyl benzyl phthalate	Ave	0.5808	0.5731	0.0100	9.87	10.0	-1.3	30.0
3,3'-Dimethoxybenzidine	Ave	0.2665	0.2894		10.9	10.0	8.6	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8071	0.8073	0.0100	10.0	10.0	0.0	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2133	0.2150		10.1	10.0	0.8	30.0
3,3'-Dichlorobenzidine	Ave	0.4199	0.4244	0.0100	10.1	10.0	1.1	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-6131/11 Calibration Date: 06/25/2011 14:03

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.223	1.163	0.8000	9.51	10.0	-4.9	30.0
Chrysene	Ave	1.141	1.104	0.7000	9.68	10.0	-3.2	30.0
Di-n-octyl phthalate	Ave	1.571	1.639	0.0100	10.4	10.0	4.3	30.0
Benzo[b]fluoranthene	Ave	1.346	1.248	0.7000	9.27	10.0	-7.3	30.0
Benzo[k]fluoranthene	Ave	1.257	1.370	0.7000	10.9	10.0	9.0	30.0
Benzo[a]pyrene	Ave	1.173	1.196	0.7000	10.2	10.0	1.9	30.0
Dibenzo(a,h)anthracene	Ave	1.030	1.091	0.4000	10.6	10.0	5.9	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.265	1.331	0.5000	10.5	10.0	5.2	30.0
Benzo[g,h,i]perylene	Ave	1.046	1.074	0.5000	10.3	10.0	2.7	30.0
2-Fluorophenol (Surr)	Ave	1.563	1.599		10.2	10.0	2.3	30.0
Phenol-d5 (Surr)	Ave	2.187	2.171		9.92	10.0	-0.8	30.0
Nitrobenzene-d5 (Surr)	Ave	0.6185	0.5616		9.08	10.0	-9.2	30.0
2-Fluorobiphenyl (Surr)	Ave	1.325	1.302		9.82	10.0	-1.8	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1421	0.1438		10.1	10.0	1.2	30.0
Terphenyl-d14 (Surr)	Ave	0.7242	0.7232		9.99	10.0	-0.1	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab File ID: 9DF0628.D DFTPP Injection Date: 06/28/2011

Instrument ID: A4HP9 DFTPP Injection Time: 16:02

Analysis Batch No.: 6612

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	40.1	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	64.7	
70	Less than 2.0% of mass 69	0.5	(0.7)1
127	25.0 - 75.0% of mass 198	54.4	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	24.9	
365	Greater than 0.75% of mass 198	3.0	
441	Present, but less than mass 443	12.6	
442	40.0 - 110.0% of mass 198	76.4	
443	15.0 - 24.0% of mass 442	14.4	(18.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-6612/2	9SMH0628.D	06/28/2011	16:19
	CCV 240-6612/3	9AMH0628.D	06/28/2011	16:50
	MB 240-5169/11-A	MB5169.D	06/28/2011	17:13
	LCS 240-5169/12-A	LCS5169.D	06/28/2011	17:33
GSP-SB-123-0-2	240-820-4	820G4A.D	06/29/2011	01:59
GSP-SB-123-0-2 MSD	240-820-4 MSD	820G4CD.D	06/29/2011	02:38
GSP-SB-126-20-22	240-820-12	820F12B.D	06/29/2011	03:55

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-6612/2 Calibration Date: 06/28/2011 16:19

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9SMH0628.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8138	0.8339		10.2	10.0	2.5	20.0
N-Nitrosodimethylamine	Ave	1.486	1.486		10.0	10.0	-0.0	20.0
Pyridine	Ave	2.331	2.323		9.97	10.0	-0.3	20.0
Ethyl methacrylate	Ave	2.011	1.991		9.90	10.0	-1.0	20.0
3-Chloropropionitrile	Ave	0.8257	0.8145		9.87	10.0	-1.3	20.0
Malononitrile	Ave	2.455	2.482		10.1	10.0	1.1	20.0
Benzaldehyde	Qua		1.051	0.0100	6.85	10.0	-31.5*	20.0
Phenol	Ave	2.514	2.484	0.8000	9.88	10.0	-1.2	20.0
Aniline	Ave	3.204	3.259		10.2	10.0	1.7	20.0
Bis(2-chloroethyl)ether	Ave	1.975	1.974	0.7000	10.0	10.0	-0.0	20.0
2-Chlorophenol	Ave	1.430	1.395	0.8000	9.76	10.0	-2.4	20.0
1,3-Dichlorobenzene	Ave	1.380	1.380		10.0	10.0	0.0	20.0
1,4-Dichlorobenzene	Ave	1.416	1.439		10.2	10.0	1.6	20.0
Benzyl alcohol	Ave	1.126	0.9282		8.25	10.0	-17.5	20.0
1,2-Dichlorobenzene	Ave	1.293	1.300		10.0	10.0	0.5	20.0
2-Methylphenol	Ave	1.602	1.760	0.7000	11.0	10.0	9.9	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.702	1.689		9.92	10.0	-0.8	20.0
3 & 4 Methylphenol	Ave	1.670	1.635		9.79	10.0	-2.1	20.0
N-Nitrosodi-n-propylamine	Ave	1.578	1.586	0.5000	10.1	10.0	0.5	20.0
Acetophenone	Ave	2.288	2.303	0.0100	10.1	10.0	0.6	20.0
Hexachloroethane	Ave	0.6203	0.6131	0.3000	9.88	10.0	-1.2	20.0
Nitrobenzene	Ave	0.6057	0.5990	0.2000	9.89	10.0	-1.1	20.0
Isophorone	Ave	1.100	1.128	0.4000	10.3	10.0	2.6	20.0
2-Nitrophenol	Ave	0.1885	0.1976	0.1000	10.5	10.0	4.8	20.0
1,3,5-Trichlorobenzene	Ave	0.2827	0.2810		9.94	10.0	-0.6	20.0
2,4-Dimethylphenol	Ave	0.4428	0.4467	0.2000	10.1	10.0	0.9	20.0
Bis(2-chloroethoxy)methane	Ave	0.5796	0.5703	0.3000	9.84	10.0	-1.6	20.0
Benzoic acid	Qua		0.2651		18.4	20.0	-8.0	20.0
2,4-Dichlorophenol	Ave	0.2643	0.2774	0.2000	10.5	10.0	5.0	20.0
1,2;4-Trichlorobenzene	Ave	0.2885	0.2879		9.98	10.0	-0.2	20.0
Naphthalene	Ave	1.109	1.102	0.7000	9.94	10.0	-0.6	20.0
4-Chloroaniline	Ave	0.4709	0.4582	0.0100	9.73	10.0	-2.7	20.0
Hexachlorobutadiene	Ave	0.1598	0.1631	0.0100	10.2	10.0	2.1	20.0
1,2,3-Trichlorobenzene	Ave	0.2701	0.2681		9.93	10.0	-0.7	20.0
Caprolactam	Ave	0.1439	0.1601	0.0100	11.1	10.0	11.3	20.0
4-Chloro-3-methylphenol	Ave	0.3865	0.4085	0.2000	10.6	10.0	5.7	20.0
2-Methylnaphthalene	Ave	0.5720	0.5748	0.4000	10.0	10.0	0.5	20.0
1-Methylnaphthalene	Ave	0.6522	0.6483		9.94	10.0	-0.6	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.4909	0.4690		9.55	10.0	-4.5	20.0
Hexachlorocyclopentadiene	Ave	0.3328	0.2859	0.0500	8.59	10.0	-14.1	20.0
2,4,6-Trichlorophenol	Ave	0.3515	0.3331	0.2000	9.48	10.0	-5.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-6612/2 Calibration Date: 06/28/2011 16:19

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9SMH0628.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3656	0.3863	0.2000	10.6	10.0	5.6	20.0
~~2,4-Toluene diamine~~	Ave	0.3017	0.1051		3.48	10.0	~~-65.2*~~	20.0
1,1'-Biphenyl	Ave	1.458	1.388	0.0100	9.52	10.0	-4.8	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4648	0.4348		9.35	10.0	-6.5	20.0
2-Chloronaphthalene	Ave	1.074	1.038	0.8000	9.67	10.0	-3.3	20.0
2-Nitroaniline	Ave	0.5329	0.5247	0.0100	9.85	10.0	-1.5	20.0
Dimethyl phthalate	Ave	1.263	1.268	0.0100	10.0	10.0	0.4	20.0
2,6-Dinitrotoluene	Ave	0.2778	0.2848		10.3	10.0	2.5	20.0
1,2-Dinitrobenzene	Ave	0.1542	0.1589		10.3	10.0	3.0	20.0
Acenaphthylene	Ave	1.932	1.903	0.9000	9.85	10.0	-1.5	20.0
3-Nitroaniline	Ave	0.3507	0.3547	0.0100	10.1	10.0	1.1	20.0
Acenaphthene	Ave	1.183	1.089	0.9000	9.21	10.0	-7.9	20.0
2,4-Dinitrophenol	Qua		0.2022	0.0100	17.7	20.0	-11.5	20.0
4-Nitrophenol	Ave	0.2448	0.2410		9.85	10.0	-1.5	20.0
2,4-Dinitrotoluene	Ave	0.3756	0.3920	0.2000	10.4	10.0	4.4	20.0
Dibenzofuran	Ave	1.646	1.617	0.8000	9.83	10.0	-1.7	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3038	0.2959		9.74	10.0	-2.6	20.0
Diethyl phthalate	Ave	1.350	1.336	0.0100	9.90	10.0	-1.0	20.0
4-Chlorophenyl phenyl ether	Ave	0.6125	0.6101	0.4000	9.96	10.0	-0.4	20.0
Fluorene	Ave	1.260	1.206	0.9000	9.57	10.0	-4.3	20.0
4-Nitroaniline	Ave	0.3627	0.3600	0.0100	9.92	10.0	-0.8	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1303	0.1319	0.0100	10.1	10.0	1.2	20.0
N-Nitrosodiphenylamine	Ave	0.5824	0.5552	0.0100	9.53	10.0	-4.7	20.0
Azobenzene	Ave	1.341	1.328		9.91	10.0	-0.9	20.0
4-Bromophenyl phenyl ether	Ave	0.1912	0.1909	0.1000	9.99	10.0	-0.1	20.0
Hexachlorobenzene	Ave	0.1851	0.1809	0.1000	9.77	10.0	-2.3	20.0
Atrazine	Ave	0.1866	0.1861	0.0100	9.97	10.0	-0.3	20.0
Pentachlorophenol	Ave	0.1317	0.1072	0.0500	16.3	20.0	-18.6	20.0
Phenanthrene	Ave	1.100	1.039	0.7000	9.44	10.0	-5.6	20.0
Anthracene	Ave	1.102	1.063	0.7000	9.64	10.0	-3.6	20.0
Carbazole	Ave	1.086	1.059	0.0100	9.75	10.0	-2.5	20.0
Di-n-butyl phthalate	Ave	1.308	1.343	0.0100	10.3	10.0	2.7	20.0
Fluoranthene	Ave	1.187	1.156	0.6000	9.73	10.0	-2.7	20.0
Benzidine	Ave	0.7031	0.7562		10.8	10.0	7.5	20.0
Pyrene	Ave	1.259	1.236	0.6000	9.81	10.0	-1.9	20.0
Butyl benzyl phthalate	Ave	0.5808	0.5917	0.0100	10.2	10.0	1.9	20.0
3,3'-Dimethoxybenzidine	Ave	0.2665	0.3002		11.3	10.0	12.7	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8071	0.8091	0.0100	10.0	10.0	0.2	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2133	0.2209		10.4	10.0	3.5	20.0
3,3'-Dichlorobenzidine	Ave	0.4199	0.4311	0.0100	10.3	10.0	2.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-6612/2 Calibration Date: 06/28/2011 16:19

Instrument ID: A4HP9 Calib Start Date: 06/25/2011 10:53

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 06/25/2011 13:43

Lab File ID: 9SMH0628.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.223	1.157	0.8000	9.46	10.0	-5.4	20.0
Chrysene	Ave	1.141	1.133	0.7000	9.93	10.0	-0.7	20.0
Di-n-octyl phthalate	Ave	1.571	1.607	0.0100	10.2	10.0	2.2	20.0
Benzo[b]fluoranthene	Ave	1.346	1.214	0.7000	9.02	10.0	-9.8	20.0
Benzo[k]fluoranthene	Ave	1.257	1.352	0.7000	10.8	10.0	7.5	20.0
Benzo[a]pyrene	Ave	1.173	1.163	0.7000	9.92	10.0	-0.8	20.0
Dibenzo(a,h)anthracene	Ave	1.030	1.080	0.4000	10.5	10.0	4.9	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.265	1.298	0.5000	10.3	10.0	2.6	20.0
Benzo[g,h,i]perylene	Ave	1.046	1.075	0.5000	10.3	10.0	2.8	20.0
2-Fluorophenol (Surr)	Ave	1.563	1.568		10.0	10.0	0.4	20.0
Phenol-d5 (Surr)	Ave	2.187	2.239		10.2	10.0	2.3	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6185	0.5686		9.19	10.0	-8.1	20.0
2-Fluorobiphenyl (Surr)	Ave	1.325	1.259		9.50	10.0	-5.0	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1421	0.1358		9.56	10.0	-4.4	20.0
Terphenyl-d14 (Surr)	Ave	0.7242	0.7357		10.2	10.0	1.6	20.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab File ID: 9DF0701.D DFTPP Injection Date: 07/01/2011

Instrument ID: A4HP9 DFTPP Injection Time: 12:18

Analysis Batch No.: 7010

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	42.5	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	69.5	
70	Less than 2.0% of mass 69	0.0	(0.0)1
127	25.0 - 75.0% of mass 198	57.8	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	25.6	
365	Greater than 0.75% of mass 198	3.7	
441	Present, but less than mass 443	13.5	
442	40.0 - 110.0% of mass 198	77.0	
443	15.0 - 24.0% of mass 442	15.1	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD6 240-7010/5	9SMH0701.D	07/01/2011	12:35
	STD5 240-7010/6	9SMM0701.D	07/01/2011	13:00
	STD4 240-7010/7	9SM0701.D	07/01/2011	13:19
	STD3 240-7010/8	9SML0701.D	07/01/2011	13:57
	STD2 240-7010/9	9SL0701.D	07/01/2011	14:31
	STD1 240-7010/10	9SLL0701.D	07/01/2011	14:50
	STD7 240-7010/4	9SH0701.D	07/01/2011	15:09
	STD8 240-7010/3	9SHH0701.D	07/01/2011	15:28
	STD9 240-7010/2	9HHH0701.D	07/01/2011	15:48
	ICV 240-7010/11	9TCLICV.D	07/01/2011	16:07

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-7010/10	9SLL0701.D
Level 2	STD2 240-7010/9	9SL0701.D
Level 3	STD3 240-7010/8	9SML0701.D
Level 4	STD4 240-7010/7	9SM0701.D
Level 5	STD5 240-7010/6	9SMM0701.D
Level 6	STD6 240-7010/5	9SMH0701.D
Level 7	STD7 240-7010/4	9SH0701.D
Level 8	STD8 240-7010/3	9SHH0701.D
Level 9	STD9 240-7010/2	9HHH0701.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
1,4-Dioxane		0.9571	0.8693	0.8737	0.8218	Ave		0.8240				8.7		20.0			
	0.7810	0.7823	0.7533	0.7537													
N-Nitrosodimethylamine		1.5700	1.5660	1.5725	1.4875	Ave		1.4928				4.6		20.0			
	1.4235	1.4646	1.4070	1.4514													
Pyridine		2.0782	2.2525	2.3929	2.3908	Ave		2.2921				5.0		20.0			
	2.2228	2.3372	2.2465	2.4158													
Ethyl methacrylate		2.2719	2.1882	2.2359	2.0993	Ave		2.0969				5.8		20.0			
	2.0020	2.0308	1.9446	2.0028													
3-Chloropropionitrile		0.8957	0.8896	0.9273	0.8682	Ave		0.8660				4.4		20.0			
	0.8184	0.8498	0.8151	0.8638													
Malononitrile		2.5615	2.7239	2.6728	2.5641	Ave		2.5265				5.1		20.0			
	2.4701	2.4773	2.3554	2.3869													
Benzaldehyde		2.0297	2.0302	1.9700	1.7235	Qua	0.0960	1.9779	-0.051		0.0100				1.0000		0.9900
	1.4986	1.2142	0.9733														
Phenol		2.5496	2.6221	2.6190	2.5003	Ave		2.5112			0.8000	3.5		20.0			
	2.4206	2.4605	2.3809	2.5368													
Aniline		3.1645	3.2612	3.2948	3.1510	Ave		3.1834				4.5		20.0			
	3.0064	3.1476	3.0103	3.4315													
Bis(2-chloroethyl)ether		1.9786	2.1344	2.0529	1.9459	Ave		1.9762			0.7000	4.1		20.0			
	1.9045	1.9057	1.9114	1.9759													
2-Chlorophenol		1.4986	1.5078	1.5289	1.4425	Ave		1.4480			0.8000	4.1		20.0			
	1.3917	1.4090	1.3622	1.4429													
1,3-Dichlorobenzene		1.3718	1.4232	1.4568	1.3775	Ave		1.3760				3.5		20.0			
	1.3203	1.3527	1.3130	1.3928													
1,4-Dichlorobenzene		1.3718	1.5446	1.5307	1.4272	Ave		1.4293				5.1		20.0			
	1.3598	1.3927	1.3669	1.4407													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Benzyl alcohol		1.1384	1.1427	1.1863	1.1274	Ave		1.1490				2.6		20.0			
	1.1185	1.1489	1.1274	1.2022													
1,2-Dichlorobenzene		1.2952	1.3680	1.4010	1.2877	Ave		1.3072				4.2		20.0			
	1.2545	1.2743	1.2449	1.3320													
2-Methylphenol		1.6094	1.6126	1.6627	1.6229	Ave		1.6081			0.7000	3.0		20.0			
	1.5524	1.5661	1.5584	1.6804													
2,2'-oxybis[1-chloropropane]		1.8540	1.8823	1.8798	1.7553	Ave		1.7766				4.9		20.0			
	1.6980	1.6907	1.6753	1.7773													
Benzoic acid		+++++	0.0915	0.1783	0.2710	Qua	-0.469	0.3011	0.0011						1.0000		0.9900
	0.2886	0.3261	0.3315	0.3465													
3 & 4 Methylphenol		1.7044	1.7700	1.7935	1.7112	Ave		1.7056				3.5		20.0			
	1.6421	1.6612	1.6272	1.7347													
N-Nitrosodi-n-propylamine		1.8596	1.7974	1.8254	1.7209	Ave		1.7394			0.5000	4.9		20.0			
	1.6542	1.6821	1.6217	1.7542													
Acetophenone		2.4582	2.4768	2.5061	2.3309	Ave		2.3792			0.0100	4.6		20.0			
	2.2262	2.3305	2.2458	2.4591													
Hexachloroethane		0.6174	0.6846	0.6717	0.6493	Ave		0.6479			0.3000	3.8		20.0			
	0.6284	0.6468	0.6202	0.6651													
Nitrobenzene		0.6869	0.6684	0.6691	0.6367	Ave		0.6499			0.2000	3.5		20.0			
	0.6278	0.6333	0.6242	0.6523													
Isophorone		1.1963	1.1975	1.1737	1.1294	Ave		1.1608			0.4000	2.7		20.0			
	1.1284	1.1342	1.1375	1.1895													
2-Nitrophenol		0.1866	0.1954	0.2090	0.1999	Ave		0.1961			0.1000	3.5		20.0			
	0.1935	0.1925	0.1917	0.2004													
2,4-Dimethylphenol		0.4897	0.4835	0.5101	0.4815	Ave		0.4794			0.2000	3.6		20.0			
	0.4630	0.4614	0.4605	0.4852													
1,3,5-Trichlorobenzene		0.3070	0.3114	0.3170	0.2846	Ave		0.2967				5.0		20.0			
	0.2778	0.2860	0.2856	0.3040													
Bis(2-chloroethoxy)methane		0.6065	0.6281	0.6236	0.5831	Ave		0.5917			0.3000	4.2		20.0			
	0.5740	0.5675	0.5631	0.5880													
2,4-Dichlorophenol		0.2545	0.2764	0.2824	0.2716	Ave		0.2718			0.2000	3.4		20.0			
	0.2722	0.2689	0.2654	0.2829													
1,2,4-Trichlorobenzene		0.2980	0.3110	0.3073	0.2905	Ave		0.2960				3.3		20.0			
	0.2858	0.2881	0.2866	0.3004													
Naphthalene	1.3348	1.1278	1.1440	1.1389	1.0841	Ave		1.1303			0.7000	7.2		20.0			
	1.0701	1.0768	1.0787	1.1173													
4-Chloroaniline		0.4722	0.4742	0.5081	0.4887	Ave		0.4761			0.0100	3.8		20.0			
	0.4565	0.4534	0.4689	0.4868													
Hexachlorobutadiene		0.1722	0.1762	0.1690	0.1676	Ave		0.1700			0.0100	3.0		20.0			
	0.1614	0.1675	0.1691	0.1770													

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,2,3-Trichlorobenzene		0.2687	0.2772	0.2881	0.2710	Ave		0.2730				3.0		20.0			
	0.2617	0.2708	0.2669	0.2793													
1,1'-Biphenyl	+++++	1.5710	1.5753	1.5818	1.4592	Ave		1.5139			0.0100	4.3		20.0			
	1.4514	1.4462	1.4561	1.5699													
2-Chloronaphthalene	+++++	1.1184	1.1428	1.1432	1.0571	Ave		1.0887			0.8000	3.9		20.0			
	1.0664	1.0309	1.0554	1.0957													
Caprolactam		0.1413	0.1475	0.1520	0.1491	Ave		0.1497			0.0100	2.8		20.0			
	0.1525	0.1488	0.1504	0.1558													
4-Chloro-3-methylphenol		0.4015	0.4125	0.4367	0.4091	Ave		0.4146			0.2000	3.0		20.0			
	0.4093	0.4083	0.4078	0.4314													
2-Methylnaphthalene	0.6917	0.6013	0.6023	0.6144	0.5672	Ave		0.5930			0.4000	7.2		20.0			
	0.5597	0.5633	0.5585	0.5790													
1-Methylnaphthalene	0.8086	0.6889	0.6741	0.6937	0.6441	Ave		0.6758				8.1		20.0			
	0.6366	0.6376	0.6330	0.6651													
1,2,3,5-Tetrachlorobenzene		0.5291	0.5407	0.5254	0.5090	Ave		0.5131				4.5		20.0			
	0.4798	0.4879	0.4971	0.5355													
Hexachlorocyclopentadiene		0.3201	0.3366	0.3712	0.3530	Ave		0.3573			0.0500	6.3		20.0			
	0.3553	0.3630	0.3646	0.3945													
2,4,6-Trichlorophenol		0.3763	0.3619	0.3963	0.3695	Ave		0.3684			0.2000	4.0		20.0			
	0.3579	0.3460	0.3656	0.3737													
2,4,5-Trichlorophenol		0.3894	0.4071	0.4161	0.3806	Ave		0.3926			0.2000	3.5		20.0			
	0.3915	0.3807	0.3769	0.3987													
Dibenzofuran	+++++	1.7551	1.7087	1.7205	1.6192	Ave		1.6645			0.8000	3.6		20.0			
	1.6243	1.5907	1.6173	1.6800													
2,4-Toluene diamine		0.3104	0.3290	0.3674	0.2801	Ave		0.3067				15.0		20.0			
	0.2468																
1,2,3,4 -Tetrachlorobenzene		0.5088	0.5227	0.4959	0.4673	Ave		0.4861				5.3		20.0			
	0.4529	0.4621	0.4727	0.5067													
2-Nitroaniline		0.6280	0.6126	0.6257	0.5818	Ave		0.5968			0.0100	3.9		20.0			
	0.5899	0.5663	0.5753	0.5945													
Dimethyl phthalate		1.3771	1.3485	1.3875	1.2796	Ave		1.3195			0.0100	3.8		20.0			
	1.3045	1.2527	1.2743	1.3316													
2,6-Dinitrotoluene		0.2827	0.2873	0.3099	0.2909	Ave		0.2932				3.4		20.0			
	0.2998	0.2838	0.2878	0.3030													
1,2-Dinitrobenzene		0.1555	0.1612	0.1617	0.1533	Ave		0.1589				2.6		20.0			
	0.1624	0.1538	0.1592	0.1640													
Acenaphthylene	2.2029	2.0100	2.0190	2.0495	1.8840	Ave		1.9770			0.9000	5.4		20.0			
	1.9176	1.8615	1.8887	1.9594													
3-Nitroaniline		0.3734	0.3884	0.3785	0.3626	Ave		0.3663			0.0100	3.6		20.0			
	0.3649	0.3481	0.3525	0.3621													

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Acenaphthene	1.4834	1.2457	1.2572	1.2622	1.1444	Ave		1.2174			0.9000	9.5		20.0			
	1.1447	1.1165	1.1234	1.1797													
2,4-Dinitrophenol		0.1052	0.1445	0.1980	0.2358	Qua	-0.117	0.2308	0.0006		0.0100				1.0000		0.9900
	0.2411	0.2444	0.2495	0.2613													
4-Nitrophenol		0.2294	0.2250	0.2862	0.2872	Ave		0.2778				11.0		20.0			
	0.3022	0.2937	0.2975	0.3013													
2,4-Dinitrotoluene		0.3641	0.3958	0.4129	0.3834	Ave		0.3916			0.2000	3.7		20.0			
	0.3966	0.3857	0.3919	0.4023													
2,3,5,6-Tetrachlorophenol		0.2783	0.3027	0.3245	0.3097	Ave		0.3137				5.6		20.0			
	0.3213	0.3138	0.3225	0.3366													
Diethyl phthalate		1.4627	1.4682	1.5067	1.3929	Ave		1.4335			0.0100	3.5		20.0			
	1.4153	1.3624	1.3888	1.4715													
4-Chlorophenyl phenyl ether		0.6119	0.6554	0.6674	0.6191	Ave		0.6289			0.4000	3.7		20.0			
	0.6208	0.6041	0.6095	0.6434													
4-Nitroaniline		0.3811	0.3995	0.4002	0.3861	Ave		0.3835			0.0100	3.1		20.0			
	0.3799	0.3668	0.3706	0.3840													
Fluorene	1.5926	1.3459	1.3477	1.3760	1.2454	Ave		1.3230			0.9000	8.8		20.0			
	1.2502	1.2069	1.2457	1.2969													
4,6-Dinitro-2-methylphenol		0.0843	0.1094	0.1402	0.1416	Ave		0.1371			0.0100	19.0		20.0			
	0.1536	0.1524	0.1537	0.1616													
N-Nitrosodiphenylamine		0.6272	0.6042	0.6096	0.5760	Ave		0.5962			0.0100	3.4		20.0			
	0.5711	0.5828	0.5856	0.6133													
Azobenzene		1.5225	1.4944	1.5003	1.4358	Ave		1.4661				2.7		20.0			
	1.4249	1.4353	1.4283	1.4873													
4-Bromophenyl phenyl ether		0.1991	0.2034	0.2009	0.1903	Ave		0.1975			0.1000	2.7		20.0			
	0.1910	0.1950	0.1955	0.2044													
Hexachlorobenzene	0.2220	0.1951	0.1878	0.1899	0.1858	Ave		0.1931			0.1000	6.2		20.0			
	0.1831	0.1860	0.1881	0.1998													
Atrazine		0.2066	0.2111	0.2198	0.2032	Ave		0.2025			0.0100	5.1		20.0			
	0.2037	0.1921	0.1948	0.1887													
Pentachlorophenol		0.1057	0.1177	0.1297	0.1347	Ave		0.1366			0.0500	14.0		20.0			
	0.1424	0.1497	0.1518	0.1607													
Phenanthrene	1.4028	1.1333	1.1332	1.1263	1.0606	Ave		1.1346			0.7000	9.4		20.0			
	1.0543	1.0759	1.0777	1.1475													
Anthracene	1.3565	1.1194	1.1414	1.1621	1.0815	Ave		1.1467			0.7000	7.4		20.0			
	1.0820	1.1084	1.1039	1.1648													
Carbazole		1.1275	1.1346	1.1351	1.0765	Ave		1.1092			0.0100	2.4		20.0			
	1.0806	1.0918	1.0894	1.1384													
Di-n-butyl phthalate		1.4446	1.4188	1.4417	1.3836	Ave		1.4221			0.0100	2.0		20.0			
	1.3965	1.4137	1.4072	1.4706													

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Fluoranthene	1.4122	1.2005	1.2001	1.2256	1.1426	Ave		1.2184			0.6000	6.5		20.0			
	1.1626	1.1840	1.1834	1.2542													
Benzidine		0.6383	0.7040	0.7478	0.7358	Ave		0.7100				4.6		20.0			
	0.7224	0.7211	0.7045	0.7062													
Pyrene	1.3889	1.2402	1.2587	1.3022	1.2298	Ave		1.2717			0.6000	4.1		20.0			
	1.2342	1.2456	1.2394	1.3060													
Butyl benzyl phthalate		0.8620	0.7162	0.6433	0.6232	Ave		0.6576			0.0100	14.0		20.0			
	0.6050	0.5950	0.5933	0.6223													
3,3'-Dimethoxybenzidine		0.2834	0.3013	0.3249	0.3138	Ave		0.2919				6.8		20.0			
	0.2876	0.2687	0.2738	0.2815													
Bis(2-ethylhexyl) phthalate		0.8536	0.8584	0.9073	0.8563	Ave		0.8542			0.0100	3.1		20.0			
	0.8380	0.8343	0.8199	0.8657													
4,4'-Methylene bis(2-chloroaniline)		0.2280	0.2284	0.2304	0.2262	Ave		0.2315				3.6		20.0			
	0.2226	0.2315	0.2345	0.2501													
3,3'-Dichlorobenzidine		0.4013	0.4214	0.4439	0.4181	Ave		0.4307			0.0100	4.5		20.0			
	0.4222	0.4377	0.4358	0.4650													
Benzo[a]anthracene	1.5194	1.1806	1.1628	1.2691	1.1664	Ave		1.2491			0.8000	9.4		20.0			
	1.1877	1.1812	1.2271	1.3473													
Chrysene	1.4482	1.1757	1.1616	1.1195	1.0782	Ave		1.1576			0.7000	9.8		20.0			
	1.0768	1.1200	1.1144	1.1243													
Di-n-octyl phthalate		1.5880	1.6099	1.7601	1.7047	Ave		1.6864			0.0100	3.9		20.0			
	1.6806	1.6750	1.6901	1.7830													
Benzo[b]fluoranthene	1.6913	1.4310	1.5072	1.3943	1.3785	Ave		1.5069			0.7000	7.2		20.0			
	1.4810	1.4538	1.6281	1.5966													
Benzo[k]fluoranthene	1.3800	1.2025	1.1450	1.3265	1.1800	Ave		1.1848			0.7000	9.7		20.0			
	1.0518	1.1483	1.0224	1.2064													
Benzo[a]pyrene	1.4257	1.2027	1.1720	1.2179	1.1633	Ave		1.2165			0.7000	6.9		20.0			
	1.1510	1.1801	1.1833	1.2527													
Indeno[1,2,3-cd]pyrene	1.2796	1.2297	1.2619	1.3177	1.2801	Ave		1.2858			0.5000	2.9		20.0			
	1.2632	1.2891	1.2899	1.3611													
Dibenzo(a,h)anthracene	1.0641	1.0936	1.0649	1.1060	1.0408	Ave		1.0738			0.4000	2.8		20.0			
	1.0384	1.0605	1.0673	1.1287													
Benzo[g,h,i]perylene	1.1212	1.0262	1.0314	1.0844	1.0496	Ave		1.0594			0.5000	3.2		20.0			
	1.0345	1.0408	1.0449	1.1015													
2-Fluorophenol (Surr)		1.5893	1.5953	1.7074	1.5877	Ave		1.5772				4.3		20.0			
	1.5054	1.5532	1.4833	1.5959													
Phenol-d5 (Surr)		2.2267	2.2732	2.3274	2.1795	Ave		2.1933				3.8		20.0			
	2.1130	2.1539	2.0730	2.1995													
Nitrobenzene-d5 (Surr)	0.8071	0.6892	0.6634	0.6718	0.6346	Ave		0.6630				9.4		20.0			
	0.6348	0.5809	0.6309	0.6540													

Note: The ml coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Fluorobiphenyl (Surr)	1.6152 1.2651	1.3826 1.2464	1.3975 1.2636	1.3741 1.3252	1.2825	Ave		1.3503				8.5		20.0			
2,4,6-Tribromophenol (Surr)	 0.1531	0.1436 0.1499	0.1442 0.1533	0.1584 0.1608	0.1466	Ave		0.1512				4.2		20.0			
Terphenyl-d14 (Surr)	0.8690 0.7166	0.7149 0.7311	0.7239 0.7382	0.7593 0.7837	0.7195	Ave		0.7507				6.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-7010/10	9SLL0701.D
Level 2	STD2 240-7010/9	9SL0701.D
Level 3	STD3 240-7010/8	9SML0701.D
Level 4	STD4 240-7010/7	9SM0701.D
Level 5	STD5 240-7010/6	9SMM0701.D
Level 6	STD6 240-7010/5	9SMH0701.D
Level 7	STD7 240-7010/4	9SH0701.D
Level 8	STD8 240-7010/3	9SHH0701.D
Level 9	STD9 240-7010/2	9HHH0701.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	313891	21432 512649	31222 677161	68825 772621	161785	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	572110	35154 959802	56244 1264782	123867 1487778	292830	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	893327	46534 1531665	80899 2019356	188494 2476443	470666	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Ethyl methacrylate	DCB	Ave	804591	50871 1330853	78589 1748037	176129 2053016	413291	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Chloropropionitrile	DCB	Ave	328928	20057 556876	31949 732680	73043 885434	170917	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Malononitrile	DCB	Ave	992734	57357 1623484	97828 2117315	210544 2446797	504794	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Qua	602304	45448 795712	72916 874889	155181	339302	10.0	0.500 15.0	1.00 20.0	2.00	5.00
Phenol	DCB	Ave	972857	57089 1612470	94173 2140171	206303 2600492	492217	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	1208273	70858 2062740	117127 2706017	259538 3517605	620320	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	765426	44305 1248852	76659 1718157	161714 2025428	383082	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	559325	33555 923379	54153 1224518	120439 1479062	283979	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	530631	30717 886463	51113 1180306	114753 1427786	271187	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	546520	30717 912654	55475 1228727	120581 1476857	280968	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	449506	25490 752901	41040 1013456	93445 1232382	221948	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,2-Dichlorobenzene	DCB	Ave	504165	29001 835094	49132 1119057	110362 1365393	253510	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	623899	36036 1026349	57916 1400845	130977 1722541	319497	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,2'-oxybis[1-chloropropane]	DCB	Ave	682415	41514 1107973	67605 1505946	148073 1821881	345561	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Qua	878443	+++++ 1667330	24991 2296042	106419 2834859	409387	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
3 & 4 Methylphenol	DCB	Ave	659953	38164 1088674	63571 1462716	141281 1778249	336874	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	664839	41640 1102319	64555 1457757	143792 1798188	338781	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	894698	55042 1527248	88955 2018803	197411 2520821	458882	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	252561	13824 423901	24587 557459	52915 681810	127834	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	955338	57013 1618948	91286 2161552	199712 2668637	480940	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1717025	99287 2899290	163547 3938968	350341 4866416	853018	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	294403	15489 492143	26688 663941	62372 819964	150953	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	704534	40643 1179546	66027 1594498	152273 1985103	363648	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3,5-Trichlorobenzene	NPT	Ave	422710	25478 731169	42524 989080	94622 1243809	214981	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethoxy)methane	NPT	Ave	873433	50341 1450525	85776 1949880	186148 2405676	440434	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	414244	21125 687416	37751 919083	84286 1157270	205147	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	434927	24735 736551	42473 992470	91711 1229070	219390	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	20486 1628295	93601 2752530	156229 3735209	339943 4571059	818823	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	694659	39190 1158884	64760 1623666	151651 1991365	369091	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	245625	14288 428278	24064 585656	50458 724179	126586	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,3-Trichlorobenzene	NPT	Ave	398269	22305 692088	37857 924118	85990 1142718	204693	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	+++++ 1217025	70516 2132907	116684 2862273	258758 3682469	608426	+++++ 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
2-Chloronaphthalene	ANT	Ave	+++++	50197	84652	187009	440771	+++++	0.500	1.00	2.00	5.00
			894173	1520440	2074643	2570258		10.0	15.0	20.0	25.0	
Caprolactam	NPT	Ave		11731	20150	45383	112631		0.500	1.00	2.00	5.00
			232091	380443	520859	637373		10.0	15.0	20.0	25.0	
4-Chloro-3-methylphenol	NPT	Ave		33327	56333	130348	308988		0.500	1.00	2.00	5.00
			622833	1043800	1412075	1765019		10.0	15.0	20.0	25.0	
2-Methylnaphthalene	NPT	Ave	10616	49902	82259	183397	428431	0.100	0.500	1.00	2.00	5.00
			851711	1439870	1933835	2368884		10.0	15.0	20.0	25.0	
1-Methylnaphthalene	NPT	Ave	12411	57176	92068	207069	486508	0.100	0.500	1.00	2.00	5.00
			968651	1629896	2191731	2721007		10.0	15.0	20.0	25.0	
1,2,3,5-Tetrachlorobenzene	ANT	Ave		23750	40054	85941	212249		0.500	1.00	2.00	5.00
			402306	719657	977123	1256199		10.0	15.0	20.0	25.0	
Hexachlorocyclopentadiene	ANT	Ave		14366	24930	60730	147203		0.500	1.00	2.00	5.00
			297892	535402	716665	925365		10.0	15.0	20.0	25.0	
2,4,6-Trichlorophenol	ANT	Ave		16889	26806	64823	154050		0.500	1.00	2.00	5.00
			300148	510336	718735	876684		10.0	15.0	20.0	25.0	
2,4,5-Trichlorophenol	ANT	Ave		17478	30153	68065	158686		0.500	1.00	2.00	5.00
			328305	561458	740905	935227		10.0	15.0	20.0	25.0	
Dibenzofuran	ANT	Ave	+++++	78779	126568	281456	675137	+++++	0.500	1.00	2.00	5.00
			1361992	2346036	3179115	3940641		10.0	15.0	20.0	25.0	
2,4-Toluene diamine	NPT	Ave		25760	44929	109659	211574		0.500	1.00	2.00	5.00
			375532					10.0				
1,2,3,4 -Tetrachlorobenzene	ANT	Ave		22839	38718	81126	194847		0.500	1.00	2.00	5.00
			379730	681549	929206	1188608		10.0	15.0	20.0	25.0	
2-Nitroaniline	ANT	Ave		28187	45378	102358	242589		0.500	1.00	2.00	5.00
			494630	835234	1130825	1394413		10.0	15.0	20.0	25.0	
Dimethyl phthalate	ANT	Ave		61813	99887	226974	533521		0.500	1.00	2.00	5.00
			1093878	1847506	2504942	3123437		10.0	15.0	20.0	25.0	
2,6-Dinitrotoluene	ANT	Ave		12690	21283	50703	121295		0.500	1.00	2.00	5.00
			251359	418597	565664	710790		10.0	15.0	20.0	25.0	
1,2-Dinitrobenzene	ANT	Ave		6980	11939	26451	63915		0.500	1.00	2.00	5.00
			136208	226802	312852	384803		10.0	15.0	20.0	25.0	
Acenaphthylene	ANT	Ave	18682	90217	149553	335277	785549	0.100	0.500	1.00	2.00	5.00
			1607950	2745420	3712576	4596130		10.0	15.0	20.0	25.0	
3-Nitroaniline	ANT	Ave		16759	28766	61917	151169		0.500	1.00	2.00	5.00
			305979	513452	692997	849469		10.0	15.0	20.0	25.0	
Acenaphthene	ANT	Ave	12580	55912	93119	206473	477144	0.100	0.500	1.00	2.00	5.00
			959898	1646683	2208250	2767116		10.0	15.0	20.0	25.0	
2,4-Dinitrophenol	ANT	Qua		9446	21401	64791	196597		1.00	2.00	4.00	10.0
			404328	720855	980842	1225836		20.0	30.0	40.0	50.0	
4-Nitrophenol	ANT	Ave		10295	16665	46818	119732		0.500	1.00	2.00	5.00
			253443	433136	584759	706832		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
2,4-Dinitrotoluene	ANT	Ave		16343	29319	67537	159881		0.500	1.00	2.00	5.00
			332555	568923	770305	943767		10.0	15.0	20.0	25.0	
2,3,5,6-Tetrachlorophenol	ANT	Ave		12493	22418	53081	129147		0.500	1.00	2.00	5.00
			269453	462806	633917	789663		10.0	15.0	20.0	25.0	
Diethyl phthalate	ANT	Ave		65654	108750	246468	580791		0.500	1.00	2.00	5.00
			1186766	2009297	2729961	3451573		10.0	15.0	20.0	25.0	
4-Chlorophenyl phenyl ether	ANT	Ave		27464	48544	109182	258151		0.500	1.00	2.00	5.00
			520561	891035	1198010	1509176		10.0	15.0	20.0	25.0	
4-Nitroaniline	ANT	Ave		17107	29595	65473	160986		0.500	1.00	2.00	5.00
			318551	540957	728537	900644		10.0	15.0	20.0	25.0	
Fluorene	ANT	Ave	13506	60409	99829	225092	519266	0.100	0.500	1.00	2.00	5.00
			1048351	1780062	2448608	3042210		10.0	15.0	20.0	25.0	
4,6-Dinitro-2-methylphenol	PHN	Ave		6524	13974	39564	100496		0.500	1.00	2.00	5.00
			223157	376289	516443	647292		10.0	15.0	20.0	25.0	
N-Nitrosodiphenylamine	PHN	Ave		48548	77174	172038	408873		0.500	1.00	2.00	5.00
			829737	1439454	1967673	2457194		10.0	15.0	20.0	25.0	
Azobenzene	PHN	Ave		117845	190886	423422	1019195		0.500	1.00	2.00	5.00
			2070091	3544888	4798865	5959334		10.0	15.0	20.0	25.0	
4-Bromophenyl phenyl ether	PHN	Ave		15413	25978	56710	135107		0.500	1.00	2.00	5.00
			277409	481505	656941	819095		10.0	15.0	20.0	25.0	
Hexachlorobenzene	PHN	Ave	3200	15101	23985	53605	131880	0.100	0.500	1.00	2.00	5.00
			265967	459403	632084	800574		10.0	15.0	20.0	25.0	
Atrazine	PHN	Ave		15988	26968	62043	144238		0.500	1.00	2.00	5.00
			295866	474513	654594	756158		10.0	15.0	20.0	25.0	
Pentachlorophenol	PHN	Ave		16358	30071	73238	191238		1.00	2.00	4.00	10.0
			413746	739413	1020013	1287769		20.0	30.0	40.0	50.0	
Phenanthrene	PHN	Ave	20221	87721	144747	317888	752840	0.100	0.500	1.00	2.00	5.00
			1531608	2657311	3620907	4597486		10.0	15.0	20.0	25.0	
Anthracene	PHN	Ave	19554	86642	145793	327988	767671	0.100	0.500	1.00	2.00	5.00
			1571905	2737565	3708808	4667106		10.0	15.0	20.0	25.0	
Carbazole	PHN	Ave		87271	144921	320365	764179		0.500	1.00	2.00	5.00
			1569800	2696610	3660299	4561325		10.0	15.0	20.0	25.0	
Di-n-butyl phthalate	PHN	Ave		111813	181226	406880	982176		0.500	1.00	2.00	5.00
			2028706	3491651	4727898	5892369		10.0	15.0	20.0	25.0	
Fluoranthene	PHN	Ave	20356	92923	153288	345909	811109	0.100	0.500	1.00	2.00	5.00
			1689026	2924319	3976063	5025321		10.0	15.0	20.0	25.0	
Benzidine	CRY	Ave		50285	92112	212517	517311		0.500	1.00	2.00	5.00
			1053593	1817131	2423512	2916994		10.0	15.0	20.0	25.0	
Pyrene	CRY	Ave	20645	97706	164702	370072	864601	0.100	0.500	1.00	2.00	5.00
			1799885	3138820	4263256	5394782		10.0	15.0	20.0	25.0	
Butyl benzyl phthalate	CRY	Ave		67913	93719	182807	438162		0.500	1.00	2.00	5.00
			882363	1499470	2040868	2570557		10.0	15.0	20.0	25.0	

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 7010

SDG No.:

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/01/2011 12:35 Calibration End Date: 07/01/2011 15:48 Calibration ID: 1962

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
3,3'-Dimethoxybenzidine	CRY	Ave		22324	39429	92322	220649		0.500	1.00	2.00	5.00
			419481	677071	941806	1162826		10.0	15.0	20.0	25.0	
Bis(2-ethylhexyl) phthalate	CRY	Ave		67247	112317	257856	602000		0.500	1.00	2.00	5.00
			1222071	2102329	2820484	3575952		10.0	15.0	20.0	25.0	
4,4'-Methylene bis(2-chloroaniline)	CRY	Ave		17964	29888	65470	159055		0.500	1.00	2.00	5.00
			324607	583286	806606	1033259		10.0	15.0	20.0	25.0	
3,3'-Dichlorobenzidine	CRY	Ave		31617	55145	126160	293975		0.500	1.00	2.00	5.00
			615747	1103069	1499067	1920606		10.0	15.0	20.0	25.0	
Benzo[a]anthracene	CRY	Ave	22585	93013	152154	360680	820045	0.100	0.500	1.00	2.00	5.00
			1732123	2976554	4220925	5565190		10.0	15.0	20.0	25.0	
Chrysene	CRY	Ave	21526	92622	151999	318141	758016	0.100	0.500	1.00	2.00	5.00
			1570412	2822244	3833416	4644065		10.0	15.0	20.0	25.0	
Di-n-octyl phthalate	PRY	Ave		106648	181793	431462	1037433		0.500	1.00	2.00	5.00
			2160388	3618080	4937227	6202906		10.0	15.0	20.0	25.0	
Benzo[b]fluoranthene	PRY	Ave	21835	96110	170202	341786	838928	0.100	0.500	1.00	2.00	5.00
			1903781	3140226	4756098	5554528		10.0	15.0	20.0	25.0	
Benzo[k]fluoranthene	PRY	Ave	17816	80758	129300	325181	718135	0.100	0.500	1.00	2.00	5.00
			1352101	2480432	2986566	4197066		10.0	15.0	20.0	25.0	
Benzo[a]pyrene	PRY	Ave	18406	80775	132348	298554	707937	0.100	0.500	1.00	2.00	5.00
			1479657	2549095	3456555	4358001		10.0	15.0	20.0	25.0	
Indeno[1,2,3-cd]pyrene	PRY	Ave	16519	82586	142500	323029	779052	0.100	0.500	1.00	2.00	5.00
			1623791	2784540	3768173	4735089		10.0	15.0	20.0	25.0	
Dibenzo(a,h)anthracene	PRY	Ave	13737	73447	120251	271113	633425	0.100	0.500	1.00	2.00	5.00
			1334837	2290846	3117789	3926673		10.0	15.0	20.0	25.0	
Benzo[g,h,i]perylene	PRY	Ave	14475	68923	116468	265824	638777	0.100	0.500	1.00	2.00	5.00
			1329873	2248199	3052408	3832071		10.0	15.0	20.0	25.0	
2-Fluorophenol (Surr)	DCB	Ave		35588	57297	134500	312568		0.500	1.00	2.00	5.00
			605005	1017862	1333346	1635917		10.0	15.0	20.0	25.0	
Phenol-d5 (Surr)	DCB	Ave		49859	81641	183335	429069		0.500	1.00	2.00	5.00
			849220	1411531	1863410	2254679		10.0	15.0	20.0	25.0	
Nitrobenzene-d5 (Surr)	NPT	Ave	12387	57200	90601	200527	479340	0.100	0.500	1.00	2.00	5.00
			965984	1484874	2184548	2675661		10.0	15.0	20.0	25.0	
2-Fluorobiphenyl (Surr)	ANT	Ave	13698	62060	103517	224789	534758	0.100	0.500	1.00	2.00	5.00
			1060781	1838263	2483897	3108466		10.0	15.0	20.0	25.0	
2,4,6-Tribromophenol (Surr)	ANT	Ave		6447	10680	25913	61135		0.500	1.00	2.00	5.00
			128372	221111	301286	377283		10.0	15.0	20.0	25.0	
Terphenyl-d14 (Surr)	CRY	Ave	12917	56321	94721	215797	505836	0.100	0.500	1.00	2.00	5.00
			1045129	1842219	2539302	3237311		10.0	15.0	20.0	25.0	

Curve Type Legend:
Ave = Average ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-7010/11 Calibration Date: 07/01/2011 16:07

Instrument ID: A4HP9 Calib Start Date: 07/01/2011 12:35

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/01/2011 15:48

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8240	0.7865		9.54	10.0	-4.6	30.0
N-Nitrosodimethylamine	Ave	1.493	1.460		9.78	10.0	-2.2	30.0
Pyridine	Ave	2.292	2.252		9.83	10.0	-1.7	30.0
Ethyl methacrylate	Ave	2.097	2.044		9.75	10.0	-2.5	30.0
3-Chloropropionitrile	Ave	0.8660	0.8364		9.66	10.0	-3.4	30.0
Malononitrile	Ave	2.527	2.495		9.87	10.0	-1.2	30.0
Benzaldehyde	Qua		1.376	0.0100	8.97	10.0	-10.3	30.0
Phenol	Ave	2.511	2.416	0.8000	9.62	10.0	-3.8	30.0
Aniline	Ave	3.183	3.049		9.58	10.0	-4.2	30.0
Bis(2-chloroethyl)ether	Ave	1.976	1.907	0.7000	9.65	10.0	-3.5	30.0
2-Chlorophenol	Ave	1.448	1.397	0.8000	9.65	10.0	-3.5	30.0
1,3-Dichlorobenzene	Ave	1.376	1.341		9.75	10.0	-2.5	30.0
1,4-Dichlorobenzene	Ave	1.429	1.388		9.71	10.0	-2.9	30.0
Benzyl alcohol	Ave	1.149	1.107		9.64	10.0	-3.6	30.0
1,2-Dichlorobenzene	Ave	1.307	1.248		9.55	10.0	-4.5	30.0
2-Methylphenol	Ave	1.608	1.545	0.7000	9.61	10.0	-3.9	30.0
2,2'-oxybis[1-chloropropane]	Ave	1.777	1.672		9.41	10.0	-5.9	30.0
3 & 4 Methylphenol	Ave	1.706	1.623		9.51	10.0	-4.9	30.0
N-Nitrosodi-n-propylamine	Ave	1.739	1.659	0.5000	9.54	10.0	-4.6	30.0
Acetophenone	Ave	2.379	2.269	0.0100	9.54	10.0	-4.6	30.0
Hexachloroethane	Ave	0.6479	0.6334	0.3000	9.78	10.0	-2.2	30.0
Nitrobenzene	Ave	0.6499	0.6229	0.2000	9.58	10.0	-4.2	30.0
Isophorone	Ave	1.161	1.112	0.4000	9.58	10.0	-4.2	30.0
2-Nitrophenol	Ave	0.1961	0.1942	0.1000	9.90	10.0	-1.0	30.0
2,4-Dimethylphenol	Ave	0.4794	0.4582	0.2000	9.56	10.0	-4.4	30.0
1,3,5-Trichlorobenzene	Ave	0.2967	0.2871		9.68	10.0	-3.2	30.0
Bis(2-chloroethoxy)methane	Ave	0.5917	0.5655	0.3000	9.56	10.0	-4.4	30.0
Benzoic acid	Qua		0.3071		20.4	20.0	2.0	30.0
2,4-Dichlorophenol	Ave	0.2718	0.2710	0.2000	9.97	10.0	-0.3	30.0
1,2,4-Trichlorobenzene	Ave	0.2960	0.2857		9.65	10.0	-3.5	30.0
Naphthalene	Ave	1.130	1.061	0.7000	9.38	10.0	-6.2	30.0
4-Chloroaniline	Ave	0.4761	0.4502	0.0100	9.46	10.0	-5.4	30.0
Hexachlorobutadiene	Ave	0.1700	0.1687	0.0100	9.92	10.0	-0.8	30.0
1,2,3-Trichlorobenzene	Ave	0.2730	0.2671		9.78	10.0	-2.2	30.0
Caprolactam	Ave	0.1497	0.1509	0.0100	10.1	10.0	0.8	30.0
4-Chloro-3-methylphenol	Ave	0.4146	0.4052	0.2000	9.77	10.0	-2.3	30.0
2-Methylnaphthalene	Ave	0.5930	0.5532	0.4000	9.33	10.0	-6.7	30.0
1-Methylnaphthalene	Ave	0.6758	0.6270		9.28	10.0	-7.2	30.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5131	0.4818		9.39	10.0	-6.1	30.0
Hexachlorocyclopentadiene	Ave	0.3573	0.3453	0.0500	9.67	10.0	-3.3	30.0
2,4,6-Trichlorophenol	Ave	0.3684	0.3435	0.2000	9.33	10.0	-6.7	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-7010/11 Calibration Date: 07/01/2011 16:07

Instrument ID: A4HP9 Calib Start Date: 07/01/2011 12:35

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/01/2011 15:48

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3926	0.3805	0.2000	9.69	10.0	-3.1	30.0
2,4-Toluene diamine	Ave	0.3067	0.2000		6.52	10.0	-34.8*	30.0
1,1'-Biphenyl	Ave	1.514	1.418	0.0100	9.37	10.0	-6.3	30.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4861	0.4548		9.36	10.0	-6.4	30.0
2-Chloronaphthalene	Ave	1.089	1.036	0.8000	9.52	10.0	-4.8	30.0
2-Nitroaniline	Ave	0.5968	0.5811	0.0100	9.74	10.0	-2.6	30.0
Dimethyl phthalate	Ave	1.319	1.274	0.0100	9.65	10.0	-3.5	30.0
2,6-Dinitrotoluene	Ave	0.2932	0.2885		9.84	10.0	-1.6	30.0
1,2-Dinitrobenzene	Ave	0.1589	0.1583		9.97	10.0	-0.4	30.0
Acenaphthylene	Ave	1.977	1.854	0.9000	9.38	10.0	-6.2	30.0
3-Nitroaniline	Ave	0.3663	0.3478	0.0100	9.49	10.0	-5.1	30.0
2,4-Dinitrophenol	Qua		0.2401	0.0100	20.2	20.0	1.0	30.0
Acenaphthene	Ave	1.217	1.108	0.9000	9.10	10.0	-9.0	30.0
4-Nitrophenol	Ave	0.2778	0.2528		9.10	10.0	-9.0	30.0
2,4-Dinitrotoluene	Ave	0.3916	0.3871	0.2000	9.88	10.0	-1.2	30.0
Dibenzofuran	Ave	1.664	1.604	0.8000	9.64	10.0	-3.6	30.0
2,3,5,6-Tetrachlorophenol	Ave	0.3137	0.3107		9.91	10.0	-0.9	30.0
Diethyl phthalate	Ave	1.434	1.381	0.0100	9.64	10.0	-3.6	30.0
4-Chlorophenyl phenyl ether	Ave	0.6289	0.6066	0.4000	9.65	10.0	-3.5	30.0
4-Nitroaniline	Ave	0.3835	0.3721	0.0100	9.70	10.0	-3.0	30.0
Fluorene	Ave	1.323	1.229	0.9000	9.29	10.0	-7.1	30.0
4,6-Dinitro-2-methylphenol	Ave	0.1371	0.1478	0.0100	10.8	10.0	7.8	30.0
N-Nitrosodiphenylamine	Ave	0.5962	0.5832	0.0100	9.78	10.0	-2.2	30.0
Azobenzene	Ave	1.466	1.403		9.57	10.0	-4.3	30.0
4-Bromophenyl phenyl ether	Ave	0.1975	0.1938	0.1000	9.82	10.0	-1.8	30.0
Hexachlorobenzene	Ave	0.1931	0.1809	0.1000	9.37	10.0	-6.3	30.0
Atrazine	Ave	0.2025	0.1981	0.0100	9.78	10.0	-2.2	30.0
Pentachlorophenol	Ave	0.1366	0.1392	0.0500	20.4	20.0	2.0	30.0
Phenanthrene	Ave	1.135	1.051	0.7000	9.26	10.0	-7.4	30.0
Anthracene	Ave	1.147	1.077	0.7000	9.40	10.0	-6.0	30.0
Carbazole	Ave	1.109	1.057	0.0100	9.53	10.0	-4.7	30.0
Di-n-butyl phthalate	Ave	1.422	1.361	0.0100	9.57	10.0	-4.3	30.0
Fluoranthene	Ave	1.218	1.142	0.6000	9.37	10.0	-6.3	30.0
Benzidine	Ave	0.7100	0.6869		9.67	10.0	-3.3	30.0
Pyrene	Ave	1.272	1.214	0.6000	9.55	10.0	-4.5	30.0
Butyl benzyl phthalate	Ave	0.6576	0.6109	0.0100	9.29	10.0	-7.1	30.0
3,3'-Dimethoxybenzidine	Ave	0.2919	0.2880		9.87	10.0	-1.3	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8542	0.8257	0.0100	9.67	10.0	-3.3	30.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2315	0.2236		9.66	10.0	-3.4	30.0
3,3'-Dichlorobenzidine	Ave	0.4307	0.4204	0.0100	9.76	10.0	-2.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-7010/11 Calibration Date: 07/01/2011 16:07

Instrument ID: A4HP9 Calib Start Date: 07/01/2011 12:35

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/01/2011 15:48

Lab File ID: 9TCLICV.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.249	1.187	0.8000	9.50	10.0	-5.0	30.0
Chrysene	Ave	1.158	1.086	0.7000	9.38	10.0	-6.2	30.0
Di-n-octyl phthalate	Ave	1.686	1.648	0.0100	9.77	10.0	-2.3	30.0
Benzo[b]fluoranthene	Ave	1.507	1.431	0.7000	9.49	10.0	-5.1	30.0
Benzo[k]fluoranthene	Ave	1.185	1.154	0.7000	9.74	10.0	-2.6	30.0
Benzo[a]pyrene	Ave	1.217	1.168	0.7000	9.60	10.0	-4.0	30.0
Dibenzo(a,h)anthracene	Ave	1.074	1.060	0.4000	9.87	10.0	-1.3	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.286	1.277	0.5000	9.93	10.0	-0.7	30.0
Benzo[g,h,i]perylene	Ave	1.059	1.034	0.5000	9.76	10.0	-2.4	30.0
2-Fluorophenol (Surr)	Ave	1.577	1.529		9.70	10.0	-3.0	30.0
Phenol-d5 (Surr)	Ave	2.193	2.137		9.74	10.0	-2.6	30.0
Nitrobenzene-d5 (Surr)	Ave	0.6630	0.6245		9.42	10.0	-5.8	30.0
2-Fluorobiphenyl (Surr)	Ave	1.350	1.249		9.25	10.0	-7.5	30.0
2,4,6-Tribromophenol (Surr)	Ave	0.1512	0.1495		9.88	10.0	-1.2	30.0
Terphenyl-d14 (Surr)	Ave	0.7507	0.7126		9.49	10.0	-5.1	30.0

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab File ID: 9DF0704.D DFTPP Injection Date: 07/04/2011

Instrument ID: A4HP9 DFTPP Injection Time: 11:31

Analysis Batch No.: 7057

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	41.7	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	67.5	
70	Less than 2.0% of mass 69	0.4	(0.6)1
127	25.0 - 75.0% of mass 198	55.7	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.7	
275	10.0- 30.0% of mass 198	26.2	
365	Greater than 0.75% of mass 198	3.4	
441	Present, but less than mass 443	13.9	
442	40.0 - 110.0% of mass 198	83.7	
443	15.0 - 24.0% of mass 442	16.0	(19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-7057/2	9SMH0704.D	07/04/2011	11:48
	CCV 240-7057/3	9AMH0704.D	07/04/2011	12:07
GSP-SB-128-0-2	240-820-1	820F1A.D	07/04/2011	22:06
GSP-SB-130-20-22	240-820-18	820F18B.D	07/04/2011	22:25
GSP-SB-123-6-8	240-820-5	820G5A.D	07/04/2011	22:44
GSP-SB-128-6-8	240-820-2	820G2A.D	07/04/2011	23:03
GSP-SB-123-0-2 MS	240-820-4 MS	820G4BMS.D	07/04/2011	23:23

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCVIS 240-7057/2 Calibration Date: 07/04/2011 11:48

Instrument ID: A4HP9 Calib Start Date: 07/01/2011 12:35

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/01/2011 15:48

Lab File ID: 9SMH0704.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.8240	0.8020		9.73	10.0	-2.7	20.0
N-Nitrosodimethylamine	Ave	1.493	1.534		10.3	10.0	2.7	20.0
Pyridine	Ave	2.292	2.383		10.4	10.0	4.0	20.0
Ethyl methacrylate	Ave	2.097	2.131		10.2	10.0	1.6	20.0
3-Chloropropionitrile	Ave	0.8660	0.8781		10.1	10.0	1.4	20.0
Malononitrile	Ave	2.527	2.607		10.3	10.0	3.2	20.0
Benzaldehyde	Qua		1.418	0.0100	9.36	10.0	-6.4	20.0
Phenol	Ave	2.511	2.503	0.8000	9.97	10.0	-0.3	20.0
Aniline	Ave	3.183	3.212		10.1	10.0	0.9	20.0
Bis(2-chloroethyl)ether	Ave	1.976	1.973	0.7000	9.98	10.0	-0.2	20.0
2-Chlorophenol	Ave	1.448	1.424	0.8000	9.83	10.0	-1.7	20.0
1,3-Dichlorobenzene	Ave	1.376	1.359		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.429	1.420		9.94	10.0	-0.6	20.0
Benzyl alcohol	Ave	1.149	1.128		9.81	10.0	-1.9	20.0
1,2-Dichlorobenzene	Ave	1.307	1.289		9.86	10.0	-1.4	20.0
2-Methylphenol	Ave	1.608	1.653	0.7000	10.3	10.0	2.8	20.0
2,2'-oxybis[1-chloropropane]	Ave	1.777	1.801		10.1	10.0	1.4	20.0
3 & 4 Methylphenol	Ave	1.706	1.717		10.1	10.0	0.7	20.0
N-Nitrosodi-n-propylamine	Ave	1.739	1.735	0.5000	9.97	10.0	-0.3	20.0
Acetophenone	Ave	2.379	2.381	0.0100	10.0	10.0	0.0	20.0
Hexachloroethane	Ave	0.6479	0.6481	0.3000	10.0	10.0	0.0	20.0
Nitrobenzene	Ave	0.6499	0.6468	0.2000	9.95	10.0	-0.5	20.0
Isophorone	Ave	1.161	1.167	0.4000	10.1	10.0	0.6	20.0
2-Nitrophenol	Ave	0.1961	0.1979	0.1000	10.1	10.0	0.9	20.0
1,3,5-Trichlorobenzene	Ave	0.2967	0.2870		9.67	10.0	-3.3	20.0
2,4-Dimethylphenol	Ave	0.4794	0.4738	0.2000	9.88	10.0	-1.2	20.0
Bis(2-chloroethoxy)methane	Ave	0.5917	0.5893	0.3000	9.96	10.0	-0.4	20.0
Benzoic acid	Qua		0.3050		20.3	20.0	1.5	20.0
2,4-Dichlorophenol	Ave	0.2718	0.2696	0.2000	9.92	10.0	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	0.2960	0.2884		9.75	10.0	-2.5	20.0
Naphthalene	Ave	1.130	1.093	0.7000	9.67	10.0	-3.3	20.0
4-Chloroaniline	Ave	0.4761	0.4723	0.0100	9.92	10.0	-0.8	20.0
Hexachlorobutadiene	Ave	0.1700	0.1693	0.0100	9.96	10.0	-0.4	20.0
1,2,3-Trichlorobenzene	Ave	0.2730	0.2743		10.0	10.0	0.5	20.0
Caprolactam	Ave	0.1497	0.1544	0.0100	10.3	10.0	3.1	20.0
4-Chloro-3-methylphenol	Ave	0.4146	0.4176	0.2000	10.1	10.0	0.7	20.0
2-Methylnaphthalene	Ave	0.5930	0.5640	0.4000	9.51	10.0	-4.9	20.0
1-Methylnaphthalene	Ave	0.6758	0.6414		9.49	10.0	-5.1	20.0
1,2,3,5-Tetrachlorobenzene	Ave	0.5131	0.4897		9.54	10.0	-4.6	20.0
Hexachlorocyclopentadiene	Ave	0.3573	0.3479	0.0500	9.74	10.0	-2.6	20.0
2,4,6-Trichlorophenol	Ave	0.3684	0.3436	0.2000	9.33	10.0	-6.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCVIS 240-7057/2 Calibration Date: 07/04/2011 11:48

Instrument ID: A4HP9 Calib Start Date: 07/01/2011 12:35

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/01/2011 15:48

Lab File ID: 9SMH0704.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4,5-Trichlorophenol	Ave	0.3926	0.3909	0.2000	9.96	10.0	-0.4	20.0
2,4-Toluene diamine	Ave	0.3067	0.1720		5.61	10.0	-43.9*	20.0
1,1'-Biphenyl	Ave	1.514	1.467	0.0100	9.69	10.0	-3.1	20.0
1,2,3,4 -Tetrachlorobenzene	Ave	0.4861	0.4576		9.41	10.0	-5.9	20.0
2-Chloronaphthalene	Ave	1.089	1.065	0.8000	9.79	10.0	-2.1	20.0
2-Nitroaniline	Ave	0.5968	0.6030	0.0100	10.1	10.0	1.0	20.0
Dimethyl phthalate	Ave	1.319	1.267	0.0100	9.60	10.0	-4.0	20.0
2,6-Dinitrotoluene	Ave	0.2932	0.2910		9.93	10.0	-0.7	20.0
1,2-Dinitrobenzene	Ave	0.1589	0.1567		9.86	10.0	-1.4	20.0
Acenaphthylene	Ave	1.977	1.904	0.9000	9.63	10.0	-3.7	20.0
3-Nitroaniline	Ave	0.3663	0.3571	0.0100	9.75	10.0	-2.5	20.0
2,4-Dinitrophenol	Qua		0.2423	0.0100	20.4	20.0	2.0	20.0
Acenaphthene	Ave	1.217	1.140	0.9000	9.37	10.0	-6.3	20.0
4-Nitrophenol	Ave	0.2778	0.2932		10.6	10.0	5.5	20.0
2,4-Dinitrotoluene	Ave	0.3916	0.3912	0.2000	10.0	10.0	-0.1	20.0
Dibenzofuran	Ave	1.664	1.646	0.8000	9.89	10.0	-1.1	20.0
2,3,5,6-Tetrachlorophenol	Ave	0.3137	0.3108		9.91	10.0	-0.9	20.0
Diethyl phthalate	Ave	1.434	1.381	0.0100	9.63	10.0	-3.7	20.0
4-Chlorophenyl phenyl ether	Ave	0.6289	0.6268	0.4000	9.96	10.0	-0.4	20.0
4-Nitroaniline	Ave	0.3835	0.3794	0.0100	9.89	10.0	-1.1	20.0
Fluorene	Ave	1.323	1.249	0.9000	9.44	10.0	-5.6	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1371	0.1485	0.0100	10.8	10.0	8.4	20.0
N-Nitrosodiphenylamine	Ave	0.5962	0.5729	0.0100	9.61	10.0	-3.9	20.0
Azobenzene	Ave	1.466	1.481		10.1	10.0	1.0	20.0
4-Bromophenyl phenyl ether	Ave	0.1975	0.1905	0.1000	9.65	10.0	-3.5	20.0
Hexachlorobenzene	Ave	0.1931	0.1817	0.1000	9.41	10.0	-5.9	20.0
Atrazine	Ave	0.2025	0.1923	0.0100	9.49	10.0	-5.1	20.0
Pentachlorophenol	Ave	0.1366	0.1412	0.0500	20.7	20.0	3.4	20.0
Phenanthrene	Ave	1.135	1.062	0.7000	9.36	10.0	-6.4	20.0
Anthracene	Ave	1.147	1.077	0.7000	9.39	10.0	-6.1	20.0
Carbazole	Ave	1.109	1.075	0.0100	9.69	10.0	-3.1	20.0
Di-n-butyl phthalate	Ave	1.422	1.370	0.0100	9.64	10.0	-3.6	20.0
Fluoranthene	Ave	1.218	1.145	0.6000	9.39	10.0	-6.1	20.0
Benzidine	Ave	0.7100	0.7242		10.2	10.0	2.0	20.0
Pyrene	Ave	1.272	1.245	0.6000	9.79	10.0	-2.1	20.0
Butyl benzyl phthalate	Ave	0.6576	0.6128	0.0100	9.32	10.0	-6.8	20.0
3,3'-Dimethoxybenzidine	Ave	0.2919	0.2799		9.59	10.0	-4.1	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8542	0.8475	0.0100	9.92	10.0	-0.8	20.0
4,4'-Methylene bis(2-chloroaniline)	Ave	0.2315	0.2238		9.67	10.0	-3.3	20.0
3,3'-Dichlorobenzidine	Ave	0.4307	0.4317	0.0100	10.0	10.0	0.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCVIS 240-7057/2 Calibration Date: 07/04/2011 11:48

Instrument ID: A4HP9 Calib Start Date: 07/01/2011 12:35

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/01/2011 15:48

Lab File ID: 9SMH0704.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzo[a]anthracene	Ave	1.249	1.157	0.8000	9.26	10.0	-7.4	20.0
Chrysene	Ave	1.158	1.142	0.7000	9.86	10.0	-1.4	20.0
Di-n-octyl phthalate	Ave	1.686	1.690	0.0100	10.0	10.0	0.2	20.0
Benzo[b]fluoranthene	Ave	1.507	1.313	0.7000	8.71	10.0	-12.9	20.0
Benzo[k]fluoranthene	Ave	1.185	1.299	0.7000	11.0	10.0	9.7	20.0
Benzo[a]pyrene	Ave	1.217	1.185	0.7000	9.74	10.0	-2.6	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.286	1.296	0.5000	10.1	10.0	0.8	20.0
Dibenzo(a,h)anthracene	Ave	1.074	1.086	0.4000	10.1	10.0	1.1	20.0
Benzo[g,h,i]perylene	Ave	1.059	1.068	0.5000	10.1	10.0	0.8	20.0
2-Fluorophenol (Surr)	Ave	1.577	1.543		9.78	10.0	-2.2	20.0
Phenol-d5 (Surr)	Ave	2.193	2.205		10.1	10.0	0.5	20.0
Nitrobenzene-d5 (Surr)	Ave	0.6630	0.6001		9.05	10.0	-9.5	20.0
2-Fluorobiphenyl (Surr)	Ave	1.350	1.299		9.62	10.0	-3.8	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1512	0.1461		9.66	10.0	-3.4	20.0
Terphenyl-d14 (Surr)	Ave	0.7507	0.7363		9.81	10.0	-1.9	20.0

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab File ID: MB5169.D Lab Sample ID: MB 240-5169/11-A

Matrix: Solid Date Extracted: 06/17/2011 10:57

Instrument ID: A4HP9 Date Analyzed: 06/28/2011 17:13

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-5169/12-A	LCS5169.D	06/28/2011 17:33
GSP-SB-123-0-2	240-820-4	820G4A.D	06/29/2011 01:59
GSP-SB-123-0-2 MSD	240-820-4 MSD	820G4CD.D	06/29/2011 02:38
GSP-SB-126-20-22	240-820-12	820F12B.D	06/29/2011 03:55
GSP-SB-128-0-2	240-820-1	820F1A.D	07/04/2011 22:06
GSP-SB-130-20-22	240-820-18	820F18B.D	07/04/2011 22:25
GSP-SB-123-6-8	240-820-5	820G5A.D	07/04/2011 22:44
GSP-SB-128-6-8	240-820-2	820G2A.D	07/04/2011 23:03
GSP-SB-123-0-2 MS	240-820-4 MS	820G4BMS.D	07/04/2011 23:23

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-820-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-5169/11-A
Matrix: Solid
Lab File ID: MB5169.D
Analysis Method: 8270D
Date Collected:
Extract. Method: 3540C
Date Extracted: 06/17/2011 10:57
Sample wt/vol: 30.00(g)
Date Analyzed: 06/28/2011 17:13
Con. Extract Vol.: 2.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 6612
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	50	U	50	27
123-91-1	1,4-Dioxane	100	U	100	22
88-06-2	2,4,6-Trichlorophenol	150	U	150	80
95-95-4	2,4,5-Trichlorophenol	150	U	150	25
120-83-2	2,4-Dichlorophenol	150	U	150	20
105-67-9	2,4-Dimethylphenol	150	U	150	20
51-28-5	2,4-Dinitrophenol	330	U	330	80
121-14-2	2,4-Dinitrotoluene	200	U	200	27
91-58-7	2-Chloronaphthalene	50	U	50	3.3
95-57-8	2-Chlorophenol	50	U	50	27
91-57-6	2-Methylnaphthalene	6.7	U	6.7	3.3
95-48-7	2-Methylphenol	200	U	200	80
88-74-4	2-Nitroaniline	200	U	200	9.1
88-75-5	2-Nitrophenol	50	U	50	27
15831-10-4	3 & 4 Methylphenol	400	U	400	20
91-94-1	3,3'-Dichlorobenzidine	100	U	100	18
99-09-2	3-Nitroaniline	200	U	200	16
534-52-1	4,6-Dinitro-2-methylphenol	150	U	150	80
101-55-3	4-Bromophenyl phenyl ether	50	U	50	13
59-50-7	4-Chloro-3-methylphenol	150	U	150	21
106-47-8	4-Chloroaniline	150	U	150	17
7005-72-3	4-Chlorophenyl phenyl ether	50	U	50	13
100-01-6	4-Nitroaniline	200	U	200	26
83-32-9	Acenaphthene	6.7	U	6.7	3.3
208-96-8	Acenaphthylene	6.7	U	6.7	3.3
98-86-2	Acetophenone	100	U	100	9.2
120-12-7	Anthracene	6.7	U	6.7	3.3
1912-24-9	Atrazine	200	U	200	9.1
100-52-7	Benzaldehyde	100	U	100	12
56-55-3	Benzo[a]anthracene	6.7	U	6.7	3.3
50-32-8	Benzo[a]pyrene	6.7	U	6.7	3.3
205-99-2	Benzo[b]fluoranthene	6.7	U	6.7	3.3
191-24-2	Benzo[g,h,i]perylene	6.7	U	6.7	3.3
207-08-9	Benzo[k]fluoranthene	6.7	U	6.7	3.3

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5169/11-A

Matrix: Solid | Lab File ID: MB5169.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.00(g) | Date Analyzed: 06/28/2011 17:13

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
111-91-1	Bis(2-chloroethoxy)methane	100	U	100	22
111-44-4	Bis(2-chloroethyl)ether	100	U	100	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	50	U	50	19
85-68-7	Butyl benzyl phthalate	50	U	50	10
105-60-2	Caprolactam	330	U	330	37
86-74-8	Carbazole	50	U	50	27
218-01-9	Chrysene	6.7	U	6.7	1.1
84-74-2	Di-n-butyl phthalate	50	U	50	15
117-84-0	Di-n-octyl phthalate	50	U	50	27
53-70-3	Dibenzo(a,h)anthracene	6.7	U	6.7	3.3
132-64-9	Dibenzofuran	50	U	50	3.3
84-66-2	Diethyl phthalate	50	U	50	16
131-11-3	Dimethyl phthalate	50	U	50	17
206-44-0	Fluoranthene	6.7	U	6.7	3.3
86-73-7	Fluorene	6.7	U	6.7	3.3
118-74-1	Hexachlorobenzene	6.7	U	6.7	2.1
87-68-3	Hexachlorobutadiene	50	U	50	27
77-47-4	Hexachlorocyclopentadiene	330	U	330	27
67-72-1	Hexachloroethane	50	U	50	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	6.7	U	6.7	3.3
78-59-1	Isophorone	50	U	50	13
621-64-7	N-Nitrosodi-n-propylamine	50	U	50	27
62-75-9	N-Nitrosodimethylamine	100	U	100	16
86-30-6	N-Nitrosodiphenylamine	50	U	50	21
91-20-3	Naphthalene	6.7	U	6.7	3.3
98-95-3	Nitrobenzene	100	U	100	2.2
87-86-5	Pentachlorophenol	150	U	150	80
85-01-8	Phenanthrene	6.7	U	6.7	3.3
108-95-2	Phenol	50	U	50	27
129-00-0	Pyrene	6.7	U	6.7	3.3
108-60-1	2,2'-oxybis[1-chloropropane]	100	U	100	9.5
606-20-2	2,6-Dinitrotoluene	200	U	200	21
100-02-7	4-Nitrophenol	330	U	330	80

FORM I

GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5169/11-A

Matrix: Solid | Lab File ID: MB5169.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3540C | Date Extracted: 06/17/2011 10:57

Sample wt/vol: 30.00(g) | Date Analyzed: 06/28/2011 17:13

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 6612 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
1718-51-0	Terphenyl-d14 (Surr)	74		41-119
4165-62-2	Phenol-d5 (Surr)	65		28-110
4165-60-0	Nitrobenzene-d5 (Surr)	56		24-112
367-12-4	2-Fluorophenol (Surr)	65		26-110
321-60-8	2-Fluorobiphenyl (Surr)	58		34-110
118-79-6	2,4,6-Tribromophenol (Surr)	42		10-118

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: LCS5169.D

Lab ID: LCS 240-5169/12-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
1,1'-Biphenyl	667	467	70	50-130	
1,4-Dioxane	667	259	39	10-110	
2,4,6-Trichlorophenol	667	425	64	37-110	
2,4,5-Trichlorophenol	667	472	71	42-110	
2,4-Dichlorophenol	667	499	75	40-110	
2,4-Dimethylphenol	667	378	57	28-110	
2,4-Dinitrophenol	667	275 J	41	10-110	
2,4-Dinitrotoluene	667	525	79	55-116	
2-Chloronaphthalene	667	459	69	46-110	
2-Chlorophenol	667	481	72	39-110	
2-Methylnaphthalene	667	571	86	46-110	
2-Methylphenol	667	508	76	36-110	
2-Nitroaniline	667	475	71	47-124	
2-Nitrophenol	667	507	76	35-110	
3 & 4 Methylphenol	1330	940	71	40-110	
3,3'-Dichlorobenzidine	667	363	54	31-110	
3-Nitroaniline	667	457	69	44-110	
4,6-Dinitro-2-methylphenol	667	427	64	21-110	
4-Bromophenyl phenyl ether	667	485	73	53-112	
4-Chloro-3-methylphenol	667	512	77	42-110	
4-Chloroaniline	667	387	58	25-110	
4-Chlorophenyl phenyl ether	667	485	73	53-110	
4-Nitroaniline	667	494	74	50-110	
Acenaphthene	667	458	69	46-110	
Acenaphthylene	667	461	69	47-110	
Acetophenone	667	479	72	50-130	
Anthracene	667	487	73	56-111	
Atrazine	667	553	83	50-130	
Benzaldehyde	667	655	98	10-130	
Benzo[a]anthracene	667	490	73	58-111	
Benzo[a]pyrene	667	433	65	44-115	
Benzo[b]fluoranthene	667	606	91	43-124	
Benzo[g,h,i]perylene	667	513	77	44-120	
Benzo[k]fluoranthene	667	368	55	38-122	
Bis(2-chloroethoxy)methane	667	482	72	42-110	
Bis(2-chloroethyl)ether	667	511	77	41-110	
Bis(2-ethylhexyl) phthalate	667	527	79	56-123	
Butyl benzyl phthalate	667	515	77	57-121	
Caprolactam	667	549	82	50-130	
Carbazole	667	500	75	56-115	
Chrysene	667	501	75	56-111	
Di-n-butyl phthalate	667	523	78	57-119	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: LCS5169.D

Lab ID: LCS 240-5169/12-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	667	494	74	45-123	
Dibenzo(a,h)anthracene	667	516	77	45-122	
Dibenzofuran	667	477	71	50-110	
Diethyl phthalate	667	529	79	55-114	
Dimethyl phthalate	667	487	73	54-112	
Fluoranthene	667	513	77	55-118	
Fluorene	667	460	69	51-110	
Hexachlorobenzene	667	478	72	51-110	
Hexachlorobutadiene	667	497	74	39-110	
Hexachlorocyclopentadiene	667	313 J	47	10-110	
Hexachloroethane	667	464	70	38-110	
Indeno[1,2,3-cd]pyrene	667	510	76	45-121	
Isophorone	667	468	70	46-117	
N-Nitrosodi-n-propylamine	667	483	72	40-114	
N-Nitrosodimethylamine	667	450	67	10-130	
N-Nitrosodiphenylamine	667	472	71	54-112	
Naphthalene	667	480	72	42-110	
Nitrobenzene	667	487	73	40-110	
Pentachlorophenol	667	173	26	10-110	
Phenanthrene	667	480	72	54-110	
Phenol	667	480	72	39-110	
Pyrene	667	484	73	58-113	
2,2'-oxybis[1-chloropropane]	667	489	73	36-116	
2,6-Dinitrotoluene	667	521	78	54-115	
4-Nitrophenol	667	467	70	24-117	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 820G4BMS.D

Lab ID: 240-820-4 MS Client ID: GSP-SB-123-0-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
1,1'-Biphenyl	735	55 U	367	50	50-130	
1,4-Dioxane	735	110 U	176	24	10-110	
2,4,6-Trichlorophenol	735	160 U	170 U	0	22-110	F
2,4,5-Trichlorophenol	735	160 U	170 U	0	32-112	F
2,4-Dichlorophenol	735	160 U	408	56	33-110	
2,4-Dimethylphenol	735	160 U	418	57	19-114	
2,4-Dinitrophenol	735	360 U	360 U	0	10-110	F
2,4-Dinitrotoluene	735	220 U	405	55	42-118	
2-Chloronaphthalene	735	55 U	378	51	40-110	
2-Chlorophenol	735	55 U	407	55	32-110	
2-Methylnaphthalene	735	9.3	651	87	10-200	
2-Methylphenol	735	220 U	661	90	19-124	
2-Nitroaniline	735	220 U	462	63	31-141	
2-Nitrophenol	735	55 U	326	44	17-110	
3 & 4 Methylphenol	1470	440 U	970	66	27-116	
3,3'-Dichlorobenzidine	735	110 U	143	19	10-110	
3-Nitroaniline	735	220 U	384	52	24-110	
4,6-Dinitro-2-methylphenol	735	160 U	170 U	0	10-110	F
4-Bromophenyl phenyl ether	735	55 U	399	54	44-120	
4-Chloro-3-methylphenol	735	160 U	170 U	0	32-117	F
4-Chloroaniline	735	160 U	286	39	11-110	
4-Chlorophenyl phenyl ether	735	55 U	429	58	47-116	
4-Nitroaniline	735	220 U	428	58	23-124	
Acenaphthene	735	28	398	50	10-200	
Acenaphthylene	735	13	390	51	10-200	
Acetophenone	735	110 U	404	55	50-130	
Anthracene	735	68	425	49	10-200	
Atrazine	735	220 U	425	58	50-130	
Benzaldehyde	735	110 U	465	63	10-130	
Benzo[a]anthracene	735	230	523	40	10-200	
Benzo[a]pyrene	735	220	495	38	10-200	
Benzo[b]fluoranthene	735	270	470	27	10-200	
Benzo[g,h,i]perylene	735	120	470	47	10-200	
Benzo[k]fluoranthene	735	150	621	64	10-200	
Bis(2-chloroethoxy)methane	735	110 U	410	56	36-110	
Bis(2-chloroethyl)ether	735	110 U	765	104	32-118	
Bis(2-ethylhexyl) phthalate	735	24 J	448	58	10-200	
Butyl benzyl phthalate	735	55 U	390	53	43-138	
Caprolactam	735	360 U	484	66	50-130	
Carbazole	735	30 J	420	57	10-162	
Chrysene	735	230	620	53	10-200	
Di-n-butyl phthalate	735	55 U	413	56	31-145	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 820G4BMS.D

Lab ID: 240-820-4 MS Client ID: GSP-SB-123-0-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	735	55 U	433	59	10-182	
Dibenzo(a,h)anthracene	735	42	427	52	10-200	
Dibenzofuran	735	55 U	416	57	10-200	
Diethyl phthalate	735	55 U	428	58	48-118	
Dimethyl phthalate	735	55 U	415	56	47-116	
Fluoranthene	735	470	765	39	10-200	
Fluorene	735	23	426	55	10-187	
Hexachlorobenzene	735	7.3 U	396	54	37-122	
Hexachlorobutadiene	735	55 U	351	48	30-110	
Hexachlorocyclopentadiene	735	360 U	360 U	0	10-110	F
Hexachloroethane	735	55 U	263	36	13-110	
Indeno[1,2,3-cd]pyrene	735	110	462	48	10-200	
Isophorone	735	55 U	379	52	32-129	
N-Nitrosodi-n-propylamine	735	55 U	408	56	30-121	
N-Nitrosodimethylamine	736	110 U	347	47	10-130	
N-Nitrosodiphenylamine	735	55 U	384	52	10-169	
Naphthalene	735	7.3 U	371	50	10-200	
Nitrobenzene	735	110 U	495	67	33-111	
Pentachlorophenol	735	160 U	170 U	0	10-182	F
Phenanthrene	735	230	577	47	10-200	
Phenol	735	55 U	431	59	10-144	
Pyrene	735	410	710	41	10-200	
2,2'-oxybis[1-chloropropane]	735	110 U	407	55	25-124	
2,6-Dinitrotoluene	735	220 U	408	56	28-137	
4-Nitrophenol	735	360 U	360 U	0	10-125	F

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 820G4CD.D

Lab ID: 240-820-4 MSD Client ID: GSP-SB-123-0-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1'-Biphenyl	736	464	63	23	30	50-130	
1,4-Dioxane	736	188	26	7	30	10-110	
2,4,6-Trichlorophenol	736	319	43	NC	30	22-110	
2,4,5-Trichlorophenol	736	480	65	NC	30	32-112	
2,4-Dichlorophenol	736	523	71	25	30	33-110	
2,4-Dimethylphenol	736	487	66	15	30	19-114	
2,4-Dinitrophenol	736	360 U	0	NC	30	10-110	F
2,4-Dinitrotoluene	736	490	67	19	30	42-118	
2-Chloronaphthalene	736	466	63	21	30	40-110	
2-Chlorophenol	736	508	69	22	30	32-110	
2-Methylnaphthalene	736	618	83	5	30	10-200	
2-Methylphenol	736	512	70	25	30	19-124	
2-Nitroaniline	736	521	71	12	30	31-141	
2-Nitrophenol	736	413	56	24	30	17-110	
3 & 4 Methylphenol	1470	1140	77	16	30	27-116	
3,3'-Dichlorobenzidine	736	110	15	26	30	10-110	
3-Nitroaniline	736	478	65	22	30	24-110	
4,6-Dinitro-2-methylphenol	736	170 U	0	NC	30	10-110	F
4-Bromophenyl phenyl ether	736	468	64	16	30	44-120	
4-Chloro-3-methylphenol	736	524	71	NC	30	32-117	
4-Chloroaniline	736	316	43	10	30	11-110	
4-Chlorophenyl phenyl ether	736	512	70	17	30	47-116	
4-Nitroaniline	736	543	74	24	30	23-124	
Acenaphthene	736	484	62	19	30	10-200	
Acenaphthylene	736	478	63	20	30	10-200	
Acetophenone	736	525	71	26	30	50-130	
Anthracene	736	529	63	22	30	10-200	
Atrazine	736	509	69	18	30	50-130	
Benzaldehyde	736	642	87	32	30	10-130	F
Benzo[a]anthracene	736	795	77	41	30	10-200	F
Benzo[a]pyrene	736	758	74	42	30	10-200	F
Benzo[b]fluoranthene	736	773	69	49	30	10-200	F
Benzo[g,h,i]perylene	736	591	64	23	30	10-200	
Benzo[k]fluoranthene	736	898	102	36	30	10-200	F
Bis(2-chloroethoxy)methane	736	488	66	17	30	36-110	
Bis(2-chloroethyl)ether	736	597	81	25	30	32-118	
Bis(2-ethylhexyl) phthalate	736	569	74	24	30	10-200	
Butyl benzyl phthalate	736	527	72	30	30	43-138	
Caprolactam	736	644	88	28	30	50-130	
Carbazole	736	484	66	14	30	10-162	
Chrysene	736	802	78	26	30	10-200	
Di-n-butyl phthalate	736	505	69	20	30	31-145	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 820G4CD.D

Lab ID: 240-820-4 MSD Client ID: GSP-SB-123-0-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Di-n-octyl phthalate	736	55 U	0	NC	30	10-182	F
Dibenzo(a,h)anthracene	736	540	68	23	30	10-200	
Dibenzofuran	736	496	67	18	30	10-200	
Diethyl phthalate	736	519	71	19	30	48-118	
Dimethyl phthalate	736	495	67	18	30	47-116	
Fluoranthene	736	1080	83	34	30	10-200	F
Fluorene	736	513	67	19	30	10-187	
Hexachlorobenzene	736	481	65	19	30	37-122	
Hexachlorobutadiene	736	450	61	25	30	30-110	
Hexachlorocyclopentadiene	736	360 U	0	NC	30	10-110	F
Hexachloroethane	736	275	37	5	30	13-110	
Indeno[1,2,3-cd]pyrene	736	610	68	27	30	10-200	
Isophorone	736	420	57	10	30	32-129	
N-Nitrosodi-n-propylamine	736	518	70	24	30	30-121	
N-Nitrosodimethylamine	737	392	53	12	30	10-130	
N-Nitrosodiphenylamine	736	462	63	18	30	10-169	
Naphthalene	736	490	67	28	30	10-200	
Nitrobenzene	736	460	63	7	30	33-111	
Pentachlorophenol	736	170 U	0	NC	30	10-182	F
Phenanthrene	736	678	61	16	30	10-200	
Phenol	736	543	74	23	30	10-144	
Pyrene	736	1070	91	41	30	10-200	F
2,2'-oxybis[1-chloropropane]	736	515	70	24	30	25-124	
2,6-Dinitrotoluene	736	504	68	21	30	28-137	
4-Nitrophenol	736	408	55	NC	30	10-125	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP	#	PHL	#	NBZ	#	FBP	#	TBP	#	TPH	#
GSP-SB-128-0-2	240-820-1	65		69		50		50		23		60	
GSP-SB-128-6-8	240-820-2	57		60		47		44		25		58	
GSP-SB-123-0-2	240-820-4	66		61		50		57		48		78	
GSP-SB-123-6-8	240-820-5	67		67		52		51		29		63	
GSP-SB-124-0-2	240-820-7	63		53		47		54		43		60	
GSP-SB-124-6-8	240-820-8	51		47		41		42		33		58	
GSP-SB-126-0-2	240-820-10	61		55		47		50		33		64	
GSP-SB-126-8-10	240-820-11	62		58		48		51		39		64	
GSP-SB-126-20-22	240-820-12	56		54		46		50		44		75	
GSP-SB-127-0-2	240-820-13	57		54		44		47		54		64	
GSP-SB-127-6-8	240-820-14	61		57		46		50		39		69	
GSP-SB-130-0-2	240-820-16	48		50		35		44		43		59	
GSP-SB-130-6-8	240-820-17	59		54		45		48		41		64	
GSP-SB-130-20-22	240-820-18	58		62		49		47		18		59	
	MB 240-4859/23-A	59		54		45		49		42		68	
	MB 240-5169/11-A	65		65		56		58		42		74	
	LCS 240-4859/24-A	58		56		48		50		54		67	
	LCS 240-5169/12-A	75		74		71		67		67		84	
GSP-SB-123-0-2 MS	240-820-4 MS	57		63		47		48		40		61	
GSP-SB-123-0-2 MSD	240-820-4 MSD	69		70		54		58		44		77	

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	26-110
PHL = Phenol-d5 (Surr)	28-110
NBZ = Nitrobenzene-d5 (Surr)	24-112
FBP = 2-Fluorobiphenyl (Surr)	34-110
TBP = 2,4,6-Tribromophenol (Surr)	10-118
TPH = Terphenyl-d14 (Surr)	41-119

Column to be used to flag recovery values

FORM II 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: STD6 240-7270/10 Date Analyzed: 07/06/2011 12:10

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0706010.D Heated Purge: (Y/N) N

Calibration ID: 2192

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		135284	3.50	519115	4.38	302655	5.65
UPPER LIMIT		270568	4.00	1038230	4.88	605310	6.15
LOWER LIMIT		67642	3.00	259558	3.88	151328	5.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-7270/13		132432	3.50	504232	4.38	295963	5.65
CCV 240-8375/2 CCVIS		160873	3.33	624009	4.22	365620	5.48
CCV 240-8375/3		145619	3.33	574378	4.22	339413	5.48
CCV 240-8375/4		170423	3.33	654822	4.22	391151	5.48

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: STD6 240-7270/10 Date Analyzed: 07/06/2011 12:10

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0706010.D Heated Purge: (Y/N) N

Calibration ID: 2192

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		522651	6.73	615581	8.70	519509	10.08
UPPER LIMIT		1045302	7.23	1231162	9.20	1039018	10.58
LOWER LIMIT		261326	6.23	307791	8.20	259755	9.58
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-7270/13		508657	6.73	593946	8.70	495045	10.08
CCV 240-8375/2 CCVIS		630308	6.56	713485	8.52	617287	9.80
CCV 240-8375/3		594881	6.56	641899	8.53	565993	9.81
CCV 240-8375/4		665864	6.56	714442	8.51	646448	9.79

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: CCV 240-8375/2 Date Analyzed: 07/14/2011 09:03

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0714002.D Heated Purge: (Y/N) N

Calibration ID: 2200

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		160873	3.33	624009	4.22	365620	5.48
UPPER LIMIT		321746	3.83	1248018	4.72	731240	5.98
LOWER LIMIT		80437	2.83	312005	3.72	182810	4.98
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-4859/23-A		158509	3.32	629411	4.22	378601	5.48
LCS 240-4859/24-A		171765	3.33	675905	4.22	423381	5.48
240-820-11	GSP-SB-126-8-10	160309	3.32	639490	4.22	378433	5.48
240-820-8	GSP-SB-124-6-8	169872	3.32	649164	4.22	398663	5.48
240-820-14	GSP-SB-127-6-8	141527	3.32	570070	4.22	344192	5.48
240-820-17	GSP-SB-130-6-8	169709	3.32	671156	4.22	408235	5.48
240-820-10	GSP-SB-126-0-2	155008	3.32	596308	4.22	367122	5.48
240-820-13	GSP-SB-127-0-2	154260	3.32	612874	4.22	392200	5.48
240-820-7	GSP-SB-124-0-2	110109	3.33	451206	4.22	290136	5.48
240-820-16	GSP-SB-130-0-2	110097	3.33	487569	4.22	339185	5.49

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: CCV 240-8375/2 Date Analyzed: 07/14/2011 09:03

Instrument ID: A4HP7 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 0714002.D Heated Purge: (Y/N) N

Calibration ID: 2200

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		630308	6.56	713485	8.52	617287	9.80
UPPER LIMIT		1260616	7.06	1426970	9.02	1234574	10.30
LOWER LIMIT		315154	6.06	356743	8.02	308644	9.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-4859/23-A		659579	6.56	725116	8.52	631693	9.80
LCS 240-4859/24-A		726927	6.56	828591	8.51	703020	9.79
240-820-11	GSP-SB-126-8-10	688186	6.56	762375	8.52	663589	9.80
240-820-8	GSP-SB-124-6-8	708468	6.56	792131	8.52	687740	9.80
240-820-14	GSP-SB-127-6-8	610197	6.56	670601	8.52	588223	9.80
240-820-17	GSP-SB-130-6-8	717459	6.56	782666	8.51	694684	9.79
240-820-10	GSP-SB-126-0-2	644367	6.56	735240	8.52	651018	9.80
240-820-13	GSP-SB-127-0-2	702045	6.56	808247	8.52	689557	9.81
240-820-7	GSP-SB-124-0-2	541874	6.57	632588	8.53	577257	9.84
240-820-16	GSP-SB-130-0-2	630840	6.57	758013	8.52	656150	9.83

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: STD6 240-6131/5 Date Analyzed: 06/25/2011 10:53

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0625.D Heated Purge: (Y/N) N

Calibration ID: 1751

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		242103	3.88	910439	4.84	499782	6.14
UPPER LIMIT		484206	4.38	1820878	5.34	999564	6.64
LOWER LIMIT		121052	3.38	455220	4.34	249891	5.64
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-6131/11		287810	3.88	1092360	4.84	608484	6.14
CCV 240-6612/2 CCVIS		282798	3.84	1093552	4.79	628758	6.09
CCV 240-6612/3		225159	3.83	849817	4.79	481126	6.09

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: STD6 240-6131/5 Date Analyzed: 06/25/2011 10:53

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0625.D Heated Purge: (Y/N) N

Calibration ID: 1751

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		844551	7.22	850725	9.19	740756	10.59
UPPER LIMIT		1689102	7.72	1701450	9.69	1481512	11.09
LOWER LIMIT		422276	6.72	425363	8.69	370378	10.09
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-6131/11		1043532	7.23	1081344	9.19	918185	10.59
CCV 240-6612/2 CCVIS		1087649	7.18	1079429	9.14	972066	10.51
CCV 240-6612/3		852624	7.18	855771	9.16	743580	10.55

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: CCV 240-6612/2 Date Analyzed: 06/28/2011 16:19

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0628.D Heated Purge: (Y/N) N

Calibration ID: 1747

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		282798	3.84	1093552	4.79	628758	6.09
UPPER LIMIT		565596	4.34	2187104	5.29	1257516	6.59
LOWER LIMIT		141399	3.34	546776	4.29	314379	5.59
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-5169/11-A		229668	3.83	887699	4.79	514387	6.08
LCS 240-5169/12-A		221611	3.83	858880	4.79	510439	6.09
240-820-4	GSP-SB-123-0-2	155303	3.85	666090	4.81	448647	6.11
240-820-4 MSD	GSP-SB-123-0-2 MSD	141528	3.85	634390	4.81	416919	6.11
240-820-12	GSP-SB-126-20-22	152887	3.84	625252	4.81	399358	6.11

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: CCV 240-6612/2 Date Analyzed: 06/28/2011 16:19

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0628.D Heated Purge: (Y/N) N

Calibration ID: 1747

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1087649	7.18	1079429	9.14	972066	10.51
UPPER LIMIT		2175298	7.68	2158858	9.64	1944132	11.01
LOWER LIMIT		543825	6.68	539715	8.64	486033	10.01
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 240-5169/11-A		917459	7.17	938232	9.15	800744	10.52
LCS 240-5169/12-A		879884	7.17	882358	9.13	783069	10.50
240-820-4	GSP-SB-123-0-2	789161	7.20	768895	9.17	587127	10.59
240-820-4 MSD	GSP-SB-123-0-2 MSD	786888	7.20	721238	9.17	562067	10.60
240-820-12	GSP-SB-126-20-22	794174	7.20	765145	9.17	608819	10.59

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: STD6 240-7010/5 Date Analyzed: 07/01/2011 12:35

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0701.D Heated Purge: (Y/N) N

Calibration ID: 1962

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		160760	3.76	608663	4.72	335411	6.02
UPPER LIMIT		321520	4.26	1217326	5.22	670822	6.52
LOWER LIMIT		80380	3.26	304332	4.22	167706	5.52
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-7010/11		198510	3.76	762062	4.72	435378	6.01
CCVIS 240-7057/2		179157	3.71	692352	4.67	388902	5.97

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: STD6 240-7010/5 Date Analyzed: 07/01/2011 12:35

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0701.D Heated Purge: (Y/N) N

Calibration ID: 1962

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		581102	7.10	583347	9.07	514197	10.39
UPPER LIMIT		1162204	7.60	1166694	9.57	1028394	10.89
LOWER LIMIT		290551	6.60	291674	8.57	257099	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-7010/11		752908	7.10	753899	9.05	642646	10.37
CCVIS 240-7057/2		672769	7.05	660343	9.00	569043	10.28

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: CCVIS 240-7057/2 Date Analyzed: 07/04/2011 11:48

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0704.D Heated Purge: (Y/N) N

Calibration ID: 1958

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		179157	3.71	692352	4.67	388902	5.97
UPPER LIMIT		358314	4.21	1384704	5.17	777804	6.47
LOWER LIMIT		89579	3.21	346176	4.17	194451	5.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-820-1	GSP-SB-128-0-2	121936	3.72	534869	4.69	345556	5.99
240-820-18	GSP-SB-130-20-22	126935	3.72	522428	4.69	345547	5.98
240-820-5	GSP-SB-123-6-8	142656	3.72	599177	4.68	375942	5.99
240-820-2	GSP-SB-128-6-8	145488	3.72	602515	4.68	378139	5.99
240-820-4 MS	GSP-SB-123-0-2 MS	137880	3.72	573037	4.69	357666	5.99

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Sample No.: CCVIS 240-7057/2 Date Analyzed: 07/04/2011 11:48

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 9SMH0704.D Heated Purge: (Y/N) N

Calibration ID: 1958

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		672769	7.05	660343	9.00	569043	10.28
UPPER LIMIT		1345538	7.55	1320686	9.50	1138086	10.78
LOWER LIMIT		336385	6.55	330172	8.50	284522	9.78
LAB SAMPLE ID	CLIENT SAMPLE ID						
240-820-1	GSP-SB-128-0-2	636214	7.08	690684	9.03	616080	10.34
240-820-18	GSP-SB-130-20-22	669622	7.07	720160	9.02	648465	10.35
240-820-5	GSP-SB-123-6-8	711956	7.07	709966	9.02	611669	10.35
240-820-2	GSP-SB-128-6-8	705128	7.08	728159	9.02	650829	10.35
240-820-4 MS	GSP-SB-123-0-2 MS	676029	7.07	674103	9.02	586232	10.35

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

Method 8015C - GRO

Nonhalogenated Organics using GC/FID - Modified (Gasoline Range Organics) by Method 8015C

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Instrument ID: INST13-14 Start Date: 06/03/2011 12:11

Analysis Batch Number: 115481 End Date: 06/03/2011 16:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 500-115481/2		06/03/2011 12:11	1	06031114_019.d	DB624 0.2(mm)
IC 500-115481/3		06/03/2011 12:46	1	06031114_020.d	DB624 0.2(mm)
IC 500-115481/4		06/03/2011 13:21	1	06031114_021.d	DB624 0.2(mm)
IC 500-115481/5		06/03/2011 13:55	1	06031114_022.d	DB624 0.2(mm)
IC 500-115481/6		06/03/2011 14:30	1	06031114_023.d	DB624 0.2(mm)
IC 500-115481/7		06/03/2011 15:04	1	06031114_024.d	DB624 0.2(mm)
IC 500-115481/8		06/03/2011 15:39	1	06031114_025.d	DB624 0.2(mm)
ICV 500-115481/9		06/03/2011 16:13	1	06031114_026.d	DB624 0.2(mm)

8015C

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica Chicago Job No.: 240-820-1 Analy Batch No.: 115481

SDG No.:

Instrument ID: INST13-14 GC Column: DB624 ID: 0.2(mm) Heated Purge: (Y/N) Y

Calibration Start ~~Date:~~ 06/03/2011 12:11 Calibration End Date: 06/03/2011 15:39 Calibration ID: 4716

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 500-115481/2	06031114_019.d
Level 2	IC 500-115481/3	06031114_020.d
Level 3	IC 500-115481/4	06031114_021.d
Level 4	IC 500-115481/5	06031114_022.d
Level 5	IC 500-115481/6	06031114_023.d
Level 6	IC 500-115481/7	06031114_024.d
Level 7	IC 500-115481/8	06031114_025.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Gasoline Range Organics (C6-C9)	8882.4 7446.7	7791.0 7540.6	7587.8 7219.6	7322.1	Lin2	30936.3054	7285.80266							1.0000		0.9900
Gasoline Range Organics (GRO)-C5-C12	11032 8410.0	9084.4 8503.4	8692.9 8133.7	8253.8	Lin2	55917.2347	8152.55191							0.9990		0.9900
Gasoline Range Organics (GRO)-C6-C12	10706 8080.7	8750.3 8174.9	8387.0 7822.0	7965.0	Lin2	55653.5982	7838.30756							0.9990		0.9900
Gasoline Range Organics (GRO)-C6-C10	11136 8173.8	8876.7 8263.5	8500.1 7911.3	8060.4	Lin2	62452.3887	7898.60895							0.9990		0.9900
a,a,a-Trifluorotoluene	9950.0 8688.5	8928.4 8672.5	8699.0 8417.1	8729.6	Lin2	70.7532755	534.365942							1.0000		0.9900
4-Bromofluorobenzene	6652.0 6080.3	5808.8 6199.9	5708.6 6047.0	6045.3	Lin2	79.5610807	550.644503							0.9990		0.9900

Note: The ml coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-820-1 Analy Batch No.: 115481

SDG No.:

Instrument ID: INST13-14 GC Column: DB624 ID: 0.2(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/03/2011 12:11 Calibration End Date: 06/03/2011 15:39 Calibration ID: 4716

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 500-115481/2	06031114_019.d
Level 2	IC 500-115481/3	06031114_020.d
Level 3	IC 500-115481/4	06031114_021.d
Level 4	IC 500-115481/5	06031114_022.d
Level 5	IC 500-115481/6	06031114_023.d
Level 6	IC 500-115481/7	06031114_024.d
Level 7	IC 500-115481/8	06031114_025.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	RT WINDOW	AVG RT
Gasoline Range Organics (C6-C9)	13.611	13.611	13.611	13.611	13.611	13.611	13.611	6.071 - 21.152	13.611
Gasoline Range Organics (GRO)-C5-C12	14.725	14.725	14.725	14.725	14.725	14.725	14.725	4.514 - 24.935	14.725
Gasoline Range Organics (GRO)-C6-C12	15.503	15.503	15.503	15.503	15.503	15.503	15.503	6.071 - 24.935	15.503
Gasoline Range Organics (GRO)-C6-C10	16.245	16.245	16.245	16.245	16.245	16.245	16.245	6.071 - 26.420	16.245
a,a,a-Trifluorotoluene	11.808	11.808	11.808	11.808	11.817	11.808	11.808	11.708 - 11.908	11.809
4-Bromofluorobenzene	19.400	19.400	19.392	19.400	19.400	19.400	19.400	19.300 - 19.500	19.399

FORM VI
GC VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Chicago Job No.: 240-820-1 Analy Batch No.: 115481

SDG No.:

Instrument ID: INST13-14 GC Column: DB624 ID: 0.2(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 06/03/2011 12:11 Calibration End Date: 06/03/2011 15:39 Calibration ID: 4716

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 500-115481/2	06031114_019.d
Level 2	IC 500-115481/3	06031114_020.d
Level 3	IC 500-115481/4	06031114_021.d
Level 4	IC 500-115481/5	06031114_022.d
Level 5	IC 500-115481/6	06031114_023.d
Level 6	IC 500-115481/7	06031114_024.d
Level 7	IC 500-115481/8	06031114_025.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Gasoline Range Organics (C6-C9)	Lin2	177647 4524334	389549 7219623	758777	1464413	2978679	20.0 600	50.0 1000	100	200	400
Gasoline Range Organics (GRO)-C5-C12	Lin2	220633 5102034	454219 8133699	869290	1650751	3363984	20.0 600	50.0 1000	100	200	400
Gasoline Range Organics (GRO)-C6-C12	Lin2	214126 4904927	437514 7822034	838698	1593008	3232296	20.0 600	50.0 1000	100	200	400
Gasoline Range Organics (GRO)-C6-C10	Lin2	222712 4958078	443836 7911298	850014	1612082	3269502	20.0 600	50.0 1000	100	200	400
a,a,a-Trifluorotoluene	Lin2	9950 260175	22321 420855	43495	87296	173770	1.00 30.0	2.50 50.0	5.00	10.0	20.0
4-Bromofluorobenzene	Lin2	6652 185996	14522 302352	28543	60453	121605	1.00 30.0	2.50 50.0	5.00	10.0	20.0

Curve Type Legend:
Lin2 = Linear 1/conc^2

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 500-115481/9 Calibration Date: 06/03/2011 16:13

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06031114_026.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7521		202	200	1.1	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8385		199	200	-0.6	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		8147		201	200	0.4	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		8223		200	200	0.2	15.0
a,a,a-Trifluorotoluene	Lin2		8451		20.4	20.0	2.0	15.0
4-Bromofluorobenzene	Lin2		5788		19.8	20.0	-1.0	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 500-115481/9 Calibration Date: 06/03/2011 16:13

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06031114_026.d Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW	
		TO	FROM
Gasoline Range Organics (C6-C9)	13.61	6.07	21.15
Gasoline Range Organics (GRO)-C5-C12	14.73	4.51	24.94
Gasoline Range Organics (GRO)-C6-C12	15.50	6.07	24.94
Gasoline Range Organics (GRO)-C6-C10	16.25	6.07	26.42
a,a,a-Trifluorotoluene	11.81	11.72	11.92
4-Bromofluorobenzene	19.39	19.30	19.50

GC VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Instrument ID: INST13-14 Start Date: 06/17/2011 08:57

Analysis Batch Number: 116764 End Date: 06/18/2011 00:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
~~ZZZZZ~~		06/17/2011 08:57	1		DB624 0.2(mm)
CCV 500-116764/2		06/17/2011 09:32	1	06171114_011.d	DB624 0.2(mm)
MB 500-116764/3		06/17/2011 10:08	1	06171114_012.d	DB624 0.2(mm)
LCS 500-116764/4		06/17/2011 10:43	1	06171114_013.d	DB624 0.2(mm)
240-820-1	GSP-SB-128-0-2	06/17/2011 11:55	1	06171114_015.d	DB624 0.2(mm)
240-820-1 MS	GSP-SB-128-0-2 MS	06/17/2011 12:30	1	06171114_016.d	DB624 0.2(mm)
240-820-1 MSD	GSP-SB-128-0-2 MSD	06/17/2011 13:06	1	06171114_017.d	DB624 0.2(mm)
240-820-2	GSP-SB-128-6-8	06/17/2011 13:41	1	06171114_018.d	DB624 0.2(mm)
240-820-4	GSP-SB-123-0-2	06/17/2011 14:17	1	06171114_019.d	DB624 0.2(mm)
240-820-5	GSP-SB-123-6-8	06/17/2011 14:52	1	06171114_020.d	DB624 0.2(mm)
240-820-7	GSP-SB-124-0-2	06/17/2011 15:28	1	06171114_021.d	DB624 0.2(mm)
CCV 500-116764/13		06/17/2011 16:03	1	06171114_022.d	DB624 0.2(mm)
240-820-8	GSP-SB-124-6-8	06/17/2011 16:39	1	06171114_023.d	DB624 0.2(mm)
240-820-10	GSP-SB-126-0-2	06/17/2011 17:14	1	06171114_024.d	DB624 0.2(mm)
240-820-11	GSP-SB-126-8-10	06/17/2011 17:50	1	06171114_025.d	DB624 0.2(mm)
240-820-12	GSP-SB-126-20-22	06/17/2011 18:25	1	06171114_026.d	DB624 0.2(mm)
240-820-13	GSP-SB-127-0-2	06/17/2011 19:01	1	06171114_027.d	DB624 0.2(mm)
240-820-14	GSP-SB-127-6-8	06/17/2011 19:36	1	06171114_028.d	DB624 0.2(mm)
240-820-16	GSP-SB-130-0-2	06/17/2011 20:12	1	06171114_029.d	DB624 0.2(mm)
240-820-17	GSP-SB-130-6-8	06/17/2011 20:47	1	06171114_030.d	DB624 0.2(mm)
240-820-18	GSP-SB-130-20-22	06/17/2011 21:23	1	06171114_031.d	DB624 0.2(mm)
ZZZZZ		06/17/2011 21:58	1		DB624 0.2(mm)
CCV 500-116764/24		06/17/2011 22:34	1	06171114_033.d	DB624 0.2(mm)
ZZZZZ		06/17/2011 23:09	1		DB624 0.2(mm)
ZZZZZ		06/17/2011 23:45	1		DB624 0.2(mm)
CCV 500-116764/28		06/18/2011 00:20	1		DB624 0.2(mm)

8015C

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 500-116764/2 Calibration Date: 06/17/2011 09:32

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06171114_011.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7749		421	400	5.3	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8779		424	400	6.0	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		8444		424	400	6.0	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		8551		425	400	6.3	15.0
a,a,a-Trifluorotoluene	Lin2		8762		20.3	20.0	1.5	15.0
4-Bromofluorobenzene	Lin2		6193		20.6	20.0	3.0	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 500-116764/2 Calibration Date: 06/17/2011 09:32

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06171114_011.d Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW	
		TO	FROM
Gasoline Range Organics (C6-C9)	13.57	6.03	21.12
Gasoline Range Organics (GRO)-C5-C12	14.69	4.48	24.90
Gasoline Range Organics (GRO)-C6-C12	15.47	6.03	24.90
Gasoline Range Organics (GRO)-C6-C10	16.21	6.03	26.39
a,a,a-Trifluorotoluene	11.77	11.67	11.87
4-Bromofluorobenzene	19.36	19.26	19.46

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 500-116764/13 Calibration Date: 06/17/2011 16:03

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06171114_022.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7594		413	400	3.2	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8546		413	400	3.1	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		8148		409	400	2.2	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		8229		409	400	2.2	15.0
a,a,a-Trifluorotoluene	Lin2		8597		19.9	20.0	-0.5	15.0
4-Bromofluorobenzene	Lin2		6007		19.9	20.0	-0.5	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 500-116764/13 Calibration Date: 06/17/2011 16:03

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06171114_022.d Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW	
		TO	FROM
Gasoline Range Organics (C6-C9)	13.57	6.03	21.12
Gasoline Range Organics (GRO)-C5-C12	14.69	4.48	24.90
Gasoline Range Organics (GRO)-C6-C12	15.47	6.03	24.90
Gasoline Range Organics (GRO)-C6-C10	16.21	6.03	26.39
a,a,a-Trifluorotoluene	11.77	11.67	11.87
4-Bromofluorobenzene	19.37	19.26	19.46

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 500-116764/24 Calibration Date: 06/17/2011 22:34

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06171114_033.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Gasoline Range Organics (C6-C9)	Lin2		7455		405	400	1.3	15.0
Gasoline Range Organics (GRO)-C5-C12	Lin2		8375		404	400	1.0	15.0
Gasoline Range Organics (GRO)-C6-C12	Lin2		8056		404	400	1.0	15.0
Gasoline Range Organics (GRO)-C6-C10	Lin2		8146		405	400	1.2	15.0
a,a,a-Trifluorotoluene	Lin2		8390		19.5	20.0	-2.5	15.0
4-Bromofluorobenzene	Lin2		5900		19.6	20.0	-2.0	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 500-116764/24 Calibration Date: 06/17/2011 22:34

Instrument ID: INST13-14 Calib Start Date: 06/03/2011 12:11

GC Column: DB624 ID: 0.20(mm) Calib End Date: 06/03/2011 15:39

Lab File ID: 06171114_033.d Heated Purge: (Y/N) Y

Analyte	RT	RT WINDOW	
		TO	FROM
Gasoline Range Organics (C6-C9)	13.57	6.03	21.12
Gasoline Range Organics (GRO)-C5-C12	14.69	4.48	24.90
Gasoline Range Organics (GRO)-C6-C12	15.47	6.03	24.90
Gasoline Range Organics (GRO)-C6-C10	16.21	6.03	26.39
a,a,a-Trifluorotoluene	11.78	11.67	11.87
4-Bromofluorobenzene	19.37	19.26	19.46

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Lab Sample ID: MB 500-116764/3

Matrix: Solid | Date Extracted: 06/17/2011 10:08

Lab File ID:(1) 06171114_012.d | Lab File ID:(2)

Date Analyzed:(1) 06/17/2011 10:08 | Date Analyzed:(2)

Instrument ID:(1) INST13-14 | Instrument ID:(2)

GC Column:(1) DB624 ID: 0.2(mm) | GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 500-116764/4	06/17/2011 10:43	
GSP-SB-128-0-2	240-820-1	06/17/2011 11:55	
GSP-SB-128-0-2 MS	240-820-1 MS	06/17/2011 12:30	
GSP-SB-128-0-2 MSD	240-820-1 MSD	06/17/2011 13:06	
GSP-SB-128-6-8	240-820-2	06/17/2011 13:41	
GSP-SB-123-0-2	240-820-4	06/17/2011 14:17	
GSP-SB-123-6-8	240-820-5	06/17/2011 14:52	
GSP-SB-124-0-2	240-820-7	06/17/2011 15:28	
GSP-SB-124-6-8	240-820-8	06/17/2011 16:39	
GSP-SB-126-0-2	240-820-10	06/17/2011 17:14	
GSP-SB-126-8-10	240-820-11	06/17/2011 17:50	
GSP-SB-126-20-22	240-820-12	06/17/2011 18:25	
GSP-SB-127-0-2	240-820-13	06/17/2011 19:01	
GSP-SB-127-6-8	240-820-14	06/17/2011 19:36	
GSP-SB-130-0-2	240-820-16	06/17/2011 20:12	
GSP-SB-130-6-8	240-820-17	06/17/2011 20:47	
GSP-SB-130-20-22	240-820-18	06/17/2011 21:23	

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 500-116764/3

Matrix: Solid | Lab File ID: 06171114_012.d

Analysis Method: 8015C | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 06/17/2011 10:08

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB624 ID: 0.2(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 116764 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
8006-61-9	Gasoline Range Organics (GRO)-C6-C10	50	U	50	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
98-08-8	a,a,a-Trifluorotoluene	103		64-116
460-00-4	4-Bromofluorobenzene	100		51-117

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06171114_013.d

Lab ID: LCS 500-116764/4 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	400	412	103	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06171114_016.d

Lab ID: 240-820-1 MS Client ID: GSP-SB-128-0-2 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	499	62 U	437	88	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 06171114_017.d

Lab ID: 240-820-1 MSD Client ID: GSP-SB-128-0-2 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Gasoline Range Organics (GRO) -C6-C10	499	445	89	2	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM II
GC VOA SURROGATE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB624 ID: 0.2 (mm)

Client Sample ID	Lab Sample ID	TFT1	#	BFB1	#
GSP-SB-128-0-2	240-820-1	99		91	
GSP-SB-128-6-8	240-820-2	95		89	
GSP-SB-123-0-2	240-820-4	88		79	
GSP-SB-123-6-8	240-820-5	96		89	
GSP-SB-124-0-2	240-820-7	79		70	
GSP-SB-124-6-8	240-820-8	95		88	
GSP-SB-126-0-2	240-820-10	81		70	
GSP-SB-126-8-10	240-820-11	93		86	
GSP-SB-126-20-22	240-820-12	93		88	
GSP-SB-127-0-2	240-820-13	88		78	
GSP-SB-127-6-8	240-820-14	94		87	
GSP-SB-130-0-2	240-820-16	84		75	
GSP-SB-130-6-8	240-820-17	92		87	
GSP-SB-130-20-22	240-820-18	92		84	
	MB 500-116764/3	103		100	
	LCS 500-116764/4	104		102	
GSP-SB-128-0-2 MS	240-820-1 MS	93		86	
GSP-SB-128-0-2 MSD	240-820-1 MSD	94		87	

	QC LIMITS
TFT = a,a,a-Trifluorotoluene	64-116
BFB = 4-Bromofluorobenzene	51-117

Column to be used to flag recovery values

FORM II 8015C

Method 8015C - DRO

Nonhalogenated Organics using GC/FID - Modified (Diesel Range Organics) by Method 8015C

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: A2HP14F Start Date: 05/19/2011 12:01

Analysis Batch Number: 2165 End Date: 05/19/2011 14:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-2165/4 IC		05/19/2011 12:01	1	P14F0000004.D	RTX-5 0.53(mm)
STD2 240-2165/5 IC		05/19/2011 12:25	1	P14F0000005.D	RTX-5 0.53(mm)
STD3 240-2165/6 IC		05/19/2011 12:49	1	P14F0000006.D	RTX-5 0.53(mm)
STD4 240-2165/7 IC		05/19/2011 13:14	1	P14F0000007.D	RTX-5 0.53(mm)
STD5 240-2165/8 IC		05/19/2011 13:38	1	P14F0000008.D	RTX-5 0.53(mm)
ICV 240-2165/9		05/19/2011 14:02	1	P14F0000009.D	RTX-5 0.53(mm)

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 2165

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1050

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2165/4	P14F0000004.D
Level 2	STD2 240-2165/5	P14F0000005.D
Level 3	STD3 240-2165/6	P14F0000006.D
Level 4	STD4 240-2165/7	P14F0000007.D
Level 5	STD5 240-2165/8	P14F0000008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	705763 336646	515461	435657	351683	Lin	44348394.0	314402.704							0.9980		0.9900
n-Nonane	413140 382989	431927	436350	381033	Ave		409087.891				6.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 2165

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1050

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2165/4	P14F0000004.D
Level 2	STD2 240-2165/5	P14F0000005.D
Level 3	STD3 240-2165/6	P14F0000006.D
Level 4	STD4 240-2165/7	P14F0000007.D
Level 5	STD5 240-2165/8	P14F0000008.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5				RT WINDOW	AVG RT
Diesel	8.122	8.122	8.122	8.122	8.122				3.590 - 12.654	8.122
n-Nonane	1.752	1.753	1.757	1.755	1.757				1.702 - 1.802	1.755

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 2165

SDG No.:

Instrument ID: A2HP14F GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2011 12:01 Calibration End Date: 05/19/2011 13:38 Calibration ID: 1050

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-2165/4	P14F0000004.D
Level 2	STD2 240-2165/5	P14F0000005.D
Level 3	STD3 240-2165/6	P14F0000006.D
Level 4	STD4 240-2165/7	P14F0000007.D
Level 5	STD5 240-2165/8	P14F0000008.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel	Lin	70576281	103092243	217828353	351682761	673292607	100	200	500	1000	2000
n-Nonane	Ave	4131403	8638546	21817505	38103250	76597851	10.0	20.0	50.0	100	200

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-2165/9 Calibration Date: 05/19/2011 14:02

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		411800		514	500	2.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-2165/9 Calibration Date: 05/19/2011 14:02

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000009.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.12	3.59	12.65

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: A2HP14F Start Date: 06/20/2011 12:17

Analysis Batch Number: 5353 End Date: 06/21/2011 00:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RINSE 240-5353/1		06/20/2011 12:17	1		RTX-5 0.53(mm)
RINSE 240-5353/2		06/20/2011 12:42	1		RTX-5 0.53(mm)
CCVRT 240-5353/4		06/20/2011 13:31	1	P14F0000004.D	RTX-5 0.53(mm)
ZZZZZ		06/20/2011 14:20	1		RTX-5 0.53(mm)
ZZZZZ		06/20/2011 14:44	1		RTX-5 0.53(mm)
ZZZZZ		06/20/2011 15:09	1		RTX-5 0.53(mm)
ZZZZZ		06/20/2011 15:33	1		RTX-5 0.53(mm)
ZZZZZ		06/20/2011 15:58	1		RTX-5 0.53(mm)
ZZZZZ		06/20/2011 16:22	1		RTX-5 0.53(mm)
ZZZZZ		06/20/2011 16:47	1		RTX-5 0.53(mm)
ZZZZZ		06/20/2011 17:11	1		RTX-5 0.53(mm)
ZZZZZ		06/20/2011 17:35	1		RTX-5 0.53(mm)
240-820-1	GSP-SB-128-0-2	06/20/2011 18:00	1	P14F0000015.D	RTX-5 0.53(mm)
MB 240-4848/1-A		06/20/2011 18:24	1	P14F0000016.D	RTX-5 0.53(mm)
CCV 240-5353/17		06/20/2011 18:49	1	P14F0000017.D	RTX-5 0.53(mm)
240-820-2	GSP-SB-128-6-8	06/20/2011 19:13	1	P14F0000018.D	RTX-5 0.53(mm)
240-820-4	GSP-SB-123-0-2	06/20/2011 19:38	1	P14F0000019.D	RTX-5 0.53(mm)
240-820-5	GSP-SB-123-6-8	06/20/2011 20:02	1	P14F0000020.D	RTX-5 0.53(mm)
240-820-7	GSP-SB-124-0-2	06/20/2011 20:26	10	P14F0000021.D	RTX-5 0.53(mm)
240-820-8	GSP-SB-124-6-8	06/20/2011 20:51	1	P14F0000022.D	RTX-5 0.53(mm)
240-820-10	GSP-SB-126-0-2	06/20/2011 21:15	1	P14F0000023.D	RTX-5 0.53(mm)
240-820-11	GSP-SB-126-8-10	06/20/2011 21:39	1	P14F0000024.D	RTX-5 0.53(mm)
240-820-12	GSP-SB-126-20-22	06/20/2011 22:04	1	P14F0000025.D	RTX-5 0.53(mm)
240-820-13	GSP-SB-127-0-2	06/20/2011 22:28	1	P14F0000026.D	RTX-5 0.53(mm)
240-820-13 MS	GSP-SB-127-0-2 MS	06/20/2011 22:52	1	P14F0000027.D	RTX-5 0.53(mm)
240-820-13 MSD	GSP-SB-127-0-2 MSD	06/20/2011 23:17	1	P14F0000028.D	RTX-5 0.53(mm)
LCS 240-4848/2-A		06/20/2011 23:41	1	P14F0000029.D	RTX-5 0.53(mm)
CCV 240-5353/30		06/21/2011 00:06	1	P14F0000030.D	RTX-5 0.53(mm)

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCVRT 240-5353/4 Calibration Date: 06/20/2011 13:31

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		427847		539	500	7.9	20.0
n-Nonane	Ave	409088	420459		51.4	50.0	2.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCVRT 240-5353/4 Calibration Date: 06/20/2011 13:31

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000004.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.10	3.57	12.64
n-Nonane	1.74	1.69	1.79

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5353/17 Calibration Date: 06/20/2011 18:49

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000017.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		391526		482	500	-3.7	20.0
n-Nonane	Ave	409088	429428		52.5	50.0	5.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5353/17 Calibration Date: 06/20/2011 18:49

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000017.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.10	3.57	12.64
n-Nonane	1.73	1.69	1.79

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5353/30 Calibration Date: 06/21/2011 00:06

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000030.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Lin		380567		464	500	-7.2	20.0
n-Nonane	Ave	409088	391553		47.9	50.0	-4.3	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5353/30 Calibration Date: 06/21/2011 00:06

Instrument ID: A2HP14F Calib Start Date: 05/19/2011 12:01

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/19/2011 13:38

Lab File ID: P14F0000030.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.10	3.57	12.64
n-Nonane	1.74	1.69	1.79

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: MB 240-4848/1-A

Matrix: Solid Date Extracted: 06/15/2011 10:36

Lab File ID:(1) P14F0000016.D Lab File ID:(2)

Date Analyzed:(1) 06/20/2011 18:24 Date Analyzed:(2)

Instrument ID:(1) A2HP14F Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-SB-128-0-2	240-820-1	06/20/2011 18:00	
GSP-SB-128-6-8	240-820-2	06/20/2011 19:13	
GSP-SB-123-0-2	240-820-4	06/20/2011 19:38	
GSP-SB-123-6-8	240-820-5	06/20/2011 20:02	
GSP-SB-124-0-2	240-820-7	06/20/2011 20:26	
GSP-SB-124-6-8	240-820-8	06/20/2011 20:51	
GSP-SB-126-0-2	240-820-10	06/20/2011 21:15	
GSP-SB-126-8-10	240-820-11	06/20/2011 21:39	
GSP-SB-126-20-22	240-820-12	06/20/2011 22:04	
GSP-SB-127-0-2	240-820-13	06/20/2011 22:28	
GSP-SB-127-0-2 MS	240-820-13 MS	06/20/2011 22:52	
GSP-SB-127-0-2 MSD	240-820-13 MSD	06/20/2011 23:17	
	LCS 240-4848/2-A	06/20/2011 23:41	

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4848/1-A

Matrix: Solid | Lab File ID: P14F0000016.D

Analysis Method: 8015C | Date Collected:

Extraction Method: 3540C | Date Extracted: 06/15/2011 10:36

Sample wt/vol: 30(g) | Date Analyzed: 06/20/2011 18:24

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5353 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	17	U	17	9.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	52		10-110

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P14F0000029.D

Lab ID: LCS 240-4848/2-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
Diesel	83.3	76.4	92	47-138	

Column to be used to flag recovery and RPD values

FORM III 8015C

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: A2HP5 Start Date: 04/25/2011 10:32

Analysis Batch Number: 1563 End Date: 04/25/2011 12:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD1 240-1563/3 IC		04/25/2011 10:32	1	P5042504.D	RTX-5 0.53(mm)
STD2 240-1563/4 IC		04/25/2011 11:01	1	P5042505.D	RTX-5 0.53(mm)
STD3 240-1563/5 IC		04/25/2011 11:30	1	P5042506.D	RTX-5 0.53(mm)
STD4 240-1563/6 IC		04/25/2011 11:59	1	P5042507.D	RTX-5 0.53(mm)
STD5 240-1563/7 IC		04/25/2011 12:29	1	P5042508.D	RTX-5 0.53(mm)
ICV 240-1563/13		04/25/2011 12:58	1	P5042509.D	RTX-5 0.53(mm)

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1563

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2011 10:32 Calibration End Date: 04/25/2011 11:01 Calibration ID: 958

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-1563/3	P5042504.D
Level 2	STD2 240-1563/4	P5042505.D
Level 3	STD3 240-1563/5	P5042506.D
Level 4	STD4 240-1563/6	P5042507.D
Level 5	STD5 240-1563/7	P5042508.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
Diesel	253880 183844	194912	213715	180853	Ave		205440.756				15.0		20.0			
n-Nonane	283211 249411	245446	269991	245251	Ave		258662.187				6.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1563

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2011 10:32 Calibration End Date: 04/25/2011 11:01 Calibration ID: 958

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-1563/3	P5042504.D
Level 2	STD2 240-1563/4	P5042505.D
Level 3	STD3 240-1563/5	P5042506.D
Level 4	STD4 240-1563/6	P5042507.D
Level 5	STD5 240-1563/7	P5042508.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5					RT WINDOW	AVG RT
Diesel	9.064	9.064	9.064	9.064	9.064					4.838 - 13.289	9.064
n-Nonane	3.697	3.693	3.696	3.695	3.699					3.647 - 3.747	3.696

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1563

SDG No.:

Instrument ID: A2HP5 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/25/2011 10:32 Calibration End Date: 04/25/2011 11:01 Calibration ID: 958

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-1563/3	P5042504.D
Level 2	STD2 240-1563/4	P5042505.D
Level 3	STD3 240-1563/5	P5042506.D
Level 4	STD4 240-1563/6	P5042507.D
Level 5	STD5 240-1563/7	P5042508.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Diesel	Ave	25388034	38982467	106857343	180852891	367687061	100	200	500	1000	2000
n-Nonane	Ave	2832113	4908911	13499563	24525133	49882299	10.0	20.0	50.0	100	200

Curve Type Legend:
Ave = Average

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1563/13 Calibration Date: 04/25/2011 12:58

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5042509.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	212671		518	500	3.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1563/13 Calibration Date: 04/25/2011 12:58

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5042509.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	9.06	4.84	13.29

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: A2HP5 Start Date: 06/23/2011 20:01

Analysis Batch Number: 5859 End Date: 06/23/2011 23:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 240-5859/17		06/23/2011 20:01	1	P5062317.D	RTX-5 0.53(mm)
240-820-14	GSP-SB-127-6-8	06/23/2011 20:29	1	P5062318.D	RTX-5 0.53(mm)
240-820-16	GSP-SB-130-0-2	06/23/2011 20:57	1	P5062319.D	RTX-5 0.53(mm)
240-820-17	GSP-SB-130-6-8	06/23/2011 21:25	1	P5062320.D	RTX-5 0.53(mm)
240-820-18	GSP-SB-130-20-22	06/23/2011 21:53	1	P5062321.D	RTX-5 0.53(mm)
MB 240-5022/5-A		06/23/2011 22:21	1	P5062322.D	RTX-5 0.53(mm)
LCS 240-5022/6-A		06/23/2011 22:49	1	P5062323.D	RTX-5 0.53(mm)
CCV 240-5859/24		06/23/2011 23:17	1	P5062324.D	RTX-5 0.53(mm)

8015C

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCVRT 240-5859/17 Calibration Date: 06/23/2011 20:01

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062317.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	184864		450	500	-10.0	20.0
n-Nonane	Ave	258662	258515		50.0	50.0	-0.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCVRT 240-5859/17 Calibration Date: 06/23/2011 20:01

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062317.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.78	4.49	13.06
n-Nonane	3.12	3.05	3.19

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5859/24 Calibration Date: 06/23/2011 23:17

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062324.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Diesel	Ave	205441	183138		446	500	-10.9	20.0
n-Nonane	Ave	258662	258620		50.0	50.0	-0.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5859/24 Calibration Date: 06/23/2011 23:17

Instrument ID: A2HP5 Calib Start Date: 04/25/2011 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 04/25/2011 11:01

Lab File ID: P5062324.D

Analyte	RT	RT WINDOW	
		TO	FROM
Diesel	8.78	4.49	13.06
n-Nonane	3.12	3.05	3.19

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: MB 240-5022/5-A

Matrix: Solid Date Extracted: 06/16/2011 11:17

Lab File ID:(1) P5062322.D Lab File ID:(2)

Date Analyzed:(1) 06/23/2011 22:21 Date Analyzed:(2)

Instrument ID:(1) A2HP5 Instrument ID:(2)

GC Column:(1) RTX-5 ID: 0.53(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-SB-127-6-8	240-820-14	06/23/2011 20:29	
GSP-SB-130-0-2	240-820-16	06/23/2011 20:57	
GSP-SB-130-6-8	240-820-17	06/23/2011 21:25	
GSP-SB-130-20-22	240-820-18	06/23/2011 21:53	
	LCS 240-5022/6-A	06/23/2011 22:49	

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-820-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-5022/5-A
Matrix: Solid
Lab File ID: P5062322.D
Analysis Method: 8015C
Date Collected:
Extraction Method: 3540C
Date Extracted: 06/16/2011 11:17
Sample wt/vol: 30.00(g)
Date Analyzed: 06/23/2011 22:21
Con. Extract Vol.: 5.00(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: RTX-5 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 5859
Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00141	Total Petroleum Hydrocarbons (C10-C32)	17	U	17	9.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
111-84-2	n-Nonane	45		10-110

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P5062323.D

Lab ID: LCS 240-5022/6-A Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
Diesel	83.3	68.2	82	47-138	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P14F0000027.D

Lab ID: 240-820-13 MS Client ID: GSP-SB-127-0-2 MS

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
Diesel	94.6	19 U	68.4	72	10-199	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P14F0000028.D

Lab ID: 240-820-13 MSD Client ID: GSP-SB-127-0-2 MSD

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Diesel	94.9	76.2	80	11	30	10-199	

Column to be used to flag recovery and RPD values

FORM III 8015C

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RTX-5 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	C91	#
GSP-SB-128-0-2	240-820-1	43	
GSP-SB-128-6-8	240-820-2	23	
GSP-SB-123-0-2	240-820-4	45	
GSP-SB-123-6-8	240-820-5	48	
GSP-SB-124-0-2	240-820-7	39	
GSP-SB-124-6-8	240-820-8	42	
GSP-SB-126-0-2	240-820-10	44	
GSP-SB-126-8-10	240-820-11	46	
GSP-SB-126-20-22	240-820-12	46	
GSP-SB-127-0-2	240-820-13	44	
GSP-SB-127-6-8	240-820-14	41	
GSP-SB-130-0-2	240-820-16	35	
GSP-SB-130-6-8	240-820-17	42	
GSP-SB-130-20-22	240-820-18	34	
	MB 240-4848/1-A	52	
	MB 240-5022/5-A	45	
	LCS 240-4848/2-A	49	
	LCS 240-5022/6-A	37	
GSP-SB-127-0-2 MS	240-820-13 MS	41	
GSP-SB-127-0-2 MSD	240-820-13 MSD	47	

C9 = n-Nonane

QC LIMITS
10-110

Column to be used to flag recovery values

FORM II 8015C

Method 8082A

Polychlorinated Biphenyls (PCBs) (GC) by Method 8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: A2HP12 Start Date: 05/07/2011 10:37

Analysis Batch Number: 1720 End Date: 05/07/2011 22:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD005 240-1720/1 IC		05/07/2011 10:37	1	P1250702.D	CLP-1 0.53(mm)
STD005 240-1720/1 IC		05/07/2011 10:37	1	P1250702.D	CLP-2 0.53(mm)
STD01 240-1720/2 IC		05/07/2011 10:52	1	P1250703.D	CLP-1 0.53(mm)
STD01 240-1720/2 IC		05/07/2011 10:52	1	P1250703.D	CLP-2 0.53(mm)
STD02 240-1720/3 IC		05/07/2011 11:06	1	P1250704.D	CLP-1 0.53(mm)
STD02 240-1720/3 IC		05/07/2011 11:06	1	P1250704.D	CLP-2 0.53(mm)
STD05 240-1720/4 IC		05/07/2011 11:21	1	P1250705.D	CLP-1 0.53(mm)
STD05 240-1720/4 IC		05/07/2011 11:21	1	P1250705.D	CLP-2 0.53(mm)
STD1 240-1720/5 IC		05/07/2011 11:35	1	P1250706.D	CLP-1 0.53(mm)
STD1 240-1720/5 IC		05/07/2011 11:35	1	P1250706.D	CLP-2 0.53(mm)
STD2 240-1720/6 IC		05/07/2011 11:50	1	P1250707.D	CLP-1 0.53(mm)
STD2 240-1720/6 IC		05/07/2011 11:50	1	P1250707.D	CLP-2 0.53(mm)
STD005 240-1720/7 IC		05/07/2011 12:05	1	P1250708.D	CLP-1 0.53(mm)
STD005 240-1720/7 IC		05/07/2011 12:05	1	P1250708.D	CLP-2 0.53(mm)
STD01 240-1720/8 IC		05/07/2011 12:19	1	P1250709.D	CLP-1 0.53(mm)
STD01 240-1720/8 IC		05/07/2011 12:19	1	P1250709.D	CLP-2 0.53(mm)
STD02 240-1720/9 IC		05/07/2011 12:34	1	P1250710.D	CLP-1 0.53(mm)
STD02 240-1720/9 IC		05/07/2011 12:34	1	P1250710.D	CLP-2 0.53(mm)
STD05 240-1720/10 IC		05/07/2011 12:48	1	P1250711.D	CLP-1 0.53(mm)
STD05 240-1720/10 IC		05/07/2011 12:48	1	P1250711.D	CLP-2 0.53(mm)
STD1 240-1720/11 IC		05/07/2011 13:02	1	P1250712.D	CLP-1 0.53(mm)
STD1 240-1720/11 IC		05/07/2011 13:02	1	P1250712.D	CLP-2 0.53(mm)
STD2 240-1720/12 IC		05/07/2011 13:17	1	P1250713.D	CLP-1 0.53(mm)
STD2 240-1720/12 IC		05/07/2011 13:17	1	P1250713.D	CLP-2 0.53(mm)
STD005 240-1720/13 IC		05/07/2011 13:32	1	P1250714.D	CLP-1 0.53(mm)
STD005 240-1720/13 IC		05/07/2011 13:32	1	P1250714.D	CLP-2 0.53(mm)
STD01 240-1720/14 IC		05/07/2011 13:46	1	P1250715.D	CLP-1 0.53(mm)
STD01 240-1720/14 IC		05/07/2011 13:46	1	P1250715.D	CLP-2 0.53(mm)
STD02 240-1720/15 IC		05/07/2011 14:01	1	P1250716.D	CLP-1 0.53(mm)
STD02 240-1720/15 IC		05/07/2011 14:01	1	P1250716.D	CLP-2 0.53(mm)
STD05 240-1720/16 IC		05/07/2011 14:15	1	P1250717.D	CLP-1 0.53(mm)
STD05 240-1720/16 IC		05/07/2011 14:15	1	P1250717.D	CLP-2 0.53(mm)
STD1 240-1720/17 IC		05/07/2011 14:30	1	P1250718.D	CLP-1 0.53(mm)
STD1 240-1720/17 IC		05/07/2011 14:30	1	P1250718.D	CLP-2 0.53(mm)
STD2 240-1720/18 IC		05/07/2011 14:44	1	P1250719.D	CLP-1 0.53(mm)
STD2 240-1720/18 IC		05/07/2011 14:44	1	P1250719.D	CLP-2 0.53(mm)
STD005 240-1720/19 IC		05/07/2011 14:59	1	P1250720.D	CLP-1 0.53(mm)
STD005 240-1720/19 IC		05/07/2011 14:59	1	P1250720.D	CLP-2 0.53(mm)
STD01 240-1720/20 IC		05/07/2011 15:14	1	P1250721.D	CLP-1 0.53(mm)
STD01 240-1720/20 IC		05/07/2011 15:14	1	P1250721.D	CLP-2 0.53(mm)
STD02 240-1720/21 IC		05/07/2011 15:28	1	P1250722.D	CLP-1 0.53(mm)
STD02 240-1720/21 IC		05/07/2011 15:28	1	P1250722.D	CLP-2 0.53(mm)
STD05 240-1720/22 IC		05/07/2011 15:42	1	P1250723.D	CLP-1 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: A2HP12 Start Date: 05/07/2011 10:37

Analysis Batch Number: 1720 End Date: 05/07/2011 22:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD05 240-1720/22 IC		05/07/2011 15:42	1	P1250723.D	CLP-2 0.53(mm)
STD1 240-1720/23 IC		05/07/2011 15:56	1	P1250724.D	CLP-1 0.53(mm)
STD1 240-1720/23 IC		05/07/2011 15:56	1	P1250724.D	CLP-2 0.53(mm)
STD2 240-1720/24 IC		05/07/2011 16:11	1	P1250725.D	CLP-1 0.53(mm)
STD2 240-1720/24 IC		05/07/2011 16:11	1	P1250725.D	CLP-2 0.53(mm)
STD005 240-1720/25 IC		05/07/2011 16:26	1	P1250726.D	CLP-1 0.53(mm)
STD005 240-1720/25 IC		05/07/2011 16:26	1	P1250726.D	CLP-2 0.53(mm)
STD01 240-1720/26 IC		05/07/2011 16:40	1	P1250727.D	CLP-1 0.53(mm)
STD01 240-1720/26 IC		05/07/2011 16:40	1	P1250727.D	CLP-2 0.53(mm)
STD02 240-1720/27 IC		05/07/2011 16:54	1	P1250728.D	CLP-1 0.53(mm)
STD02 240-1720/27 IC		05/07/2011 16:54	1	P1250728.D	CLP-2 0.53(mm)
STD05 240-1720/28 ICRT		05/07/2011 17:09	1	P1250729.D	CLP-1 0.53(mm)
STD05 240-1720/28 ICRT		05/07/2011 17:09	1	P1250729.D	CLP-2 0.53(mm)
STD1 240-1720/29 IC		05/07/2011 17:24	1	P1250730.D	CLP-1 0.53(mm)
STD1 240-1720/29 IC		05/07/2011 17:24	1	P1250730.D	CLP-2 0.53(mm)
STD2 240-1720/30 IC		05/07/2011 17:38	1	P1250731.D	CLP-1 0.53(mm)
STD2 240-1720/30 IC		05/07/2011 17:38	1	P1250731.D	CLP-2 0.53(mm)
STD005 240-1720/31 IC		05/07/2011 17:53	1		CLP-1 0.53(mm)
STD005 240-1720/31 IC		05/07/2011 17:53	1		CLP-2 0.53(mm)
STD01 240-1720/32 IC		05/07/2011 18:07	1		CLP-1 0.53(mm)
STD01 240-1720/32 IC		05/07/2011 18:07	1		CLP-2 0.53(mm)
STD02 240-1720/33 IC		05/07/2011 18:22	1		CLP-1 0.53(mm)
STD02 240-1720/33 IC		05/07/2011 18:22	1		CLP-2 0.53(mm)
STD05 240-1720/34 IC		05/07/2011 18:36	1		CLP-1 0.53(mm)
STD05 240-1720/34 IC		05/07/2011 18:36	1		CLP-2 0.53(mm)
STD1 240-1720/35 IC		05/07/2011 18:51	1		CLP-1 0.53(mm)
STD1 240-1720/35 IC		05/07/2011 18:51	1		CLP-2 0.53(mm)
STD2 240-1720/36 IC		05/07/2011 19:05	1		CLP-1 0.53(mm)
STD2 240-1720/36 IC		05/07/2011 19:05	1		CLP-2 0.53(mm)
STD005 240-1720/37 IC		05/07/2011 19:19	1		CLP-1 0.53(mm)
STD005 240-1720/37 IC		05/07/2011 19:19	1		CLP-2 0.53(mm)
STD01 240-1720/38 IC		05/07/2011 19:34	1		CLP-1 0.53(mm)
STD01 240-1720/38 IC		05/07/2011 19:34	1		CLP-2 0.53(mm)
STD02 240-1720/39 IC		05/07/2011 19:48	1		CLP-1 0.53(mm)
STD02 240-1720/39 IC		05/07/2011 19:48	1		CLP-2 0.53(mm)
STD05 240-1720/40 IC		05/07/2011 20:03	1		CLP-1 0.53(mm)
STD05 240-1720/40 IC		05/07/2011 20:03	1		CLP-2 0.53(mm)
STD1 240-1720/41 IC		05/07/2011 20:18	1		CLP-1 0.53(mm)
STD1 240-1720/41 IC		05/07/2011 20:18	1		CLP-2 0.53(mm)
STD2 240-1720/42 IC		05/07/2011 20:32	1		CLP-1 0.53(mm)
STD2 240-1720/42 IC		05/07/2011 20:32	1		CLP-2 0.53(mm)

8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: A2HP12 Start Date: 05/07/2011 10:37

Analysis Batch Number: 1720 End Date: 05/07/2011 22:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 240-1720/43		05/07/2011 20:46	1	P1250744.D	CLP-1 0.53(mm)
ICV 240-1720/43		05/07/2011 20:46	1	P1250744.D	CLP-2 0.53(mm)
ICV 240-1720/44		05/07/2011 21:01	1	P1250745.D	CLP-1 0.53(mm)
ICV 240-1720/44		05/07/2011 21:01	1	P1250745.D	CLP-2 0.53(mm)
ICV 240-1720/45		05/07/2011 21:15	1	P1250746.D	CLP-1 0.53(mm)
ICV 240-1720/45		05/07/2011 21:15	1	P1250746.D	CLP-2 0.53(mm)
ICV 240-1720/46		05/07/2011 21:30	1	P1250747.D	CLP-1 0.53(mm)
ICV 240-1720/46		05/07/2011 21:30	1	P1250747.D	CLP-2 0.53(mm)
ICV 240-1720/47		05/07/2011 21:44	1	P1250748.D	CLP-1 0.53(mm)
ICV 240-1720/47		05/07/2011 21:44	1	P1250748.D	CLP-2 0.53(mm)
ICV 240-1720/48		05/07/2011 21:59	1	P1250749.D	CLP-1 0.53(mm)
ICV 240-1720/48		05/07/2011 21:59	1	P1250749.D	CLP-2 0.53(mm)
ICV 240-1720/49		05/07/2011 22:13	1		CLP-1 0.53(mm)
ICV 240-1720/49		05/07/2011 22:13	1		CLP-2 0.53(mm)
ICV 240-1720/50		05/07/2011 22:28	1		CLP-1 0.53(mm)
ICV 240-1720/50		05/07/2011 22:28	1		CLP-2 0.53(mm)

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 10:37 Calibration End Date: 05/07/2011 11:50 Calibration ID: 864

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/1	P1250702.D
Level 2	STD01 240-1720/2	P1250703.D
Level 3	STD02 240-1720/3	P1250704.D
Level 4	STD05 240-1720/4	P1250705.D
Level 5	STD1 240-1720/5	P1250706.D
Level 6	STD2 240-1720/6	P1250707.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1232 Peak 1	37106640 29154709	35392550 25552061	32128895	29847634	Ave		31530414.8				13.0		20.0			
PCB-1232 Peak 2	27348860 22025070	26227640 19774002	24324390	22280006	Ave		23663328.0				12.0		20.0			
PCB-1232 Peak 3	53229600 45744791	52000320 42330855	48321525	42529454	Ave		47359424.1				9.8		20.0			
PCB-1232 Peak 4	21005740 18085619	20940870 16663106	19521910	17702622	Ave		18986644.4				9.4		20.0			
PCB-1232 Peak 5	28182140 26403924	29035950 23973701	27566025	26195350	Ave		26892848.3				6.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 10:37 Calibration End Date: 05/07/2011 11:50 Calibration ID: 864

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/1	P1250702.D
Level 2	STD01 240-1720/2	P1250703.D
Level 3	STD02 240-1720/3	P1250704.D
Level 4	STD05 240-1720/4	P1250705.D
Level 5	STD1 240-1720/5	P1250706.D
Level 6	STD2 240-1720/6	P1250707.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1232 Peak 1	1.666	1.666	1.666	1.665	1.666	1.666	1.616 - 1.716	1.666
PCB-1232 Peak 2	1.965	1.965	1.964	1.964	1.965	1.966	1.915 - 2.015	1.965
PCB-1232 Peak 3	2.373	2.374	2.373	2.373	2.375	2.375	2.323 - 2.423	2.374
PCB-1232 Peak 4	2.498	2.499	2.497	2.498	2.499	2.499	2.448 - 2.548	2.498
PCB-1232 Peak 5	3.320	3.318	3.319	3.319	3.318	3.319	3.270 - 3.370	3.319

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 10:37 Calibration End Date: 05/07/2011 11:50 Calibration ID: 864

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/1	P1250702.D
Level 2	STD01 240-1720/2	P1250703.D
Level 3	STD02 240-1720/3	P1250704.D
Level 4	STD05 240-1720/4	P1250705.D
Level 5	STD1 240-1720/5	P1250706.D
Level 6	STD2 240-1720/6	P1250707.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	Ave	1855332 51104121	3539255	6425779	14923817	29154709	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	Ave	1367443 39548004	2622764	4864878	11140003	22025070	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	Ave	2661480 84661709	5200032	9664305	21264727	45744791	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	Ave	1050287 33326211	2094087	3904382	8851311	18085619	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	Ave	1409107 47947401	2903595	5513205	13097675	26403924	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 10:37 Calibration End Date: 05/07/2011 11:50 Calibration ID: 865

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/1	P1250702.D
Level 2	STD01 240-1720/2	P1250703.D
Level 3	STD02 240-1720/3	P1250704.D
Level 4	STD05 240-1720/4	P1250705.D
Level 5	STD1 240-1720/5	P1250706.D
Level 6	STD2 240-1720/6	P1250707.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1232 Peak 1	22443580 16994989	21246420 15268434	19530855	18179418	Ave		18943949.4				14.0		20.0			
PCB-1232 Peak 2	19289460 12967389	15677270 11627236	15052185	13904828	Ave		14753061.3				18.0		20.0			
PCB-1232 Peak 3	33246060 25768620	31220020 23851844	28859765	27253366	Ave		28366612.5				12.0		20.0			
PCB-1232 Peak 4	14224240 11213272	13662140 10422343	12297200	12026412	Ave		12307601.1				12.0		20.0			
PCB-1232 Peak 5	11074480 8749438	10454190 8253236	9617285	9336314	Ave		9580823.75				11.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 10:37 Calibration End Date: 05/07/2011 11:50 Calibration ID: 865

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/1	P1250702.D
Level 2	STD01 240-1720/2	P1250703.D
Level 3	STD02 240-1720/3	P1250704.D
Level 4	STD05 240-1720/4	P1250705.D
Level 5	STD1 240-1720/5	P1250706.D
Level 6	STD2 240-1720/6	P1250707.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1232 Peak 1	2.323	2.323	2.323	2.323	2.324	2.324	2.273 - 2.373	2.323
PCB-1232 Peak 2	2.736	2.736	2.736	2.734	2.737	2.736	2.686 - 2.786	2.736
PCB-1232 Peak 3	3.203	3.203	3.203	3.204	3.205	3.204	3.153 - 3.253	3.204
PCB-1232 Peak 4	3.343	3.344	3.344	3.344	3.346	3.345	3.293 - 3.393	3.344
PCB-1232 Peak 5	3.449	3.448	3.449	3.449	3.450	3.450	3.399 - 3.499	3.449

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 10:37 Calibration End Date: 05/07/2011 11:50 Calibration ID: 865

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/1	P1250702.D
Level 2	STD01 240-1720/2	P1250703.D
Level 3	STD02 240-1720/3	P1250704.D
Level 4	STD05 240-1720/4	P1250705.D
Level 5	STD1 240-1720/5	P1250706.D
Level 6	STD2 240-1720/6	P1250707.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	Ave	1122179 30536869	2124642	3906171	9089709	16994989	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	Ave	964473 23254472	1567727	3010437	6952414	12967389	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	Ave	1662303 47703688	3122002	5771953	13626683	25768620	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	Ave	711212 20844685	1366214	2459440	6013206	11213272	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	Ave	553724 16506471	1045419	1923457	4668157	8749438	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 12:05 Calibration End Date: 05/07/2011 13:17 Calibration ID: 870

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/7	P1250708.D
Level 2	STD01 240-1720/8	P1250709.D
Level 3	STD02 240-1720/9	P1250710.D
Level 4	STD05 240-1720/10	P1250711.D
Level 5	STD1 240-1720/11	P1250712.D
Level 6	STD2 240-1720/12	P1250713.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1242 Peak 1	25507740 20427645	24551550 18517727	23357115	21698950	Ave		22343454.4				12.0		20.0			
PCB-1242 Peak 2	47008720 37915517	45013400 34701999	43020160	40669136	Ave		41388155.3				11.0		20.0			
PCB-1242 Peak 3	98094440 85505307	94045830 80194740	91836830	88882988	Ave		89760022.5				7.1		20.0			
PCB-1242 Peak 4	40845520 33806501	38143330 31773537	37020645	35225618	Ave		36135858.4				8.9		20.0			
PCB-1242 Peak 5	40143640 34700700	38709450 32720607	38054950	36610870	Ave		36823369.4				7.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 12:05 Calibration End Date: 05/07/2011 13:17 Calibration ID: 870

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/7	P1250708.D
Level 2	STD01 240-1720/8	P1250709.D
Level 3	STD02 240-1720/9	P1250710.D
Level 4	STD05 240-1720/10	P1250711.D
Level 5	STD1 240-1720/11	P1250712.D
Level 6	STD2 240-1720/12	P1250713.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1242 Peak 1	1.666	1.666	1.665	1.665	1.666	1.666	1.616 - 1.716	1.666
PCB-1242 Peak 2	1.965	1.965	1.964	1.963	1.966	1.965	1.915 - 2.015	1.965
PCB-1242 Peak 3	2.373	2.374	2.373	2.373	2.375	2.374	2.323 - 2.423	2.374
PCB-1242 Peak 4	2.498	2.499	2.498	2.498	2.499	2.498	2.448 - 2.548	2.498
PCB-1242 Peak 5	2.888	2.889	2.889	2.888	2.890	2.889	2.838 - 2.938	2.889

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 12:05 Calibration End Date: 05/07/2011 13:17 Calibration ID: 870

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/7	P1250708.D
Level 2	STD01 240-1720/8	P1250709.D
Level 3	STD02 240-1720/9	P1250710.D
Level 4	STD05 240-1720/10	P1250711.D
Level 5	STD1 240-1720/11	P1250712.D
Level 6	STD2 240-1720/12	P1250713.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	Ave	1275387 37035453	2455155	4671423	10849475	20427645	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 2	Ave	2350436 69403998	4501340	8604032	20334568	37915517	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 3	Ave	4904722 160389480	9404583	18367366	44441494	85505307	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 4	Ave	2042276 63547073	3814333	7404129	17612809	33806501	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 5	Ave	2007182 65441213	3870945	7610990	18305435	34700700	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 12:05 Calibration End Date: 05/07/2011 13:17 Calibration ID: 871

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/7	P1250708.D
Level 2	STD01 240-1720/8	P1250709.D
Level 3	STD02 240-1720/9	P1250710.D
Level 4	STD05 240-1720/10	P1250711.D
Level 5	STD1 240-1720/11	P1250712.D
Level 6	STD2 240-1720/12	P1250713.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1242 Peak 1	16005320 12196983	15021730 11237429	14164405	13194406	Ave		13636712.2				13.0		20.0			
PCB-1242 Peak 2	29970200 23577483	27374250 21865573	27648880	25634632	Ave		26011836.3				11.0		20.0			
PCB-1242 Peak 3	59713920 47702346	55316730 45033825	52786570	50486030	Ave		51839903.5				10.0		20.0			
PCB-1242 Peak 4	25656540 20710812	23659930 19400343	22459450	22199450	Ave		22347754.1				9.8		20.0			
PCB-1242 Peak 5	22415660 15746402	19753290 14650093	18700825	17126606	Ave		18065479.3				16.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 12:05 Calibration End Date: 05/07/2011 13:17 Calibration ID: 871

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/7	P1250708.D
Level 2	STD01 240-1720/8	P1250709.D
Level 3	STD02 240-1720/9	P1250710.D
Level 4	STD05 240-1720/10	P1250711.D
Level 5	STD1 240-1720/11	P1250712.D
Level 6	STD2 240-1720/12	P1250713.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1242 Peak 1	2.323	2.324	2.323	2.323	2.323	2.322	2.273 - 2.373	2.323
PCB-1242 Peak 2	2.735	2.736	2.736	2.736	2.736	2.737	2.685 - 2.785	2.736
PCB-1242 Peak 3	3.203	3.204	3.204	3.204	3.204	3.203	3.153 - 3.253	3.204
PCB-1242 Peak 4	3.345	3.345	3.344	3.345	3.345	3.344	3.295 - 3.395	3.345
PCB-1242 Peak 5	3.840	3.839	3.839	3.839	3.839	3.840	3.790 - 3.890	3.839

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 12:05 Calibration End Date: 05/07/2011 13:17 Calibration ID: 871

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/7	P1250708.D
Level 2	STD01 240-1720/8	P1250709.D
Level 3	STD02 240-1720/9	P1250710.D
Level 4	STD05 240-1720/10	P1250711.D
Level 5	STD1 240-1720/11	P1250712.D
Level 6	STD2 240-1720/12	P1250713.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	Ave	800266 22474858	1502173	2832881	6597203	12196983	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 2	Ave	1498510 43731146	2737425	5529776	12817316	23577483	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 3	Ave	2985696 90067650	5531673	10557314	25243015	47702346	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 4	Ave	1282827 38800685	2365993	4491890	11099725	20710812	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 5	Ave	1120783 29300186	1975329	3740165	8563303	15746402	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 13:32 Calibration End Date: 05/07/2011 14:44 Calibration ID: 876

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/13	P1250714.D
Level 2	STD01 240-1720/14	P1250715.D
Level 3	STD02 240-1720/15	P1250716.D
Level 4	STD05 240-1720/16	P1250717.D
Level 5	STD1 240-1720/17	P1250718.D
Level 6	STD2 240-1720/18	P1250719.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1248 Peak 1	21556540 18946840	22152190 17060039	20438310	18941828	Ave		19849291.1				9.6		20.0			
PCB-1248 Peak 2	66455880 52238458	57675930 48102844	53138635	50483052	Ave		54682466.5				12.0		20.0			
PCB-1248 Peak 3	65685680 57155881	63285810 52425061	58857920	55435136	Ave		58807581.3				8.4		20.0			
PCB-1248 Peak 4	111523760 100944727	108535980 92371788	102029635	95978532	Ave		101897404				7.1		20.0			
PCB-1248 Peak 5	28478160 28325813	26570820 25813972	27068980	25997932	Ave		27042612.8				4.2		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 13:32 Calibration End Date: 05/07/2011 14:44 Calibration ID: 876

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/13	P1250714.D
Level 2	STD01 240-1720/14	P1250715.D
Level 3	STD02 240-1720/15	P1250716.D
Level 4	STD05 240-1720/16	P1250717.D
Level 5	STD1 240-1720/17	P1250718.D
Level 6	STD2 240-1720/18	P1250719.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1248 Peak 1	1.966	1.963	1.963	1.965	1.964	1.964	1.916 - 2.016	1.964
PCB-1248 Peak 2	2.374	2.372	2.372	2.372	2.372	2.372	2.324 - 2.424	2.372
PCB-1248 Peak 3	2.891	2.889	2.888	2.889	2.889	2.889	2.841 - 2.941	2.889
PCB-1248 Peak 4	3.317	3.313	3.316	3.313	3.314	3.312	3.267 - 3.367	3.314
PCB-1248 Peak 5	3.917	3.916	3.916	3.916	3.917	3.916	3.867 - 3.967	3.916

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 13:32 Calibration End Date: 05/07/2011 14:44 Calibration ID: 876

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/13	P1250714.D
Level 2	STD01 240-1720/14	P1250715.D
Level 3	STD02 240-1720/15	P1250716.D
Level 4	STD05 240-1720/16	P1250717.D
Level 5	STD1 240-1720/17	P1250718.D
Level 6	STD2 240-1720/18	P1250719.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	Ave	1077827 34120077	2215219	4087662	9470914	18946840	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	Ave	3322794 96205688	5767593	10627727	25241526	52238458	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	Ave	3284284 104850122	6328581	11771584	27717568	57155881	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	Ave	5576188 184743576	10853598	20405927	47989266	100944727	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	Ave	1423908 51627944	2657082	5413796	12998966	28325813	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 13:32 Calibration End Date: 05/07/2011 14:44 Calibration ID: 877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/13	P1250714.D
Level 2	STD01 240-1720/14	P1250715.D
Level 3	STD02 240-1720/15	P1250716.D
Level 4	STD05 240-1720/16	P1250717.D
Level 5	STD1 240-1720/17	P1250718.D
Level 6	STD2 240-1720/18	P1250719.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1248 Peak 1	14125020 11811781	14169260 10520549	12862905	12010334	Ave		12583308.2				11.0		20.0			
PCB-1248 Peak 2	38630520 31683490	37189090 28864674	33918125	31488912	Ave		33629135.2				11.0		20.0			
PCB-1248 Peak 3	32929540 26343806	32688830 23806367	29416175	26388774	Ave		28595582.0				13.0		20.0			
PCB-1248 Peak 4	59130920 48863072	57092780 44287786	50281160	48443972	Ave		51349948.3				11.0		20.0			
PCB-1248 Peak 5	21747160 17827134	21204890 16054229	19212200	17157684	Ave		18867216.1				12.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 13:32 Calibration End Date: 05/07/2011 14:44 Calibration ID: 877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/13	P1250714.D
Level 2	STD01 240-1720/14	P1250715.D
Level 3	STD02 240-1720/15	P1250716.D
Level 4	STD05 240-1720/16	P1250717.D
Level 5	STD1 240-1720/17	P1250718.D
Level 6	STD2 240-1720/18	P1250719.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1248 Peak 1	2.737	2.735	2.735	2.735	2.734	2.734	2.687 - 2.787	2.735
PCB-1248 Peak 2	3.204	3.202	3.203	3.203	3.202	3.203	3.154 - 3.254	3.203
PCB-1248 Peak 3	3.841	3.840	3.840	3.840	3.840	3.839	3.791 - 3.891	3.840
PCB-1248 Peak 4	4.526	4.526	4.524	4.525	4.525	4.525	4.476 - 4.576	4.525
PCB-1248 Peak 5	4.978	4.978	4.977	4.978	4.978	4.978	4.928 - 5.028	4.978

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 13:32 Calibration End Date: 05/07/2011 14:44 Calibration ID: 877

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/13	P1250714.D
Level 2	STD01 240-1720/14	P1250715.D
Level 3	STD02 240-1720/15	P1250716.D
Level 4	STD05 240-1720/16	P1250717.D
Level 5	STD1 240-1720/17	P1250718.D
Level 6	STD2 240-1720/18	P1250719.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	Ave	706251 21041098	1416926	2572581	6005167	11811781	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	Ave	1931526 57729348	3718909	6783625	15744456	31683490	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	Ave	1646477 47612734	3268883	5883235	13194387	26343806	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	Ave	2956546 88575572	5709278	10056232	24221986	48863072	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	Ave	1087358 32108457	2120489	3842440	8578842	17827134	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 14:59 Calibration End Date: 05/07/2011 16:11 Calibration ID: 882

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/19	P1250720.D
Level 2	STD01 240-1720/20	P1250721.D
Level 3	STD02 240-1720/21	P1250722.D
Level 4	STD05 240-1720/22	P1250723.D
Level 5	STD1 240-1720/23	P1250724.D
Level 6	STD2 240-1720/24	P1250725.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1221 Peak 1	16604720 13382342	15906010 13062850	15523490	14225530	Ave		14784156.9				9.7		20.0			
PCB-1221 Peak 2	7478320 6492806	7982530 5993438	7896875	6956158	Ave		7133354.50				11.0		20.0			
PCB-1221 Peak 3	44094960 33522143	40407020 31565560	40016835	36140418	Ave		37624489.3				13.0		20.0			
PCB-1254 Peak 1	50526340 42103459	48201220 39878558	52421590	42826348	Ave		45992919.2				11.0		20.0			
PCB-1254 Peak 2	98084140 84793555	95547640 81010806	96349730	88473336	Ave		90709867.8				7.7		20.0			
PCB-1254 Peak 3	92018660 88945125	92194810 84049301	94596235	91296782	Ave		90516818.8				4.0		20.0			
PCB-1254 Peak 4	75285640 71087245	74869060 66396279	76518655	71609142	Ave		72627670.2				5.1		20.0			
PCB-1254 Peak 5	110459480 86944350	97299340 80625678	95261285	87697034	Ave		93047861.1				11.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 14:59 Calibration End Date: 05/07/2011 16:11 Calibration ID: 882

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/19	P1250720.D
Level 2	STD01 240-1720/20	P1250721.D
Level 3	STD02 240-1720/21	P1250722.D
Level 4	STD05 240-1720/22	P1250723.D
Level 5	STD1 240-1720/23	P1250724.D
Level 6	STD2 240-1720/24	P1250725.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1221 Peak 1	1.519	1.518	1.517	1.517	1.517	1.518	1.469 - 1.569	1.518
PCB-1221 Peak 2	1.634	1.633	1.633	1.633	1.633	1.634	1.584 - 1.684	1.633
PCB-1221 Peak 3	1.666	1.665	1.665	1.665	1.665	1.666	1.616 - 1.716	1.665
PCB-1254 Peak 1	3.260	3.260	3.260	3.259	3.260	3.260	3.210 - 3.310	3.260
PCB-1254 Peak 2	3.526	3.525	3.525	3.525	3.524	3.525	3.476 - 3.576	3.525
PCB-1254 Peak 3	3.917	3.916	3.917	3.915	3.915	3.917	3.867 - 3.967	3.916
PCB-1254 Peak 4	4.202	4.201	4.201	4.200	4.200	4.201	4.152 - 4.252	4.201
PCB-1254 Peak 5	4.678	4.677	4.677	4.677	4.677	4.677	4.628 - 4.728	4.677

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 14:59 Calibration End Date: 05/07/2011 16:11 Calibration ID: 882

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/19	P1250720.D
Level 2	STD01 240-1720/20	P1250721.D
Level 3	STD02 240-1720/21	P1250722.D
Level 4	STD05 240-1720/22	P1250723.D
Level 5	STD1 240-1720/23	P1250724.D
Level 6	STD2 240-1720/24	P1250725.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	Ave	830236 26125699	1590601	3104698	7112765	13382342	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 2	Ave	373916 11986876	798253	1579375	3478079	6492806	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 3	Ave	2204748 63131120	4040702	8003367	18070209	33522143	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 1	Ave	2526317 79757116	4820122	10484318	21413174	42103459	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 2	Ave	4904207 162021612	9554764	19269946	44236668	84793555	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 3	Ave	4600933 168098602	9219481	18919247	45648391	88945125	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 4	Ave	3764282 132792558	7486906	15303731	35804571	71087245	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 5	Ave	5522974 161251355	9729934	19052257	43848517	86944350	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 14:59 Calibration End Date: 05/07/2011 16:11 Calibration ID: 883

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/19	P1250720.D
Level 2	STD01 240-1720/20	P1250721.D
Level 3	STD02 240-1720/21	P1250722.D
Level 4	STD05 240-1720/22	P1250723.D
Level 5	STD1 240-1720/23	P1250724.D
Level 6	STD2 240-1720/24	P1250725.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1221 Peak 1	11303740 8536279	10719710 7934779	10105815	9260444	Ave		9643461.17				13.0		20.0			
PCB-1221 Peak 2	7359240 5628968	7116120 5153934	6625695	6142192	Ave		6337691.42				14.0		20.0			
PCB-1221 Peak 3	26865560 20189505	25212840 18819824	23862055	21876248	Ave		22804338.6				13.0		20.0			
PCB-1254 Peak 1	38376260 29099686	36292740 27457669	33237660	30576320	Ave		32506722.5				13.0		20.0			
PCB-1254 Peak 2	42928800 32265538	39416100 30053789	36629095	34248412	Ave		35923622.3				13.0		20.0			
PCB-1254 Peak 3	63505380 51021552	60877970 47684228	57588735	53082870	Ave		55626789.1				11.0		20.0			
PCB-1254 Peak 4	44594360 36009733	42874110 33339286	40930890	37442266	Ave		39198440.8				11.0		20.0			
PCB-1254 Peak 5	60688660 46533092	56651350 42784220	52755060	47864530	Ave		51212818.7				13.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 14:59 Calibration End Date: 05/07/2011 16:11 Calibration ID: 883

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/19	P1250720.D
Level 2	STD01 240-1720/20	P1250721.D
Level 3	STD02 240-1720/21	P1250722.D
Level 4	STD05 240-1720/22	P1250723.D
Level 5	STD1 240-1720/23	P1250724.D
Level 6	STD2 240-1720/24	P1250725.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1221 Peak 1	2.128	2.128	2.126	2.126	2.126	2.127	2.078 - 2.178	2.127
PCB-1221 Peak 2	2.265	2.264	2.264	2.264	2.264	2.264	2.215 - 2.315	2.264
PCB-1221 Peak 3	2.324	2.323	2.322	2.323	2.324	2.324	2.274 - 2.374	2.323
PCB-1254 Peak 1	4.286	4.285	4.285	4.285	4.285	4.285	4.236 - 4.336	4.285
PCB-1254 Peak 2	4.498	4.498	4.498	4.498	4.499	4.498	4.448 - 4.548	4.498
PCB-1254 Peak 3	4.978	4.978	4.977	4.977	4.977	4.977	4.928 - 5.028	4.977
PCB-1254 Peak 4	5.226	5.225	5.226	5.225	5.225	5.226	5.176 - 5.276	5.226
PCB-1254 Peak 5	5.793	5.793	5.792	5.791	5.793	5.792	5.743 - 5.843	5.792

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 14:59 Calibration End Date: 05/07/2011 16:11 Calibration ID: 883

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/19	P1250720.D
Level 2	STD01 240-1720/20	P1250721.D
Level 3	STD02 240-1720/21	P1250722.D
Level 4	STD05 240-1720/22	P1250723.D
Level 5	STD1 240-1720/23	P1250724.D
Level 6	STD2 240-1720/24	P1250725.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	Ave	565187 15869558	1071971	2021163	4630222	8536279	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 2	Ave	367962 10307867	711612	1325139	3071096	5628968	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 3	Ave	1343278 37639647	2521284	4772411	10938124	20189505	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 1	Ave	1918813 54915338	3629274	6647532	15288160	29099686	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 2	Ave	2146440 60107577	3941610	7325819	17124206	32265538	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 3	Ave	3175269 95368455	6087797	11517747	26541435	51021552	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 4	Ave	2229718 66678572	4287411	8186178	18721133	36009733	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 5	Ave	3034433 85568440	5665135	10551012	23932265	46533092	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:

Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 16:26 Calibration End Date: 05/07/2011 17:38 Calibration ID: 888

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/25	P1250726.D
Level 2	STD01 240-1720/26	P1250727.D
Level 3	STD02 240-1720/27	P1250728.D
Level 4	STD05 240-1720/28	P1250729.D
Level 5	STD1 240-1720/29	P1250730.D
Level 6	STD2 240-1720/30	P1250731.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1016 Peak 1	31185180 23587032	30569200 24343134	29261115	25736218	Ave		27446979.8				12.0		20.0			
PCB-1016 Peak 2	57177920 43567867	54670480 43383623	52253045	47011626	Ave		49677426.8				12.0		20.0			
PCB-1016 Peak 3	113937940 98806812	114042600 98224606	112490970	103574370	Ave		106846216				7.0		20.0			
PCB-1016 Peak 4	46401000 39312760	46210470 38980154	45196025	41672972	Ave		42962230.1				7.9		20.0			
PCB-1016 Peak 5	49292820 39993341	47206590 39215608	46102820	42287656	Ave		44016472.5				9.3		20.0			
PCB-1260 Peak 1	74242980 58856941	68746770 59186672	67854700	62777944	Ave		65277667.8				9.3		20.0			
PCB-1260 Peak 2	139964240 112415060	131235800 112530974	129928275	119863628	Ave		124322996				9.0		20.0			
PCB-1260 Peak 3	138365340 104474213	123471540 105547720	120717690	111405652	Ave		117330359				11.0		20.0			
PCB-1260 Peak 4	184401920 164268724	179169110 168079328	182484050	175631438	Ave		175672428				4.6		20.0			
PCB-1260 Peak 5	78461860 69725302	75831450 72258676	77206770	74021980	Ave		74584339.7				4.4		20.0			
Tetrachloro-m-xylene	1602893200 1403985080	1622869000 1366439960	1542661300	1485944280	Ave		1504132137				7.0		20.0			
Decachlorobiphenyl	1528204800 1401061420	1529682000 1436808850	1524026700	1548242760	Ave		1494671088				4.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 16:26 Calibration End Date: 05/07/2011 17:38 Calibration ID: 888

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/25	P1250726.D
Level 2	STD01 240-1720/26	P1250727.D
Level 3	STD02 240-1720/27	P1250728.D
Level 4	STD05 240-1720/28	P1250729.D
Level 5	STD1 240-1720/29	P1250730.D
Level 6	STD2 240-1720/30	P1250731.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1016 Peak 1	1.665	1.666	1.666	1.666	1.666	1.666	1.615 - 1.715	1.666
PCB-1016 Peak 2	1.963	1.965	1.966	1.965	1.964	1.965	1.913 - 2.013	1.965
PCB-1016 Peak 3	2.372	2.374	2.375	2.374	2.373	2.374	2.322 - 2.422	2.374
PCB-1016 Peak 4	2.498	2.499	2.499	2.499	2.498	2.499	2.448 - 2.548	2.499
PCB-1016 Peak 5	2.888	2.889	2.890	2.890	2.889	2.889	2.838 - 2.938	2.889
PCB-1260 Peak 1	4.107	4.106	4.107	4.106	4.107	4.106	4.056 - 4.156	4.107
PCB-1260 Peak 2	4.395	4.396	4.396	4.396	4.396	4.396	4.346 - 4.446	4.396
PCB-1260 Peak 3	4.677	4.677	4.677	4.677	4.677	4.677	4.627 - 4.727	4.677
PCB-1260 Peak 4	5.377	5.377	5.378	5.379	5.379	5.378	5.329 - 5.429	5.378
PCB-1260 Peak 5	5.662	5.661	5.661	5.662	5.662	5.661	5.612 - 5.712	5.662
Tetrachloro-m-xylene	1.377	1.376	1.377	1.377	1.377	1.377	1.327 - 1.427	1.377
Decachlorobiphenyl	6.815	6.814	6.814	6.815	6.815	6.815	6.765 - 6.865	6.815

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 16:26 Calibration End Date: 05/07/2011 17:38 Calibration ID: 888

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/25	P1250726.D
Level 2	STD01 240-1720/26	P1250727.D
Level 3	STD02 240-1720/27	P1250728.D
Level 4	STD05 240-1720/28	P1250729.D
Level 5	STD1 240-1720/29	P1250730.D
Level 6	STD2 240-1720/30	P1250731.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	1559259 48686268	3056920	5852223	12868109	23587032	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	2858896 86767245	5467048	10450609	23505813	43567867	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	5696897 196449211	11404260	22498194	51787185	98806812	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	2320050 77960307	4621047	9039205	20836486	39312760	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	2464641 78431216	4720659	9220564	21143828	39993341	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	3712149 118373344	6874677	13570940	31388972	58856941	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	6998212 225061948	13123580	25985655	59931814	112415060	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	6918267 211095439	12347154	24143538	55702826	104474213	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	9220096 336158655	17916911	36496810	87815719	164268724	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	3923093 144517352	7583145	15441354	37010990	69725302	0.0500 2.00	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	Ave	4007233 136643996	8114345	15426613	37148607	70199254	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
Decachlorobiphenyl	Ave	3820512 143680885	7648410	15240267	38706069	70053071	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 16:26 Calibration End Date: 05/07/2011 17:38 Calibration ID: 889

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/25	P1250726.D
Level 2	STD01 240-1720/26	P1250727.D
Level 3	STD02 240-1720/27	P1250728.D
Level 4	STD05 240-1720/28	P1250729.D
Level 5	STD1 240-1720/29	P1250730.D
Level 6	STD2 240-1720/30	P1250731.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1016 Peak 1	19293900 13962036	17727260 13643931	17139565	15113100	Ave		16146632.0				14.0		20.0			
PCB-1016 Peak 2	37853700 27366554	35208780 26583196	33657715	29799692	Ave		31744939.5				14.0		20.0			
PCB-1016 Peak 3	71620200 55596050	66911640 55144366	65101810	59337196	Ave		62285210.3				11.0		20.0			
PCB-1016 Peak 4	30855900 24196974	28491560 23670933	28503095	26117014	Ave		26972579.3				10.0		20.0			
PCB-1016 Peak 5	24685360 19496466	22725550 19202212	22495740	21007644	Ave		21602161.9				9.7		20.0			
PCB-1260 Peak 1	45622980 33806518	42403080 33525969	40478040	36180682	Ave		38669544.8				13.0		20.0			
PCB-1260 Peak 2	53687440 40537827	50524710 39815058	47983705	43571932	Ave		46020111.9				12.0		20.0			
PCB-1260 Peak 3	43478700 34197841	42481920 33946963	40649460	36828202	Ave		38597181.0				11.0		20.0			
PCB-1260 Peak 4	90776400 78942668	92009040 80611241	90648385	84561440	Ave		86258195.6				6.6		20.0			
PCB-1260 Peak 5	69542900 54114536	64985470 55089670	63105620	59068634	Ave		60984471.7				9.8		20.0			
Tetrachloro-m-xylene	1064272400 854215820	1021974600 851563710	961174100	909245400	Ave		943741005				9.3		20.0			
Decachlorobiphenyl	774807200 647123480	748105800 658048170	736997500	729973960	Ave		715842685				7.2		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 16:26 Calibration End Date: 05/07/2011 17:38 Calibration ID: 889

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/25	P1250726.D
Level 2	STD01 240-1720/26	P1250727.D
Level 3	STD02 240-1720/27	P1250728.D
Level 4	STD05 240-1720/28	P1250729.D
Level 5	STD1 240-1720/29	P1250730.D
Level 6	STD2 240-1720/30	P1250731.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1016 Peak 1	2.322	2.323	2.324	2.323	2.322	2.323	2.273 - 2.373	2.323
PCB-1016 Peak 2	2.735	2.737	2.736	2.736	2.736	2.736	2.686 - 2.786	2.736
PCB-1016 Peak 3	3.203	3.205	3.204	3.205	3.204	3.204	3.155 - 3.255	3.204
PCB-1016 Peak 4	3.344	3.346	3.346	3.345	3.345	3.345	3.295 - 3.395	3.345
PCB-1016 Peak 5	3.449	3.450	3.450	3.450	3.450	3.449	3.400 - 3.500	3.450
PCB-1260 Peak 1	5.187	5.188	5.189	5.189	5.189	5.189	5.139 - 5.239	5.189
PCB-1260 Peak 2	5.421	5.421	5.421	5.421	5.422	5.422	5.371 - 5.471	5.421
PCB-1260 Peak 3	5.895	5.895	5.895	5.895	5.895	5.895	5.845 - 5.945	5.895
PCB-1260 Peak 4	6.478	6.480	6.479	6.480	6.480	6.480	6.430 - 6.530	6.480
PCB-1260 Peak 5	6.860	6.860	6.860	6.860	6.861	6.861	6.810 - 6.910	6.860
Tetrachloro-m-xylene	1.838	1.840	1.840	1.840	1.839	1.839	1.790 - 1.890	1.839
Decachlorobiphenyl	8.100	8.100	8.100	8.100	8.101	8.101	8.050 - 8.150	8.100

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 1720

SDG No.:

Instrument ID: A2HP12 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/07/2011 16:26 Calibration End Date: 05/07/2011 17:38 Calibration ID: 889

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-1720/25	P1250726.D
Level 2	STD01 240-1720/26	P1250727.D
Level 3	STD02 240-1720/27	P1250728.D
Level 4	STD05 240-1720/28	P1250729.D
Level 5	STD1 240-1720/29	P1250730.D
Level 6	STD2 240-1720/30	P1250731.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	964695 27287862	1772726	3427913	7556550	13962036	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	1892685 53166392	3520878	6731543	14899846	27366554	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	3581010 110288731	6691164	13020362	29668598	55596050	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	1542795 47341865	2849156	5700619	13058507	24196974	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	1234268 38404423	2272555	4499148	10503822	19496466	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	2281149 67051937	4240308	8095608	18090341	33806518	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	2684372 79630115	5052471	9596741	21785966	40537827	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	2173935 67893926	4248192	8129892	18414101	34197841	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	4538820 161222481	9200904	18129677	42280720	78942668	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	3477145 110179340	6498547	12621124	29534317	54114536	0.0500 2.00	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	Ave	2660681 85156371	5109873	9611741	22731135	42710791	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
Decachlorobiphenyl	Ave	1937018 65804817	3740529	7369975	18249349	32356174	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Ave = Average

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/43 Calibration Date: 05/07/2011 20:46

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250744.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	14784157	13149702		0.889	1.00	-11.1	20.0
PCB-1221 Peak 2	Ave	7133355	6744677		0.946	1.00	-5.4	20.0
PCB-1221 Peak 3	Ave	37624489	31854991		0.847	1.00	-15.3	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/43 Calibration Date: 05/07/2011 20:46

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250744.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1221 Peak 1	1.52	1.47	1.57
PCB-1221 Peak 2	1.63	1.58	1.68
PCB-1221 Peak 3	1.66	1.62	1.72

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/43 Calibration Date: 05/07/2011 20:46

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250744.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	9643461	8297060		0.860	1.00	-14.0	20.0
PCB-1221 Peak 2	Ave	6337691	5483105		0.865	1.00	-13.5	20.0
PCB-1221 Peak 3	Ave	22804339	19633246		0.861	1.00	-13.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/43 Calibration Date: 05/07/2011 20:46

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250744.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1221 Peak 1	2.13	2.08	2.18
PCB-1221 Peak 2	2.26	2.22	2.32
PCB-1221 Peak 3	2.32	2.27	2.37

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/44 Calibration Date: 05/07/2011 21:01

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 10:37

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 11:50

Lab File ID: P1250745.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	31530415	28426271		0.902	1.00	-9.8	20.0
PCB-1232 Peak 2	Ave	23663328	24613686		1.04	1.00	4.0	20.0
PCB-1232 Peak 3	Ave	47359424	51117011		1.08	1.00	7.9	20.0
PCB-1232 Peak 4	Ave	18986644	20348425		1.07	1.00	7.2	20.0
PCB-1232 Peak 5	Ave	26892848	29191544		1.09	1.00	8.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/44 Calibration Date: 05/07/2011 21:01

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 10:37

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 11:50

Lab File ID: P1250745.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1232 Peak 1	1.67	1.62	1.72
PCB-1232 Peak 2	1.96	1.92	2.02
PCB-1232 Peak 3	2.37	2.32	2.42
PCB-1232 Peak 4	2.50	2.45	2.55
PCB-1232 Peak 5	3.32	3.27	3.37

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/44 Calibration Date: 05/07/2011 21:01

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 10:37

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 11:50

Lab File ID: P1250745.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	18943949	17470862		0.922	1.00	-7.8	20.0
PCB-1232 Peak 2	Ave	14753061	14708592		1.00	1.00	-0.3	20.0
PCB-1232 Peak 3	Ave	28366613	29413015		1.04	1.00	3.7	20.0
PCB-1232 Peak 4	Ave	12307601	13003823		1.06	1.00	5.7	20.0
PCB-1232 Peak 5	Ave	9580824	10358533		1.08	1.00	8.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/44 Calibration Date: 05/07/2011 21:01

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 10:37

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 11:50

Lab File ID: P1250745.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1232 Peak 1	2.32	2.27	2.37
PCB-1232 Peak 2	2.74	2.69	2.79
PCB-1232 Peak 3	3.20	3.15	3.25
PCB-1232 Peak 4	3.35	3.29	3.39
PCB-1232 Peak 5	3.45	3.40	3.50

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/45 Calibration Date: 05/07/2011 21:15

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 12:05

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 13:17

Lab File ID: P1250746.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	22343454	18828812		0.843	1.00	-15.7	20.0
PCB-1242 Peak 2	Ave	41388155	36683068		0.886	1.00	-11.4	20.0
PCB-1242 Peak 3	Ave	89760023	80404272		0.896	1.00	-10.4	20.0
PCB-1242 Peak 4	Ave	36135858	32432114		0.898	1.00	-10.2	20.0
PCB-1242 Peak 5	Ave	36823369	34102288		0.926	1.00	-7.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/45 Calibration Date: 05/07/2011 21:15

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 12:05

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 13:17

Lab File ID: P1250746.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1242 Peak 1	1.67	1.62	1.72
PCB-1242 Peak 2	1.96	1.92	2.02
PCB-1242 Peak 3	2.37	2.32	2.42
PCB-1242 Peak 4	2.50	2.45	2.55
PCB-1242 Peak 5	2.89	2.84	2.94

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/45 Calibration Date: 05/07/2011 21:15

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 12:05

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 13:17

Lab File ID: P1250746.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	13636712	11627515		0.853	1.00	-14.7	20.0
PCB-1242 Peak 2	Ave	26011836	22842923		0.878	1.00	-12.2	20.0
PCB-1242 Peak 3	Ave	51839904	45230115		0.873	1.00	-12.8	20.0
PCB-1242 Peak 4	Ave	22347754	19759867		0.884	1.00	-11.6	20.0
PCB-1242 Peak 5	Ave	18065479	15649944		0.866	1.00	-13.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/45 Calibration Date: 05/07/2011 21:15

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 12:05

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 13:17

Lab File ID: P1250746.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1242 Peak 1	2.32	2.27	2.37
PCB-1242 Peak 2	2.74	2.69	2.79
PCB-1242 Peak 3	3.20	3.15	3.25
PCB-1242 Peak 4	3.34	3.30	3.40
PCB-1242 Peak 5	3.84	3.79	3.89

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/46 Calibration Date: 05/07/2011 21:30

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 13:32

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 14:44

Lab File ID: P1250747.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	19849291	19750560		1.00	1.00	-0.5	20.0
PCB-1248 Peak 2	Ave	54682467	50544267		0.924	1.00	-7.6	20.0
PCB-1248 Peak 3	Ave	58807581	52026586		0.885	1.00	-11.5	20.0
PCB-1248 Peak 4	Ave	101897404	88963516		0.873	1.00	-12.7	20.0
PCB-1248 Peak 5	Ave	27042613	25819381		0.955	1.00	-4.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/46 Calibration Date: 05/07/2011 21:30

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 13:32

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 14:44

Lab File ID: P1250747.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1248 Peak 1	1.97	1.92	2.02
PCB-1248 Peak 2	2.37	2.32	2.42
PCB-1248 Peak 3	2.89	2.84	2.94
PCB-1248 Peak 4	3.31	3.27	3.37
PCB-1248 Peak 5	3.92	3.87	3.97

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/46 Calibration Date: 05/07/2011 21:30

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 13:32

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 14:44

Lab File ID: P1250747.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	12583308	12300498		0.978	1.00	-2.2	20.0
PCB-1248 Peak 2	Ave	33629135	30773353		0.915	1.00	-8.5	20.0
PCB-1248 Peak 3	Ave	28595582	24561984		0.859	1.00	-14.1	20.0
PCB-1248 Peak 4	Ave	51349948	44366191		0.864	1.00	-13.6	20.0
PCB-1248 Peak 5	Ave	18867216	16310269		0.865	1.00	-13.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/46 Calibration Date: 05/07/2011 21:30

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 13:32

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 14:44

Lab File ID: P1250747.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1248 Peak 1	2.74	2.68	2.78
PCB-1248 Peak 2	3.20	3.15	3.25
PCB-1248 Peak 3	3.84	3.79	3.89
PCB-1248 Peak 4	4.53	4.48	4.58
PCB-1248 Peak 5	4.98	4.93	5.03

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/47 Calibration Date: 05/07/2011 21:44

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250748.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1254 Peak 1	Ave	45992919	41246054		0.897	1.00	-10.3	20.0
PCB-1254 Peak 2	Ave	90709868	84862221		0.936	1.00	-6.4	20.0
PCB-1254 Peak 3	Ave	90516819	85079440		0.940	1.00	-6.0	20.0
PCB-1254 Peak 4	Ave	72627670	67649164		0.932	1.00	-6.9	20.0
PCB-1254 Peak 5	Ave	93047861	86842356		0.933	1.00	-6.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/47 Calibration Date: 05/07/2011 21:44

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250748.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1254 Peak 1	3.26	3.21	3.31
PCB-1254 Peak 2	3.52	3.48	3.58
PCB-1254 Peak 3	3.92	3.87	3.97
PCB-1254 Peak 4	4.20	4.15	4.25
PCB-1254 Peak 5	4.68	4.63	4.73

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/47 Calibration Date: 05/07/2011 21:44

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250748.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1254 Peak 1	Ave	32506723	28233611		0.869	1.00	-13.1	20.0
PCB-1254 Peak 2	Ave	35923622	31329176		0.872	1.00	-12.8	20.0
PCB-1254 Peak 3	Ave	55626789	48807048		0.877	1.00	-12.3	20.0
PCB-1254 Peak 4	Ave	39198441	34046999		0.869	1.00	-13.1	20.0
PCB-1254 Peak 5	Ave	51212819	46737712		0.913	1.00	-8.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/47 Calibration Date: 05/07/2011 21:44

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 14:59

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 16:11

Lab File ID: P1250748.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1254 Peak 1	4.29	4.24	4.34
PCB-1254 Peak 2	4.50	4.45	4.55
PCB-1254 Peak 3	4.98	4.93	5.03
PCB-1254 Peak 4	5.23	5.18	5.28
PCB-1254 Peak 5	5.79	5.74	5.84

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/48 Calibration Date: 05/07/2011 21:59

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1250749.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	27446980	25811508		0.940	1.00	-6.0	20.0
PCB-1016 Peak 2	Ave	49677427	50902326		1.02	1.00	2.5	20.0
PCB-1016 Peak 3	Ave	106846216	113419200		1.06	1.00	6.2	20.0
PCB-1016 Peak 4	Ave	42962230	45027515		1.05	1.00	4.8	20.0
PCB-1016 Peak 5	Ave	44016473	45696419		1.04	1.00	3.8	20.0
PCB-1260 Peak 1	Ave	65277668	65594736		1.00	1.00	0.5	20.0
PCB-1260 Peak 2	Ave	124322996	123348411		0.990	1.00	-0.8	20.0
PCB-1260 Peak 3	Ave	117330359	111942283		0.954	1.00	-4.6	20.0
PCB-1260 Peak 4	Ave	175672428	182602040		1.04	1.00	3.9	20.0
PCB-1260 Peak 5	Ave	74584340	77969888		1.05	1.00	4.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/48 Calibration Date: 05/07/2011 21:59

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1250749.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.67	1.62	1.72
PCB-1016 Peak 2	1.96	1.91	2.01
PCB-1016 Peak 3	2.37	2.32	2.42
PCB-1016 Peak 4	2.50	2.45	2.55
PCB-1016 Peak 5	2.89	2.84	2.94
PCB-1260 Peak 1	4.11	4.06	4.16
PCB-1260 Peak 2	4.40	4.35	4.45
PCB-1260 Peak 3	4.68	4.63	4.73
PCB-1260 Peak 4	5.38	5.33	5.43
PCB-1260 Peak 5	5.66	5.61	5.71

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/48 Calibration Date: 05/07/2011 21:59

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1250749.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	16146632	16364401		1.01	1.00	1.3	20.0
PCB-1016 Peak 2	Ave	31744940	31646983		1.00	1.00	-0.3	20.0
PCB-1016 Peak 3	Ave	62285210	63860078		1.03	1.00	2.5	20.0
PCB-1016 Peak 4	Ave	26972579	27769813		1.03	1.00	3.0	20.0
PCB-1016 Peak 5	Ave	21602162	22296101		1.03	1.00	3.2	20.0
PCB-1260 Peak 1	Ave	38669545	37119686		0.960	1.00	-4.0	20.0
PCB-1260 Peak 2	Ave	46020112	44427171		0.965	1.00	-3.5	20.0
PCB-1260 Peak 3	Ave	38597181	38237663		0.990	1.00	-0.9	20.0
PCB-1260 Peak 4	Ave	86258196	88129700		1.02	1.00	2.2	20.0
PCB-1260 Peak 5	Ave	60984472	58919886		0.966	1.00	-3.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-1720/48 Calibration Date: 05/07/2011 21:59

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1250749.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.32	2.27	2.37
PCB-1016 Peak 2	2.74	2.69	2.79
PCB-1016 Peak 3	3.20	3.15	3.25
PCB-1016 Peak 4	3.34	3.29	3.39
PCB-1016 Peak 5	3.45	3.40	3.50
PCB-1260 Peak 1	5.19	5.14	5.24
PCB-1260 Peak 2	5.42	5.37	5.47
PCB-1260 Peak 3	5.89	5.84	5.94
PCB-1260 Peak 4	6.48	6.43	6.53
PCB-1260 Peak 5	6.86	6.81	6.91

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: A2HP12 Start Date: 06/24/2011 13:34

Analysis Batch Number: 5999 End Date: 06/24/2011 19:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-5999/3 CCVRT		06/24/2011 13:34	1	P1262403.D	CLP-1 0.53(mm)
CCV 240-5999/3 CCVRT		06/24/2011 13:34	1	P1262403.D	CLP-2 0.53(mm)
240-820-7	GSP-SB-124-0-2	06/24/2011 14:47	1	P1262408.D	CLP-1 0.53(mm)
240-820-7	GSP-SB-124-0-2	06/24/2011 14:47	1	P1262408.D	CLP-2 0.53(mm)
240-820-8	GSP-SB-124-6-8	06/24/2011 15:02	1	P1262409.D	CLP-1 0.53(mm)
240-820-8	GSP-SB-124-6-8	06/24/2011 15:02	1	P1262409.D	CLP-2 0.53(mm)
240-820-10	GSP-SB-126-0-2	06/24/2011 15:17	1	P1262410.D	CLP-1 0.53(mm)
240-820-10	GSP-SB-126-0-2	06/24/2011 15:17	1	P1262410.D	CLP-2 0.53(mm)
240-820-11	GSP-SB-126-8-10	06/24/2011 15:31	1	P1262411.D	CLP-1 0.53(mm)
240-820-11	GSP-SB-126-8-10	06/24/2011 15:31	1	P1262411.D	CLP-2 0.53(mm)
240-820-13	GSP-SB-127-0-2	06/24/2011 15:46	1	P1262412.D	CLP-1 0.53(mm)
240-820-13	GSP-SB-127-0-2	06/24/2011 15:46	1	P1262412.D	CLP-2 0.53(mm)
240-820-14	GSP-SB-127-6-8	06/24/2011 16:01	1	P1262413.D	CLP-1 0.53(mm)
240-820-14	GSP-SB-127-6-8	06/24/2011 16:01	1	P1262413.D	CLP-2 0.53(mm)
240-820-16	GSP-SB-130-0-2	06/24/2011 16:15	1	P1262414.D	CLP-1 0.53(mm)
240-820-16	GSP-SB-130-0-2	06/24/2011 16:15	1	P1262414.D	CLP-2 0.53(mm)
240-820-17	GSP-SB-130-6-8	06/24/2011 16:29	1	P1262415.D	CLP-1 0.53(mm)
240-820-17	GSP-SB-130-6-8	06/24/2011 16:29	1	P1262415.D	CLP-2 0.53(mm)
MB 240-5642/16-A		06/24/2011 16:58	1	P1262417.D	CLP-1 0.53(mm)
MB 240-5642/16-A		06/24/2011 16:58	1	P1262417.D	CLP-2 0.53(mm)
CCV 240-5999/18 CCVRT		06/24/2011 17:12	1	P1262418.D	CLP-1 0.53(mm)
CCV 240-5999/18 CCVRT		06/24/2011 17:12	1	P1262418.D	CLP-2 0.53(mm)
LCS 240-5642/17-A		06/24/2011 18:55	1	P1262425.D	CLP-1 0.53(mm)
LCS 240-5642/17-A		06/24/2011 18:55	1	P1262425.D	CLP-2 0.53(mm)
CCV 240-5999/26 CCVRT		06/24/2011 19:09	1	P1262426.D	CLP-1 0.53(mm)
CCV 240-5999/26 CCVRT		06/24/2011 19:09	1	P1262426.D	CLP-2 0.53(mm)

8082A

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5999/3 Calibration Date: 06/24/2011 13:34

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1262403.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	27446980	28703174		0.523	0.500	4.6	20.0
PCB-1016 Peak 2	Ave	49677427	53108654		0.535	0.500	6.9	20.0
PCB-1016 Peak 3	Ave	106846216	110392662		0.517	0.500	3.3	20.0
PCB-1016 Peak 4	Ave	42962230	47813124		0.557	0.500	11.3	20.0
PCB-1016 Peak 5	Ave	44016473	47656832		0.541	0.500	8.3	20.0
PCB-1260 Peak 1	Ave	65277668	67863742		0.520	0.500	4.0	20.0
PCB-1260 Peak 2	Ave	124322996	130117710		0.523	0.500	4.7	20.0
PCB-1260 Peak 3	Ave	117330359	119226890		0.508	0.500	1.6	20.0
PCB-1260 Peak 4	Ave	175672428	188396154		0.536	0.500	7.2	20.0
PCB-1260 Peak 5	Ave	74584340	82658586		0.554	0.500	10.8	20.0
Tetrachloro-m-xylene	Ave	1504132137	1619161640		0.0269	0.0250	7.6	20.0
Decachlorobiphenyl	Ave	1494671088	1601967680		0.0268	0.0250	7.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5999/3 Calibration Date: 06/24/2011 13:34

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1262403.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.64	1.59	1.69
PCB-1016 Peak 2	1.94	1.89	1.99
PCB-1016 Peak 3	2.34	2.29	2.39
PCB-1016 Peak 4	2.47	2.42	2.52
PCB-1016 Peak 5	2.86	2.81	2.91
PCB-1260 Peak 1	4.07	4.02	4.12
PCB-1260 Peak 2	4.36	4.31	4.41
PCB-1260 Peak 3	4.64	4.59	4.69
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.62	5.57	5.67
Tetrachloro-m-xylene	1.35	1.30	1.40
Decachlorobiphenyl	6.77	6.72	6.82

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5999/3 Calibration Date: 06/24/2011 13:34

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1262403.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	16146632	16028330		0.496	0.500	-0.7	20.0
PCB-1016 Peak 2	Ave	31744940	30005580		0.473	0.500	-5.5	20.0
PCB-1016 Peak 3	Ave	62285210	64970864		0.522	0.500	4.3	20.0
PCB-1016 Peak 4	Ave	26972579	28626668		0.531	0.500	6.1	20.0
PCB-1016 Peak 5	Ave	21602162	23155994		0.536	0.500	7.2	20.0
PCB-1260 Peak 1	Ave	38669545	39533978		0.511	0.500	2.2	20.0
PCB-1260 Peak 2	Ave	46020112	51128076		0.556	0.500	11.1	20.0
PCB-1260 Peak 3	Ave	38597181	44229792		0.573	0.500	14.6	20.0
PCB-1260 Peak 4	Ave	86258196	95644362		0.554	0.500	10.9	20.0
PCB-1260 Peak 5	Ave	60984472	63842828		0.523	0.500	4.7	20.0
Tetrachloro-m-xylene	Ave	943741005	919658440		0.0244	0.0250	-2.6	20.0
Decachlorobiphenyl	Ave	715842685	680075080		0.0238	0.0250	-5.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5999/3 Calibration Date: 06/24/2011 13:34

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1262403.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.29	2.24	2.34
PCB-1016 Peak 2	2.70	2.65	2.75
PCB-1016 Peak 3	3.17	3.12	3.22
PCB-1016 Peak 4	3.31	3.26	3.36
PCB-1016 Peak 5	3.41	3.36	3.46
PCB-1260 Peak 1	5.15	5.10	5.20
PCB-1260 Peak 2	5.38	5.33	5.43
PCB-1260 Peak 3	5.85	5.80	5.90
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.82	6.77	6.87
Tetrachloro-m-xylene	1.81	1.76	1.86
Decachlorobiphenyl	8.06	8.01	8.11

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5999/18 Calibration Date: 06/24/2011 17:12

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1262418.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	27446980	29299552		0.534	0.500	6.7	20.0
PCB-1016 Peak 2	Ave	49677427	53786224		0.541	0.500	8.3	20.0
PCB-1016 Peak 3	Ave	106846216	111573496		0.522	0.500	4.4	20.0
PCB-1016 Peak 4	Ave	42962230	48442044		0.564	0.500	12.8	20.0
PCB-1016 Peak 5	Ave	44016473	47934924		0.545	0.500	8.9	20.0
PCB-1260 Peak 1	Ave	65277668	67565748		0.518	0.500	3.5	20.0
PCB-1260 Peak 2	Ave	124322996	127761482		0.514	0.500	2.8	20.0
PCB-1260 Peak 3	Ave	117330359	116393306		0.496	0.500	-0.8	20.0
PCB-1260 Peak 4	Ave	175672428	177211110		0.504	0.500	0.9	20.0
PCB-1260 Peak 5	Ave	74584340	77237514		0.518	0.500	3.6	20.0
Tetrachloro-m-xylene	Ave	1504132137	1638830240		0.0272	0.0250	9.0	20.0
Decachlorobiphenyl	Ave	1494671088	1393759640		0.0233	0.0250	-6.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5999/18 Calibration Date: 06/24/2011 17:12

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1262418.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.64	1.59	1.69
PCB-1016 Peak 2	1.94	1.89	1.99
PCB-1016 Peak 3	2.34	2.29	2.39
PCB-1016 Peak 4	2.47	2.42	2.52
PCB-1016 Peak 5	2.86	2.81	2.91
PCB-1260 Peak 1	4.07	4.02	4.12
PCB-1260 Peak 2	4.36	4.31	4.41
PCB-1260 Peak 3	4.64	4.59	4.69
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.62	5.57	5.67
Tetrachloro-m-xylene	1.35	1.30	1.40
Decachlorobiphenyl	6.77	6.72	6.82

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5999/18 Calibration Date: 06/24/2011 17:12

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1262418.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	16146632	16310584		0.505	0.500	1.0	20.0
PCB-1016 Peak 2	Ave	31744940	30198912		0.476	0.500	-4.9	20.0
PCB-1016 Peak 3	Ave	62285210	65378476		0.525	0.500	5.0	20.0
PCB-1016 Peak 4	Ave	26972579	28867638		0.535	0.500	7.0	20.0
PCB-1016 Peak 5	Ave	21602162	23349754		0.540	0.500	8.1	20.0
PCB-1260 Peak 1	Ave	38669545	38034852		0.492	0.500	-1.6	20.0
PCB-1260 Peak 2	Ave	46020112	49188584		0.534	0.500	6.9	20.0
PCB-1260 Peak 3	Ave	38597181	42088670		0.545	0.500	9.0	20.0
PCB-1260 Peak 4	Ave	86258196	90429874		0.524	0.500	4.8	20.0
PCB-1260 Peak 5	Ave	60984472	59495826		0.488	0.500	-2.4	20.0
Tetrachloro-m-xylene	Ave	943741005	933167960		0.0247	0.0250	-1.1	20.0
Decachlorobiphenyl	Ave	715842685	625056920		0.0218	0.0250	-12.7	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5999/18 Calibration Date: 06/24/2011 17:12

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1262418.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.29	2.24	2.34
PCB-1016 Peak 2	2.70	2.65	2.75
PCB-1016 Peak 3	3.17	3.12	3.22
PCB-1016 Peak 4	3.31	3.26	3.36
PCB-1016 Peak 5	3.41	3.36	3.46
PCB-1260 Peak 1	5.15	5.10	5.20
PCB-1260 Peak 2	5.38	5.33	5.43
PCB-1260 Peak 3	5.85	5.80	5.90
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.82	6.77	6.87
Tetrachloro-m-xylene	1.81	1.76	1.86
Decachlorobiphenyl	8.06	8.01	8.11

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5999/26 Calibration Date: 06/24/2011 19:09

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1262426.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	27446980	26739658		0.487	0.500	-2.6	20.0
PCB-1016 Peak 2	Ave	49677427	52773866		0.531	0.500	6.2	20.0
PCB-1016 Peak 3	Ave	106846216	108668900		0.509	0.500	1.7	20.0
PCB-1016 Peak 4	Ave	42962230	44414756		0.517	0.500	3.4	20.0
PCB-1016 Peak 5	Ave	44016473	48655220		0.553	0.500	10.5	20.0
PCB-1260 Peak 1	Ave	65277668	67127380		0.514	0.500	2.8	20.0
PCB-1260 Peak 2	Ave	124322996	126702338		0.510	0.500	1.9	20.0
PCB-1260 Peak 3	Ave	117330359	115387106		0.492	0.500	-1.7	20.0
PCB-1260 Peak 4	Ave	175672428	178474670		0.508	0.500	1.6	20.0
PCB-1260 Peak 5	Ave	74584340	77385262		0.519	0.500	3.8	20.0
Tetrachloro-m-xylene	Ave	1504132137	1628679280		0.0271	0.0250	8.3	20.0
Decachlorobiphenyl	Ave	1494671088	1349409040		0.0226	0.0250	-9.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5999/26 Calibration Date: 06/24/2011 19:09

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1262426.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.64	1.59	1.69
PCB-1016 Peak 2	1.94	1.89	1.99
PCB-1016 Peak 3	2.34	2.29	2.39
PCB-1016 Peak 4	2.47	2.42	2.52
PCB-1016 Peak 5	2.86	2.81	2.91
PCB-1260 Peak 1	4.07	4.02	4.12
PCB-1260 Peak 2	4.36	4.31	4.41
PCB-1260 Peak 3	4.64	4.59	4.69
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.62	5.57	5.67
Tetrachloro-m-xylene	1.35	1.30	1.40
Decachlorobiphenyl	6.77	6.72	6.82

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5999/26 Calibration Date: 06/24/2011 19:09

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1262426.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	16146632	16501028		0.511	0.500	2.2	20.0
PCB-1016 Peak 2	Ave	31744940	30393828		0.479	0.500	-4.3	20.0
PCB-1016 Peak 3	Ave	62285210	66523904		0.534	0.500	6.8	20.0
PCB-1016 Peak 4	Ave	26972579	28997066		0.538	0.500	7.5	20.0
PCB-1016 Peak 5	Ave	21602162	23312312		0.540	0.500	7.9	20.0
PCB-1260 Peak 1	Ave	38669545	37769886		0.488	0.500	-2.3	20.0
PCB-1260 Peak 2	Ave	46020112	49346086		0.536	0.500	7.2	20.0
PCB-1260 Peak 3	Ave	38597181	41838616		0.542	0.500	8.4	20.0
PCB-1260 Peak 4	Ave	86258196	91689328		0.532	0.500	6.3	20.0
PCB-1260 Peak 5	Ave	60984472	59929972		0.491	0.500	-1.7	20.0
Tetrachloro-m-xylene	Ave	943741005	935348240		0.0248	0.0250	-0.9	20.0
Decachlorobiphenyl	Ave	715842685	618420600		0.0216	0.0250	-13.6	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5999/26 Calibration Date: 06/24/2011 19:09

Instrument ID: A2HP12 Calib Start Date: 05/07/2011 16:26

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 05/07/2011 17:38

Lab File ID: P1262426.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.29	2.24	2.34
PCB-1016 Peak 2	2.70	2.65	2.75
PCB-1016 Peak 3	3.17	3.12	3.22
PCB-1016 Peak 4	3.31	3.26	3.36
PCB-1016 Peak 5	3.41	3.36	3.46
PCB-1260 Peak 1	5.15	5.10	5.20
PCB-1260 Peak 2	5.38	5.33	5.43
PCB-1260 Peak 3	5.86	5.81	5.91
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.82	6.77	6.87
Tetrachloro-m-xylene	1.81	1.76	1.86
Decachlorobiphenyl	8.06	8.01	8.11

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: MB 240-5642/16-A

Matrix: Solid Date Extracted: 06/22/2011 10:29

Lab File ID:(1) P1262417.D Lab File ID:(2) P1262417.D

Date Analyzed:(1) 06/24/2011 16:58 Date Analyzed:(2) 06/24/2011 16:58

Instrument ID:(1) A2HP12 Instrument ID:(2) A2HP12

GC Column:(1) CLP-2 ID: 0.53(mm) GC Column:(2) CLP-1 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
GSP-SB-124-0-2	240-820-7	06/24/2011 14:47	06/24/2011 14:47
GSP-SB-124-6-8	240-820-8	06/24/2011 15:02	06/24/2011 15:02
GSP-SB-126-0-2	240-820-10	06/24/2011 15:17	06/24/2011 15:17
GSP-SB-126-8-10	240-820-11	06/24/2011 15:31	06/24/2011 15:31
GSP-SB-127-0-2	240-820-13	06/24/2011 15:46	06/24/2011 15:46
GSP-SB-127-6-8	240-820-14	06/24/2011 16:01	06/24/2011 16:01
GSP-SB-130-0-2	240-820-16	06/24/2011 16:15	06/24/2011 16:15
GSP-SB-130-6-8	240-820-17	06/24/2011 16:29	06/24/2011 16:29
	LCS 240-5642/17-A	06/24/2011 18:55	06/24/2011 18:55

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5642/16-A

Matrix: Solid | Lab File ID: P1262417.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30(g) | Date Analyzed: 06/24/2011 16:58

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup: (Y/N) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	33	U	33	21
11104-28-2	Aroclor-1221	33	U	33	16
11141-16-5	Aroclor-1232	33	U	33	14
53469-21-9	Aroclor-1242	33	U	33	13
12672-29-6	Aroclor-1248	33	U	33	17
11097-69-1	Aroclor-1254	33	U	33	17
11096-82-5	Aroclor-1260	33	U	33	17

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	86		29-151
2051-24-3	Decachlorobiphenyl	82		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-5642/16-A

Matrix: Solid | Lab File ID: P1262417.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3540C | Date Extracted: 06/22/2011 10:29

Sample wt/vol: 30(g) | Date Analyzed: 06/24/2011 16:58

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup: (Y/~~N~~) N

Analysis Batch No.: 5999 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	33	U	33	21
11104-28-2	Aroclor-1221	33	U	33	16
11141-16-5	Aroclor-1232	33	U	33	14
53469-21-9	Aroclor-1242	33	U	33	13
12672-29-6	Aroclor-1248	33	U	33	17
11097-69-1	Aroclor-1254	33	U	33	17
11096-82-5	Aroclor-1260	33	U	33	17

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	80		29-151
2051-24-3	Decachlorobiphenyl	72		14-163

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1262425.D

Lab ID: LCS 240-5642/17-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	333	315	95	62-120	
Aroclor-1016	333	301	90	62-120	
Aroclor-1260	333	292	88	56-122	
Aroclor-1260	333	280	84	56-122	

Column to be used to flag recovery and RPD values

FORM III 8082A

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: A2HP13 Start Date: 06/10/2011 13:30

Analysis Batch Number: 4360 End Date: 06/11/2011 01:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD005 240-4360/1 IC		06/10/2011 13:30	1	P1361001.D	CLP-1 0.53(mm)
STD005 240-4360/1 IC		06/10/2011 13:30	1	P1361001.D	CLP-2 0.53(mm)
STD01 240-4360/2 IC		06/10/2011 13:45	1	P1361002.D	CLP-1 0.53(mm)
STD01 240-4360/2 IC		06/10/2011 13:45	1	P1361002.D	CLP-2 0.53(mm)
STD02 240-4360/3 IC		06/10/2011 14:00	1	P1361003.D	CLP-1 0.53(mm)
STD02 240-4360/3 IC		06/10/2011 14:00	1	P1361003.D	CLP-2 0.53(mm)
STD05 240-4360/4 IC		06/10/2011 14:15	1	P1361004.D	CLP-1 0.53(mm)
STD05 240-4360/4 IC		06/10/2011 14:15	1	P1361004.D	CLP-2 0.53(mm)
STD1 240-4360/5 IC		06/10/2011 14:30	1	P1361005.D	CLP-1 0.53(mm)
STD1 240-4360/5 IC		06/10/2011 14:30	1	P1361005.D	CLP-2 0.53(mm)
STD2 240-4360/6 IC		06/10/2011 14:45	1	P1361006.D	CLP-1 0.53(mm)
STD2 240-4360/6 IC		06/10/2011 14:45	1	P1361006.D	CLP-2 0.53(mm)
STD005 240-4360/7 IC		06/10/2011 15:00	1	P1361007.D	CLP-1 0.53(mm)
STD005 240-4360/7 IC		06/10/2011 15:00	1	P1361007.D	CLP-2 0.53(mm)
STD01 240-4360/8 IC		06/10/2011 15:15	1	P1361008.D	CLP-1 0.53(mm)
STD01 240-4360/8 IC		06/10/2011 15:15	1	P1361008.D	CLP-2 0.53(mm)
STD02 240-4360/9 IC		06/10/2011 15:30	1	P1361009.D	CLP-1 0.53(mm)
STD02 240-4360/9 IC		06/10/2011 15:30	1	P1361009.D	CLP-2 0.53(mm)
STD05 240-4360/10 IC		06/10/2011 15:45	1	P1361010.D	CLP-1 0.53(mm)
STD05 240-4360/10 IC		06/10/2011 15:45	1	P1361010.D	CLP-2 0.53(mm)
STD1 240-4360/11 IC		06/10/2011 16:00	1	P1361011.D	CLP-1 0.53(mm)
STD1 240-4360/11 IC		06/10/2011 16:00	1	P1361011.D	CLP-2 0.53(mm)
STD2 240-4360/12 IC		06/10/2011 16:14	1	P1361012.D	CLP-1 0.53(mm)
STD2 240-4360/12 IC		06/10/2011 16:14	1	P1361012.D	CLP-2 0.53(mm)
STD005 240-4360/13 IC		06/10/2011 16:30	1	P1361013.D	CLP-1 0.53(mm)
STD005 240-4360/13 IC		06/10/2011 16:30	1	P1361013.D	CLP-2 0.53(mm)
STD01 240-4360/14 IC		06/10/2011 16:45	1	P1361014.D	CLP-1 0.53(mm)
STD01 240-4360/14 IC		06/10/2011 16:45	1	P1361014.D	CLP-2 0.53(mm)
STD02 240-4360/15 IC		06/10/2011 17:00	1	P1361015.D	CLP-1 0.53(mm)
STD02 240-4360/15 IC		06/10/2011 17:00	1	P1361015.D	CLP-2 0.53(mm)
STD05 240-4360/16 IC		06/10/2011 17:15	1	P1361016.D	CLP-1 0.53(mm)
STD05 240-4360/16 IC		06/10/2011 17:15	1	P1361016.D	CLP-2 0.53(mm)
STD1 240-4360/17 IC		06/10/2011 17:30	1	P1361017.D	CLP-1 0.53(mm)
STD1 240-4360/17 IC		06/10/2011 17:30	1	P1361017.D	CLP-2 0.53(mm)
STD2 240-4360/18 IC		06/10/2011 17:45	1	P1361018.D	CLP-1 0.53(mm)
STD2 240-4360/18 IC		06/10/2011 17:45	1	P1361018.D	CLP-2 0.53(mm)
STD005 240-4360/19 IC		06/10/2011 18:00	1	P1361019.D	CLP-1 0.53(mm)
STD005 240-4360/19 IC		06/10/2011 18:00	1	P1361019.D	CLP-2 0.53(mm)
STD01 240-4360/20 IC		06/10/2011 18:16	1	P1361020.D	CLP-1 0.53(mm)
STD01 240-4360/20 IC		06/10/2011 18:16	1	P1361020.D	CLP-2 0.53(mm)
STD02 240-4360/21 IC		06/10/2011 18:30	1	P1361021.D	CLP-1 0.53(mm)
STD02 240-4360/21 IC		06/10/2011 18:30	1	P1361021.D	CLP-2 0.53(mm)
STD05 240-4360/22 IC		06/10/2011 18:45	1	P1361022.D	CLP-1 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: A2HP13 Start Date: 06/10/2011 13:30

Analysis Batch Number: 4360 End Date: 06/11/2011 01:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD05 240-4360/22 IC		06/10/2011 18:45	1	P1361022.D	CLP-2 0.53(mm)
STD1 240-4360/23 IC		06/10/2011 19:00	1	P1361023.D	CLP-1 0.53(mm)
STD1 240-4360/23 IC		06/10/2011 19:00	1	P1361023.D	CLP-2 0.53(mm)
STD2 240-4360/24 IC		06/10/2011 19:16	1	P1361024.D	CLP-1 0.53(mm)
STD2 240-4360/24 IC		06/10/2011 19:16	1	P1361024.D	CLP-2 0.53(mm)
STD005 240-4360/25 IC		06/10/2011 19:30	1	P1361025.D	CLP-1 0.53(mm)
STD005 240-4360/25 IC		06/10/2011 19:30	1	P1361025.D	CLP-2 0.53(mm)
STD01 240-4360/26 IC		06/10/2011 19:45	1	P1361026.D	CLP-1 0.53(mm)
STD01 240-4360/26 IC		06/10/2011 19:45	1	P1361026.D	CLP-2 0.53(mm)
STD02 240-4360/27 IC		06/10/2011 20:01	1	P1361027.D	CLP-1 0.53(mm)
STD02 240-4360/27 IC		06/10/2011 20:01	1	P1361027.D	CLP-2 0.53(mm)
STD05 240-4360/28 ICRT		06/10/2011 20:15	1	P1361028.D	CLP-1 0.53(mm)
STD05 240-4360/28 ICRT		06/10/2011 20:15	1	P1361028.D	CLP-2 0.53(mm)
STD1 240-4360/29 IC		06/10/2011 20:30	1	P1361029.D	CLP-1 0.53(mm)
STD1 240-4360/29 IC		06/10/2011 20:30	1	P1361029.D	CLP-2 0.53(mm)
STD2 240-4360/30 IC		06/10/2011 20:45	1	P1361030.D	CLP-1 0.53(mm)
STD2 240-4360/30 IC		06/10/2011 20:45	1	P1361030.D	CLP-2 0.53(mm)
STD005 240-4360/31 IC		06/10/2011 21:01	1		CLP-1 0.53(mm)
STD005 240-4360/31 IC		06/10/2011 21:01	1		CLP-2 0.53(mm)
STD01 240-4360/32 IC		06/10/2011 21:16	1		CLP-1 0.53(mm)
STD01 240-4360/32 IC		06/10/2011 21:16	1		CLP-2 0.53(mm)
STD02 240-4360/33 IC		06/10/2011 21:31	1		CLP-1 0.53(mm)
STD02 240-4360/33 IC		06/10/2011 21:31	1		CLP-2 0.53(mm)
STD05 240-4360/34 IC		06/10/2011 21:46	1		CLP-1 0.53(mm)
STD05 240-4360/34 IC		06/10/2011 21:46	1		CLP-2 0.53(mm)
STD1 240-4360/35 IC		06/10/2011 22:01	1		CLP-1 0.53(mm)
STD1 240-4360/35 IC		06/10/2011 22:01	1		CLP-2 0.53(mm)
STD2 240-4360/36 IC		06/10/2011 22:16	1		CLP-1 0.53(mm)
STD2 240-4360/36 IC		06/10/2011 22:16	1		CLP-2 0.53(mm)
STD005 240-4360/37 IC		06/10/2011 22:31	1		CLP-1 0.53(mm)
STD005 240-4360/37 IC		06/10/2011 22:31	1		CLP-2 0.53(mm)
STD01 240-4360/38 IC		06/10/2011 22:46	1		CLP-1 0.53(mm)
STD01 240-4360/38 IC		06/10/2011 22:46	1		CLP-2 0.53(mm)
STD02 240-4360/39 IC		06/10/2011 23:01	1		CLP-1 0.53(mm)
STD02 240-4360/39 IC		06/10/2011 23:01	1		CLP-2 0.53(mm)
STD05 240-4360/40 IC		06/10/2011 23:16	1		CLP-1 0.53(mm)
STD05 240-4360/40 IC		06/10/2011 23:16	1		CLP-2 0.53(mm)
STD1 240-4360/41 IC		06/10/2011 23:31	1		CLP-1 0.53(mm)
STD1 240-4360/41 IC		06/10/2011 23:31	1		CLP-2 0.53(mm)
STD2 240-4360/42 IC		06/10/2011 23:46	1		CLP-1 0.53(mm)
STD2 240-4360/42 IC		06/10/2011 23:46	1		CLP-2 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: A2HP13 Start Date: 06/10/2011 13:30

Analysis Batch Number: 4360 End Date: 06/11/2011 01:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 240-4360/43		06/11/2011 00:01	1	P1361043.D	CLP-1 0.53(mm)
ICV 240-4360/43		06/11/2011 00:01	1	P1361043.D	CLP-2 0.53(mm)
ICV 240-4360/44		06/11/2011 00:16	1	P1361044.D	CLP-1 0.53(mm)
ICV 240-4360/44		06/11/2011 00:16	1	P1361044.D	CLP-2 0.53(mm)
ICV 240-4360/45		06/11/2011 00:31	1	P1361045.D	CLP-1 0.53(mm)
ICV 240-4360/45		06/11/2011 00:31	1	P1361045.D	CLP-2 0.53(mm)
ICV 240-4360/46		06/11/2011 00:46	1	P1361046.D	CLP-1 0.53(mm)
ICV 240-4360/46		06/11/2011 00:46	1	P1361046.D	CLP-2 0.53(mm)
ICV 240-4360/47		06/11/2011 01:01	1	P1361047.D	CLP-1 0.53(mm)
ICV 240-4360/47		06/11/2011 01:01	1	P1361047.D	CLP-2 0.53(mm)
ICV 240-4360/48		06/11/2011 01:16	1	P1361048.D	CLP-1 0.53(mm)
ICV 240-4360/48		06/11/2011 01:16	1	P1361048.D	CLP-2 0.53(mm)
ICV 240-4360/49		06/11/2011 01:31	1		CLP-1 0.53(mm)
ICV 240-4360/49		06/11/2011 01:31	1		CLP-2 0.53(mm)
ICV 240-4360/50		06/11/2011 01:47	1		CLP-1 0.53(mm)
ICV 240-4360/50		06/11/2011 01:47	1		CLP-2 0.53(mm)

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 13:30 Calibration End Date: 06/10/2011 14:45 Calibration ID: 1378

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/1	P1361001.D
Level 2	STD01 240-4360/2	P1361002.D
Level 3	STD02 240-4360/3	P1361003.D
Level 4	STD05 240-4360/4	P1361004.D
Level 5	STD1 240-4360/5	P1361005.D
Level 6	STD2 240-4360/6	P1361006.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1232 Peak 1	130530400 102935624	125155130 95800317	124566415	105660330	Ave		114108036				13.0		20.0			
PCB-1232 Peak 2	89216060 79191743	89873270 76007786	88402670	79307186	Ave		83666452.4				7.4		20.0			
PCB-1232 Peak 3	184961040 168189527	181968170 165838422	176977545	161558434	Ave		173248856				5.4		20.0			
PCB-1232 Peak 4	71855800 69954951	76178010 70044944	72098120	67616186	Ave		71291335.1				4.1		20.0			
PCB-1232 Peak 5	58939620 62246951	66774290 63246319	62920920	59958480	Ave		62347763.3				4.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 13:30 Calibration End Date: 06/10/2011 14:45 Calibration ID: 1378

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/1	P1361001.D
Level 2	STD01 240-4360/2	P1361002.D
Level 3	STD02 240-4360/3	P1361003.D
Level 4	STD05 240-4360/4	P1361004.D
Level 5	STD1 240-4360/5	P1361005.D
Level 6	STD2 240-4360/6	P1361006.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1232 Peak 1	1.483	1.477	1.479	1.478	1.478	1.477	1.433 - 1.533	1.479
PCB-1232 Peak 2	1.782	1.776	1.777	1.776	1.777	1.775	1.732 - 1.832	1.777
PCB-1232 Peak 3	2.197	2.191	2.193	2.192	2.192	2.191	2.147 - 2.247	2.193
PCB-1232 Peak 4	2.326	2.319	2.320	2.318	2.319	2.319	2.276 - 2.376	2.320
PCB-1232 Peak 5	2.731	2.723	2.725	2.724	2.724	2.722	2.681 - 2.781	2.725

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 13:30 Calibration End Date: 06/10/2011 14:45 Calibration ID: 1378

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/1	P1361001.D
Level 2	STD01 240-4360/2	P1361002.D
Level 3	STD02 240-4360/3	P1361003.D
Level 4	STD05 240-4360/4	P1361004.D
Level 5	STD1 240-4360/5	P1361005.D
Level 6	STD2 240-4360/6	P1361006.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	Ave	6526520 191600633	12515513	24913283	52830165	102935624	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	Ave	4460803 152015571	8987327	17680534	39653593	79191743	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	Ave	9248052 331676844	18196817	35395509	80779217	168189527	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	Ave	3592790 140089887	7617801	14419624	33808093	69954951	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	Ave	2946981 126492637	6677429	12584184	29979240	62246951	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton | Job No.: 240-820-1 | Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 | GC Column: CLP-2 | ID: 0.53(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 13:30 | Calibration End Date: 06/10/2011 14:45 | Calibration ID: 1379

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/1	P1361001.D
Level 2	STD01 240-4360/2	P1361002.D
Level 3	STD02 240-4360/3	P1361003.D
Level 4	STD05 240-4360/4	P1361004.D
Level 5	STD1 240-4360/5	P1361005.D
Level 6	STD2 240-4360/6	P1361006.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1232 Peak 1	60010160 52341222	59642560 50192963	58729935	51178470	Ave		55349218.3				8.3		20.0			
PCB-1232 Peak 2	51461400 40396905	45249000 39357782	43863495	37666648	Ave		42999204.9				12.0		20.0			
PCB-1232 Peak 3	87659380 85473984	89430720 85755075	87643815	78217046	Ave		85696669.9				4.6		20.0			
PCB-1232 Peak 4	38432440 35723951	38270640 36323811	36519385	32050640	Ave		36220144.4				6.4		20.0			
PCB-1232 Peak 5	35476460 25779734	30643890 26034165	28214140	24874128	Ave		28503752.8				14.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 13:30 Calibration End Date: 06/10/2011 14:45 Calibration ID: 1379

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/1	P1361001.D
Level 2	STD01 240-4360/2	P1361002.D
Level 3	STD02 240-4360/3	P1361003.D
Level 4	STD05 240-4360/4	P1361004.D
Level 5	STD1 240-4360/5	P1361005.D
Level 6	STD2 240-4360/6	P1361006.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1232 Peak 1	2.112	2.111	2.112	2.112	2.111	2.111	2.062 - 2.162	2.112
PCB-1232 Peak 2	2.532	2.530	2.532	2.531	2.531	2.531	2.482 - 2.582	2.531
PCB-1232 Peak 3	3.012	3.010	3.010	3.010	3.010	3.011	2.962 - 3.062	3.011
PCB-1232 Peak 4	3.156	3.155	3.155	3.155	3.155	3.155	3.106 - 3.206	3.155
PCB-1232 Peak 5	3.670	3.669	3.670	3.670	3.669	3.670	3.620 - 3.720	3.670

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 13:30 Calibration End Date: 06/10/2011 14:45 Calibration ID: 1379

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/1	P1361001.D
Level 2	STD01 240-4360/2	P1361002.D
Level 3	STD02 240-4360/3	P1361003.D
Level 4	STD05 240-4360/4	P1361004.D
Level 5	STD1 240-4360/5	P1361005.D
Level 6	STD2 240-4360/6	P1361006.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1232 Peak 1	Ave	3000508 100385926	5964256	11745987	25589235	52341222	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 2	Ave	2573070 78715563	4524900	8772699	18833324	40396905	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 3	Ave	4382969 171510149	8943072	17528763	39108523	85473984	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 4	Ave	1921622 72647621	3827064	7303877	16025320	35723951	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1232 Peak 5	Ave	1773823 52068329	3064389	5642828	12437064	25779734	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 15:00 Calibration End Date: 06/10/2011 16:14 Calibration ID: 1384

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/7	P1361007.D
Level 2	STD01 240-4360/8	P1361008.D
Level 3	STD02 240-4360/9	P1361009.D
Level 4	STD05 240-4360/10	P1361010.D
Level 5	STD1 240-4360/11	P1361011.D
Level 6	STD2 240-4360/12	P1361012.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1242 Peak 1	114444540 78963868	85696440 71113201	84353190	84195926	Ave		86461194.1				17.0		20.0			
PCB-1242 Peak 2	189823780 141058849	156775020 126090234	153470520	153539002	Ave		153459568				14.0		20.0			
PCB-1242 Peak 3	349859220 320767166	337991760 298002157	334191985	331236226	Ave		328674752				5.4		20.0			
PCB-1242 Peak 4	152536360 136891400	140596040 127380120	139578015	140435232	Ave		139569528				5.8		20.0			
PCB-1242 Peak 5	149720440 136714013	138477970 128844209	137168835	138827210	Ave		138292113				4.8		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 15:00 Calibration End Date: 06/10/2011 16:14 Calibration ID: 1384

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/7	P1361007.D
Level 2	STD01 240-4360/8	P1361008.D
Level 3	STD02 240-4360/9	P1361009.D
Level 4	STD05 240-4360/10	P1361010.D
Level 5	STD1 240-4360/11	P1361011.D
Level 6	STD2 240-4360/12	P1361012.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1242 Peak 1	1.478	1.478	1.478	1.479	1.479	1.479	1.428 - 1.528	1.479
PCB-1242 Peak 2	1.777	1.776	1.777	1.778	1.777	1.778	1.727 - 1.827	1.777
PCB-1242 Peak 3	2.191	2.191	2.192	2.192	2.192	2.192	2.141 - 2.241	2.192
PCB-1242 Peak 4	2.320	2.320	2.320	2.320	2.320	2.320	2.270 - 2.370	2.320
PCB-1242 Peak 5	2.724	2.723	2.725	2.725	2.725	2.724	2.674 - 2.774	2.724

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 15:00 Calibration End Date: 06/10/2011 16:14 Calibration ID: 1384

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/7	P1361007.D
Level 2	STD01 240-4360/8	P1361008.D
Level 3	STD02 240-4360/9	P1361009.D
Level 4	STD05 240-4360/10	P1361010.D
Level 5	STD1 240-4360/11	P1361011.D
Level 6	STD2 240-4360/12	P1361012.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6					LVL 6				
PCB-1242 Peak 1	Ave	5722227	8569644	16870638	42097963	78963868	0.0500	0.100	0.200	0.500	1.00
		142226401					2.00				
PCB-1242 Peak 2	Ave	9491189	15677502	30694104	76769501	141058849	0.0500	0.100	0.200	0.500	1.00
		252180468					2.00				
PCB-1242 Peak 3	Ave	17492961	33799176	66838397	165618113	320767166	0.0500	0.100	0.200	0.500	1.00
		596004314					2.00				
PCB-1242 Peak 4	Ave	7626818	14059604	27915603	70217616	136891400	0.0500	0.100	0.200	0.500	1.00
		254760240					2.00				
PCB-1242 Peak 5	Ave	7486022	13847797	27433767	69413605	136714013	0.0500	0.100	0.200	0.500	1.00
		257688417					2.00				

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 15:00 Calibration End Date: 06/10/2011 16:14 Calibration ID: 1385

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/7	P1361007.D
Level 2	STD01 240-4360/8	P1361008.D
Level 3	STD02 240-4360/9	P1361009.D
Level 4	STD05 240-4360/10	P1361010.D
Level 5	STD1 240-4360/11	P1361011.D
Level 6	STD2 240-4360/12	P1361012.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1242 Peak 1	45067160 38697251	43617790 35947381	40783490	39566716	Ave		40613297.9				8.2		20.0			
PCB-1242 Peak 2	88928360 76263276	81939560 70132216	83282220	79371772	Ave		79986233.9				8.0		20.0			
PCB-1242 Peak 3	169928940 164774522	168687640 155465648	170256835	167343236	Ave		166076137				3.4		20.0			
PCB-1242 Peak 4	73154700 69736790	69949820 65974929	72814990	70565870	Ave		70366183.1				3.7		20.0			
PCB-1242 Peak 5	64598180 55911118	61679400 53130215	58710170	56415794	Ave		58407479.4				7.1		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 15:00 Calibration End Date: 06/10/2011 16:14 Calibration ID: 1385

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/7	P1361007.D
Level 2	STD01 240-4360/8	P1361008.D
Level 3	STD02 240-4360/9	P1361009.D
Level 4	STD05 240-4360/10	P1361010.D
Level 5	STD1 240-4360/11	P1361011.D
Level 6	STD2 240-4360/12	P1361012.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1242 Peak 1	2.113	2.111	2.112	2.113	2.112	2.112	2.063 - 2.163	2.112
PCB-1242 Peak 2	2.532	2.531	2.532	2.533	2.532	2.532	2.482 - 2.582	2.532
PCB-1242 Peak 3	3.011	3.011	3.011	3.011	3.011	3.011	2.961 - 3.061	3.011
PCB-1242 Peak 4	3.156	3.156	3.156	3.156	3.156	3.155	3.106 - 3.206	3.156
PCB-1242 Peak 5	3.670	3.670	3.670	3.671	3.671	3.670	3.620 - 3.720	3.670

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 15:00 Calibration End Date: 06/10/2011 16:14 Calibration ID: 1385

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/7	P1361007.D
Level 2	STD01 240-4360/8	P1361008.D
Level 3	STD02 240-4360/9	P1361009.D
Level 4	STD05 240-4360/10	P1361010.D
Level 5	STD1 240-4360/11	P1361011.D
Level 6	STD2 240-4360/12	P1361012.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	Ave	2253358 71894761	4361779	8156698	19783358	38697251	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 2	Ave	4446418 140264431	8193956	16656444	39685886	76263276	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 3	Ave	8496447 310931295	16868764	34051367	83671618	164774522	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 4	Ave	3657735 131949857	6994982	14562998	35282935	69736790	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1242 Peak 5	Ave	3229909 106260429	6167940	11742034	28207897	55911118	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 16:30 Calibration End Date: 06/10/2011 17:45 Calibration ID: 1390

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/13	P1361013.D
Level 2	STD01 240-4360/14	P1361014.D
Level 3	STD02 240-4360/15	P1361015.D
Level 4	STD05 240-4360/16	P1361016.D
Level 5	STD1 240-4360/17	P1361017.D
Level 6	STD2 240-4360/18	P1361018.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1248 Peak 1	74083340 67651309	72573680 62945894	76335695	70548914	Ave		70689805.3				6.8		20.0			
PCB-1248 Peak 2	206280300 205785870	205373470 191006625	202462785	212284064	Ave		203865519				3.5		20.0			
PCB-1248 Peak 3	224064760 215596729	220581640 198104225	217109905	224435874	Ave		216648856				4.5		20.0			
PCB-1248 Peak 4	397164980 389162441	391369440 355736060	384099410	403004546	Ave		386756146				4.3		20.0			
PCB-1248 Peak 5	96993660 106056877	95334220 102061440	94683860	107591316	Ave		100453562				5.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 16:30 Calibration End Date: 06/10/2011 17:45 Calibration ID: 1390

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/13	P1361013.D
Level 2	STD01 240-4360/14	P1361014.D
Level 3	STD02 240-4360/15	P1361015.D
Level 4	STD05 240-4360/16	P1361016.D
Level 5	STD1 240-4360/17	P1361017.D
Level 6	STD2 240-4360/18	P1361018.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1248 Peak 1	1.778	1.776	1.777	1.776	1.774	1.776	1.728 - 1.828	1.776
PCB-1248 Peak 2	2.190	2.189	2.189	2.190	2.188	2.190	2.140 - 2.240	2.189
PCB-1248 Peak 3	2.725	2.723	2.724	2.724	2.722	2.724	2.675 - 2.775	2.724
PCB-1248 Peak 4	3.165	3.163	3.163	3.164	3.162	3.166	3.115 - 3.215	3.164
PCB-1248 Peak 5	3.798	3.796	3.796	3.796	3.795	3.797	3.748 - 3.848	3.796

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 16:30 Calibration End Date: 06/10/2011 17:45 Calibration ID: 1390

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/13	P1361013.D
Level 2	STD01 240-4360/14	P1361014.D
Level 3	STD02 240-4360/15	P1361015.D
Level 4	STD05 240-4360/16	P1361016.D
Level 5	STD1 240-4360/17	P1361017.D
Level 6	STD2 240-4360/18	P1361018.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	Ave	3704167 125891787	7257368	15267139	35274457	67651309	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	Ave	10314015 382013250	20537347	40492557	106142032	205785870	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	Ave	11203238 396208451	22058164	43421981	112217937	215596729	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	Ave	19858249 711472119	39136944	76819882	201502273	389162441	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	Ave	4849683 204122880	9533422	18936772	53795658	106056877	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 16:30 Calibration End Date: 06/10/2011 17:45 Calibration ID: 1391

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/13	P1361013.D
Level 2	STD01 240-4360/14	P1361014.D
Level 3	STD02 240-4360/15	P1361015.D
Level 4	STD05 240-4360/16	P1361016.D
Level 5	STD1 240-4360/17	P1361017.D
Level 6	STD2 240-4360/18	P1361018.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1248 Peak 1	41458040 36320843	40093560 34252602	36858400	36978446	Ave		37660315.1				7.0		20.0			
PCB-1248 Peak 2	109181740 106430715	105632080 99773393	99493375	107941358	Ave		104742110				4.0		20.0			
PCB-1248 Peak 3	107147120 102567717	105121380 96512695	99781640	104807424	Ave		102656329				3.8		20.0			
PCB-1248 Peak 4	119005800 116423399	116250050 108904856	110763185	118265090	Ave		114935397				3.6		20.0			
PCB-1248 Peak 5	61030820 61672718	60056070 58211669	59704930	62680708	Ave		60559485.8				2.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 16:30 Calibration End Date: 06/10/2011 17:45 Calibration ID: 1391

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/13	P1361013.D
Level 2	STD01 240-4360/14	P1361014.D
Level 3	STD02 240-4360/15	P1361015.D
Level 4	STD05 240-4360/16	P1361016.D
Level 5	STD1 240-4360/17	P1361017.D
Level 6	STD2 240-4360/18	P1361018.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1248 Peak 1	2.530	2.530	2.529	2.530	2.529	2.529	2.480 - 2.580	2.530
PCB-1248 Peak 2	3.009	3.008	3.008	3.010	3.008	3.009	2.959 - 3.059	3.009
PCB-1248 Peak 3	3.803	3.803	3.803	3.803	3.802	3.803	3.753 - 3.853	3.803
PCB-1248 Peak 4	4.141	4.140	4.140	4.141	4.140	4.140	4.091 - 4.191	4.140
PCB-1248 Peak 5	4.860	4.859	4.859	4.860	4.860	4.859	4.810 - 4.910	4.860

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 16:30 Calibration End Date: 06/10/2011 17:45 Calibration ID: 1391

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/13	P1361013.D
Level 2	STD01 240-4360/14	P1361014.D
Level 3	STD02 240-4360/15	P1361015.D
Level 4	STD05 240-4360/16	P1361016.D
Level 5	STD1 240-4360/17	P1361017.D
Level 6	STD2 240-4360/18	P1361018.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1248 Peak 1	Ave	2072902 68505203	4009356	7371680	18489223	36320843	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 2	Ave	5459087 199546786	10563208	19898675	53970679	106430715	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 3	Ave	5357356 193025389	10512138	19956328	52403712	102567717	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 4	Ave	5950290 217809711	11625005	22152637	59132545	116423399	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1248 Peak 5	Ave	3051541 116423337	6005607	11940986	31340354	61672718	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 18:00 Calibration End Date: 06/10/2011 19:16 Calibration ID: 1396

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/19	P1361019.D
Level 2	STD01 240-4360/20	P1361020.D
Level 3	STD02 240-4360/21	P1361021.D
Level 4	STD05 240-4360/22	P1361022.D
Level 5	STD1 240-4360/23	P1361023.D
Level 6	STD2 240-4360/24	P1361024.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1221 Peak 1	80234660 53350402	62342610 47867565	57773200	55609580	Ave		59529669.4				19.0		20.0			
PCB-1221 Peak 2	37863460 27032946	31521830 23819151	31766450	25836792	Ave		29640104.8				17.0		20.0			
PCB-1221 Peak 3	172730180 127613372	153188360 111769964	145064580	143144462	Ave		142251820				15.0		20.0			
PCB-1254 Peak 1	189966920 169422607	200001670 125590158	178951850	179622630	Ave		173925973				15.0		20.0			
PCB-1254 Peak 2	335205840 332905160	348235420 272046317	347506020	351055208	Ave		331158994				9.0		20.0			
PCB-1254 Peak 3	320556840 350498474	333203150 268522509	346103085	347405664	Ave		327714954				9.5		20.0			
PCB-1254 Peak 4	283191720 313955307	309464030 256917802	322244580	326880272	Ave		302108952				8.9		20.0			
PCB-1254 Peak 5	341466100 371366636	369925260 313709486	385419735	386607746	Ave		361415827				7.9		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 18:00 Calibration End Date: 06/10/2011 19:16 Calibration ID: 1396

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/19	P1361019.D
Level 2	STD01 240-4360/20	P1361020.D
Level 3	STD02 240-4360/21	P1361021.D
Level 4	STD05 240-4360/22	P1361022.D
Level 5	STD1 240-4360/23	P1361023.D
Level 6	STD2 240-4360/24	P1361024.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1221 Peak 1	1.334	1.333	1.331	1.333	1.333	1.333	1.284 - 1.384	1.333
PCB-1221 Peak 2	1.449	1.447	1.446	1.447	1.446	1.447	1.399 - 1.499	1.447
PCB-1221 Peak 3	1.478	1.477	1.476	1.477	1.477	1.478	1.428 - 1.528	1.477
PCB-1254 Peak 1	3.110	3.110	3.108	3.110	3.108	3.109	3.060 - 3.160	3.109
PCB-1254 Peak 2	3.388	3.389	3.387	3.388	3.388	3.388	3.338 - 3.438	3.388
PCB-1254 Peak 3	3.796	3.796	3.796	3.796	3.794	3.796	3.746 - 3.846	3.796
PCB-1254 Peak 4	4.097	4.097	4.096	4.096	4.095	4.096	4.047 - 4.147	4.096
PCB-1254 Peak 5	4.598	4.600	4.598	4.598	4.598	4.598	4.548 - 4.648	4.598

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 18:00 Calibration End Date: 06/10/2011 19:16 Calibration ID: 1396

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/19	P1361019.D
Level 2	STD01 240-4360/20	P1361020.D
Level 3	STD02 240-4360/21	P1361021.D
Level 4	STD05 240-4360/22	P1361022.D
Level 5	STD1 240-4360/23	P1361023.D
Level 6	STD2 240-4360/24	P1361024.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	Ave	4011733 95735129	6234261	11554640	27804790	53350402	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 2	Ave	1893173 47638301	3152183	6353290	12918396	27032946	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 3	Ave	8636509 223539927	15318836	29012916	71572231	127613372	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 1	Ave	9498346 251180316	20000167	35790370	89811315	169422607	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 2	Ave	16760292 544092633	34823542	69501204	175527604	332905160	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 3	Ave	16027842 537045017	33320315	69220617	173702832	350498474	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 4	Ave	14159586 513835604	30946403	64448916	163440136	313955307	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 5	Ave	17073305 627418972	36992526	77083947	193303873	371366636	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 18:00 Calibration End Date: 06/10/2011 19:16 Calibration ID: 1397

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/19	P1361019.D
Level 2	STD01 240-4360/20	P1361020.D
Level 3	STD02 240-4360/21	P1361021.D
Level 4	STD05 240-4360/22	P1361022.D
Level 5	STD1 240-4360/23	P1361023.D
Level 6	STD2 240-4360/24	P1361024.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1221 Peak 1	30621980 26575941	29920730 25209437	29238535	28618096	Ave		28364119.8				7.3		20.0			
PCB-1221 Peak 2	19890760 15352514	19199190 13867022	18955495	18403410	Ave		17611398.4				14.0		20.0			
PCB-1221 Peak 3	77271060 61324319	73183650 55772932	72104465	70820464	Ave		68412815.0				12.0		20.0			
PCB-1254 Peak 1	128289780 117882588	124159430 114644557	124237195	124089586	Ave		122217189				4.1		20.0			
PCB-1254 Peak 2	195645820 188506186	195970760 181762803	196278125	197002398	Ave		192527682				3.2		20.0			
PCB-1254 Peak 3	126138320 126174892	127407380 124305515	127966880	128912826	Ave		126817635				1.3		20.0			
PCB-1254 Peak 4	142334280 147153827	144542380 144721156	146951000	148779718	Ave		145747060				1.6		20.0			
PCB-1254 Peak 5	174439840 173265524	182709010 169167704	177592185	186757468	Ave		177321955				3.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 18:00 Calibration End Date: 06/10/2011 19:16 Calibration ID: 1397

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/19	P1361019.D
Level 2	STD01 240-4360/20	P1361020.D
Level 3	STD02 240-4360/21	P1361021.D
Level 4	STD05 240-4360/22	P1361022.D
Level 5	STD1 240-4360/23	P1361023.D
Level 6	STD2 240-4360/24	P1361024.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1221 Peak 1	1.915	1.914	1.913	1.915	1.913	1.913	1.865 - 1.965	1.914
PCB-1221 Peak 2	2.053	2.052	2.051	2.052	2.051	2.051	2.003 - 2.103	2.052
PCB-1221 Peak 3	2.113	2.111	2.110	2.111	2.110	2.111	2.063 - 2.163	2.111
PCB-1254 Peak 1	4.363	4.362	4.361	4.361	4.362	4.361	4.313 - 4.413	4.362
PCB-1254 Peak 2	4.859	4.859	4.859	4.858	4.859	4.859	4.809 - 4.909	4.859
PCB-1254 Peak 3	5.122	5.122	5.121	5.121	5.121	5.122	5.072 - 5.172	5.122
PCB-1254 Peak 4	5.499	5.498	5.498	5.499	5.499	5.499	5.449 - 5.549	5.499
PCB-1254 Peak 5	5.714	5.715	5.715	5.716	5.716	5.716	5.664 - 5.764	5.715

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 18:00 Calibration End Date: 06/10/2011 19:16 Calibration ID: 1397

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/19	P1361019.D
Level 2	STD01 240-4360/20	P1361020.D
Level 3	STD02 240-4360/21	P1361021.D
Level 4	STD05 240-4360/22	P1361022.D
Level 5	STD1 240-4360/23	P1361023.D
Level 6	STD2 240-4360/24	P1361024.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1221 Peak 1	Ave	1531099 50418873	2992073	5847707	14309048	26575941	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 2	Ave	994538 27734043	1919919	3791099	9201705	15352514	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1221 Peak 3	Ave	3863553 111545864	7318365	14420893	35410232	61324319	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 1	Ave	6414489 229289113	12415943	24847439	62044793	117882588	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 2	Ave	9782291 363525606	19597076	39255625	98501199	188506186	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 3	Ave	6306916 248611029	12740738	25593376	64456413	126174892	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 4	Ave	7116714 289442312	14454238	29390200	74389859	147153827	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1254 Peak 5	Ave	8721992 338335408	18270901	35518437	93378734	173265524	0.0500 2.00	0.100	0.200	0.500	1.00

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1402

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1016 Peak 1	123865700 109003675	143125620 100788360	105190645	98128022	Ave		113350337				15.0		20.0			
PCB-1016 Peak 2	203037680 166841704	207103590 152509321	184231645	174964920	Ave		181448143				12.0		20.0			
PCB-1016 Peak 3	412721820 382063780	416895930 361078574	406321625	394149700	Ave		395538572				5.3		20.0			
PCB-1016 Peak 4	176680100 163974588	179466070 155812510	169997380	167788626	Ave		168953212				5.1		20.0			
PCB-1016 Peak 5	110990360 111219546	116880940 108478801	109901730	110894724	Ave		111394350				2.6		20.0			
PCB-1260 Peak 1	247565860 241476724	254582430 234843074	241516135	244687554	Ave		244111963				2.7		20.0			
PCB-1260 Peak 2	543237360 514522341	545553950 498256235	534557260	526537158	Ave		527110717				3.4		20.0			
PCB-1260 Peak 3	468491380 463573470	472777320 455927567	470243350	467123934	Ave		466356170				1.3		20.0			
PCB-1260 Peak 4	808900780 799995243	817771090 785479441	826860880	798828018	Ave		806305909				1.8		20.0			
PCB-1260 Peak 5	327204280 327637302	327392490 330677068	334765085	319290038	Ave		327827711				1.6		20.0			
Tetrachloro-m-xylene	6962918000 5507406000	6640790800 5009997550	6059870700	5586536080	Ave		5961253188				12.0		20.0			
Decachlorobiphenyl	5685028400 5283917780	5402986800 5349128310	5633498800	5000657320	Ave		5392536235				4.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1402

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1016 Peak 1	1.478	1.480	1.478	1.478	1.479	1.478	1.428 - 1.528	1.479
PCB-1016 Peak 2	1.777	1.779	1.776	1.775	1.777	1.777	1.725 - 1.825	1.777
PCB-1016 Peak 3	2.192	2.192	2.191	2.191	2.192	2.192	2.141 - 2.241	2.192
PCB-1016 Peak 4	2.320	2.321	2.319	2.319	2.320	2.320	2.269 - 2.369	2.320
PCB-1016 Peak 5	2.376	2.377	2.376	2.375	2.377	2.377	2.325 - 2.425	2.376
PCB-1260 Peak 1	3.998	4.000	3.999	3.998	3.999	3.998	3.948 - 4.048	3.999
PCB-1260 Peak 2	4.304	4.306	4.305	4.304	4.304	4.303	4.254 - 4.354	4.304
PCB-1260 Peak 3	4.598	4.599	4.598	4.597	4.598	4.598	4.547 - 4.647	4.598
PCB-1260 Peak 4	5.341	5.341	5.341	5.340	5.340	5.339	5.290 - 5.390	5.340
PCB-1260 Peak 5	5.638	5.638	5.638	5.637	5.637	5.637	5.587 - 5.687	5.638
Tetrachloro-m-xylene	1.193	1.195	1.194	1.195	1.195	1.194	1.145 - 1.245	1.194
Decachlorobiphenyl	6.857	6.858	6.857	6.857	6.857	6.857	6.807 - 6.907	6.857

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1402

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	6193285 201576719	14312562	21038129	49064011	109003675	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	10151884 305018642	20710359	36846329	87482460	166841704	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	20636091 722157148	41689593	81264325	197074850	382063780	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	8834005 311625019	17946607	33999476	83894313	163974588	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	5549518 216957601	11688094	21980346	55447362	111219546	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	12378293 469686148	25458243	48303227	122343777	241476724	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	27161868 996512469	54555395	106911452	263268579	514522341	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	23424569 911855134	47277732	94048670	233561967	463573470	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	40445039 1570958881	81777109	165372176	399414009	799995243	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	16360214 661354136	32739249	66953017	159645019	327637302	0.0500 2.00	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	Ave	17407295 500999755	33203954	60598707	139663402	275370300	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
Decachlorobiphenyl	Ave	14212571 534912831	27014934	56334988	125016433	264195889	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Ave = Average

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1403

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1016 Peak 1	54123980 46430606	51711250 44137840	50000665	48036378	Ave		49073453.1				7.4		20.0			
PCB-1016 Peak 2	102429520 90128108	104264570 84876270	99802885	94480590	Ave		95996990.5				7.9		20.0			
PCB-1016 Peak 3	205147920 196416689	209479280 190262692	208226480	202173684	Ave		201951124				3.7		20.0			
PCB-1016 Peak 4	87658200 84728621	92482630 82093225	89868770	86878262	Ave		87284951.3				4.2		20.0			
PCB-1016 Peak 5	66026480 67403261	71725440 66639654	70087825	68326392	Ave		68368175.3				3.2		20.0			
PCB-1260 Peak 1	141217300 130204491	137737720 128413256	134223555	130914598	Ave		133785153				3.7		20.0			
PCB-1260 Peak 2	163827840 146862537	154622410 145755684	152875155	146535160	Ave		151746464				4.6		20.0			
PCB-1260 Peak 3	127403120 120378573	125959050 120385510	122052630	118483844	Ave		122443788				2.9		20.0			
PCB-1260 Peak 4	303547040 291756754	298457310 292723570	304252700	289654470	Ave		296731974				2.1		20.0			
PCB-1260 Peak 5	214135780 205830060	209509140 206824447	211654735	201970128	Ave		208320715				2.1		20.0			
Tetrachloro-m-xylene	3001733600 2889446860	3030646000 2797180200	2935540400	2827889160	Ave		2913739370				3.2		20.0			
Decachlorobiphenyl	2522259600 2370805020	2420519200 2409473490	2488654300	2237002040	Ave		2408118942				4.2		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1403

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	RT WINDOW	AVG RT
PCB-1016 Peak 1	2.112	2.113	2.111	2.111	2.112	2.111	2.061 - 2.161	2.112
PCB-1016 Peak 2	2.532	2.533	2.530	2.531	2.532	2.532	2.481 - 2.581	2.532
PCB-1016 Peak 3	3.010	3.011	3.009	3.010	3.011	3.010	2.960 - 3.060	3.010
PCB-1016 Peak 4	3.155	3.156	3.154	3.155	3.156	3.155	3.105 - 3.205	3.155
PCB-1016 Peak 5	3.264	3.265	3.262	3.264	3.263	3.263	3.214 - 3.314	3.264
PCB-1260 Peak 1	5.081	5.082	5.081	5.081	5.082	5.081	5.031 - 5.131	5.081
PCB-1260 Peak 2	5.330	5.331	5.329	5.330	5.330	5.329	5.280 - 5.380	5.330
PCB-1260 Peak 3	5.825	5.826	5.825	5.825	5.826	5.825	5.775 - 5.875	5.825
PCB-1260 Peak 4	6.442	6.442	6.441	6.441	6.442	6.441	6.391 - 6.491	6.442
PCB-1260 Peak 5	6.839	6.840	6.840	6.840	6.839	6.839	6.790 - 6.890	6.840
Tetrachloro-m-xylene	1.624	1.626	1.624	1.625	1.626	1.625	1.575 - 1.675	1.625
Decachlorobiphenyl	8.142	8.141	8.141	8.141	8.142	8.141	8.091 - 8.191	8.141

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1403

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	2706199 88275679	5171125	10000133	24018189	46430606	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 2	Ave	5121476 169752540	10426457	19960577	47240295	90128108	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 3	Ave	10257396 380525384	20947928	41645296	101086842	196416689	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 4	Ave	4382910 164186450	9248263	17973754	43439131	84728621	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1016 Peak 5	Ave	3301324 133279308	7172544	14017565	34163196	67403261	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 1	Ave	7060865 256826512	13773772	26844711	65457299	130204491	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 2	Ave	8191392 291511367	15462241	30575031	73267580	146862537	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 3	Ave	6370156 240771019	12595905	24410526	59241922	120378573	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 4	Ave	15177352 585447140	29845731	60850540	144827235	291756754	0.0500 2.00	0.100	0.200	0.500	1.00
PCB-1260 Peak 5	Ave	10706789 413648894	20950914	42330947	100985064	205830060	0.0500 2.00	0.100	0.200	0.500	1.00
Tetrachloro-m-xylene	Ave	7504334 279718020	15153230	29355404	70697229	144472343	0.00250 0.100	0.00500	0.0100	0.0250	0.0500
Decachlorobiphenyl	Ave	6305649 240947349	12102596	24886543	55925051	118540251	0.00250 0.100	0.00500	0.0100	0.0250	0.0500

Curve Type Legend:
Ave = Average

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/43 Calibration Date: 06/11/2011 00:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361043.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	59529669	52715120		0.886	1.00	-11.4	20.0
PCB-1221 Peak 2	Ave	29640105	23953172		0.808	1.00	-19.2	20.0
PCB-1221 Peak 3	Ave	142251820	125366199		0.881	1.00	-11.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/43 Calibration Date: 06/11/2011 00:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361043.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1221 Peak 1	1.33	1.28	1.38
PCB-1221 Peak 2	1.45	1.40	1.50
PCB-1221 Peak 3	1.48	1.43	1.53

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/43 Calibration Date: 06/11/2011 00:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361043.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1221 Peak 1	Ave	28364120	25778325		0.909	1.00	-9.1	20.0
PCB-1221 Peak 2	Ave	17611398	17070675		0.969	1.00	-3.1	20.0
PCB-1221 Peak 3	Ave	68412815	65576250		0.959	1.00	-4.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/43 Calibration Date: 06/11/2011 00:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361043.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1221 Peak 1	1.91	1.87	1.97
PCB-1221 Peak 2	2.05	2.00	2.10
PCB-1221 Peak 3	2.11	2.06	2.16

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/44 Calibration Date: 06/11/2011 00:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 13:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 14:45

Lab File ID: P1361044.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	114108036	121357184		1.06	1.00	6.4	20.0
PCB-1232 Peak 2	Ave	83666452	90319312		1.08	1.00	8.0	20.0
PCB-1232 Peak 3	Ave	173248856	189426406		1.09	1.00	9.3	20.0
PCB-1232 Peak 4	Ave	71291335	81548775		1.14	1.00	14.4	20.0
PCB-1232 Peak 5	Ave	62347763	76507128		1.23	1.00	22.7*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/44 Calibration Date: 06/11/2011 00:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 13:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 14:45

Lab File ID: P1361044.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1232 Peak 1	1.48	1.43	1.53
PCB-1232 Peak 2	1.78	1.73	1.83
PCB-1232 Peak 3	2.19	2.15	2.25
PCB-1232 Peak 4	2.32	2.28	2.38
PCB-1232 Peak 5	2.72	2.68	2.78

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/44 Calibration Date: 06/11/2011 00:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 13:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 14:45

Lab File ID: P1361044.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1232 Peak 1	Ave	55349218	55327745		1.00	1.00	-0.0	20.0
PCB-1232 Peak 2	Ave	42999205	46661676		1.09	1.00	8.5	20.0
PCB-1232 Peak 3	Ave	85696670	100060648		1.17	1.00	16.8	20.0
PCB-1232 Peak 4	Ave	36220144	42257802		1.17	1.00	16.7	20.0
PCB-1232 Peak 5	Ave	28503753	31552983		1.11	1.00	10.7	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/44 Calibration Date: 06/11/2011 00:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 13:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 14:45

Lab File ID: P1361044.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1232 Peak 1	2.11	2.06	2.16
PCB-1232 Peak 2	2.53	2.48	2.58
PCB-1232 Peak 3	3.01	2.96	3.06
PCB-1232 Peak 4	3.16	3.11	3.21
PCB-1232 Peak 5	3.67	3.62	3.72

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/45 Calibration Date: 06/11/2011 00:31

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 15:00

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 16:14

Lab File ID: P1361045.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	86461194	88361822		1.02	1.00	2.2	20.0
PCB-1242 Peak 2	Ave	153459568	145791746		0.950	1.00	-5.0	20.0
PCB-1242 Peak 3	Ave	328674752	309891378		0.943	1.00	-5.7	20.0
PCB-1242 Peak 4	Ave	139569528	138661346		0.990	1.00	-0.7	20.0
PCB-1242 Peak 5	Ave	138292113	142599283		1.03	1.00	3.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/45 Calibration Date: 06/11/2011 00:31

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 15:00

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 16:14

Lab File ID: P1361045.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1242 Peak 1	1.48	1.43	1.53
PCB-1242 Peak 2	1.78	1.73	1.83
PCB-1242 Peak 3	2.19	2.14	2.24
PCB-1242 Peak 4	2.32	2.27	2.37
PCB-1242 Peak 5	2.72	2.67	2.77

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/45 Calibration Date: 06/11/2011 00:31

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 15:00

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 16:14

Lab File ID: P1361045.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1242 Peak 1	Ave	40613298	38570484		0.950	1.00	-5.0	20.0
PCB-1242 Peak 2	Ave	79986234	76511120		0.957	1.00	-4.3	20.0
PCB-1242 Peak 3	Ave	166076137	164264572		0.989	1.00	-1.1	20.0
PCB-1242 Peak 4	Ave	70366183	70396802		1.00	1.00	0.0	20.0
PCB-1242 Peak 5	Ave	58407479	57922191		0.990	1.00	-0.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/45 Calibration Date: 06/11/2011 00:31

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 15:00

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 16:14

Lab File ID: P1361045.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1242 Peak 1	2.11	2.06	2.16
PCB-1242 Peak 2	2.53	2.48	2.58
PCB-1242 Peak 3	3.01	2.96	3.06
PCB-1242 Peak 4	3.16	3.11	3.21
PCB-1242 Peak 5	3.67	3.62	3.72

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/46 Calibration Date: 06/11/2011 00:46

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 16:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 17:45

Lab File ID: P1361046.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	70689805	81717134		1.16	1.00	15.6	20.0
PCB-1248 Peak 2	Ave	203865519	210239913		1.03	1.00	3.1	20.0
PCB-1248 Peak 3	Ave	216648856	217421920		1.00	1.00	0.4	20.0
PCB-1248 Peak 4	Ave	386756146	350137422		0.905	1.00	-9.5	20.0
PCB-1248 Peak 5	Ave	100453562	109137011		1.09	1.00	8.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/46 Calibration Date: 06/11/2011 00:46

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 16:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 17:45

Lab File ID: P1361046.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1248 Peak 1	1.78	1.73	1.83
PCB-1248 Peak 2	2.19	2.14	2.24
PCB-1248 Peak 3	2.72	2.68	2.78
PCB-1248 Peak 4	3.16	3.12	3.22
PCB-1248 Peak 5	3.80	3.75	3.85

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/46 Calibration Date: 06/11/2011 00:46

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 16:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 17:45

Lab File ID: P1361046.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1248 Peak 1	Ave	37660315	41544874		1.10	1.00	10.3	20.0
PCB-1248 Peak 2	Ave	104742110	111115583		1.06	1.00	6.1	20.0
PCB-1248 Peak 3	Ave	102656329	93402855		0.910	1.00	-9.0	20.0
PCB-1248 Peak 4	Ave	114935397	111289201		0.968	1.00	-3.2	20.0
PCB-1248 Peak 5	Ave	60559486	58159040		0.960	1.00	-4.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/46 Calibration Date: 06/11/2011 00:46

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 16:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 17:45

Lab File ID: P1361046.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1248 Peak 1	2.53	2.48	2.58
PCB-1248 Peak 2	3.01	2.96	3.06
PCB-1248 Peak 3	3.80	3.75	3.85
PCB-1248 Peak 4	4.14	4.09	4.19
PCB-1248 Peak 5	4.86	4.81	4.91

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/47 Calibration Date: 06/11/2011 01:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361047.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1254 Peak 1	Ave	173925973	185587829		1.07	1.00	6.7	20.0
PCB-1254 Peak 2	Ave	331158994	320326635		0.967	1.00	-3.3	20.0
PCB-1254 Peak 3	Ave	327714954	312629979		0.954	1.00	-4.6	20.0
PCB-1254 Peak 4	Ave	302108952	297393294		0.984	1.00	-1.6	20.0
PCB-1254 Peak 5	Ave	361415827	368148269		1.02	1.00	1.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/47 Calibration Date: 06/11/2011 01:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361047.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1254 Peak 1	3.11	3.06	3.16
PCB-1254 Peak 2	3.39	3.34	3.44
PCB-1254 Peak 3	3.80	3.75	3.85
PCB-1254 Peak 4	4.10	4.05	4.15
PCB-1254 Peak 5	4.60	4.55	4.65

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/47 Calibration Date: 06/11/2011 01:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361047.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1254 Peak 1	Ave	122217189	114149272		0.934	1.00	-6.6	20.0
PCB-1254 Peak 2	Ave	192527682	172525788		0.896	1.00	-10.4	20.0
PCB-1254 Peak 3	Ave	126817635	118485632		0.934	1.00	-6.6	20.0
PCB-1254 Peak 4	Ave	145747060	142024678		0.975	1.00	-2.6	20.0
PCB-1254 Peak 5	Ave	177321955	172623570		0.974	1.00	-2.6	20.0

FORM VII

GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/47 Calibration Date: 06/11/2011 01:01

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 18:00

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 19:16

Lab File ID: P1361047.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1254 Peak 1	4.36	4.31	4.41
PCB-1254 Peak 2	4.86	4.81	4.91
PCB-1254 Peak 3	5.12	5.07	5.17
PCB-1254 Peak 4	5.50	5.45	5.55
PCB-1254 Peak 5	5.72	5.66	5.76

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/48 Calibration Date: 06/11/2011 01:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361048.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	113350337	115715406		1.02	1.00	2.1	20.0
PCB-1016 Peak 2	Ave	181448143	187156612		1.03	1.00	3.1	20.0
PCB-1016 Peak 3	Ave	395538572	401061767		1.01	1.00	1.4	20.0
PCB-1016 Peak 4	Ave	168953212	181856646		1.08	1.00	7.6	20.0
PCB-1016 Peak 5	Ave	111394350	122730792		1.10	1.00	10.2	20.0
PCB-1260 Peak 1	Ave	244111963	258495406		1.06	1.00	5.9	20.0
PCB-1260 Peak 2	Ave	527110717	539652201		1.02	1.00	2.4	20.0
PCB-1260 Peak 3	Ave	466356170	487839866		1.05	1.00	4.6	20.0
PCB-1260 Peak 4	Ave	806305909	862074138		1.07	1.00	6.9	20.0
PCB-1260 Peak 5	Ave	327827711	360998607		1.10	1.00	10.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/48 Calibration Date: 06/11/2011 01:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361048.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.48	1.43	1.53
PCB-1016 Peak 2	1.78	1.73	1.83
PCB-1016 Peak 3	2.19	2.14	2.24
PCB-1016 Peak 4	2.32	2.27	2.37
PCB-1016 Peak 5	2.38	2.33	2.43
PCB-1260 Peak 1	4.00	3.95	4.05
PCB-1260 Peak 2	4.30	4.25	4.35
PCB-1260 Peak 3	4.60	4.55	4.65
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.64	5.59	5.69

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/48 Calibration Date: 06/11/2011 01:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361048.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	49073453	49770959		1.01	1.00	1.4	20.0
PCB-1016 Peak 2	Ave	95996991	94538777		0.985	1.00	-1.5	20.0
PCB-1016 Peak 3	Ave	201951124	214816174		1.06	1.00	6.4	20.0
PCB-1016 Peak 4	Ave	87284951	92523893		1.06	1.00	6.0	20.0
PCB-1016 Peak 5	Ave	68368175	73520272		1.08	1.00	7.5	20.0
PCB-1260 Peak 1	Ave	133785153	136927915		1.02	1.00	2.3	20.0
PCB-1260 Peak 2	Ave	151746464	155904546		1.03	1.00	2.7	20.0
PCB-1260 Peak 3	Ave	122443788	129161224		1.05	1.00	5.5	20.0
PCB-1260 Peak 4	Ave	296731974	319038171		1.08	1.00	7.5	20.0
PCB-1260 Peak 5	Ave	208320715	217758948		1.05	1.00	4.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICV 240-4360/48 Calibration Date: 06/11/2011 01:16

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361048.D

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
PCB-1016 Peak 1	2.11	2.06	2.16
PCB-1016 Peak 2	2.53	2.48	2.58
PCB-1016 Peak 3	3.01	2.96	3.06
PCB-1016 Peak 4	3.16	3.11	3.21
PCB-1016 Peak 5	3.26	3.21	3.31
PCB-1260 Peak 1	5.08	5.03	5.13
PCB-1260 Peak 2	5.33	5.28	5.38
PCB-1260 Peak 3	5.83	5.78	5.88
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.84	6.79	6.89

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: A2HP13 Start Date: 06/17/2011 13:12

Analysis Batch Number: 5183 End Date: 06/17/2011 20:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 240-5183/3 CCVRT		06/17/2011 13:12	1	P1361703.D	CLP-1 0.53(mm)
CCV 240-5183/3 CCVRT		06/17/2011 13:12	1	P1361703.D	CLP-2 0.53(mm)
MB 240-4869/1-A		06/17/2011 16:27	1	P1361716.D	CLP-1 0.53(mm)
MB 240-4869/1-A		06/17/2011 16:27	1	P1361716.D	CLP-2 0.53(mm)
CCV 240-5183/17 CCVRT		06/17/2011 16:42	1	P1361717.D	CLP-1 0.53(mm)
CCV 240-5183/17 CCVRT		06/17/2011 16:42	1	P1361717.D	CLP-2 0.53(mm)
LCS 240-4869/2-A		06/17/2011 18:57	1	P1361726.D	CLP-1 0.53(mm)
LCS 240-4869/2-A		06/17/2011 18:57	1	P1361726.D	CLP-2 0.53(mm)
CCV 240-5183/27 CCVRT		06/17/2011 19:12	1	P1361727.D	CLP-1 0.53(mm)
CCV 240-5183/27 CCVRT		06/17/2011 19:12	1	P1361727.D	CLP-2 0.53(mm)
240-820-1	GSP-SB-128-0-2	06/17/2011 19:27	1	P1361728.D	CLP-1 0.53(mm)
240-820-1	GSP-SB-128-0-2	06/17/2011 19:27	1	P1361728.D	CLP-2 0.53(mm)
240-820-2	GSP-SB-128-6-8	06/17/2011 19:43	1	P1361729.D	CLP-1 0.53(mm)
240-820-2	GSP-SB-128-6-8	06/17/2011 19:43	1	P1361729.D	CLP-2 0.53(mm)
240-820-4	GSP-SB-123-0-2	06/17/2011 19:57	5	P1361730.D	CLP-1 0.53(mm)
240-820-4	GSP-SB-123-0-2	06/17/2011 19:57	5	P1361730.D	CLP-2 0.53(mm)
240-820-5	GSP-SB-123-6-8	06/17/2011 20:12	1	P1361731.D	CLP-1 0.53(mm)
240-820-5	GSP-SB-123-6-8	06/17/2011 20:12	1	P1361731.D	CLP-2 0.53(mm)
240-820-5 MS	GSP-SB-123-6-8 MS	06/17/2011 20:27	1	P1361732.D	CLP-1 0.53(mm)
240-820-5 MS	GSP-SB-123-6-8 MS	06/17/2011 20:27	1	P1361732.D	CLP-2 0.53(mm)
240-820-5 MSD	GSP-SB-123-6-8 MSD	06/17/2011 20:43	1	P1361733.D	CLP-1 0.53(mm)
240-820-5 MSD	GSP-SB-123-6-8 MSD	06/17/2011 20:43	1	P1361733.D	CLP-2 0.53(mm)
CCV 240-5183/34 CCVRT		06/17/2011 20:58	1	P1361734.D	CLP-1 0.53(mm)
CCV 240-5183/34 CCVRT		06/17/2011 20:58	1	P1361734.D	CLP-2 0.53(mm)

8082A

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/3 Calibration Date: 06/17/2011 13:12

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361703.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	113350337	95068756		0.419	0.500	-16.1	20.0
PCB-1016 Peak 2	Ave	181448143	173960640		0.479	0.500	-4.1	20.0
PCB-1016 Peak 3	Ave	395538572	399626494		0.505	0.500	1.0	20.0
PCB-1016 Peak 4	Ave	168953212	166978420		0.494	0.500	-1.2	20.0
PCB-1016 Peak 5	Ave	111394350	110798226		0.497	0.500	-0.5	20.0
PCB-1260 Peak 1	Ave	244111963	256680098		0.526	0.500	5.1	20.0
PCB-1260 Peak 2	Ave	527110717	564275048		0.535	0.500	7.1	20.0
PCB-1260 Peak 3	Ave	466356170	523046138		0.561	0.500	12.2	20.0
PCB-1260 Peak 4	Ave	806305909	901334394		0.559	0.500	11.8	20.0
PCB-1260 Peak 5	Ave	327827711	376392626		0.574	0.500	14.8	20.0
Tetrachloro-m-xylene	Ave	5961253188	5594133120		0.0235	0.0250	-6.2	20.0
Decachlorobiphenyl	Ave	5392536235	5704731360		0.0264	0.0250	5.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/3 Calibration Date: 06/17/2011 13:12

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361703.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.48	1.43	1.53
PCB-1016 Peak 2	1.78	1.73	1.83
PCB-1016 Peak 3	2.19	2.14	2.24
PCB-1016 Peak 4	2.32	2.27	2.37
PCB-1016 Peak 5	2.38	2.33	2.43
PCB-1260 Peak 1	4.00	3.95	4.05
PCB-1260 Peak 2	4.31	4.26	4.36
PCB-1260 Peak 3	4.60	4.55	4.65
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.64	5.59	5.69
Tetrachloro-m-xylene	1.20	1.15	1.25
Decachlorobiphenyl	6.86	6.81	6.91

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/3 Calibration Date: 06/17/2011 13:12

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361703.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	49073453	46020846		0.469	0.500	-6.2	20.0
PCB-1016 Peak 2	Ave	95996991	94174324		0.491	0.500	-1.9	20.0
PCB-1016 Peak 3	Ave	201951124	207193770		0.513	0.500	2.6	20.0
PCB-1016 Peak 4	Ave	87284951	85654822		0.491	0.500	-1.9	20.0
PCB-1016 Peak 5	Ave	68368175	68300652		0.500	0.500	-0.1	20.0
PCB-1260 Peak 1	Ave	133785153	133931286		0.501	0.500	0.1	20.0
PCB-1260 Peak 2	Ave	151746464	152430308		0.502	0.500	0.5	20.0
PCB-1260 Peak 3	Ave	122443788	130141186		0.531	0.500	6.3	20.0
PCB-1260 Peak 4	Ave	296731974	319370198		0.538	0.500	7.6	20.0
PCB-1260 Peak 5	Ave	208320715	220786316		0.530	0.500	6.0	20.0
Tetrachloro-m-xylene	Ave	2913739370	2850403920		0.0245	0.0250	-2.2	20.0
Decachlorobiphenyl	Ave	2408118942	2269154800		0.0236	0.0250	-5.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/3 Calibration Date: 06/17/2011 13:12

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361703.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.11	2.06	2.16
PCB-1016 Peak 2	2.53	2.48	2.58
PCB-1016 Peak 3	3.01	2.96	3.06
PCB-1016 Peak 4	3.16	3.11	3.21
PCB-1016 Peak 5	3.26	3.21	3.31
PCB-1260 Peak 1	5.08	5.03	5.13
PCB-1260 Peak 2	5.33	5.28	5.38
PCB-1260 Peak 3	5.83	5.78	5.88
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.84	6.79	6.89
Tetrachloro-m-xylene	1.62	1.57	1.67
Decachlorobiphenyl	8.14	8.09	8.19

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/17 Calibration Date: 06/17/2011 16:42

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361717.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	113350337	98682944		0.435	0.500	-12.9	20.0
PCB-1016 Peak 2	Ave	181448143	175289802		0.483	0.500	-3.4	20.0
PCB-1016 Peak 3	Ave	395538572	405453118		0.513	0.500	2.5	20.0
PCB-1016 Peak 4	Ave	168953212	167178528		0.495	0.500	-1.1	20.0
PCB-1016 Peak 5	Ave	111394350	111377030		0.500	0.500	-0.0	20.0
PCB-1260 Peak 1	Ave	244111963	246943576		0.506	0.500	1.2	20.0
PCB-1260 Peak 2	Ave	527110717	545566736		0.518	0.500	3.5	20.0
PCB-1260 Peak 3	Ave	466356170	491017772		0.526	0.500	5.3	20.0
PCB-1260 Peak 4	Ave	806305909	851047538		0.528	0.500	5.5	20.0
PCB-1260 Peak 5	Ave	327827711	349193312		0.533	0.500	6.5	20.0
Tetrachloro-m-xylene	Ave	5961253188	5682339400		0.0238	0.0250	-4.7	20.0
Decachlorobiphenyl	Ave	5392536235	5606409840		0.0260	0.0250	4.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/17 Calibration Date: 06/17/2011 16:42

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361717.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.48	1.43	1.53
PCB-1016 Peak 2	1.78	1.73	1.83
PCB-1016 Peak 3	2.19	2.14	2.24
PCB-1016 Peak 4	2.32	2.27	2.37
PCB-1016 Peak 5	2.38	2.33	2.43
PCB-1260 Peak 1	4.00	3.95	4.05
PCB-1260 Peak 2	4.31	4.26	4.36
PCB-1260 Peak 3	4.60	4.55	4.65
PCB-1260 Peak 4	5.34	5.29	5.39
PCB-1260 Peak 5	5.64	5.59	5.69
Tetrachloro-m-xylene	1.20	1.15	1.25
Decachlorobiphenyl	6.86	6.81	6.91

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/17 Calibration Date: 06/17/2011 16:42

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361717.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	49073453	47208828		0.481	0.500	-3.8	20.0
PCB-1016 Peak 2	Ave	95996991	95620720		0.498	0.500	-0.4	20.0
PCB-1016 Peak 3	Ave	201951124	208863284		0.517	0.500	3.4	20.0
PCB-1016 Peak 4	Ave	87284951	85536896		0.490	0.500	-2.0	20.0
PCB-1016 Peak 5	Ave	68368175	68253320		0.499	0.500	-0.2	20.0
PCB-1260 Peak 1	Ave	133785153	131761168		0.492	0.500	-1.5	20.0
PCB-1260 Peak 2	Ave	151746464	152517940		0.503	0.500	0.5	20.0
PCB-1260 Peak 3	Ave	122443788	125282338		0.512	0.500	2.3	20.0
PCB-1260 Peak 4	Ave	296731974	302197160		0.509	0.500	1.8	20.0
PCB-1260 Peak 5	Ave	208320715	217003378		0.521	0.500	4.2	20.0
Tetrachloro-m-xylene	Ave	2913739370	2895650600		0.0248	0.0250	-0.6	20.0
Decachlorobiphenyl	Ave	2408118942	2363017920		0.0245	0.0250	-1.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/17 Calibration Date: 06/17/2011 16:42

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361717.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.11	2.06	2.16
PCB-1016 Peak 2	2.53	2.48	2.58
PCB-1016 Peak 3	3.01	2.96	3.06
PCB-1016 Peak 4	3.16	3.11	3.21
PCB-1016 Peak 5	3.26	3.21	3.31
PCB-1260 Peak 1	5.08	5.03	5.13
PCB-1260 Peak 2	5.33	5.28	5.38
PCB-1260 Peak 3	5.83	5.78	5.88
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.84	6.79	6.89
Tetrachloro-m-xylene	1.63	1.58	1.68
Decachlorobiphenyl	8.14	8.09	8.19

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/27 Calibration Date: 06/17/2011 19:12

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361727.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	113350337	100653804		0.444	0.500	-11.2	20.0
PCB-1016 Peak 2	Ave	181448143	177143896		0.488	0.500	-2.4	20.0
PCB-1016 Peak 3	Ave	395538572	410177296		0.519	0.500	3.7	20.0
PCB-1016 Peak 4	Ave	168953212	169615936		0.502	0.500	0.4	20.0
PCB-1016 Peak 5	Ave	111394350	114704154		0.515	0.500	3.0	20.0
PCB-1260 Peak 1	Ave	244111963	250058842		0.512	0.500	2.4	20.0
PCB-1260 Peak 2	Ave	527110717	546424062		0.518	0.500	3.7	20.0
PCB-1260 Peak 3	Ave	466356170	501469386		0.538	0.500	7.5	20.0
PCB-1260 Peak 4	Ave	806305909	843526886		0.523	0.500	4.6	20.0
PCB-1260 Peak 5	Ave	327827711	347726950		0.530	0.500	6.1	20.0
Tetrachloro-m-xylene	Ave	5961253188	5685538840		0.0238	0.0250	-4.6	20.0
Decachlorobiphenyl	Ave	5392536235	5443890760		0.0252	0.0250	1.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/27 Calibration Date: 06/17/2011 19:12

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361727.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.48	1.43	1.53
PCB-1016 Peak 2	1.78	1.73	1.83
PCB-1016 Peak 3	2.20	2.15	2.25
PCB-1016 Peak 4	2.32	2.27	2.37
PCB-1016 Peak 5	2.38	2.33	2.43
PCB-1260 Peak 1	4.00	3.95	4.05
PCB-1260 Peak 2	4.31	4.26	4.36
PCB-1260 Peak 3	4.60	4.55	4.65
PCB-1260 Peak 4	5.35	5.30	5.40
PCB-1260 Peak 5	5.64	5.59	5.69
Tetrachloro-m-xylene	1.20	1.15	1.25
Decachlorobiphenyl	6.86	6.81	6.91

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/27 Calibration Date: 06/17/2011 19:12

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361727.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	49073453	46817772		0.477	0.500	-4.6	20.0
PCB-1016 Peak 2	Ave	95996991	95358610		0.497	0.500	-0.7	20.0
PCB-1016 Peak 3	Ave	201951124	209957788		0.520	0.500	4.0	20.0
PCB-1016 Peak 4	Ave	87284951	86054294		0.493	0.500	-1.4	20.0
PCB-1016 Peak 5	Ave	68368175	68959730		0.504	0.500	0.9	20.0
PCB-1260 Peak 1	Ave	133785153	127907770		0.478	0.500	-4.4	20.0
PCB-1260 Peak 2	Ave	151746464	148579054		0.490	0.500	-2.1	20.0
PCB-1260 Peak 3	Ave	122443788	119990298		0.490	0.500	-2.0	20.0
PCB-1260 Peak 4	Ave	296731974	288770862		0.487	0.500	-2.7	20.0
PCB-1260 Peak 5	Ave	208320715	207546278		0.498	0.500	-0.4	20.0
Tetrachloro-m-xylene	Ave	2913739370	2895628800		0.0248	0.0250	-0.6	20.0
Decachlorobiphenyl	Ave	2408118942	2252543960		0.0234	0.0250	-6.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/27 Calibration Date: 06/17/2011 19:12

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361727.D

Analyte	RT	RT WINDOW TO	RT WINDOW FROM
PCB-1016 Peak 1	2.11	2.06	2.16
PCB-1016 Peak 2	2.53	2.48	2.58
PCB-1016 Peak 3	3.01	2.96	3.06
PCB-1016 Peak 4	3.16	3.11	3.21
PCB-1016 Peak 5	3.27	3.22	3.32
PCB-1260 Peak 1	5.08	5.03	5.13
PCB-1260 Peak 2	5.33	5.28	5.38
PCB-1260 Peak 3	5.83	5.78	5.88
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.84	6.79	6.89
Tetrachloro-m-xylene	1.63	1.58	1.68
Decachlorobiphenyl	8.15	8.10	8.20

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/34 Calibration Date: 06/17/2011 20:58

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361734.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	113350337	99500422		0.439	0.500	-12.2	20.0
PCB-1016 Peak 2	Ave	181448143	174934450		0.482	0.500	-3.6	20.0
PCB-1016 Peak 3	Ave	395538572	405727438		0.513	0.500	2.6	20.0
PCB-1016 Peak 4	Ave	168953212	167651974		0.496	0.500	-0.8	20.0
PCB-1016 Peak 5	Ave	111394350	111725174		0.502	0.500	0.3	20.0
PCB-1260 Peak 1	Ave	244111963	249957870		0.512	0.500	2.4	20.0
PCB-1260 Peak 2	Ave	527110717	554239504		0.526	0.500	5.1	20.0
PCB-1260 Peak 3	Ave	466356170	502602094		0.539	0.500	7.8	20.0
PCB-1260 Peak 4	Ave	806305909	885027202		0.549	0.500	9.8	20.0
PCB-1260 Peak 5	Ave	327827711	368601910		0.562	0.500	12.4	20.0
Tetrachloro-m-xylene	Ave	5961253188	5650757600		0.0237	0.0250	-5.2	20.0
Decachlorobiphenyl	Ave	5392536235	5792655560		0.0269	0.0250	7.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/34 Calibration Date: 06/17/2011 20:58

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361734.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	1.48	1.43	1.53
PCB-1016 Peak 2	1.78	1.73	1.83
PCB-1016 Peak 3	2.20	2.15	2.25
PCB-1016 Peak 4	2.32	2.27	2.37
PCB-1016 Peak 5	2.38	2.33	2.43
PCB-1260 Peak 1	4.00	3.95	4.05
PCB-1260 Peak 2	4.31	4.26	4.36
PCB-1260 Peak 3	4.60	4.55	4.65
PCB-1260 Peak 4	5.35	5.30	5.40
PCB-1260 Peak 5	5.64	5.59	5.69
Tetrachloro-m-xylene	1.20	1.15	1.25
Decachlorobiphenyl	6.86	6.81	6.91

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/34 Calibration Date: 06/17/2011 20:58

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361734.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	49073453	46876722		0.478	0.500	-4.5	20.0
PCB-1016 Peak 2	Ave	95996991	94978460		0.495	0.500	-1.1	20.0
PCB-1016 Peak 3	Ave	201951124	209156700		0.518	0.500	3.6	20.0
PCB-1016 Peak 4	Ave	87284951	86323524		0.495	0.500	-1.1	20.0
PCB-1016 Peak 5	Ave	68368175	68885760		0.504	0.500	0.8	20.0
PCB-1260 Peak 1	Ave	133785153	134088256		0.501	0.500	0.2	20.0
PCB-1260 Peak 2	Ave	151746464	154365864		0.509	0.500	1.7	20.0
PCB-1260 Peak 3	Ave	122443788	128069820		0.523	0.500	4.6	20.0
PCB-1260 Peak 4	Ave	296731974	315623098		0.532	0.500	6.4	20.0
PCB-1260 Peak 5	Ave	208320715	227268034		0.546	0.500	9.1	20.0
Tetrachloro-m-xylene	Ave	2913739370	2870333800		0.0246	0.0250	-1.5	20.0
Decachlorobiphenyl	Ave	2408118942	2471355160		0.0257	0.0250	2.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-5183/34 Calibration Date: 06/17/2011 20:58

Instrument ID: A2HP13 Calib Start Date: 06/10/2011 19:30

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 06/10/2011 20:45

Lab File ID: P1361734.D

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	2.11	2.06	2.16
PCB-1016 Peak 2	2.53	2.48	2.58
PCB-1016 Peak 3	3.01	2.96	3.06
PCB-1016 Peak 4	3.16	3.11	3.21
PCB-1016 Peak 5	3.27	3.22	3.32
PCB-1260 Peak 1	5.08	5.03	5.13
PCB-1260 Peak 2	5.33	5.28	5.38
PCB-1260 Peak 3	5.83	5.78	5.88
PCB-1260 Peak 4	6.44	6.39	6.49
PCB-1260 Peak 5	6.84	6.79	6.89
Tetrachloro-m-xylene	1.63	1.58	1.68
Decachlorobiphenyl	8.14	8.09	8.19

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: MB 240-4869/1-A

Matrix: Solid Date Extracted: 06/15/2011 11:49

Lab File ID:(1) P1361716.D Lab File ID:(2) P1361716.D

Date Analyzed:(1) 06/17/2011 16:27 Date Analyzed:(2) 06/17/2011 16:27

Instrument ID:(1) A2HP13 Instrument ID:(2) A2HP13

GC Column:(1) CLP-2 ID: 0.53(mm) GC Column:(2) CLP-1 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 240-4869/2-A	06/17/2011 18:57	06/17/2011 18:57
GSP-SB-128-0-2	240-820-1	06/17/2011 19:27	06/17/2011 19:27
GSP-SB-128-6-8	240-820-2	06/17/2011 19:43	06/17/2011 19:43
GSP-SB-123-0-2	240-820-4	06/17/2011 19:57	06/17/2011 19:57
GSP-SB-123-6-8	240-820-5	06/17/2011 20:12	06/17/2011 20:12
GSP-SB-123-6-8 MS	240-820-5 MS	06/17/2011 20:27	06/17/2011 20:27
GSP-SB-123-6-8 MSD	240-820-5 MSD	06/17/2011 20:43	06/17/2011 20:43

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-4869/1-A

Matrix: Solid | Lab File ID: P1361716.D

Analysis Method: 8082A | Date Collected:

Extraction Method: 3540C | Date Extracted: 06/15/2011 11:49

Sample wt/vol: 30(g) | Date Analyzed: 06/17/2011 16:27

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5183 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*33*	*U*	*33*	*21*
11104-28-2	*Aroclor-1221*	*33*	*U*	*33*	*16*
11141-16-5	*Aroclor-1232*	*33*	*U*	*33*	*14*
53469-21-9	*Aroclor-1242*	*33*	*U*	*33*	*13*
12672-29-6	*Aroclor-1248*	*33*	*U*	*33*	*17*
11097-69-1	*Aroclor-1254*	*33*	*U*	*33*	*17*
11096-82-5	*Aroclor-1260*	*33*	*U*	*33*	*17*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	79		29-151
2051-24-3	Decachlorobiphenyl	95		14-163

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton
Job No.: 240-820-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 240-4869/1-A
Matrix: Solid
Lab File ID: P1361716.D
Analysis Method: 8082A
Date Collected:
Extraction Method: 3540C
Date Extracted: 06/15/2011 11:49
Sample wt/vol: 30(g)
Date Analyzed: 06/17/2011 16:27
Con. Extract Vol.: 10(mL)
Dilution Factor: 1
Injection Volume: 1(uL)
GC Column: CLP-2 ID: 0.53(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 5183
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	Aroclor-1016	33	U	33	21
11104-28-2	Aroclor-1221	33	U	33	16
11141-16-5	Aroclor-1232	33	U	33	14
53469-21-9	Aroclor-1242	33	U	33	13
12672-29-6	Aroclor-1248	33	U	33	17
11097-69-1	Aroclor-1254	33	U	33	17
11096-82-5	Aroclor-1260	33	U	33	17

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	91		29-151
2051-24-3	Decachlorobiphenyl	95		14-163

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1361726.D

Lab ID: LCS 240-4869/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Aroclor-1016	333	302	91	62-120	
Aroclor-1016	333	311	93	62-120	
Aroclor-1260	333	321	96	56-122	
Aroclor-1260	333	293	88	56-122	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1361732.D

Lab ID: 240-820-5 MS Client ID: GSP-SB-123-6-8 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Aroclor-1016	410	40 U	349	85	22-157	
Aroclor-1016	410	40 U	346	84	22-157	
Aroclor-1260	410	40 U	342	83	13-161	
Aroclor-1260	410	40 U	372	91	13-161	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: P1361733.D

Lab ID: 240-820-5 MSD Client ID: GSP-SB-123-6-8 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Aroclor-1016	408	337	83	3	30	22-157	
Aroclor-1016	408	334	82	3	30	22-157	
Aroclor-1260	408	340	83	1	30	13-161	
Aroclor-1260	408	366	90	2	30	13-161	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): CLP-2 ID: 0.53 (mm) GC Column (2): CLP-1 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	TCX1	#	TCX2	#	DCB1	#	DCB2	#
GSP-SB-128-0-2	240-820-1	80		75		77		75	
GSP-SB-128-6-8	240-820-2	89		82		90		89	
GSP-SB-123-0-2	240-820-4	86		80		93		96	
GSP-SB-123-6-8	240-820-5	77		71		90		83	
GSP-SB-124-0-2	240-820-7	96		68		68		117	
GSP-SB-124-6-8	240-820-8	64		68		73		70	
GSP-SB-126-0-2	240-820-10	79		80		76		80	
GSP-SB-126-8-10	240-820-11	72		72		69		73	
GSP-SB-127-0-2	240-820-13	60		58		65		73	
GSP-SB-127-6-8	240-820-14	79		86		80		89	
GSP-SB-130-0-2	240-820-16	96		82		84		92	
GSP-SB-130-6-8	240-820-17	70		72		68		69	
	MB 240-4869/1-A	91		79		95		95	
	MB 240-5642/16-A	80		86		72		82	
	LCS 240-4869/2-A	96		89		95		94	
	LCS 240-5642/17-A	77		86		83		74	
GSP-SB-123-6-8 MS	240-820-5 MS	86		86		93		95	
GSP-SB-123-6-8 MSD	240-820-5 MSD	77		77		95		87	

	QC LIMITS
TCX = Tetrachloro-m-xylene	29-151
DCB = Decachlorobiphenyl	14-163

Column to be used to flag recovery values

FORM II 8082A

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 Lab Sample ID: 240-820-4

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/17/2011 19:57 Date Analyzed (2): 06/17/2011 19:57

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1260	1	1	5.08	5.03	5.13	636	640	8.4
		2	5.33	5.28	5.38	738		
		3	5.83	5.78	5.88	554		
		4	6.44	6.39	6.49	608		
		5	6.84	6.79	6.89	642		
	2	1	4.00	3.95	4.05	597	690	
		2	4.31	4.26	4.36	709		
		3	4.60	4.55	4.65	815		
		4	5.34	5.30	5.40	605		
		5	5.64	5.59	5.69	731		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-127-0-2 Lab Sample ID: 240-820-13

Instrument ID (1): A2HP12 Instrument ID (2): A2HP12

Date Analyzed (1): 06/24/2011 15:46 Date Analyzed (2): 06/24/2011 15:46

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1260	1	1	5.15	5.10	5.20	51.4	62	0.4
		2	5.38	5.33	5.43	73.4		
		3	5.85	5.80	5.90	58.8		
		4	6.44	6.39	6.49	61.6		
		5	6.82	6.77	6.87	62.9		
	2	1	4.07	4.02	4.12	38.8	61	
		2	4.36	4.31	4.41	74.2		
		4	5.34	5.29	5.39	48.4		
		5	5.62	5.57	5.67	84.1		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-128-0-2 Lab Sample ID: 240-820-1

Instrument ID (1): A2HP13 Instrument ID (2): A2HP13

Date Analyzed (1): 06/17/2011 19:27 Date Analyzed (2): 06/17/2011 19:27

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1260	1	1	5.09	5.03	5.13	30.2	30	13.1
		2	5.33	5.28	5.38	40.4		
		3	5.83	5.78	5.88	42.9		
		5	6.84	6.79	6.89	21.8		
	2	1	4.00	3.95	4.05	28.0	27	
		2	4.31	4.26	4.36	26.9		
		3	4.60	4.55	4.65	34.5		
		5	5.65	5.59	5.69	25.0		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-130-0-2 Lab Sample ID: 240-820-16

Instrument ID (1): A2HP12 Instrument ID (2): A2HP12

Date Analyzed (1): 06/24/2011 16:15 Date Analyzed (2): 06/24/2011 16:15

GC Column (1): CLP-2 ID: 0.53(mm) GC Column (2): CLP-1 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	RPD
Aroclor-1260	1	1	5.15	5.10	5.20	63.8	56	2.7
		2	5.38	5.33	5.43	56.2		
		3	5.85	5.80	5.90	50.4		
		4	6.44	6.39	6.49	60.3		
		5	6.82	6.77	6.87	51.2		
	2	1	4.07	4.02	4.12	44.1	58	
		3	4.64	4.59	4.69	82.9		
		4	5.34	5.29	5.39	39.6		
		5	5.62	5.57	5.67	65.2		

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE 1 OF 1

CLIENT Lockheed MSA - GRP		JOB NUMBER 03279	
SUBJECT Calculation Check SDG 240-820-1			
BASED ON		DRAWING NUMBER	
BY J. Kalwyak	CHECKED BY	APPROVED BY	DATE 08/17/11

VOC - trichloroethene Sample - GSP-SB-124-6-8

$$\frac{78943 \times 50\,\mu g/l \times 5\,ml \times \frac{1l}{1000\,ml} \times \frac{1000\,g}{kg}}{100\,5610 \times 0.1842 \times 6.62\,g \times 0.829} \simeq 194\,\mu g/kg$$

SVOC - benzo(a)anthracene Sample GSP-SB-124-0-2

$$\frac{447765 \times 4\,mg/\mu l \times 20 \times 2\,ml \times \frac{1000\,\mu l}{ml}}{632588 \times 1.116 \times 0.909 \times 30.18\,g} \simeq 3699\,\frac{mg}{g} \text{ or } \frac{\mu g}{kg}$$

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

VOA

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-6-8 Lab Sample ID: 240-820-8

Matrix: Solid Lab File ID: UX82743.D

Analysis Method: 8260B Date Collected: 06/06/2011 13:08

Sample wt/vol: 6.62(g) Date Analyzed: 06/16/2011 23:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: 17.1 Level: (low/med) Low

Analysis Batch No.: 5087 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
124-48-1	Dibromochloromethane	4.6	U	4.6	0.50
75-00-3	Chloroethane	4.6	U	4.6	0.78
67-66-3	Chloroform	4.6	U	4.6	0.26
74-87-3	Chloromethane	4.6	U	4.6	0.37
156-59-2	cis-1,2-Dichloroethene	4.6	U	4.6	0.33
10061-01-5	cis-1,3-Dichloropropene	4.6	U	4.6	0.31
74-95-3	Dibromomethane	4.6	U	4.6	0.57
74-97-5	Bromochloromethane	4.6	U	4.6	0.65
75-71-8	Dichlorodifluoromethane	4.6	U	4.6	0.46
75-27-4	Bromodichloromethane	4.6	U	4.6	0.26
75-65-0	tert-Butyl alcohol	180	U	180	6.9
100-41-4	Ethylbenzene	4.6	U	4.6	0.24
87-68-3	Hexachlorobutadiene	4.6	U	4.6	1.1
108-20-3	Diisopropyl ether	9.1	U	9.1	1.4
98-82-8	Isopropylbenzene	4.6	U	4.6	0.15
1634-04-4	Methyl tert-butyl ether	18	U	18	0.39
75-09-2	Methylene Chloride	4.6	U	4.6	0.61
179601-23-1	m-Xylene & p-Xylene	9.1	U	9.1	1.1
91-20-3	Naphthalene	4.6	U	4.6	0.17
104-51-8	n-Butylbenzene	4.6	U	4.6	0.21
103-65-1	n-Propylbenzene	4.6	U	4.6	0.36
95-47-6	o-Xylene	4.6	U	4.6	0.32
135-98-8	sec-Butylbenzene	4.6	U	4.6	0.16
100-42-5	Styrene	4.6	U	4.6	0.14
994-05-8	Tert-amyl-methyl ether (TAME)	4.6	U	4.6	0.34
637-92-3	Ethyl-t-butyl ether (ETBE)	4.6	U	4.6	0.20
127-18-4	Tetrachloroethene	4.6	U	4.6	0.47
108-88-3	Toluene	4.6	U	4.6	0.25
156-60-5	trans-1,2-Dichloroethene	4.6	U	4.6	0.37
10061-02-6	trans-1,3-Dichloropropene	4.6	U	4.6	0.49
79-01-6	Trichloroethene	19		4.6	0.38
75-69-4	Trichlorofluoromethane	4.6	U	4.6	0.31
108-05-4	Vinyl acetate	9.1	U	9.1	0.23
75-01-4	Vinyl chloride	4.6	U	4.6	0.36
1330-20-7	Xylenes, Total	9.1	U	9.1	0.61

TestAmerica Laboratories
Target Compound Quantitation Report

VOC

Data File: \\Ncchrom\ChromData\A3UX8\20110616-1170.b\UX82743.D
Lims ID: 240-820-B-8-A Client ID: GSP-SB-124-6-8
Inject. Date: 16-Jun-2011 23:51:30 Dil. Factor: 1.0000
Sample Type: Client
Sample ID: 240-0001170-017
Misc. Info.: M10616A,8260SUX8,,402279 =M10616A,8260SUX8,,402279
Operator: 402279 Instrument ID: A3UX8
Vol. Injected: 1.0000 ALS Bottle#: 16
Lims Batch ID: 5087 Lims Sample ID: 17
Detector: MS SCAN

Method: \\Ncchrom\ChromData\A3UX8\20110616-1170.b\8260_8.m
Last Update: 22-Jun-2011 22:53:34 Calib Date: 10-Jun-2011 06:25:30
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Ncchrom\ChromData\A3UX8\20110610-990.b\UX82551.D
Limit Group: MSV 8260B ICAL
Integrator: RTE ID Type: Deconvolution ID
Process Host: CORP-CTX-15

First Level Reviewer: latat Date: 17-Jun-2011 01:26:14

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
* 1 Fluorobenzene									
96	5.146	5.148	-0.002	99	1005610	50.0			
* 2 Chlorobenzene-d5									
117	7.678	7.680	-0.002	89	715958	50.0	80.0- 120.0	100.0	
82	7.678	7.680	-0.002		435570		41.1- 81.1	60.8	
* 3 1,4-Dichlorobenzene-d4									
152	9.879	9.870	0.009	95	364674	50.0	80.0- 120.0	100.0	
150	9.879	9.870	0.009		574309		155.8- 195.8	157.5	
$ 5 Dibromofluoromethane (Surr)									
113	4.625	4.628	-0.003	57	180800	45.0	80.0- 120.0	100.0	
111	4.625	4.628	-0.003		186324		82.0- 122.0	103.1	
$ 6 1,2-Dichloroethane-d4 (Surr)									
65	4.885	4.888	-0.003	94	269051	51.2	80.0- 120.0	100.0	
63	4.885	4.888	-0.003		22925		0.0- 28.8	8.5	
$ 7 Toluene-d8 (Surr)									
98	6.424	6.426	-0.002	94	757252	43.5	80.0- 120.0	100.0	
100	6.424	6.426	-0.002		508296		46.9- 86.9	67.1	
$ 131 4-Bromofluorobenzene (Surr)									
95	8.755	8.757	-0.002	83	323529	48.0	70.0- 130.0	100.0	
174	8.766	8.757	0.009		235259		42.3- 102.3	72.7	
176	8.766	8.757	0.009		227076		38.9- 98.9	70.2	
12 Dichlorodifluoromethane									
85		1.584							
87		1.584							
13 Chloromethane									
50		1.737							
52		1.737							

Sig	RT	EXP RT	DLT RT	Q	Response	On-Col Amt ug/l	Ratio Range	Ratio	Flags
42 cis-1,2-Dichloroethene									
96		4.270							
61		4.270							
41 2-Butanone (MEK)									
43		4.270							
72		4.270							
43 2,2-Dichloropropane									
77		4.282							
97		4.282							
47 Chlorobromomethane									
128		4.447							
49		4.447							
49 Chloroform									
83		4.506							
85		4.506							
50 1,1,1-Trichloroethane									
97		4.660							
99		4.660							
52 1,1-Dichloropropene									
75		4.779							
110		4.779							
53 Carbon tetrachloride									
117		4.802							
119		4.802							
56 1,2-Dichloroethane									
62		4.944							
64		4.944							
55 Benzene									
78		4.944							
52		4.944							
57 Tert-amyl methyl ether									
73		5.018							
55		5.018							
60 Trichloroethene									
130	5.441	5.441	0.000	92	78943	21.3	80.0- 120.0	100.0	
95	5.441	5.441	0.000		87868		89.6- 129.6	111.3	
62 1,2-Dichloropropane									
63		5.619							
62		5.619							
65 Dibromomethane									
93		5.713							
174		5.713							
67 Dichlorobromomethane									
83		5.820							
85		5.820							
69 2-Chloroethyl vinyl ether									
63		6.045							
65		6.045							

VOC

GC/MS VOA BATCH WORKSHEET

VOC

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Batch Number: 4939 Batch Start Date: 06/16/11 00:22 Batch Analyst: Mancine, Louis

Batch Method: 5035 Batch End Date: 06/16/11 01:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	TareWeight	Vial&SampleWt	InitialAmount	FinalAmount	AnalysisComment
240-820-B-1	GSP-SB-128-0-2	5035, 8260B	T	34.95 g	40.80 g	5.85 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-2	GSP-SB-128-6-8	5035, 8260B	T	34.59 g	40.66 g	6.07 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-4	GSP-SB-123-0-2	5035, 8260B	T	34.81 g	40.79 g	5.98 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-5	GSP-SB-123-6-8	5035, 8260B	T	35.21 g	41.99 g	6.78 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-7	GSP-SB-124-0-2	5035, 8260B	T	34.89 g	41.01 g	6.12 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-8	GSP-SB-124-6-8	5035, 8260B	T	34.91 g	41.53 g	6.62 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-10	GSP-SB-126-0-2	5035, 8260B	T	35.39 g	40.94 g	5.55 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-11	GSP-SB-126-8-10	5035, 8260B	T	34.94 g	41.08 g	6.14 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-12	GSP-SB-126-20-22	5035, 8260B	T	35.11 g	41.42 g	6.31 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-13	GSP-SB-127-0-2	5035, 8260B	T	35.20 g	41.60 g	6.4 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-14	GSP-SB-127-6-8	5035, 8260B	T	35.02 g	40.79 g	5.77 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-16	GSP-SB-130-0-2	5035, 8260B	T	34.81 g	40.23 g	5.42 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-17	GSP-SB-130-6-8	5035, 8260B	T	35.00 g	41.22 g	6.22 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00
240-820-B-18	GSP-SB-130-20-22	5035, 8260B	T	35.04 g	41.38 g	6.34 g	5 mL	SAMPLE.PRESERVED.ON.6/07/2011 @18:00

SVOC

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-124-0-2 | Lab Sample ID: 240-820-7

Matrix: Solid | Lab File ID: 0714036.D

Analysis Method: 8270D | Date Collected: 06/06/2011 13:05

Extract. Method: 3540C | Date Extracted: 06/15/2011 11:06

Sample wt/vol: 30.18(g) | Date Analyzed: 07/14/2011 18:27

Con. Extract Vol.: 2.00(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 9.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 8375 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
92-52-4	1,1'-Biphenyl	1100	U *	1100	590
123-91-1	1,4-Dioxane	2200	U	2200	480
88-06-2	2,4,6-Trichlorophenol	3300	U	3300	1800
95-95-4	2,4,5-Trichlorophenol	3300	U	3300	550
120-83-2	2,4-Dichlorophenol	3300	U	3300	440
105-67-9	2,4-Dimethylphenol	3300	U	3300	440
51-28-5	2,4-Dinitrophenol	7200	U	7200	1800
121-14-2	2,4-Dinitrotoluene	4400	U	4400	590
91-58-7	2-Chloronaphthalene	1100	U	1100	72
95-57-8	2-Chlorophenol	1100	U	1100	590
91-57-6	2-Methylnaphthalene	360		150	72
95-48-7	2-Methylphenol	4400	U	4400	1800
88-74-4	2-Nitroaniline	4400	U	4400	200
88-75-5	2-Nitrophenol	1100	U	1100	590
15831-10-4	3 & 4 Methylphenol	8800	U	8800	440
91-94-1	3,3'-Dichlorobenzidine	2200	U	2200	390
99-09-2	3-Nitroaniline	4400	U	4400	350
534-52-1	4,6-Dinitro-2-methylphenol	3300	U	3300	1800
101-55-3	4-Bromophenyl phenyl ether	1100	U	1100	280
59-50-7	4-Chloro-3-methylphenol	3300	U	3300	460
106-47-8	4-Chloroaniline	3300	U	3300	370
7005-72-3	4-Chlorophenyl phenyl ether	1100	U	1100	280
100-01-6	4-Nitroaniline	4400	U	4400	570
83-32-9	Acenaphthene	240		150	72
208-96-8	Acenaphthylene	300		150	72
98-86-2	Acetophenone	2200	U *	2200	200
120-12-7	Anthracene	1200		150	72
1912-24-9	Atrazine	4400	U	4400	200
100-52-7	Benzaldehyde	2200	U	2200	260
56-55-3	Benzo[a]anthracene	3700		150	72
50-32-8	Benzo[a]pyrene	4000		150	72
205-99-2	Benzo[b]fluoranthene	4000		150	72
191-24-2	Benzo[g,h,i]perylene	2500		150	72
207-08-9	Benzo[k]fluoranthene	1100		150	72

Report Date: 15-Jul-2011 14:03:16 Chrom Revision: 1.2 30-Jun-2011 15:02:28

SVOC

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Ncchrom\ChromData\A4HP7\20110714-1862.b\0714036.D		
Lims ID:	240-820-F-7-B	Client ID:	GSP-SB-124-0-2
Inject. Date:	14-Jul-2011 18:27:30	Dil. Factor:	20.0000
Sample Type:	Client		
Sample ID:	240-0001862-036		
Misc. Info.:	240-820-F-7-B		
Operator:	001710	Instrument ID:	A4HP7
Vol. Injected:	1.0000	ALS Bottle#:	31
Lims Batch ID:	8375	Lims Sample ID:	36
Detector:	MS SCAN		
Method:	\\Ncchrom\ChromData\A4HP7\20110714-1862.b\8270_hp7.m		
Last Update:	15-Jul-2011 14:02:54	Calib Date:	06-Jul-2011 17:48:30
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\Ncchrom\ChromData\A4HP7\20110706-1640.b\0706030.D		
Limit Group:	MSS 8270D ICAL		
Integrator:	RTE	ID Type:	Deconvolution ID
Process Host:	CORP-CTX-17		

First Level Reviewer: gruberj Date: 15-Jul-2011 13:58:39

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
* 1 1,4-Dichlorobenzene-d4	152	3.327	3.327	0.0	96	110109	4.00	
* 2 Naphthalene-d8	136	4.220	4.215	0.005	99	451206	4.00	
* 3 Acenaphthene-d10	164	5.483	5.483	0.0	93	290136	4.00	
* 4 Phenanthrene-d10	188	6.568	6.563	0.005	97	541874	4.00	
* 5 Chrysene-d12	240	8.531	8.526	0.005	96	632588	4.00	
* 6 Perylene-d12	264	9.836	9.810	0.026	98	577257	4.00	
$ 7 2-Fluorophenol	112	2.466	2.466	0.0	81	15394	0.4705	
$ 8 Phenol-d5	99	3.054	3.049	0.005	90	18031	0.3947	
$ 9 Nitrobenzene-d5	82	3.702	3.706	0.0	65	11772	0.2356	
$ 10 2-Fluorobiphenyl (Surr)	172	4.980	4.985	0.0	92	25996	0.2701	
$ 11 2,4,6-Tribromophenol	330	6.060	6.061	0.005	1	3634	0.3234	M
$ 12 Terphenyl-d14	244	7.708	7.702	0.006	91	32871	0.2994	
24 1,4-Dioxane	88		1.535					
25 N-Nitrosodimethylamine	74		1.701					
40 Benzaldehyde	77		3.033					
41 Phenol	94		3.060					
44 Bis(2-chloroethyl)ether	93		3.124					
46 2-Chlorophenol	128		3.188					
51 2-Methylphenol	108		3.472					
52 2,2'-oxybis[1-chloropropane]	45		3.488					
191 3 & 4 Methylphenol	108		3.573					
56 N-Nitrosodi-n-propylamine	70		3.584					
57 Acetophenone	105		3.595					
60 Hexachloroethane	117		3.686					
61 Nitrobenzene	77		3.718					
63 Isophorone	82		3.878					
65 2-Nitrophenol	139		3.942					
64 2,4-Dimethylphenol	107		3.948					
68 Bis(2-chloroethoxy)methane	93		4.012					
71 2,4-Dichlorophenol	162		4.108					
73 Naphthalene	128	4.236	4.237	0.005	64	34239	0.2769	

SVOC

Compound	Sig	RT	ADJ RT	DLT RT	Q	Response	On-Col Amt ng/ul	Flags
74 4-Chloroaniline	127		4.258					
77 Hexachlorobutadiene	225		4.317					
83 Caprolactam	113		4.515					
84 4-Chloro-3-methylphenol	107		4.595					
85 2-Methylnaphthalene	142	4.729	4.729	0.006	77	16866	0.2448	
88 Hexachlorocyclopentadiene	237		4.841					
90 2,4,6-Trichlorophenol	196		4.921					
91 2,4,5-Trichlorophenol	196		4.953					
95 1,1'-Biphenyl	154		5.055					
98 2-Chloronaphthalene	162		5.082					
100 2-Nitroaniline	65		5.140					
103 Dimethyl phthalate	163		5.258					
105 2,6-Dinitrotoluene	165		5.306					
107 Acenaphthylene	152	5.386	5.386	0.005	94	28614	0.2080	
108 3-Nitroaniline	138		5.435					
109 2,4-Dinitrophenol	184		5.509					
110 Acenaphthene	153	5.509	5.515	0.0	62	14498	0.1623	
111 4-Nitrophenol	109		5.547					
112 2,4-Dinitrotoluene	165		5.600					
114 Dibenzofuran	168		5.632					
119 Diethyl phthalate	149		5.761					
121 4-Chlorophenyl phenyl ether	204		5.862					
124 Fluorene	166	5.884	5.884	0.006	90	31074	0.3078	
123 4-Nitroaniline	138		5.884					
126 4,6-Dinitro-2-methylphenol	198		5.905					
130 N-Nitrosodiphenylamine	169		5.948					
137 4-Bromophenyl phenyl ether	248		6.221					
139 Hexachlorobenzene	284		6.290					
140 Atrazine	200		6.317					
141 Pentachlorophenol	266		6.424					
146 Phenanthrene	178	6.584	6.590	-0.001	94	383920	2.41	
147 Anthracene	178	6.622	6.622	0.005	96	127330	0.7926	
149 Carbazole	167		6.724					
151 Di-n-butyl phthalate	149		6.938					
157 Fluoranthene	202	7.456	7.457	0.005	97	567206	3.46	
160 Pyrene	202	7.627	7.622	0.005	95	961751	5.33	
166 Butyl benzyl phthalate	149		8.045					
171 Bis(2-ethylhexyl) phthalate	149		8.457					
173 3,3'-Dichlorobenzidine	252		8.478					
175 Benzo[a]anthracene	228	8.526	8.515	0.011	97	447765	2.54	
176 Chrysene	228	8.553	8.542	0.011	93	482056	2.87	
178 Di-n-octyl phthalate	149		8.954					
180 Benzo[b]fluoranthene	252	9.441	9.425	0.027	92	513035	2.76	M
181 Benzo[k]fluoranthene	252	9.457	9.457	0.016	86	137245	0.7381	M
182 Benzo[a]pyrene	252	9.778	9.778	0.027	74	462447	2.72	
186 Indeno[1,2,3-cd]pyrene	276	11.222	11.192	0.048	98	246287	1.33	
187 Dibenz(a,h)anthracene	278	11.222	11.197	0.043	21	83941	0.5334	
188 Benzo[g,h,i]perylene	276	11.655	11.605	0.069	87	257501	1.69	

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

SVOC

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: CCV 240-8375/2 Calibration Date: 07/14/2011 09:03

Instrument ID: A4HP7 Calib Start Date: 07/06/2011 09:41

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/06/2011 12:10

Lab File ID: 0714002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
3,3'-Dichlorobenzidine	Ave	0.4175	0.4593	0.0100	11.0	10.0	10.0	20.0
Benzo[a]anthracene	Ave	1.116	1.156	0.8000	10.4	10.0	3.6	20.0
Chrysene	Ave	1.063	1.136	0.7000	10.7	10.0	6.9	20.0
Di-n-octyl phthalate	Ave	1.472	1.603	0.0100	10.9	10.0	8.9	20.0
Benzo[b]fluoranthene	Ave	1.288	1.444	0.7000	11.2	10.0	12.1	20.0
Benzo[k]fluoranthene	Ave	1.289	1.316	0.7000	10.2	10.0	2.1	20.0
Benzo[a]pyrene	Ave	1.178	1.255	0.7000	10.7	10.0	6.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.287	1.412	0.5000	11.0	10.0	9.7	20.0
Dibenzo(a,h)anthracene	Ave	1.090	1.207	0.4000	11.1	10.0	10.7	20.0
Benzo[g,h,i]perylene	Ave	1.057	1.156	0.5000	10.9	10.0	9.3	20.0
2-Fluorophenol (Surr)	Ave	1.189	1.248		10.5	10.0	5.0	20.0
Phenol-d5 (Surr)	Ave	1.659	1.709		10.3	10.0	3.0	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4430	0.3955		8.93	10.0	-10.7	20.0
2-Fluorobiphenyl (Surr)	Ave	1.327	1.360		10.2	10.0	2.5	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1549	0.1513		9.77	10.0	-2.3	20.0
Terphenyl-d14 (Surr)	Ave	0.6942	0.7369		10.6	10.0	6.1	20.0

GC/MS SEMI VOA BATCH WORKSHEET

5V0C

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Batch Number: 4859 Batch Start Date: 06/15/11 13:25 Batch Analyst: Robbins, Alex

Batch Method: 3540C Batch End Date: 06/16/11 05:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXBNALCS1 00003	EXBNASURRW 00002	EXRESTEKSPKW 00002
240-820-F-7	GSP-SB-124-0-2	3540C, 8270D	T	30.18 g	2.00 mL		1 mL	
240-820-F-8	GSP-SB-124-6-8	3540C, 8270D	T	30.09 g	2.00 mL		1 mL	
240-820-F-10	GSP-SB-126-0-2	3540C, 8270D	T	30.03 g	2.00 mL		1 mL	
240-820-F-11	GSP-SB-126-8-10	3540C, 8270D	T	30.01 g	2.00 mL		1 mL	
240-820-F-13	GSP-SB-127-0-2	3540C, 8270D	T	30.01 g	2.00 mL		1 mL	
240-820-G-14	GSP-SB-127-6-8	3540C, 8270D	T	30.06 g	2.00 mL		1 mL	
240-820-F-17	GSP-SB-130-6-8	3540C, 8270D	T	29.93 g	2.00 mL		1 mL	
240-820-G-16	GSP-SB-130-0-2	3540C, 8270D	T	29.97 g	2.00 mL		1 mL	
MB 240-4859/23		3540C, 8270D		30.00 g	2.00 mL		1 mL	
LCS 240-4859/24		3540C, 8270D		30.00 g	2.00 mL	1 mL	1 mL	1 mL

Batch Notes	
Balance ID	b037
Batch Comment	SS: SM/AR
Person's name who did the concentration	cc/em
Na2SO4 Lot Number	010351
Prep Solvent Name	016821

Basis	Basis Description
T	Total/NA

Sample
GSP-SB-123-0-2

	Sample area	Cal. RF	Dilution Factor	Wt.	% Solids	Final volume µl	Inj. Vol. µl	On Column	Calculated result	Average
Peak 1	79264548	244111963	5	30	90.7	10000	1	0.32470571	596.6661318	691.2801 g/kg
Peak 2	203329216	527110717	5	30	90.7	10000	1	0.3857429	708.8256135	
Peak 3	206765579	466356170	5	30	90.7	10000	1	0.44336409	814.7079937	
Peak 4	265505291	806305909	5	30	90.7	10000	1	0.32928605	605.0827892	
Peak 5	130434240	327827711	5	30	90.7	10000	1	0.39787436	731.1178939	

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG No.:

Client Sample ID: GSP-SB-123-0-2 | Lab Sample ID: 240-820-4

Matrix: Solid | Lab File ID: P1361730.D

Analysis Method: 8082A | Date Collected: 06/06/2011 11:55

Extraction Method: 3540C | Date Extracted: 06/15/2011 11:49

Sample wt/vol: 30.00(g) | Date Analyzed: 06/17/2011 19:57

Con. Extract Vol.: 10(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 9.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 5183 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	*Aroclor-1016*	*180*	*U*	*180*	*120*
11104-28-2	*Aroclor-1221*	*180*	*U*	*180*	*88*
11141-16-5	*Aroclor-1232*	*180*	*U*	*180*	*77*
53469-21-9	*Aroclor-1242*	*180*	*U*	*180*	*72*
12672-29-6	*Aroclor-1248*	*180*	*U*	*180*	*94*
11097-69-1	*Aroclor-1254*	*180*	*U*	*180*	*94*
11096-82-5	*Aroclor-1260*	*690*		*180*	*94*

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	80		29-151
2051-24-3	Decachlorobiphenyl	96		14-163

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\NCChrom\ChromData\A2HP13\20110617-1182.b\P1361730.D		
Lims ID:	240-820-F-4-B	Client ID:	GSP-SB-123-0-2
Inject. Date:	17-Jun-2011 19:57:56	Dil. Factor:	5.0000
Sample Type:	Client		
Sample ID:	240-0001182-030		
Misc. Info.:			
Operator:		Instrument ID:	A2HP13
Vol. Injected:	1.0000	ALS Bottle#:	30
Lims Batch ID:	5183	Lims Sample ID:	30
Detector 1 :	GC ECD1A		
Detector 2 :	GC ecd2b		
Method:	\\NCChrom\ChromData\A2HP13\20110617-1182.b\PCB13.m		
Last Update:	20-Jun-2011 10:00:06	Calib Date:	10-Jun-2011 23:46:47
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\NCChrom\ChromData\A2HP13\20110610-1010.b\P1361042.D		
Limit Group:	GC 8082A ICAL		
Integrator:	Falcon		
Process Host:	CORP-CTX-17		

First Level Reviewer: hassl Date: 20-Jun-2011 10:01:32

Det	Sig	RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Ratio Range	Ratio	Flags
$ 2 Tetrachloro-m-xylene									
1	44	1.194	1.195	-0.001	19138467	0.003210			
2	2	1.624	1.626	-0.002	10065209	0.003454			
						RPD = 7.32			
3 PCB-1221									
1	2		1.334						
1	3		1.448						
1	4		1.478						
2	4		1.916						
2	5		2.052						
2	6		2.111						
5 PCB-1242									
1	100		1.479						
1	2		1.778						
1	3		2.194						
1	4		2.320						
1	5		2.725						
2	6		2.112						
2	7		2.532						
2	8		3.010						
2	9		3.156						
2	10		3.670						

Report Date: 20-Jun-2011 10:01:32 Chrom Revision: 1.2 03-Jun-2011 08:44:02
Data File: \\NCChrom\ChromData\A2HP13\20110617-1182.b\P1361730.D

Det	Sig	RT	EXP RT	DLT RT	Response	On-Col Amt ng/ul	Ratio Range	Ratio	Flags
10 PCB-1260									
1	100	4.000	4.001	-0.001	79264548	0.3247		100.0	
1	2	4.307	4.308	-0.001	203329216	0.3857	196.3- 246.3	256.5	
1	3	4.600	4.602	-0.002	206765579	0.4434	169.7- 219.7	260.9	
1	4	5.344	5.345	-0.001	265505291	0.3293	317.4- 367.4	335.0	
1	5	5.640	5.642	-0.002	130434240	0.3979	113.6- 163.6	164.6	
			Average of Peak Amounts =			0.3762			
2	6	5.083	5.084	-0.001	46268277	0.3458		100.0	
2	7	5.332	5.331	0.001	60939222	0.4016	83.9- 143.9	131.7	
2	8	5.827	5.828	-0.001	36939593	0.3017	60.9- 120.9	79.8	
2	9	6.443	6.444	-0.001	98218191	0.3310	196.7- 256.7	212.3	
2	10	6.840	6.840	0.000	72798763	0.3495	127.7- 187.7	157.3	
			Average of Peak Amounts =			0.3459			
						RPD = 8.39			
$ 12 DCB Decachlorobiphenyl									
1	100	6.860	6.862	-0.002	20656343	0.003831			
2	2	8.144	8.145	-0.001	8977269	0.003728			
						RPD = 2.72			

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUTION

Lab Name: TestAmerica North Canton Job No.: 240-820-1 Analy Batch No.: 4360

SDG No.:

Instrument ID: A2HP13 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/10/2011 19:30 Calibration End Date: 06/10/2011 20:45 Calibration ID: 1402

Calibration Files:

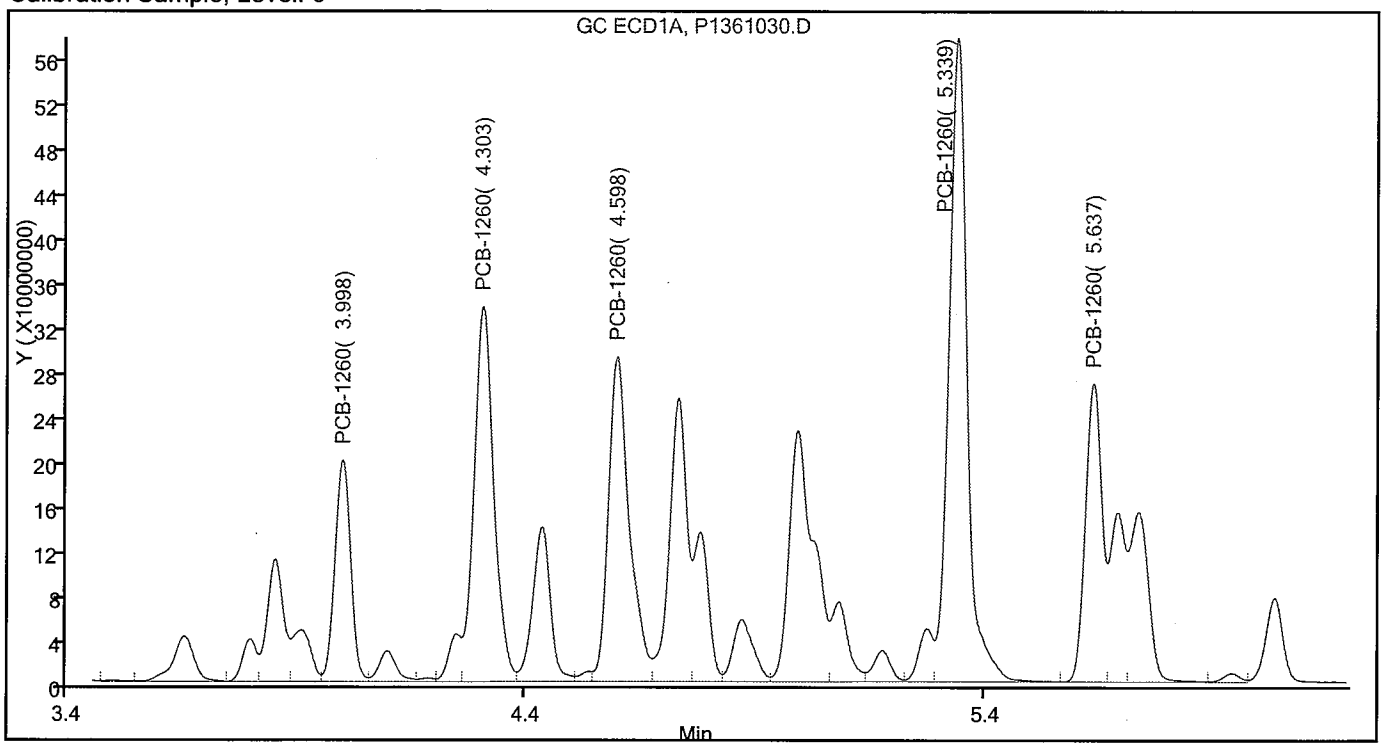
LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD005 240-4360/25	P1361025.D
Level 2	STD01 240-4360/26	P1361026.D
Level 3	STD02 240-4360/27	P1361027.D
Level 4	STD05 240-4360/28	P1361028.D
Level 5	STD1 240-4360/29	P1361029.D
Level 6	STD2 240-4360/30	P1361030.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
PCB-1016 Peak 1	123865700 109003675	143125620 100788360	105190645	98128022	Ave		113350337				15.0		20.0			
PCB-1016 Peak 2	203037680 166841704	207103590 152509321	184231645	174964920	Ave		181448143				12.0		20.0			
PCB-1016 Peak 3	412721820 382063780	416895930 361078574	406321625	394149700	Ave		395538572				5.3		20.0			
PCB-1016 Peak 4	176680100 163974588	179466070 155812510	169997380	167788626	Ave		168953212				5.1		20.0			
PCB-1016 Peak 5	110990360 111219546	116880940 108478801	109901730	110894724	Ave		111394350				2.6		20.0			
PCB-1260 Peak 1	247565860 241476724	254582430 234843074	241516135	244687554	Ave		244111963				2.7		20.0			
PCB-1260 Peak 2	543237360 514522341	545553950 498256235	534557260	526537158	Ave		527110717				3.4		20.0			
PCB-1260 Peak 3	468491380 463573470	472777320 455927567	470243350	467123934	Ave		466356170				1.3		20.0			
PCB-1260 Peak 4	808900780 799995243	817771090 785479441	826860880	798828018	Ave		806305909				1.8		20.0			
PCB-1260 Peak 5	327204280 327637302	327392490 330677068	334765085	319290038	Ave		327827711				1.6		20.0			
Tetrachloro-m-xylene	6962918000 5507406000	6640790800 5009997550	6059870700	5586536080	Ave		5961253188				12.0		20.0			
Decachlorobiphenyl	5685028400 5283917780	5402986800 5349128310	5633498800	5000657320	Ave		5392536235				4.6		20.0			

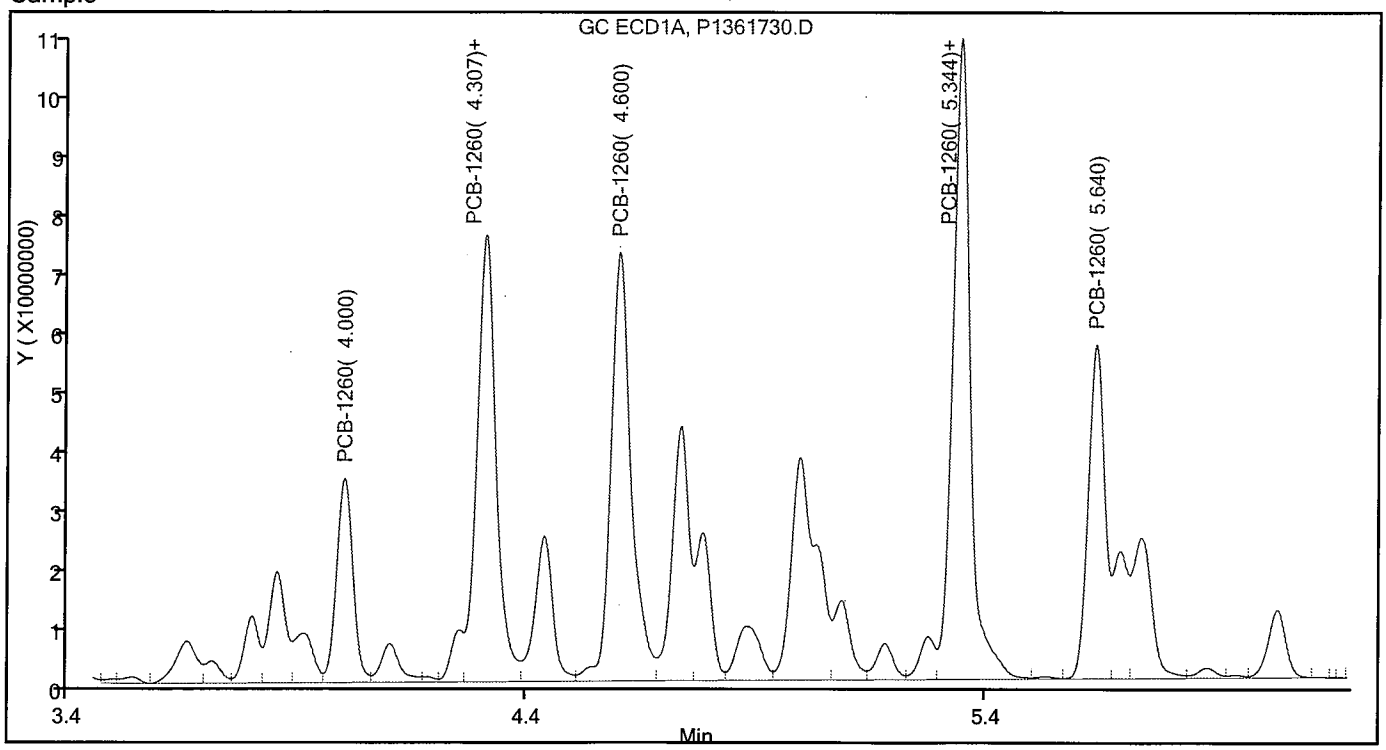
Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

Report Date: 20-Jun-2011 10:01:32 Chrom Revision: 1.2 03-Jun-2011 08:44:02
Data File: \\NCChrom\ChromData\A2HP13\20110617-1182.b\P1361730.D
Injection Date: 17-Jun-2011 19:57:56 Limit Group: GC 8082A ICAL
Client ID: GSP-SB-123-0-2 Instrument ID: A2HP13
Lims Batch ID: 5183 Lims Sample ID: 30
Operator ID: Injection Vol: 1.00 ul
10 PCB-1260, Detector: 1, GC ECD1A

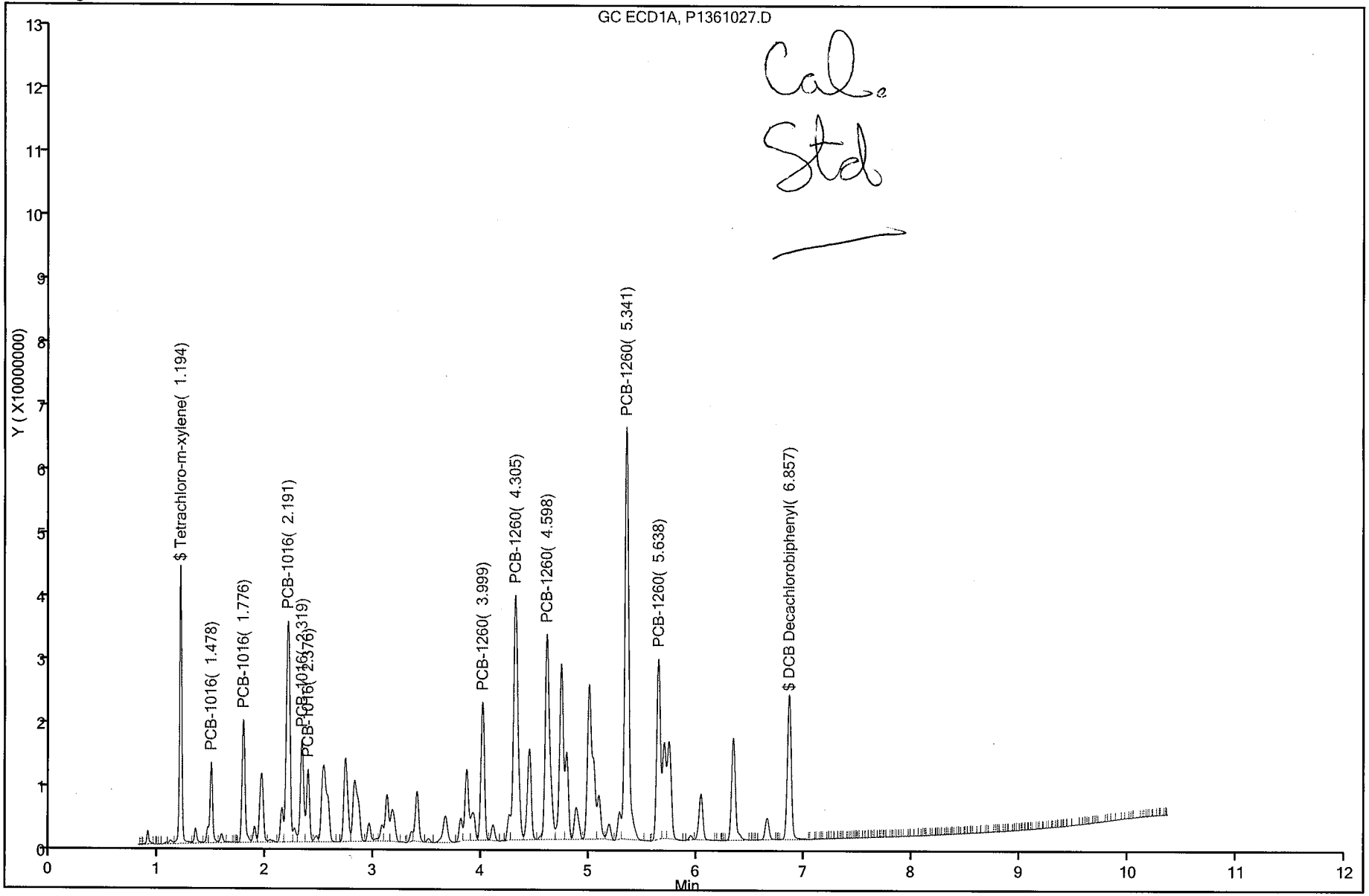
Calibration Sample, Level: 6



Sample



Report Date: 13-Jun-2011 10:24:50 Chrom Revision: 1.2 03-Jun-2011 08:44:02
Data File: \\NCChrom\ChromData\A2HP13\20110610-1010.b\P1361027.D
Injection Date: 10-Jun-2011 20:01:04 Limit Group: GC 8082A ICAL
Client ID: Instrument ID: A2HP13
Lims Batch ID: 4360 Lims Sample ID: 27
Operator ID: Injection Vol: 1.00 ul
Y Scaling: Method Defined: Set to Absolute Y Value



Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **A. APANAVAGE** **DATE:** **AUGUST 31, 2011**

FROM: **MICHELLE L. ALLEN** **COPIES:** **DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – TAL METALS**
MARTIN STATE AIRPORT (MSA), GREATER STRAWBERRY POINT (GSP)
SDG 240-820-1

SAMPLES: 12/Soil/METALS

GSP-SB-123-0-2	GSP-SB-123-6-8	GSP-SB-124-0-2
GSP-SB-124-6-8	GSP-SB-126-0-2	GSP-SB-126-8-10
GSP-SB-127-0-2	GSP-SB-127-6-8	GSP-SB-128-0-2
GSP-SB-128-6-8	GSP-SB-130-0-2	GSP-SB-130-6-8

Overview

The sample set for MSA-GSP, SDG 240-820-1 consisted of twelve (12) soil environmental samples. All twelve (12) samples were analyzed for Target Analyte List (TAL) metals. No field duplicate pair was included in the sample delivery group (SDG).

The samples were collected by Tetra Tech on June 6, 2011 and analyzed by Test America, Inc. All analyses were conducted in accordance with SW-846 Methods 6010C and 7471B analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters: data completeness, holding times, calibration data, laboratory method/preparation blanks, Interference Check Sample (ICS) results, Matrix Spike/Matrix Spike Duplicate (MS/MSD) results, Laboratory Control Sample (LCS) results, ICP serial dilution results, detection limits and analyte quantitation. Areas of concern are listed below.

Major

No major issues were identified.

Minor

- The Contract Required Quantitation Limit (CRQL) Percent Recovery (%R) for copper was greater than 110% quality control limit. All samples were affected. The positive results reported less than 2X CRQL for copper were qualified as either biased high, (K), or estimated, (J), due to conflicting directional bias.

- The CRQL %R for lead was greater than 110% quality control limit. All samples were affected. Positive results for lead reported less than 2X CRQL and not qualified for blank contamination in samples, GSP-SB-128-0-2 and GSP-SB-126-8-10, was qualified as biased high, (K).

- The CRQL %R for zinc exceeded the 110% quality control limit affecting all samples. The positive results reported less than 2X the CRQL for zinc were qualified as estimated, (J), due to conflicting directional bias.

- The following analyte was detected in the preparation blank at the following maximum concentrations:

Analyte	Maximum Concentration (mg/Kg)	Action Level (mg/Kg)
Lead [1]	0.250	1.25

[1] - Affecting all samples.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Percent moisture, sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results reported below the action level were qualified, (B), due to blank contamination.

- The following analyte was detected in the continuing calibration blanks at the following maximum concentration:

Analyte	Maximum Concentration (µg/L)	Action Level (mg/Kg)
Molybdenum [1]	21.7	10.85

[1] - Affecting all samples.

An action level of 5X the maximum contaminant level has been used to evaluate sample data for blank contamination. Percent moisture, sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. Positive results reported below the action level were qualified, (B), due to blank contamination.

- Positive results reported below the Reporting Limit (RL) but above the Method Detection Limit (MDL) were qualified as estimated, (J).

Notes

The CRQL %R for thallium was greater than the 110% quality control limit affecting all samples. No validation actions were warranted as all sample results were non-detects.

The CRQL %R for molybdenum was greater than the 110% quality control limit affecting all samples. No validation actions were warranted as all sample results were non-detects or qualified for blank contamination.

Non-detected results were reported to the MDL.

Executive Summary

Laboratory Performance: Some CRQL %Rs were greater than the 110% quality control limits. Analytes were detected in the laboratory method and preparation blanks.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to Region III modifications to the "National Functional Guidelines for Inorganic Data Validation" (April 1993), SW846 Methods 6010C and 7471B analytical and reporting protocols, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech NUS
Michelle L. Allen
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 03279	NSAMPLE	GSP-SB-123-0-2			GSP-SB-123-6-8			GSP-SB-124-0-2			GSP-SB-124-6-8		
SDG: 240-820-1	LAB_ID	240-820-4			240-820-5			240-820-7			240-820-8		
FRACTION: M	SAMP_DATE	6/6/2011			6/6/2011			6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	90.7			81.6			90.9			82.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.42	J	P	0.47	U		1.1	J	P	0.44	U	
ARSENIC		3.2			1.1	J	P	4.1			1.7		
BARIUM		30			4.1	J	P	72			8.1	J	P
BERYLLIUM		0.24	J	P	0.052	U		0.37	J	P	0.049	U	
CADMIUM		0.037	U		0.044	U		0.038	U		0.041	U	
CHROMIUM		14			3.6			13			10		
COBALT		2.4			0.19	U		3.8			0.34	J	P
COPPER		8.8			1.4	J	CP	12			4.5	K	C
LEAD		15			1.1	B	A	34			3.1		
MERCURY		0.053	J	P	0.015	U		0.014	U		0.018	U	
MOLYBDENUM		0.31	B	A	0.63	B	A	0.31	B	A	0.31	U	
NICKEL		4.4			0.33	U		5.2			0.62	J	P
SELENIUM		0.46	U		0.55	U		0.61	J	P	0.51	U	
SILVER		0.1	U		0.12	U		0.11	U		0.11	U	
THALLIUM		0.56	U		0.67	U		0.58	U		0.63	U	
VANADIUM		21			15			23			27		
ZINC		29			3.2	J	CP	41			2.9	J	CP

PROJ_NO: 03279	NSAMPLE	GSP-SB-126-0-2			GSP-SB-126-8-10			GSP-SB-127-0-2			GSP-SB-127-6-8		
SDG: 240-820-1	LAB_ID	240-820-10			240-820-11			240-820-13			240-820-14		
FRACTION: M	SAMP_DATE	6/6/2011			6/6/2011			6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	90.6			84.4			88.0			79.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.4	U		0.42	U		0.39	U		0.45	U	
ARSENIC		4.5			0.65	J	P	1.9			0.98	J	P
BARIUM		20	J	P	3.1	J	P	20			3.9	J	P
BERYLLIUM		0.081	J	P	0.046	U		0.088	J	P	0.05	U	
CADMIUM		0.037	U		0.038	U		0.036	U		0.042	U	
CHROMIUM		11			5.8			6.7			3.5		
COBALT		1.1			0.42	J	P	0.88	J	P	0.19	U	
COPPER		7.2			1.2	J	CP	4	K	C	1.6	J	CP
LEAD		5.7			1.5	K	C	7.9			1.1	B	A
MERCURY		0.016	U		0.016	U		0.017	U		0.017	U	
MOLYBDENUM		0.28	U		0.48	B	A	0.47	B	A	0.31	U	
NICKEL		2.4	J	P	0.36	J	P	2	J	P	0.36	J	P
SELENIUM		0.46	U		0.48	U		0.45	U		0.52	U	
SILVER		0.1	U		0.11	U		0.1	U		0.12	U	
THALLIUM		0.57	U		0.59	U		0.55	U		0.64	U	
VANADIUM		16			10			13			8.3		
ZINC		15			1.9	J	CP	29			2.4	J	CP

PROJ_NO: 03279	NSAMPLE	GSP-SB-128-0-2			GSP-SB-128-6-8			GSP-SB-130-0-2			GSP-SB-130-6-8		
SDG: 240-820-1	LAB_ID	240-820-1			240-820-2			240-820-16			240-820-17		
FRACTION: M	SAMP_DATE	6/6/2011			6/6/2011			6/6/2011			6/6/2011		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	80.2			78.6			85.7			83.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ANTIMONY		0.48	U		0.48	U		0.43	U		0.42	U	
ARSENIC		3.7			1.3	J	P	2.4			0.33	U	
BARIUM		8.3	J	P	3.3	J	P	26			3.4	J	P
BERYLLIUM		0.053	U		0.053	U		0.24	J	P	0.047	U	
CADMIUM		0.044	U		0.044	U		1			0.07	J	P
CHROMIUM		11			2.5			9.6			3.2		
COBALT		0.53	J	P	0.2	J	P	1.7			0.17	U	
COPPER		3.4	K	C	1.6	J	CP	7.8			0.8	U	
LEAD		2.3	K	C	0.73	B	A	19			0.84	B	A
MERCURY		0.017	U		0.018	U		0.1	J	P	0.016	U	
MOLYBDENUM		0.33	U		0.33	U		0.32	B	A	0.29	U	
NICKEL		0.95	J	P	0.33	U		5.1			0.29	U	
SELENIUM		0.56	U		0.55	U		0.5	U		0.49	U	
SILVER		0.12	U		0.12	U		0.26	J	P	0.18	J	P
THALLIUM		0.68	U		0.67	U		0.61	U		0.6	U	
VANADIUM		22			5.3			18			4.2		
ZINC		5.5	J	CP	3.5	J	CP	44			2.6	J	CP

Appendix B

Results as Reported by the Laboratory

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-123-0-2 Lab Sample ID: 240-820-4

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG ID.:

Matrix: Solid Date Sampled: 06/06/2011 11:55

Reporting Basis: DRY Date Received: 06/07/2011 08:00

% Solids: 90.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	0.42	2.0	0.40	mg/Kg	J		1	6010C
7440-38-2	Arsenic	3.2	1.5	0.31	mg/Kg			1	6010C
7440-39-3	Barium	30	20	0.072	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.24	0.51	0.044	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.51	0.51	0.037	mg/Kg	U		1	6010C
7440-47-3	Chromium	14	1.0	0.20	mg/Kg			1	6010C
7440-48-4	Cobalt	2.4	1.0	0.16	mg/Kg			1	6010C
7440-50-8	Copper	8.8	2.6	0.76	mg/Kg			1	6010C
7439-92-1	Lead	15	1.0	0.19	mg/Kg		B	1	6010C
7439-98-7	Molybdenum	0.31	4.1	0.28	mg/Kg	J	B	1	6010C
7440-02-0	Nickel	4.4	4.1	0.28	mg/Kg			1	6010C
7782-49-2	Selenium	2.0	2.0	0.46	mg/Kg	U		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.0	2.0	0.56	mg/Kg	U		1	6010C
7440-62-2	Vanadium	21	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	29	5.1	1.0	mg/Kg		B	1	6010C
7439-97-6	Hg	0.053	0.10	0.015	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-123-6-8 | Lab Sample ID: 240-820-5

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG ID.:

Matrix: Solid | Date Sampled: 06/06/2011 11:58

Reporting Basis: DRY | Date Received: 06/07/2011 08:00

% Solids: 81.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.4	2.4	0.47	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.1	1.8	0.36	mg/Kg	J		1	6010C
7440-39-3	Barium	4.1	24	0.086	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.61	0.61	0.052	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.61	0.61	0.044	mg/Kg	U		1	6010C
7440-47-3	Chromium	3.6	1.2	0.24	mg/Kg			1	6010C
7440-48-4	Cobalt	1.2	1.2	0.19	mg/Kg	U		1	6010C
7440-50-8	Copper	1.4	3.0	0.90	mg/Kg	J		1	6010C
7439-92-1	Lead	1.1	1.2	0.23	mg/Kg	J	B	1	6010C
7439-98-7	Molybdenum	0.63	4.9	0.33	mg/Kg	J	B	1	6010C
7440-02-0	Nickel	4.9	4.9	0.33	mg/Kg	U		1	6010C
7782-49-2	Selenium	2.4	2.4	0.55	mg/Kg	U		1	6010C
7440-22-4	Silver	1.2	1.2	0.12	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.4	2.4	0.67	mg/Kg	U		1	6010C
7440-62-2	Vanadium	15	1.2	0.15	mg/Kg			1	6010C
7440-66-6	Zinc	3.2	6.1	1.2	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.097	0.097	0.015	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-124-0-2 Lab Sample ID: 240-820-7

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG ID.:

Matrix: Solid Date Sampled: 06/06/2011 13:05

Reporting Basis: DRY Date Received: 06/07/2011 08:00

% Solids: 90.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	1.1	2.1	0.41	mg/Kg	J		1	6010C
7440-38-2	Arsenic	4.1	1.6	0.32	mg/Kg			1	6010C
7440-39-3	Barium	72	21	0.075	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.37	0.53	0.046	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.53	0.53	0.038	mg/Kg	U		1	6010C
7440-47-3	Chromium	13	1.1	0.21	mg/Kg			1	6010C
7440-48-4	Cobalt	3.8	1.1	0.17	mg/Kg			1	6010C
7440-50-8	Copper	12	2.6	0.78	mg/Kg			1	6010C
7439-92-1	Lead	34	1.1	0.20	mg/Kg		B	1	6010C
7439-98-7	Molybdenum	0.31	4.2	0.29	mg/Kg	J	B	1	6010C
7440-02-0	Nickel	5.2	4.2	0.29	mg/Kg			1	6010C
7782-49-2	Selenium	0.61	2.1	0.48	mg/Kg	J		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.1	2.1	0.58	mg/Kg	U		1	6010C
7440-62-2	Vanadium	23	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	41	5.3	1.1	mg/Kg		B	1	6010C
7439-97-6	Hg	0.093	0.093	0.014	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-124-6-8 | Lab Sample ID: 240-820-8

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG ID.:

Matrix: Solid | Date Sampled: 06/06/2011 13:08

Reporting Basis: DRY | Date Received: 06/07/2011 08:00

% Solids: 82.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.3	2.3	0.44	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.7	1.7	0.34	mg/Kg			1	6010C
7440-39-3	Barium	8.1	23	0.081	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.57	0.57	0.049	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.57	0.57	0.041	mg/Kg	U		1	6010C
7440-47-3	Chromium	10	1.1	0.23	mg/Kg			1	6010C
7440-48-4	Cobalt	0.34	1.1	0.18	mg/Kg	J		1	6010C
7440-50-8	Copper	4.5	2.8	0.84	mg/Kg			1	6010C
7439-92-1	Lead	3.1	1.1	0.22	mg/Kg		B	1	6010C
7439-98-7	Molybdenum	4.6	4.6	0.31	mg/Kg	U		1	6010C
7440-02-0	Nickel	0.62	4.6	0.31	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.3	2.3	0.51	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.3	2.3	0.63	mg/Kg	U		1	6010C
7440-62-2	Vanadium	27	1.1	0.14	mg/Kg			1	6010C
7440-66-6	Zinc	2.9	5.7	1.1	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.12	0.12	0.018	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-126-0-2 Lab Sample ID: 240-820-10

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG ID.:

Matrix: Solid Date Sampled: 06/06/2011 15:05

Reporting Basis: DRY Date Received: 06/07/2011 08:00

% Solids: 90.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.1	2.1	0.40	mg/Kg	U		1	6010C
7440-38-2	Arsenic	4.5	1.5	0.31	mg/Kg			1	6010C
7440-39-3	Barium	20	21	0.073	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.081	0.52	0.044	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.52	0.52	0.037	mg/Kg	U		1	6010C
7440-47-3	Chromium	11	1.0	0.21	mg/Kg			1	6010C
7440-48-4	Cobalt	1.1	1.0	0.17	mg/Kg			1	6010C
7440-50-8	Copper	7.2	2.6	0.76	mg/Kg			1	6010C
7439-92-1	Lead	5.7	1.0	0.20	mg/Kg		B	1	6010C
7439-98-7	Molybdenum	4.1	4.1	0.28	mg/Kg	U		1	6010C
7440-02-0	Nickel	2.4	4.1	0.28	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.1	2.1	0.46	mg/Kg	U		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.1	2.1	0.57	mg/Kg	U		1	6010C
7440-62-2	Vanadium	16	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	15	5.2	1.0	mg/Kg		B	1	6010C
7439-97-6	Hg	0.11	0.11	0.016	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-126-8-10 Lab Sample ID: 240-820-11

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG ID.:

Matrix: Solid Date Sampled: 06/06/2011 15:13

Reporting Basis: DRY Date Received: 06/07/2011 08:00

% Solids: 84.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.1	2.1	0.42	mg/Kg	U		1	6010C
7440-38-2	Arsenic	0.65	1.6	0.32	mg/Kg	J		1	6010C
7440-39-3	Barium	3.1	21	0.076	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.53	0.53	0.046	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.53	0.53	0.038	mg/Kg	U		1	6010C
7440-47-3	Chromium	5.8	1.1	0.21	mg/Kg			1	6010C
7440-48-4	Cobalt	0.42	1.1	0.17	mg/Kg	J		1	6010C
7440-50-8	Copper	1.2	2.7	0.79	mg/Kg	J		1	6010C
7439-92-1	Lead	1.5	1.1	0.20	mg/Kg		B	1	6010C
7439-98-7	Molybdenum	0.48	4.3	0.29	mg/Kg	J	B	1	6010C
7440-02-0	Nickel	0.36	4.3	0.29	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.1	2.1	0.48	mg/Kg	U		1	6010C
7440-22-4	Silver	1.1	1.1	0.11	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.1	2.1	0.59	mg/Kg	U		1	6010C
7440-62-2	Vanadium	10	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	1.9	5.3	1.1	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.11	0.11	0.016	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-127-0-2 Lab Sample ID: 240-820-13

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG ID.:

Matrix: Solid Date Sampled: 06/06/2011 15:55

Reporting Basis: DRY Date Received: 06/07/2011 08:00

% Solids: 88.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.0	2.0	0.39	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.9	1.5	0.30	mg/Kg			1	6010C
7440-39-3	Barium	20	20	0.071	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.088	0.50	0.043	mg/Kg	J		1	6010C
7440-43-9	Cadmium	0.50	0.50	0.036	mg/Kg	U		1	6010C
7440-47-3	Chromium	6.7	1.0	0.20	mg/Kg			1	6010C
7440-48-4	Cobalt	0.88	1.0	0.16	mg/Kg	J		1	6010C
7440-50-8	Copper	4.0	2.5	0.74	mg/Kg			1	6010C
7439-92-1	Lead	7.9	1.0	0.19	mg/Kg		B	1	6010C
7439-98-7	Molybdenum	0.47	4.0	0.27	mg/Kg	J	B	1	6010C
7440-02-0	Nickel	2.0	4.0	0.27	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.0	2.0	0.45	mg/Kg	U		1	6010C
7440-22-4	Silver	1.0	1.0	0.10	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.0	2.0	0.55	mg/Kg	U		1	6010C
7440-62-2	Vanadium	13	1.0	0.12	mg/Kg			1	6010C
7440-66-6	Zinc	29	5.0	1.0	mg/Kg		B	1	6010C
7439-97-6	Hg	0.11	0.11	0.017	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-127-6-8 Lab Sample ID: 240-820-14

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG ID.:

Matrix: Solid Date Sampled: 06/06/2011 15:58

Reporting Basis: DRY Date Received: 06/07/2011 08:00

% Solids: 79.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.3	2.3	0.45	mg/Kg	U		1	6010C
7440-38-2	Arsenic	0.98	1.7	0.35	mg/Kg	J		1	6010C
7440-39-3	Barium	3.9	23	0.082	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.58	0.58	0.050	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.58	0.58	0.042	mg/Kg	U		1	6010C
7440-47-3	Chromium	3.5	1.2	0.23	mg/Kg			1	6010C
7440-48-4	Cobalt	1.2	1.2	0.19	mg/Kg	U		1	6010C
7440-50-8	Copper	1.6	2.9	0.86	mg/Kg	J		1	6010C
7439-92-1	Lead	1.1	1.2	0.22	mg/Kg	J	B	1	6010C
7439-98-7	Molybdenum	4.6	4.6	0.31	mg/Kg	U		1	6010C
7440-02-0	Nickel	0.36	4.6	0.31	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.3	2.3	0.52	mg/Kg	U		1	6010C
7440-22-4	Silver	1.2	1.2	0.12	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.3	2.3	0.64	mg/Kg	U		1	6010C
7440-62-2	Vanadium	8.3	1.2	0.14	mg/Kg			1	6010C
7440-66-6	Zinc	2.4	5.8	1.2	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.12	0.12	0.017	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-128-0-2
Lab Sample ID: 240-820-1
Lab Name: TestAmerica North Canton
Job No.: 240-820-1
SDG ID.:
Matrix: Solid
Date Sampled: 06/06/2011 10:47
Reporting Basis: DRY
Date Received: 06/07/2011 08:00
% Solids: 80.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.5	2.5	0.48	mg/Kg	U		1	6010C
7440-38-2	Arsenic	3.7	1.9	0.37	mg/Kg			1	6010C
7440-39-3	Barium	8.3	25	0.088	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.62	0.62	0.053	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.62	0.62	0.044	mg/Kg	U		1	6010C
7440-47-3	Chromium	11	1.2	0.25	mg/Kg			1	6010C
7440-48-4	Cobalt	0.53	1.2	0.20	mg/Kg	J		1	6010C
7440-50-8	Copper	3.4	3.1	0.91	mg/Kg			1	6010C
7439-92-1	Lead	2.3	1.2	0.23	mg/Kg		B	1	6010C
7439-98-7	Molybdenum	4.9	4.9	0.33	mg/Kg	U		1	6010C
7440-02-0	Nickel	0.95	4.9	0.33	mg/Kg	J		1	6010C
7782-49-2	Selenium	2.5	2.5	0.56	mg/Kg	U		1	6010C
7440-22-4	Silver	1.2	1.2	0.12	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.5	2.5	0.68	mg/Kg	U		1	6010C
7440-62-2	Vanadium	22	1.2	0.15	mg/Kg			1	6010C
7440-66-6	Zinc	5.5	6.2	1.2	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.11	0.11	0.017	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-128-6-8 Lab Sample ID: 240-820-2

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG ID.:

Matrix: Solid Date Sampled: 06/06/2011 10:50

Reporting Basis: DRY Date Received: 06/07/2011 08:00

% Solids: 78.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.4	2.4	0.48	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.3	1.8	0.37	mg/Kg	J		1	6010C
7440-39-3	Barium	3.3	24	0.087	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.61	0.61	0.053	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.61	0.61	0.044	mg/Kg	U		1	6010C
7440-47-3	Chromium	2.5	1.2	0.24	mg/Kg			1	6010C
7440-48-4	Cobalt	0.20	1.2	0.20	mg/Kg	J		1	6010C
7440-50-8	Copper	1.6	3.1	0.91	mg/Kg	J		1	6010C
7439-92-1	Lead	0.73	1.2	0.23	mg/Kg	J	B	1	6010C
7439-98-7	Molybdenum	4.9	4.9	0.33	mg/Kg	U		1	6010C
7440-02-0	Nickel	4.9	4.9	0.33	mg/Kg	U		1	6010C
7782-49-2	Selenium	2.4	2.4	0.55	mg/Kg	U		1	6010C
7440-22-4	Silver	1.2	1.2	0.12	mg/Kg	U		1	6010C
7440-28-0	Thallium	2.4	2.4	0.67	mg/Kg	U		1	6010C
7440-62-2	Vanadium	5.3	1.2	0.15	mg/Kg			1	6010C
7440-66-6	Zinc	3.5	6.1	1.2	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.12	0.12	0.018	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-130-0-2 | Lab Sample ID: 240-820-16

Lab Name: TestAmerica North Canton | Job No.: 240-820-1

SDG ID.:

Matrix: Solid | Date Sampled: 06/06/2011 16:42

Reporting Basis: DRY | Date Received: 06/07/2011 08:00

% Solids: 85.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.2	0.43	mg/Kg	U		1	6010C
7440-38-2	Arsenic	2.4	1.7	0.33	mg/Kg			1	6010C
7440-39-3	Barium	26	22	0.078	mg/Kg		B	1	6010C
7440-41-7	Beryllium	0.24	0.55	0.047	mg/Kg	J		1	6010C
7440-43-9	Cadmium	1.0	0.55	0.040	mg/Kg			1	6010C
7440-47-3	Chromium	9.6	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	1.7	1.1	0.18	mg/Kg			1	6010C
7440-50-8	Copper	7.8	2.8	0.81	mg/Kg			1	6010C
7439-92-1	Lead	19	1.1	0.21	mg/Kg		B	1	6010C
7439-98-7	Molybdenum	0.32	4.4	0.30	mg/Kg	J	B	1	6010C
7440-02-0	Nickel	5.1	4.4	0.30	mg/Kg			1	6010C
7782-49-2	Selenium	2.2	2.2	0.50	mg/Kg	U		1	6010C
7440-22-4	Silver	0.26	1.1	0.11	mg/Kg	J		1	6010C
7440-28-0	Thallium	2.2	2.2	0.61	mg/Kg	U		1	6010C
7440-62-2	Vanadium	18	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	44	5.5	1.1	mg/Kg		B	1	6010C
7439-97-6	Hg	0.10	0.11	0.017	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: GSP-SB-130-6-8 Lab Sample ID: 240-820-17

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG ID.:

Matrix: Solid Date Sampled: 06/06/2011 16:45

Reporting Basis: DRY Date Received: 06/07/2011 08:00

% Solids: 83.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-36-0	Antimony	2.2	2.2	0.42	mg/Kg	U		1	6010C
7440-38-2	Arsenic	1.6	1.6	0.33	mg/Kg	U		1	6010C
7440-39-3	Barium	3.4	22	0.077	mg/Kg	J	B	1	6010C
7440-41-7	Beryllium	0.54	0.54	0.047	mg/Kg	U		1	6010C
7440-43-9	Cadmium	0.070	0.54	0.039	mg/Kg	J		1	6010C
7440-47-3	Chromium	3.2	1.1	0.22	mg/Kg			1	6010C
7440-48-4	Cobalt	1.1	1.1	0.17	mg/Kg	U		1	6010C
7440-50-8	Copper	2.7	2.7	0.80	mg/Kg	U		1	6010C
7439-92-1	Lead	0.84	1.1	0.21	mg/Kg	J	B	1	6010C
7439-98-7	Molybdenum	4.3	4.3	0.29	mg/Kg	U		1	6010C
7440-02-0	Nickel	4.3	4.3	0.29	mg/Kg	U		1	6010C
7782-49-2	Selenium	2.2	2.2	0.49	mg/Kg	U		1	6010C
7440-22-4	Silver	0.18	1.1	0.11	mg/Kg	J		1	6010C
7440-28-0	Thallium	2.2	2.2	0.60	mg/Kg	U		1	6010C
7440-62-2	Vanadium	4.2	1.1	0.13	mg/Kg			1	6010C
7440-66-6	Zinc	2.6	5.4	1.1	mg/Kg	J	B	1	6010C
7439-97-6	Hg	0.10	0.10	0.016	mg/Kg	U		1	7471B

Appendix C

Support Documentation

HOLDTIM

PROJ_NO 03279

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-820-1	HG	MG/KG	GSP-SB-128-6-8	240-820-2	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-127-0-2	240-820-13	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-126-8-10	240-820-11	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-126-0-2	240-820-10	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-127-6-8	240-820-14	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-124-6-8	240-820-8	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-128-0-2	240-820-1	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-130-0-2	240-820-16	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-124-0-2	240-820-7	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-130-6-8	240-820-17	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-123-6-8	240-820-5	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	HG	MG/KG	GSP-SB-123-0-2	240-820-4	NM	06/06/2011	06/17/2011	06/17/2011	11	0	11
240-820-1	M	MG/KG	GSP-SB-130-0-2	240-820-16	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-126-8-10	240-820-11	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-128-0-2	240-820-1	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-127-6-8	240-820-14	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32

SDG	SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
240-820-1	M	MG/KG	GSP-SB-130-6-8	240-820-17	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-127-0-2	240-820-13	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-128-6-8	240-820-2	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-124-0-2	240-820-7	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-126-0-2	240-820-10	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-123-6-8	240-820-5	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-124-6-8	240-820-8	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	M	MG/KG	GSP-SB-123-0-2	240-820-4	NM	06/06/2011	06/17/2011	07/08/2011	11	21	32
240-820-1	OS	UG/KG	GSP-SB-123-0-2	240-820-4	NM	06/06/2011	06/17/2011	06/29/2011	11	12	23
240-820-1	OS	UG/KG	GSP-SB-126-8-10	240-820-11	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-126-20-22	240-820-12	NM	06/06/2011	06/17/2011	06/29/2011	11	12	23
240-820-1	OS	UG/KG	GSP-SB-123-6-8	240-820-5	NM	06/06/2011	06/17/2011	07/04/2011	11	17	28
240-820-1	OS	UG/KG	GSP-SB-128-6-8	240-820-2	NM	06/06/2011	06/17/2011	07/04/2011	11	17	28
240-820-1	OS	UG/KG	GSP-SB-127-0-2	240-820-13	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-127-6-8	240-820-14	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-130-6-8	240-820-17	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-126-0-2	240-820-10	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-124-0-2	240-820-7	NM	06/06/2011	06/15/2011	07/14/2011	9	29	38
240-820-1	OS	UG/KG	GSP-SB-128-0-2	240-820-1	NM	06/06/2011	06/17/2011	07/04/2011	11	17	28

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: TetraTech NUS	Client Project Manager: Dev Murali	Site Contact: Dawn Markiewicz	Lab Contact:	COC No: 009827
Address: 20251 Century Blvd	Telephone: (301) 528-3063	Telephone: (724) 244-2701	Telephone:	1 of 3 COCs
City/State/Zip: Germantown, MD	Email: Dev.Murali@TetraTech.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only: Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Phone: (301) 528-5552		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Job/SDG No.:
Project Name: GSP	Method of Shipment/Carrier:			
Project Number: 1121c03279	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite C / Grab G	VOC	GRO/DRO	PCB	Metals + Hg	SVOC	Sample Specific Notes / Special Instructions:
GSP-SB-128-0-2	6/6/11	1047				X							3	3		G	X	X	X	X	X	
GSP-SB-128 6-8		1050				X							3	3		G	X	X	X	X	X	
GSP-SB-128 18-21		1053				X							2	3		G	X	X			X	
GSP-SB-1283-0-2		1155				X							3	3		G	X	X	X	X	X	
GSP-SB-123-6-8		1158				X							3	3		G	X	X	X	X	X	
GSP-SB-123-20-22		1203				X							2	3		G	X	X			X	
GSP-SB-124-0-2		1305				X							3	3		G	X	X	X	X	X	
GSP-SB-124-6-8		1308				X							3	3		G	X	X	X	X	X	
GSP-SB-124-20-22		1311				X							2	3		G	X	X			X	
GSP-SB-126-0-2	↓	1505				X							3	3		G	X	X	X	X	X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Dawn L Markiewicz	TetraTech GEO	6/6/11 @ 1730			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA NL	6/8/11 0800

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TAL 0018-1 (04/10)

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Tetra Tech NUS	Client Project Manager: Dev Murali	Site Contact: Dawn Markiewicz	Lab Contact:	COC No: 009828
Address: 20251 Century Blvd.	Telephone: (301)528-3063	Telephone: (724)244-3701	Telephone:	2 of 2 COCs
City/State/Zip: Germantown, MD	Email: Dev.Murali@tetratech.com	Analysis Turnaround Time (in BUS days): TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	Analyses	For lab use only: Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Phone: (301)528-5552				
Project Name: GSP	Method of Shipment/Carrier:			
Project Number: 112IC03279	Shipping/Tracking No:			Job/SDG No:
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite C / Grab G	VOC	GRO/DRO	PCB	Metals + Hg	SVOCs	Sample Specific Notes / Special Instructions:
GSP-SB-126-8-10	6/6/11	1513				X							3	3		G	X	X	X	X	X	
GSP-SB-126-20-22		1516				X							2	3		G	X	X			X	
GSP-SB-127-0-2		1555				X							3	3		G	X	X	X	X	X	
GSP-SB-127-6-8		1558				X							3	3		G	X	X	X	X	X	
GSP-SB-127-20-22		1601				X							2	3		G	X	X			X	
GSP-SB-130-0-2		1642				X							3	3		G	X	X	X	X	X	
GSP-SB-130-6-8		1645				X							3	3		G	X	X	X	X	X	
GSP-SB-130-20-22	↓	1650				X							2	3		G	X	X			X	

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Dawn L Markiewicz	Tetra Tech GEO	6/6/11 @1730			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA NC	6/7/11 0800

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TAL 0018- 1 (04/10)

CASE NARRATIVE

Client: Tetra Tech NUS Inc

Project: MSA Greater Strawberry Point PH. II 2011

Report Number: 240-820-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 06/07/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.7 and 3.1 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-126-20-22 (240-820-12), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17) and GSP-SB-130-20-22 (240-820-18) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 06/16/2011 and 06/17/2011.

Methylene Chloride was detected in method blank MB 240-5027/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

o Acetone and Naphthalene were detected in method blank MB 240-5027/6 at levels that were above the method detection limit but below the reporting limit.
o 1,2,4-Trichlorobenzene, 2-Butanone and Naphthalene were detected in method blank MB 240-5087/7 at levels that were above the method detection limit but below the reporting limit.

In these cases, the values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Chloroethane failed the recovery criteria high for LCS 240-5027/5. Refer to the QC report for details.

Chloroethane failed the recovery criteria high for the MS and MSD of sample 240-787-9 in batch 240-5027. Refer to the QC report for details.

Insufficient sample volume was provided to perform matrix spike/matrix spike duplicate (MS/MSD) for batch 240-5087.

No other difficulties were encountered during the volatiles analyses.

All other quality control parameters were within the acceptance limits.

SEMI VOLATILES

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-126-20-22 (240-820-12), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17) and GSP-SB-130-20-22 (240-820-18) were analyzed for Semi volatiles in accordance with 8270D. The samples were analyzed on 06/29/2011, 07/04/2011 and 07/14/2011.

1,1'-Biphenyl, Acetophenone and Butyl benzyl phthalate failed the recovery criteria low for LCS 240-4859/24-A. Refer to the QC report for details.

o Several analytes failed the recovery criteria low for the MS of sample GSP-SB-123-0-2MS (240-820-4) in batch 240-7057. Refer to the QC report for details.
o Several analytes failed the recovery criteria low for the MSD of sample GSP-SB-123-0-2MSD (240-820-4) in batch 240-6612. Several analytes exceeded the rpd limit.

Refer to the QC report for details.

Samples GSP-SB-124-0-2 (240-820-7)[20X] and GSP-SB-130-0-2 (240-820-16)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The generic batch MS/MSD for batch 240-4859 was extracted and analyzed, but unable to be reported due to LIMS limitation.

No other difficulties were encountered during the Semi volatiles analyses.

All other quality control parameters were within the acceptance limits.

GRO

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-126-20-22 (240-820-12), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17) and GSP-SB-130-20-22 (240-820-18) were analyzed for GRO in accordance with 8015C. The samples were analyzed on 06/17/2011.

No difficulties were encountered during the GRO analyses.

All quality control parameters were within the acceptance limits.

DRO

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-126-20-22 (240-820-12), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17) and GSP-SB-130-20-22 (240-820-18) were analyzed for DRO in accordance with 8015C. The samples were analyzed on 06/20/2011 and 06/23/2011.

Sample GSP-SB-124-0-2 (240-820-7)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the DRO analyses.

All quality control parameters were within the acceptance limits.

PCBS

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16) and GSP-SB-130-6-8 (240-820-17) were analyzed for PCBs in accordance with 8082A. The samples were analyzed on 06/17/2011 and 06/24/2011.

Due to a laboratory batching error, the following samples were prepped after the method recommended holding time had expired: GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17).

The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), (CCV 240-5999/3), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8

(240-820-5), (240-820-5 MS), (240-820-5 MSD), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17).

Sample GSP-SB-123-0-2 (240-820-4)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the PCBs analyses.

All quality control parameters were within the acceptance limits.

METALS (ICP)

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16) and GSP-SB-130-6-8 (240-820-17) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were analyzed on 07/08/2011.

Several analytes were detected in method blank MB 240-5161/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

MERCURY

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16) and GSP-SB-130-6-8 (240-820-17) were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were analyzed on 06/17/2011.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples GSP-SB-128-0-2 (240-820-1), GSP-SB-128-6-8 (240-820-2), GSP-SB-123-0-2 (240-820-4), GSP-SB-123-6-8 (240-820-5), GSP-SB-124-0-2 (240-820-7), GSP-SB-124-6-8 (240-820-8), GSP-SB-126-0-2 (240-820-10), GSP-SB-126-8-10 (240-820-11), GSP-SB-126-20-22 (240-820-12), GSP-SB-127-0-2 (240-820-13), GSP-SB-127-6-8 (240-820-14), GSP-SB-130-0-2 (240-820-16), GSP-SB-130-6-8 (240-820-17) and GSP-SB-130-20-22 (240-820-18) were analyzed for percent solids in accordance with EPA SW846 3550C. The samples were analyzed on 06/08/2011.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

No other analytical or quality issues were noted.

SAMPLE SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-820-1	GSP-SB-128-0-2	Solid	06/06/2011 1047	06/07/2011 0800
240-820-2	GSP-SB-128-6-8	Solid	06/06/2011 1050	06/07/2011 0800
240-820-4	GSP-SB-123-0-2	Solid	06/06/2011 1155	06/07/2011 0800
240-820-5	GSP-SB-123-6-8	Solid	06/06/2011 1158	06/07/2011 0800
240-820-7	GSP-SB-124-0-2	Solid	06/06/2011 1305	06/07/2011 0800
240-820-8	GSP-SB-124-6-8	Solid	06/06/2011 1308	06/07/2011 0800
240-820-10	GSP-SB-126-0-2	Solid	06/06/2011 1505	06/07/2011 0800
240-820-11	GSP-SB-126-8-10	Solid	06/06/2011 1513	06/07/2011 0800
240-820-12	GSP-SB-126-20-22	Solid	06/06/2011 1516	06/07/2011 0800
240-820-13	GSP-SB-127-0-2	Solid	06/06/2011 1555	06/07/2011 0800
240-820-14	GSP-SB-127-6-8	Solid	06/06/2011 1558	06/07/2011 0800
240-820-16	GSP-SB-130-0-2	Solid	06/06/2011 1642	06/07/2011 0800
240-820-17	GSP-SB-130-6-8	Solid	06/06/2011 1645	06/07/2011 0800
240-820-18	GSP-SB-130-20-22	Solid	06/06/2011 1650	06/07/2011 0800

METHOD SUMMARY

Client: Tetra Tech NUS Inc

Job Number: 240-820-1

Description	Lab Location	Method	Preparation Method
Matrix Solid			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Closed System Purge and Trap			SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270D	
Soxhlet Extraction			SW846 3540C
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	TAL NC	SW846 8015C	
Soxhlet Extraction			SW846 3540C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL NC	SW846 8082A	
Soxhlet Extraction			SW846 3540C
Metals (ICP)	TAL NC	SW846 6010C	
Preparation, Metals			SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL NC	SW846 7471B	
Preparation, Mercury			SW846 7471B
Percent Moisture	TAL NC	EPA Moisture	
Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	TAL CHI	SW846 8015C	
Purge and Trap	TAL CHI		SW846 5030C

Lab References:

TAL CHI = TestAmerica Chicago

TAL NC = TestAmerica North Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica North Canton Job Number: 240-820-1

SDG Number:

Matrix: Solid Instrument ID: I6

Method: 6010C MDL Date: 03/01/2011 14:59

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Antimony	206.838	2	0.39
Arsenic	189.042	1.5	0.3
Barium	493.409	20	0.071
Beryllium	313.042	0.5	0.043
Cadmium	226.502	0.5	0.036
Chromium	267.716	1	0.2
Cobalt	228.616	1	0.16
Copper	324.753	2.5	0.74
Lead	220.353	1	0.19
Molybdenum	202.030	4	0.27
Nickel	231.604	4	0.27
Selenium	196.026	2	0.45
Silver	328.068	1	0.1
Thallium	190.864	2	0.55
Vanadium	292.402	1	0.12
Zinc	213.856	5	1

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica North Canton Job Number: 240-820-1

SDG Number:

Matrix: Solid Instrument ID: I6

Method: 6010C XMDL Date: 03/01/2011 15:00

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Antimony	206.838	20	1.8
Arsenic	189.042	15	3.2
Barium	493.409	200	0.67
Beryllium	313.042	5	0.46
Cadmium	226.502	5	0.66
Chromium	267.716	10	2.2
Cobalt	228.616	10	1.7
Copper	324.753	25	4.5
Lead	220.353	10	1.9
Molybdenum	202.030	40	1.3
Nickel	231.604	40	3.2
Selenium	196.026	20	4.1
Silver	328.068	10	2.2
Thallium	190.864	20	4.7
Vanadium	292.402	10	0.64
Zinc	213.856	50	5

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica North Canton Job Number: 240-820-1

SDG Number:

Matrix: Solid Instrument ID: H1

Method: 7471B MDL Date: 02/16/2010 09:48

Prep Method: 7471B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Hg	253.7	0.1	0.015

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica North Canton Job Number: 240-820-1

SDG Number:

Matrix: Solid Instrument ID: H1

Method: 7471B XMDL Date: 02/16/2010 09:48

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Hg	253.7	0.6	0.12

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Prep Method: 7471B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-5165/1-A	06/17/2011 12:25	5165	0.60		100
LCS 240-5165/2-A	06/17/2011 12:25	5165	0.60		100
240-681-F-25-G MS	06/17/2011 12:25	5165	0.62		100
240-681-F-25-H MSD	06/17/2011 12:25	5165	0.62		100
240-820-5	06/17/2011 12:25	5165	0.76		100
240-820-16	06/17/2011 12:25	5165	0.61		100
240-820-17	06/17/2011 12:25	5165	0.69		100
240-820-13	06/17/2011 12:25	5165	0.61		100
240-820-4	06/17/2011 12:25	5165	0.65		100
240-820-2	06/17/2011 12:25	5165	0.65		100
240-820-8	06/17/2011 12:25	5165	0.61		100
240-820-7	06/17/2011 12:25	5165	0.71		100
240-820-11	06/17/2011 12:25	5165	0.67		100
240-820-10	06/17/2011 12:25	5165	0.63		100
240-820-1	06/17/2011 12:25	5165	0.67		100
240-820-14	06/17/2011 12:25	5165	0.65		100

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 240-681-F-25-G MS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 92.0

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Hg	0.180		0.097	U	0.175	103	11-192		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 240-681-F-25-H MSD

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 92.0

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Hg	0.190		0.175	108	11-192	5	20		7471B

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-5165/2-A

Lab Name: TestAmerica North Canton Job No.: 240-820-1

Sample Matrix: Solid LCS Source: MTHGICVW_00052

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Hg	0.833	0.806		97	73	121		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
IC 240-5141/1-A			09:31	X
IC 240-5141/2-A			09:32	X
IC 240-5141/3-A			09:33	X
IC 240-5141/4-A			09:34	X
IC 240-5141/5-A			09:36	X
IC 240-5141/6-A			09:37	X
ICV 240-5141/7-A	1		09:39	X
ICB 240-5141/8-A	1		09:40	X
CRA 240-5141/9-A	1		09:41	X
CCV 240-5141/10-A			09:42	
CCB 240-5141/11-A			09:44	
ZZZZZZ			09:45	
ZZZZZZ			09:46	
ZZZZZZ			09:47	
ZZZZZZ			09:49	
ZZZZZZ			09:50	
ZZZZZZ			09:51	
ZZZZZZ			09:53	
ZZZZZZ			09:54	
ZZZZZZ			09:55	
ZZZZZZ			09:57	
CCV 240-5141/10-A			09:58	
CCB 240-5141/11-A			09:59	
ZZZZZZ			10:00	
ZZZZZZ			10:02	
ZZZZZZ			10:03	
ZZZZZZ			10:04	
ZZZZZZ			10:06	
ZZZZZZ			10:07	
ZZZZZZ			10:08	
ZZZZZZ			10:09	
ZZZZZZ			10:11	
ZZZZZZ			10:12	
CCV 240-5141/10-A			10:13	
CCB 240-5141/11-A			10:15	
ZZZZZZ			10:16	
ZZZZZZ			10:17	
ZZZZZZ			10:19	
ZZZZZZ			10:20	
ZZZZZZ			10:21	
ZZZZZZ			10:22	
ZZZZZZ			10:24	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
ZZZZZZ			10:25	
ZZZZZZ			10:26	
ZZZZZZ			10:28	
CCV 240-5141/10-A			10:29	
CCB 240-5141/11-A			10:30	
ZZZZZZ			10:31	
ZZZZZZ			10:33	
ZZZZZZ			10:34	
ZZZZZZ			10:36	
ZZZZZZ			10:37	
ZZZZZZ			10:38	
ZZZZZZ			10:40	
ZZZZZZ			10:41	
ZZZZZZ			10:42	
ZZZZZZ			10:43	
CCV 240-5141/10-A			10:45	
CCB 240-5141/11-A			10:46	
ZZZZZZ			10:47	
ZZZZZZ			10:48	
ZZZZZZ			10:50	
ZZZZZZ			10:51	
ZZZZZZ			10:53	
ZZZZZZ			10:54	
ZZZZZZ			10:55	
ZZZZZZ			10:57	
ZZZZZZ			10:58	
ZZZZZZ			10:59	
CCV 240-5141/10-A			11:01	
CCB 240-5141/11-A			11:02	
ZZZZZZ			11:03	
ZZZZZZ			11:04	
ZZZZZZ			11:06	
ZZZZZZ			11:07	
ZZZZZZ			11:08	
ZZZZZZ			11:10	
ZZZZZZ			11:11	
ZZZZZZ			11:12	
ZZZZZZ			11:14	
ZZZZZZ			11:15	
CCV 240-5141/10-A			11:16	
CCB 240-5141/11-A			11:18	
ZZZZZZ			11:19	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

			Analytes
Lab Sample ID	D/F	Type	Time	Hg
ZZZZZZ			11:20	
ZZZZZZ			11:22	
ZZZZZZ			11:23	
ZZZZZZ			11:25	
ZZZZZZ			11:26	
ZZZZZZ			11:27	
ZZZZZZ			11:29	
ZZZZZZ			11:30	
ZZZZZZ			11:31	
CCV 240-5141/10-A			11:32	
CCB 240-5141/11-A			11:34	
ZZZZZZ			11:35	
ZZZZZZ			11:36	
ZZZZZZ			11:38	
ZZZZZZ			11:39	
ZZZZZZ			11:40	
ZZZZZZ			11:42	
ZZZZZZ			11:43	
ZZZZZZ			11:44	
ZZZZZZ			11:46	
ZZZZZZ			11:47	
CCV 240-5141/10-A			11:48	
CCB 240-5141/11-A			11:50	
ZZZZZZ			11:51	
ZZZZZZ			11:52	
ZZZZZZ			11:54	
ZZZZZZ			11:55	
ZZZZZZ			11:56	
ZZZZZZ			11:57	
ZZZZZZ			11:59	
CCV 240-5141/10-A			12:00	
CCB 240-5141/11-A			12:01	
CCV 240-5141/10-A			14:01	
CCB 240-5141/11-A			14:02	
ZZZZZZ			14:04	
ZZZZZZ			14:05	
ZZZZZZ			14:06	
ZZZZZZ			14:08	
ZZZZZZ			14:09	
ZZZZZZ			14:10	
ZZZZZZ			14:11	
ZZZZZZ			14:13	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
ZZZZZZ			14:14	
ZZZZZZ			14:15	
CCV 240-5141/10-A			14:16	
CCB 240-5141/11-A			14:18	
ZZZZZZ			14:19	
ZZZZZZ			14:20	
ZZZZZZ			14:22	
ZZZZZZ			14:23	
ZZZZZZ			14:25	
ZZZZZZ			14:26	
ZZZZZZ			14:27	
ZZZZZZ			14:28	
ZZZZZZ			14:30	
ZZZZZZ			14:31	
CCV 240-5141/10-A			14:34	
CCB 240-5141/11-A			14:35	
ZZZZZZ			14:36	
ZZZZZZ			14:37	
ZZZZZZ			14:39	
ZZZZZZ			14:40	
ZZZZZZ			14:41	
ZZZZZZ			14:42	
ZZZZZZ			14:44	
ZZZZZZ			14:45	
ZZZZZZ			14:46	
ZZZZZZ			14:48	
CCV 240-5141/10-A	1		14:49	X
CCB 240-5141/11-A	1		14:50	X
ZZZZZZ			14:52	
ZZZZZZ			14:53	
ZZZZZZ			14:54	
ZZZZZZ			14:56	
ZZZZZZ			14:57	
ZZZZZZ			14:58	
ZZZZZZ			15:00	
ZZZZZZ			15:01	
MB 240-5165/1-A	1	T	15:02	X
LCS 240-5165/2-A	1	T	15:04	X
CCV 240-5141/10-A	1		15:05	X
CCB 240-5141/11-A	1		15:06	X
ZZZZZZ			15:07	
240-681-F-25-G MS	1	T	15:09	X

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
240-681-F-25-H MSD	1	T	15:11	X
240-820-5	1	T	15:12	X
240-820-16	1	T	15:13	X
240-820-17	1	T	15:15	X
240-820-13	1	T	15:16	X
240-820-4	1	T	15:17	X
240-820-2	1	T	15:19	X
240-820-8	1	T	15:20	X
CCV 240-5141/10-A	1		15:21	X
CCB 240-5141/11-A	1		15:22	X
240-820-7	1	T	15:24	X
240-820-11	1	T	15:25	X
240-820-10	1	T	15:27	X
240-820-1	1	T	15:28	X
240-820-14	1	T	15:29	X
ZZZZZZ			15:31	
ZZZZZZ			15:32	
ZZZZZZ			15:33	
ZZZZZZ			15:35	
ZZZZZZ			15:36	
CCV 240-5141/10-A	1		15:37	X
CCB 240-5141/11-A	1		15:38	X
ZZZZZZ			15:40	
ZZZZZZ			15:41	
ZZZZZZ			15:42	
ZZZZZZ			15:43	
ZZZZZZ			15:45	
ZZZZZZ			15:46	
ZZZZZZ			15:47	
ZZZZZZ			15:49	
ZZZZZZ			15:50	
ZZZZZZ			15:51	
CCV 240-5141/10-A			15:53	
CCB 240-5141/11-A			15:54	
ZZZZZZ			15:55	
ZZZZZZ			15:57	
ZZZZZZ			15:58	
ZZZZZZ			15:59	
ZZZZZZ			16:01	
ZZZZZZ			16:02	
ZZZZZZ			16:03	
ZZZZZZ			16:05	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: H1 Method: 7471B

Start Date: 06/17/2011 09:31 End Date: 06/17/2011 16:10

Lab Sample ID	D/F	Type	Time	Analytes: Hg
ZZZZZZ			16:06	
ZZZZZZ			16:07	
CCV 240-5141/10-A			16:08	
CCB 240-5141/11-A			16:10	

Prep Types

T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

ICV Source: MTHGICVW_00052 Concentration Units: ug/L

CCV Source: MTHGCALW_00032

	ICV 240-5141/7-A 06/17/2011 09:39				CCV 240-5141/10-A 06/17/2011 14:49				CCV 240-5141/10-A 06/17/2011 15:05			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Hg	2.50		2.50	100	5.17		5.00	103	4.94		5.00	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

ICV Source: MTHGICVW_00052 Concentration Units: ug/L

CCV Source: MTHGCALW_00032

	CCV 240-5141/10-A 06/17/2011 15:21				CCV 240-5141/10-A 06/17/2011 15:37							
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Hg	5.02		5.00	100	4.85		5.00	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Method: 7471B Instrument ID: H1

Lab Sample ID: CRA 240-5141/9-A Concentration Units: ug/L

CRQL Check Standard Source: MTHGCALW_00032

	CRQL Check Standard				
Analyte	True	Found	Qualifiers	%R(1)	Limits
Hg	0.200	0.163	J	82	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Concentration Units: ug/L

		ICB 240-5141/8-A 06/17/2011 09:40		CCB 240-5141/11-A 06/17/2011 14:50		CCB 240-5141/11-A 06/17/2011 15:06		CCB 240-5141/11-A 06/17/2011 15:22	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Hg	0.60	0.60	U	0.60	U	0.60	U	0.60	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Concentration Units: ug/L

		CCB 240-5141/11-A 06/17/2011 15:38							
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Hg	0.60	0.60	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-5165/1-A

Instrument Code: H1 Batch No.: 5282

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Hg	0.10	U		7471B

FORM III-IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 240-5161/1-A	06/17/2011 09:59	5161	1.00		100
LCS 240-5161/2-A	06/17/2011 09:59	5161	1.00		100
240-681-F-25-D MS	06/17/2011 09:59	5161	1.01		100
240-681-F-25-E MSD	06/17/2011 09:59	5161	1.01		100
240-820-5	06/17/2011 09:59	5161	1.01		100
240-820-16	06/17/2011 09:59	5161	1.06		100
240-820-17	06/17/2011 09:59	5161	1.11		100
240-820-13	06/17/2011 09:59	5161	1.13		100
240-820-4	06/17/2011 09:59	5161	1.08		100
240-820-2	06/17/2011 09:59	5161	1.04		100
240-820-8	06/17/2011 09:59	5161	1.06		100
240-820-7	06/17/2011 09:59	5161	1.04		100
240-820-11	06/17/2011 09:59	5161	1.11		100
240-820-10	06/17/2011 09:59	5161	1.07		100
240-820-1	06/17/2011 09:59	5161	1.01		100
240-820-14	06/17/2011 09:59	5161	1.08		100

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 240-681-F-25-D MS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 92.0

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Antimony	41.1		2.2	U	53.8	76	75-125		6010C
Arsenic	212		1.8		215	98	75-125		6010C
Barium	229		5.1	J	215	104	75-125		6010C
Beryllium	5.54		0.54	U	5.38	103	75-125		6010C
Cadmium	5.33		0.54	U	5.38	99	75-125		6010C
Chromium	26.2		3.1		21.5	107	75-125		6010C
Cobalt	55.9		0.59	J	53.8	103	75-125		6010C
Copper	30.7		2.2	J	26.9	106	75-125		6010C
Lead	55.0		1.9		53.8	99	75-125		6010C
Molybdenum	111		0.45	J	108	102	75-125		6010C
Nickel	56.1		0.89	J	53.8	102	75-125		6010C
Selenium	205		2.2	U	215	95	75-125		6010C
Silver	5.39		1.1	U	5.38	100	75-125		6010C
Thallium	214		2.2	U	215	99	75-125		6010C
Vanadium	62.3		5.8		53.8	105	75-125		6010C
Zinc	65.3		4.6	J	53.8	113	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 240-681-F-25-E MSD

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 92.0

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	40.9		53.8	76	75-125	0	20		6010C
Arsenic	216		215	99	75-125	2	20		6010C
Barium	235		215	107	75-125	2	20		6010C
Beryllium	5.65		5.38	105	75-125	2	20		6010C
Cadmium	5.47		5.38	102	75-125	3	20		6010C
Chromium	27.1		21.5	111	75-125	3	20		6010C
Cobalt	57.4		53.8	106	75-125	3	20		6010C
Copper	31.4		26.9	108	75-125	2	20		6010C
Lead	57.0		53.8	102	75-125	4	20		6010C
Molybdenum	112		108	104	75-125	2	20		6010C
Nickel	57.4		53.8	105	75-125	2	20		6010C
Selenium	210		215	98	75-125	2	20		6010C
Silver	5.51		5.38	102	75-125	2	20		6010C
Thallium	216		215	100	75-125	1	20		6010C
Vanadium	63.8		53.8	108	75-125	2	20		6010C
Zinc	67.8		53.8	117	75-125	4	20		6010C

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 240-5161/2-A

Lab Name: TestAmerica North Canton Job No.: 240-820-1

Sample Matrix: Solid LCS Source: MTICP1_00005

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	50.0	48.0		96	80	120		6010C
Arsenic	200	194		97	80	120		6010C
Barium	200	204		102	80	120		6010C
Beryllium	5.00	5.10		102	80	120		6010C
Cadmium	5.00	4.99		100	80	120		6010C
Chromium	20.0	20.6		103	80	120		6010C
Cobalt	50.0	50.7		101	80	120		6010C
Copper	25.0	25.8		103	80	120		6010C
Lead	50.0	49.1		98	80	120		6010C
Molybdenum	100	102		102	80	120		6010C
Nickel	50.0	50.2		100	80	120		6010C
Selenium	200	190		95	80	120		6010C
Silver	5.00	5.28		106	80	120		6010C
Thallium	200	197		99	80	120		6010C
Vanadium	50.0	50.7		101	80	120		6010C
Zinc	50.0	55.8		112	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 240-681-F-25-C SD ^5

SDG No:

Lab Name: TestAmerica North Canton Job No: 240-820-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	2.2	U	11	U	NC		6010C
Arsenic	1.8		2.23	J	NC		6010C
Barium	5.1	J	5.10	J	0.63		6010C
Beryllium	0.54	U	2.7	U	NC		6010C
Cadmium	0.54	U	2.7	U	NC		6010C
Chromium	3.1		3.28	J	NC		6010C
Cobalt	0.59	J	5.4	U	NC		6010C
Copper	2.2	J	13	U	NC		6010C
Lead	1.9		1.92	J	NC		6010C
Molybdenum	0.45	J	22	U	NC		6010C
Nickel	0.89	J	22	U	NC		6010C
Selenium	2.2	U	11	U	NC		6010C
Silver	1.1	U	5.4	U	NC		6010C
Thallium	2.2	U	11	U	NC		6010C
Vanadium	5.8		5.82		NC		6010C
Zinc	4.6	J	6.24	J	NC		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 07/08/2011 06:26 End Date: 07/08/2011 21:06

Lab Sample ID	D/F	Type	Time	Analytes															
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn
STD 240-7831/1 IC			06:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALSTD 240-7831/2 IC			06:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALSTD 240-7831/3 IC			06:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CALSTD 240-7831/4 IC			06:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 240-7831/5	1		06:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICBIS 240-7831/6	1		06:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI 240-7831/7	1		07:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI 240-7831/8			07:08																
ICSA 240-7831/9	1		07:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 240-7831/10	1		07:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-7831/11	1		07:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7831/12	1		07:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MB 240-5161/1-A	1	T	07:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 240-5161/2-A	1	T	07:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			07:51																
240-681-F-25-C SD ^5	5	T	07:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			08:04																
240-681-F-25-D MS	1	T	08:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-681-F-25-E MSD	1	T	08:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-820-5	1	T	08:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-820-16	1	T	08:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-820-17	1	T	08:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-7831/23	1		08:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7831/24	1		08:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-820-13	1	T	08:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-820-4	1	T	08:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-820-2	1	T	09:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-820-8	1	T	09:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-820-7	1	T	09:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-820-11	1	T	09:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-820-10	1	T	09:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-820-1	1	T	09:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240-820-14	1	T	09:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI 240-7831/34	1		09:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 240-7831/35	1		09:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 240-7831/36	1		10:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			10:07																
ZZZZZZ			10:13																
ZZZZZZ			10:19																
ZZZZZZ			10:25																
ZZZZZZ			10:31																
ZZZZZZ			10:37																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 07/08/2011 06:26 End Date: 07/08/2011 21:06

Lab Sample ID	D/F	Type	Time	Analytes
ZZZZZZ			10:43	
ZZZZZZ			10:50	
ZZZZZZ			10:56	
ZZZZZZ			11:02	
CCV 240-7831/47			11:08	
CCB 240-7831/48			11:14	
ZZZZZZ			11:20	
ZZZZZZ			11:26	
ZZZZZZ			11:33	
ZZZZZZ			11:39	
ZZZZZZ			11:45	
ZZZZZZ			11:51	
ZZZZZZ			11:57	
ZZZZZZ			12:03	
ZZZZZZ			12:09	
ZZZZZZ			12:16	
CCV 240-7831/59			12:22	
CCB 240-7831/60			12:28	
ZZZZZZ			12:35	
ZZZZZZ			12:42	
ZZZZZZ			12:48	
ZZZZZZ			12:54	
ZZZZZZ			13:00	
ZZZZZZ			13:06	
CRI 240-7831/67			13:12	
ZZZZZZ			13:18	
ZZZZZZ			13:25	
ZZZZZZ			13:31	
CCV 240-7831/71			13:37	
CCB 240-7831/72			13:43	
ZZZZZZ			13:49	
ZZZZZZ			13:55	
ZZZZZZ			14:01	
ZZZZZZ			14:08	
ZZZZZZ			14:14	
ZZZZZZ			14:20	
ZZZZZZ			14:26	
ZZZZZZ			14:32	
ZZZZZZ			14:38	
ZZZZZZ			14:44	
CCV 240-7831/83			14:51	
CCB 240-7831/84			14:57	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 07/08/2011 06:26 End Date: 07/08/2011 21:06

Lab Sample ID	D/F	Type	Time	Analytes															
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn
ZZZZZZ			15:03																
ZZZZZZ			15:09																
ZZZZZZ			15:15																
ZZZZZZ			15:21																
ZZZZZZ			15:28																
ZZZZZZ			15:34																
ZZZZZZ			15:40																
CRI 240-7831/92			15:46																
ZZZZZZ			15:52																
ZZZZZZ			15:58																
CCV 240-7831/95			16:04																
CCB 240-7831/96			16:11																
ZZZZZZ			16:17																
ZZZZZZ			16:23																
ZZZZZZ			16:29																
ZZZZZZ			16:35																
ZZZZZZ			16:41																
ZZZZZZ			16:48																
ZZZZZZ			16:54																
ZZZZZZ			17:00																
ZZZZZZ			17:06																
ZZZZZZ			17:12																
CCV 240-7831/107			17:18																
CCB 240-7831/108			17:24																
ZZZZZZ			17:31																
ZZZZZZ			17:37																
ZZZZZZ			17:43																
ZZZZZZ			17:49																
ZZZZZZ			17:55																
ZZZZZZ			18:01																
ZZZZZZ			18:08																
ZZZZZZ			18:14																
ZZZZZZ			18:20																
ZZZZZZ			18:26																
CCV 240-7831/119			18:32																
CCB 240-7831/120			18:38																
ZZZZZZ			18:45																
ZZZZZZ			18:51																
ZZZZZZ			18:57																
ZZZZZZ			19:03																
CRI 240-7831/125			19:09																
ZZZZZZ			19:15																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Instrument ID: I6 Method: 6010C

Start Date: 07/08/2011 06:26 End Date: 07/08/2011 21:06

Lab Sample ID	D/F	Type	Time	Analytes															
				Ag	As	Ba	Be	Cd	Co	Cr	Cu	Mo	Ni	Pb	Sb	Se	Tl	V	Zn
ZZZZZZ			19:21																
ZZZZZZ			19:28																
ZZZZZZ			19:34																
ZZZZZZ			19:40																
CCV 240-7831/131			19:46																
CCB 240-7831/132			19:52																
ZZZZZZ			19:58																
ZZZZZZ			20:05																
ZZZZZZ			20:11																
ZZZZZZ			20:17																
ZZZZZZ			20:23																
ZZZZZZ			20:29																
ZZZZZZ			20:35																
ZZZZZZ			20:42																
ZZZZZZ			20:48																
ZZZZZZ			20:54																
CCV 240-7831/143			21:00																
CCB 240-7831/144			21:06																

Prep Types

T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

ICV Source: MTTRICV_00008 Concentration Units: ug/L

CCV Source: MTTRCCV_00008

	ICV 240-7831/5 07/08/2011 06:48				CCV 240-7831/11 07/08/2011 07:27				CCV 240-7831/23 07/08/2011 08:41			
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	256		250	102	513		500	103	514		500	103
Arsenic	251		250	100	495		500	99	495		500	99
Barium	1020		1000	102	2040		2000	102	2050		2000	102
Beryllium	1060		1000	106	2030		2000	102	2040		2000	102
Cadmium	256		250	102	493		500	99	492		500	98
Chromium	1050		1000	105	2040		2000	102	2040		2000	102
Cobalt	1040		1000	104	2050		2000	102	2050		2000	102
Copper	1020		1000	102	2040		2000	102	2050		2000	102
Lead	257		250	103	493		500	99	493		500	99
Molybdenum	1050		1000	105	2040		2000	102	2030		2000	101
Nickel	1030		1000	103	2030		2000	101	2020		2000	101
Selenium	251		250	100	490		500	98	492		500	98
Silver	515		500	103	1020		1000	102	1030		1000	103
Thallium	261		250	104	998		1000	100	1000		1000	100
Vanadium	1030		1000	103	2030		2000	101	2030		2000	101
Zinc	1080		1000	108	2100		2000	105	2100		2000	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

ICV Source: MTTRICV_00008 Concentration Units: ug/L

CCV Source: MTTRCCV_00008

	CCV 240-7831/35 07/08/2011 09:54											
Analyte	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	514		500	103								
Arsenic	497		500	99								
Barium	2040		2000	102								
Beryllium	2050		2000	103								
Cadmium	494		500	99								
Chromium	2040		2000	102								
Cobalt	2050		2000	103								
Copper	2030		2000	101								
Lead	495		500	99								
Molybdenum	2010		2000	100								
Nickel	2040		2000	102								
Selenium	491		500	98								
Silver	1020		1000	102								
Thallium	989		1000	99								
Vanadium	2020		2000	101								
Zinc	2100		2000	105								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Method: 6010C Instrument ID: I6

Lab Sample ID: CRI 240-7831/7 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00001

Analyte	CRQL Check Standard True	Found	Qualifiers	%R(1)	Limits
Antimony	20.0	20.2		101	70-130
Arsenic	15.0	16.1		107	70-130
Barium	200	204		102	70-130
Beryllium	5.00	5.29		106	70-130
Cadmium	5.00	5.17		103	70-130
Chromium	10.0	10.4		104	70-130
Cobalt	10.0	10.1		101	70-130
Copper	20.0	22.4	J	112	70-130
Lead	10.0	11.7		117	70-130
Molybdenum	40.0	44.6		111	70-130
Nickel	40.0	41.4		104	70-130
Selenium	20.0	21.9		110	70-130
Silver	10.0	10.1		101	70-130
Thallium	20.0	19.1	J	95	70-130
Vanadium	10.0	10.1		101	70-130
Zinc	50.0	56.8		114	70-130

Lab Sample ID: CRI 240-7831/34 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00001

Analyte	CRQL Check Standard True	Found	Qualifiers	%R(1)	Limits
Antimony	20.0	21.4		107	70-130
Arsenic	15.0	16.2		108	70-130
Barium	200	205		103	70-130
Beryllium	5.00	5.23		105	70-130
Cadmium	5.00	5.14		103	70-130
Chromium	10.0	10.4		104	70-130
Cobalt	10.0	10.4		104	70-130
Copper	20.0	21.3	J	107	70-130
Lead	10.0	12.6		126	70-130
Molybdenum	40.0	42.6		106	70-130
Nickel	40.0	40.7		102	70-130
Selenium	20.0	20.1		101	70-130
Silver	10.0	10.0		100	70-130
Thallium	20.0	22.8		114	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Method: 6010C Instrument ID: I6

Lab Sample ID: CRI 240-7831/34 Concentration Units: ug/L

CRQL Check Standard Source: MTTRCRIC_00001

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Vanadium	10.0	10.3		103	70-130
Zinc	50.0	57.1		114	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Concentration Units: ug/L

		ICBIS 240-7831/6 07/08/2011 06:54		CCB 240-7831/12 07/08/2011 07:33		CCB 240-7831/24 07/08/2011 08:47		CCB 240-7831/36 07/08/2011 10:00	
Analyte	RL	Found	C	Found	C	Found	C	Found	C
Antimony	20	20	U	20	U	20	U	20	U
Arsenic	15	15	U	15	U	15	U	15	U
Barium	200	200	U	200	U	200	U	200	U
Beryllium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Cadmium	5.0	5.0	U	5.0	U	5.0	U	5.0	U
Chromium	10	10	U	10	U	10	U	10	U
Cobalt	10	10	U	10	U	10	U	10	U
Copper	25	25	U	25	U	25	U	25	U
Lead	10	10	U	10	U	10	U	10	U
Molybdenum	40	5.60	J	21.7	J	21.0	J	19.7	J
Nickel	40	40	U	40	U	40	U	40	U
Selenium	20	20	U	20	U	20	U	20	U
Silver	10	10	U	10	U	10	U	10	U
Thallium	20	20	U	20	U	20	U	20	U
Vanadium	10	10	U	10	U	10	U	10	U
Zinc	50	50	U	50	U	50	U	50	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 240-5161/1-A

Instrument Code: I6 Batch No.: 7831

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	2.0	U		6010C
7440-38-2	Arsenic	1.5	U		6010C
7440-39-3	Barium	0.113	J		6010C
7440-41-7	Beryllium	0.50	U		6010C
7440-43-9	Cadmium	0.50	U		6010C
7440-47-3	Chromium	1.0	U		6010C
7440-48-4	Cobalt	1.0	U		6010C
7440-50-8	Copper	2.5	U		6010C
7439-92-1	Lead	0.250	J		6010C
7439-98-7	Molybdenum	0.330	J		6010C
7440-02-0	Nickel	4.0	U		6010C
7782-49-2	Selenium	2.0	U		6010C
7440-22-4	Silver	1.0	U		6010C
7440-28-0	Thallium	2.0	U		6010C
7440-62-2	Vanadium	1.0	U		6010C
7440-66-6	Zinc	1.48	J		6010C

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICSAB 240-7831/10 Instrument ID: I6

Lab File ID: I60708A ICS Source: MTTRICSABW_00004

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony	**1000**	**997**	**100**
Arsenic	**1000**	**976**	**98**
Barium	**500**	**524**	**105**
Beryllium	**500**	**499**	**100**
Cadmium	**1000**	**933**	**93**
Chromium	**500**	**484**	**97**
Cobalt	**500**	**487**	**97**
Copper	**500**	**541**	**108**
Lead	**1000**	**936**	**94**
Molybdenum	**1000**	**990**	**99**
Nickel	**1000**	**962**	**96**
Selenium	**1000**	**969**	**97**
Silver	**1000**	**1047**	**105**
Thallium	**1000**	**907**	**91**
Vanadium	**500**	**491**	**98**
Zinc	**1000**	**1045**	**105**
Aluminum	*500000*	*429995*	*86*
Boron	*1000*	*1021*	*102*
Calcium	*500000*	*453439*	*91*
Iron	*200000*	*190707*	*95*
Magnesium	*500000*	*490027*	*98*
Manganese	*500*	*498*	*100*
Potassium	*10000*	*10479*	*105*
Sodium	*10000*	*11393*	*114*
Tin	*1000*	*1020*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica North Canton Job No.: 240-820-1

SDG No.:

Lab Sample ID: ICSA 240-7831/9 Instrument ID: I6

Lab File ID: I60708A ICS Source: MTTRICSAW_00005

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		-0.195	
Arsenic		5.56	
Barium		2.15	
Beryllium		0.318	
Cadmium		0.540	
Chromium		0.724	
Cobalt		3.77	
Copper		4.44	
Lead		-0.740	
Molybdenum		-2.58	
Nickel		1.01	
Selenium		2.82	
Silver		0.0953	
Thallium		-2.12	
Vanadium		1.17	
Zinc		-2.20	
Aluminum	*500000*	*424943*	*85*
Boron		*-11.5*	
Calcium	*500000*	*450713*	*90*
Iron	*200000*	*188083*	*94*
Magnesium	*500000*	*484246*	*97*
Manganese		*4.18*	
Potassium		*139*	
Sodium		*-307*	
Tin		*1.38*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

GSP-SB-130-0-2

Method: TOTAL Sample Name: 240-820-g-16-c Operator:
Run Time: 07/08/11 08:28 Filename: I60708A
Mode: CONC Type: S Corr. Factor: 1.00000
Lab ID.: N.CANTON Cust. Smpl. ID.: Cust. ID.:

% Solids 85.7

Elems	Ag	Al	As	B	Ba	Be
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	2.347	43320.	21.86	-3.144	239.2	2.172
SDev	.8336	29.14	.0081	.149	.0311	.0054
%RSD	35.53	.0673	.0371	4.738	.013	.2469

Elems	Ca	Cd	Co	Cr	Cu	Fe
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	31630.	9.405	15.18	87.39	70.82	43950.
SDev	47.25	.2159	.3679	.1247	.1063	61.66
%RSD	.1494	2.296	2.424	.1427	.1502	.1403

Elems	K	Mg	Mn	Mo	Na3302	Ni
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	2119.	14640.	508.3	2.868	2649.	46.74
SDev	10.73	40.31	.7728	.7178	33.48	.7153
%RSD	.5062	.2754	.152	25.03	1.264	1.53

Elems	Pb	Se	Sb	Sn	Tl	V
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	175.5	2.519	2.169	9.254	3.432	164.7
SDev	.2815	2.063	1.186	1.624	.1724	.2702
%RSD	.1604	81.91	54.66	17.55	5.023	.1641

Elems	Zn	2203/1	2203/2	2068/2	2068/1	1960/1
Units	PPB	PPB	PPB	PPB	PPB	PPB
Avge	397.9	168.6	179.0	1.110	2.698	-2.030
SDev	.5834	1.199	.1762	2.173	2.863	6.526
%RSD	.1466	.7108	.0984	195.8	106.1	321.5

Elems	1960/2	*Y
Units	PPB	
Avge	4.790	10878.5
SDev	.1642	17.6777
%RSD	3.428	.1625

TETRA TECH NUS, INC. **CALCULATION WORKSHEET** PAGE 1 OF 1

CLIENT		JOB NUMBER	
MSA – Greater Strawberry Point		# 03279	
SUBJECT			
SDG 240.820.1, Sample calc			
BASED ON		DRAWING NUMBER	
BY	CHECKED BY	APPROVED BY	DATE
Michelle Allen			8/24/11

Sample: GSP – SB-130-0-2

% Solids = 85.7%

Zinc: 397.9 mg/L

Extraction: $\frac{1.06\,g}{100\,ml} = \frac{1\,L}{1.06\,g}$

$$\frac{397.9\,mg}{1L} \times \frac{0.1\,L}{1.06\,g} \times \frac{1000\,g}{1\,kg} \times \frac{1\,mg}{1000\,\mu g} =$$

$$= 37.54\,mg/kg \Big/ .857$$

$$= 43.8\,mg/kg$$

APPENDIX J—HUMAN-HEALTH RISK ASSESSMENT SUPPORTING DOCUMENTATION

APPENDIX J

SUPPORTING INFORMATION FOR HEALTH RISK ASSESSMENT

J-1 Calculation of Target Groundwater Concentrations Corresponding to Target Indoor Air Concentrations
J-2 RAGS Part D Tables
J-3 ProUCL Output
J-4 Sample Calculations
J-5 Location-Specific Risk Estimates
J-6 Refined Evaluation for DRO/GRO

APPENDIX J-1

CALCULATION OF A TARGET GROUNDWATER CONCENTRATION CORRESPONDING TO A TARGET INDOOR AIR CONCENTRATION

CALCULATION OF A TARGET GROUNDWATER CONCENTRATION CORRESPONDING TO A TARGET INDOOR AIR CONCENTRATION

The target groundwater concentrations were calculated according to the methodology present in Appendix D of USEPA's *Draft Guidance for Evaluating the Vapor Intrusion into Indoor Air from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)* and Appendix A of DoD's *Vapor Intrusion Handbook*. Specifically the target groundwater concentration corresponding to a chemical's target indoor air concentration is calculated by dividing the target indoor air concentration by an appropriate attenuation factor and then converting the vapor concentration to an equivalent groundwater concentration assuming equilibrium between the aqueous and vapor phases at the water table. Diffusion resistances across the capillary fringe are assumed to be accounted for in the value of α. The equilibrium partitioning is assumed to obey Henry's Law so that:

$$C_{gw} = C_{target,ia} \times 10^{-3}\ m^3/L \times 1/H \times 1/\alpha$$

Where:

C_{gw} = target groundwater concentration, ug/L

$C_{target,ia}$ = target indoor air concentration, ug/m^3

α = attenuation factor (ratio of indoor air concentration to source vapor concentration).

H = dimensionless Henry's Law Constant at 25º C.

The residential air concentrations from the current USEPA Regional Screening Level table were used as for target indoor air concentrations. A value of 0.001 was used for the attenuation factor. Table 1 presents the target groundwater concentrations.

References:

DoD (Department of Defense), January 2009. DoD Vapor Intrusion Handbook. Prepared by the Tri-Service Environmental Risk Assessment Workgroup.

USEPA (U.S. Environmental Protection Agency), November 2002. OSWER Draft Guidance for Evaluating the Vapor Intrusion into Indoor Air from Groundwater and Soils (Subsurface Vapor Intrusion Guidance). Office of Solid Waste and Emergency Response. EPA 530-D-02-004.

TABLE 1
TARGET GROUNDWATER CONCENTRATION CORRESPONDING
TO TARGET INDOOR AIR CONCENTRATION
RESIDENTIAL

CAS No.	Chemical	Carcinogenic Target Risk (TR) = 1E-06	Noncancer Hazard Index (HI) = 1	Henry's Law Constants	Carcinogenic Screening Level	Noncarcinogenic Screening Level	Screenig Level
		Inhalation	Inhalation	H' (unitless)	Attenuation Factor =0.001		
		ug/m^3	ug/m^3		ug/L	ug/L	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	3.3E-01		1.0E-01	3.2E+00	NA	3.2E+00 C
811-97-2	1,1,1,2-Tetrafluoroethane		8.3E+04	2.0E+00	NA	4.1E+04	4.1E+04 N
71-55-6	1,1,1-Trichloroethane		5.2E+03	7.0E-01	NA	7.4E+03	7.4E+03 N
79-34-5	1,1,2,2-Tetrachloroethane	4.2E-02		1.5E-02	2.8E+00	NA	2.8E+00 C
79-00-5	1,1,2-Trichloroethane	1.5E-01	2.1E-01	3.4E-02	4.5E+00	6.2E+00	6.2E+00 N*
598-77-6	1,1,2-Trichloropropane			1.3E-02	NA	NA	NA
76-13-1	1,1,2-Trichlorotrifluoroethane		3.1E+04	2.2E+01	NA	1.4E+03	1.4E+03 N
92-52-4	1,1-Biphenyl		4.2E-01	1.3E-02	NA	3.3E+01	3.3E+01 N
75-34-3	1,1-Dichloroethane	1.5E+00		2.3E-01	6.5E+00	NA	6.5E+00 C
75-35-4	1,1-Dichloroethene		2.1E+02	1.1E+00	NA	2.0E+02	2.0E+02 N
75-37-6	1,1-Difluoroethane		4.2E+04	8.3E-01	NA	5.1E+04	5.1E+04 N
87-61-6	1,2,3-Trichlorobenzene			5.1E-02	NA	NA	NA
96-18-4	1,2,3-Trichloropropane		3.1E-01	1.4E-02	NA	2.2E+01	2.2E+01 N
96-19-5	1,2,3-Trichloropropene		3.1E-01	7.2E-01	NA	4.3E-01	4.3E-01 N
120-82-1	1,2,4-Trichlorobenzene		2.1E+00	5.8E-02	NA	3.6E+01	3.6E+01 N
95-63-6	1,2,4-Trimethylbenzene		7.3E+00	2.5E-01	NA	2.9E+01	2.9E+01 N
96-12-8	1,2-Dibromo-3-Chloropropane	1.6E-04	2.1E-01	6.0E-03	2.7E-02	3.5E+01	2.7E-02 C
106-93-4	1,2-Dibromoethane	4.1E-03	9.4E+00	2.7E-02	1.5E-01	3.5E+02	1.5E-01 C
95-50-1	1,2-Dichlorobenzene		2.1E+02	7.8E-02	NA	2.7E+03	2.7E+03 N
107-06-2	1,2-Dichloroethane	9.4E-02	7.3E+00	4.8E-02	1.9E+00	1.5E+02	1.9E+00 C
78-87-5	1,2-Dichloropropane	2.4E-01	4.2E+00	1.2E-01	2.1E+00	3.6E+01	2.1E+00 C
106-88-7	1,2-Epoxybutane		2.1E+01	7.4E-03	NA	2.9E+03	2.9E+03 N
6423-43-4	1,2-Propylene Glycol Dinitrate		2.8E-01	3.9E-05	NA	7.3E+03	7.3E+03 N
108-67-8	1,3,5-Trimethylbenzene			3.6E-01	NA	NA	NA
106-99-0	1,3-Butadiene	8.1E-02	2.1E+00	3.0E+00	2.7E-02	7.0E-01	2.7E-02 C
142-28-9	1,3-Dichloropropane			4.0E-02	NA	NA	NA
542-75-6	1,3-Dichloropropene	6.1E-01	2.1E+01	1.5E-01	4.2E+00	1.4E+02	4.2E+00 C
764-41-0	1,4-Dichloro-2-Butene	5.8E-04		2.7E-02	2.1E-02	NA	2.1E-02 C
106-46-7	1,4-Dichlorobenzene	2.2E-01	8.3E+02	9.9E-02	2.2E+00	8.4E+03	2.2E+00 C
822-06-0	1,6-Hexamethylene Diisocyanate		1.0E-02	2.0E-03	NA	5.1E+00	5.1E+00 N
107-04-0	1-Bromo-2-chloroethane	4.1E-03		3.7E-02	1.1E-01	NA	1.1E-01 C
71-36-3	1-Butanol			3.6E-04	NA	NA	NA
75-68-3	1-Chloro-1,1-Difluoroethane		5.2E+04	2.4E+00	NA	2.2E+04	2.2E+04 N
109-69-3	1-Chlorobutane			6.8E-01	NA	NA	NA
90-12-0	1-Methylnaphthalene			2.1E-02	NA	NA	NA
108-60-1	2,2'-Oxybis(1-Chloropropane)	2.4E-01		3.0E-03	7.9E+01	NA	7.9E+01 C
95-95-4	2,4,5-Trichlorophenol			6.6E-05	NA	NA	NA
88-06-2	2,4,6-Trichlorophenol	7.8E-01		1.1E-04	7.3E+03	NA	7.3E+03 C
118-96-7	2,4,6-Trinitrotoluene			8.5E-07	NA	NA	NA
120-83-2	2,4-Dichlorophenol			1.8E-04	NA	NA	NA
105-67-9	2,4-Dimethylphenol			3.9E-05	NA	NA	NA
606-20-2	2,6-Dinitrotoluene			3.1E-05	NA	NA	NA
78-93-3	2-Butanone		5.2E+03	2.3E-03	NA	2.2E+06	2.2E+06 N
91-58-7	2-Chloronaphthalene			1.3E-02	NA	NA	NA
95-57-8	2-Chlorophenol			4.6E-04	NA	NA	NA
95-49-8	2-Chlorotoluene			1.5E-01	NA	NA	NA
591-78-6	2-Hexanone		3.1E+01	3.8E-03	NA	8.1E+03	8.1E+03 N
91-57-6	2-Methylnaphthalene			2.1E-02	NA	NA	NA
95-48-7	2-Methylphenol		6.3E+02	4.9E-05	NA	1.3E+07	1.3E+07 N
79-46-9	2-Nitropropane	9.0E-04	2.1E+01	4.9E-03	1.8E-01	4.3E+03	1.8E-01 C
88-72-2	2-Nitrotoluene			5.1E-04	NA	NA	NA
107-05-1	3-Chloropropene	4.1E-01	1.0E+00	4.5E-01	9.1E-01	2.2E+00	2.2E+00 N*
108-39-4	3-Methylphenol		6.3E+02	3.5E-05	NA	1.8E+07	1.8E+07 N
99-08-1	3-Nitrotoluene			3.8E-04	NA	NA	NA
72-54-8	4,4'-DDD	3.5E-02		2.7E-04	1.3E+02	NA	1.3E+02 C
72-55-9	4,4'-DDE	2.5E-02		1.7E-03	1.5E+01	NA	1.5E+01 C
50-29-3	4,4'-DDT	2.5E-02		3.4E-04	7.4E+01	NA	7.4E+01 C
534-52-1	4,6-Dinitro-2-Methylphenol			5.7E-05	NA	NA	NA
106-47-8	4-Chloroaniline			4.7E-05	NA	NA	NA
98-56-6	4-Chlorobenzotrifluoride		3.1E+02	1.4E+00	NA	2.2E+02	2.2E+02 N
106-43-4	4-Chlorotoluene			1.8E-01	NA	NA	NA
108-10-1	4-Methyl-2-Pentanone		3.1E+03	5.6E-03	NA	5.5E+05	5.5E+05 N
106-44-5	4-Methylphenol		6.3E+02	4.1E-05	NA	1.5E+07	1.5E+07 N
99-99-0	4-Nitrotoluene			2.3E-04	NA	NA	NA
83-32-9	Acenaphthene			7.5E-03	NA	NA	NA
75-07-0	Acetaldehyde	1.1E+00	9.4E+00	2.7E-03	4.0E+02	3.4E+03	3.4E+03 N*
67-64-1	Acetone		3.2E+04	1.4E-03	NA	2.2E+07	2.2E+07 N
75-86-5	Acetone Cyanohydrin		6.3E+01	5.3E-04	NA	1.2E+05	1.2E+05 N
75-05-8	Acetonitrile		6.3E+01	1.4E-03	NA	4.5E+04	4.5E+04 N
98-86-2	Acetophenone			4.3E-04	NA	NA	NA
107-02-8	Acrolein		2.1E-02	5.0E-03	NA	4.2E+00	4.2E+00 N
107-13-1	Acrylonitrile	3.6E-02	2.1E+00	5.6E-03	6.4E+00	3.7E+02	6.4E+00 C
309-00-2	Aldrin	5.0E-04		1.8E-03	2.8E-01	NA	2.8E-01 C
319-84-6	alpha-BHC	1.4E-03		2.1E-04	6.7E+00	NA	6.7E+00 C
98-83-9	alphal Styrene (Alpha)			1.0E-01	NA	NA	NA
62-53-3	Aniline	1.5E+00	1.0E+00	8.3E-05	1.8E+04	1.2E+04	1.2E+04 N*
120-12-7	Anthracene			2.3E-03	NA	NA	NA
103-33-3	Azobenzene	7.8E-02		5.5E-04	1.4E+02	NA	1.4E+02 C
100-52-7	Benzaldehyde			1.1E-03	NA	NA	NA
71-43-2	Benzene	3.1E-01	3.1E+01	2.3E-01	1.4E+00	1.4E+02	1.4E+00 C
108-98-5	Benzenethiol			1.4E-02	NA	NA	NA
56-55-3	Benzo(a)anthracene	8.7E-03		4.9E-04	1.8E+01	NA	1.8E+01 C
50-32-8	Benzo(a)pyrene	8.7E-04		1.9E-05	4.7E+01	NA	4.7E+01 C
205-99-2	Benzo(b)fluoranthene	8.7E-03		2.7E-05	3.2E+02	NA	3.2E+02 C
207-08-9	Benzo(k)fluoranthene	8.7E-03		2.4E-05	3.6E+02	NA	3.6E+02 C
98-07-7	Benzotrichloride			1.1E-02	NA	NA	NA
100-51-6	Benzyl Alcohol			1.4E-05	NA	NA	NA
100-44-7	Benzyl Chloride	5.0E-02	1.0E+00	1.7E-02	3.0E+00	5.9E+01	3.0E+00 C
319-85-7	beta-BHC	4.6E-03		2.1E-04	2.2E+01	NA	2.2E+01 C
111-44-4	Bis(2-Chloroethyl)Ether	7.4E-03		7.0E-04	1.1E+01	NA	1.1E+01 C
542-88-1	Bis(2-Chloromethyl)Ether	3.9E-05		1.8E-01	2.2E-04	NA	2.2E-04 C

TABLE 1
TARGET GROUNDWATER CONCENTRATION CORRESPONDING
TO TARGET INDOOR AIR CONCENTRATION
RESIDENTIAL

CAS No.	Chemical	Carcinogenic Target Risk (TR) = 1E-06	Noncancer Hazard Index (HI) = 1	Henry's Law Constants	Carcinogenic Screening Level	Noncarcinogenic Screening Level	Screenig Level
		Inhalation	Inhalation	H' (unitless)	Attenuation Factor =0.001		
		ug/m^3	ug/m^3		ug/L	ug/L	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.0E+00		1.1E-05	9.1E+04	NA	9.1E+04 C
108-86-1	Bromobenzene		6.3E+01	1.0E-01	NA	6.2E+02	6.2E+02 N
75-27-4	Bromodichloromethane	6.6E-02		8.7E-02	7.6E-01	NA	7.6E-01 C
593-60-2	Bromoethene	7.6E-02	3.1E+00	5.0E-01	1.5E-01	6.2E+00	1.5E-01 C
75-25-2	Bromoform	2.2E+00		2.2E-02	1.0E+02	NA	1.0E+02 C
74-83-9	Bromomethane		5.2E+00	3.0E-01	NA	1.7E+01	1.7E+01 N
85-68-7	Butyl Benzyl Phthalate			5.2E-05	NA	NA	NA
75-15-0	Carbon Disulfide		7.3E+02	5.9E-01	NA	1.2E+03	1.2E+03 N
56-23-5	Carbon Tetrachloride	4.1E-01	1.0E+02	1.1E+00	3.6E-01	8.9E+01	3.6E-01 C
12789-03-6	Chlordane	2.4E-02	7.3E-01	2.0E-03	1.2E+01	3.7E+02	1.2E+01 C
506-77-4	Chlorine Cyanide			7.9E-02	NA	NA	NA
108-90-7	Chlorobenzene		5.2E+01	1.3E-01	NA	4.1E+02	4.1E+02 N
124-48-1	Chlorodibromomethane	9.0E-02		3.2E-02	2.8E+00	NA	2.8E+00 C
75-45-6	Chlorodifluoromethane		5.2E+04	1.7E+00	NA	3.1E+04	3.1E+04 N
75-00-3	Chloroethane		1.0E+04	4.5E-01	NA	2.2E+04	2.2E+04 N
67-66-3	Chloroform	1.1E-01	1.0E+02	1.5E-01	7.3E-01	6.7E+02	7.3E-01 C
74-87-3	Chloromethane		9.4E+01	3.6E-01	NA	2.6E+02	2.6E+02 N
107-30-2	Chloromethyl Methyl Ether	3.5E-03		1.2E-02	2.8E-01	NA	2.8E-01 C
126-99-8	Chloroprene	8.1E-03	2.1E+01	2.3E+00	3.5E-03	9.2E+00	3.5E-03 C
218-01-9	Chrysene	8.7E-02		2.1E-04	4.1E+02	NA	4.1E+02 C
156-59-2	cis-1,2-Dichloroethene			1.7E-01	NA	NA	NA
1476-11-5	cis-1,4-Dichloro-2-Butene	5.8E-04		2.7E-02	2.1E-02	NA	2.1E-02 C
57-12-5	Cyanide			5.4E-03	NA	NA	NA
460-19-5	Cyanogen			2.2E-01	NA	NA	NA
506-68-3	Cyanogen Bromide			1.0E+00	NA	NA	NA
110-82-7	Cyclohexane		6.3E+03	6.1E+00	NA	1.0E+03	1.0E+03 N
132-64-9	Dibenzofuran			8.7E-03	NA	NA	NA
74-95-3	Dibromomethane		4.2E+00	3.4E-02	NA	1.2E+02	1.2E+02 N
75-71-8	Dichlorodifluoromethane		1.0E+02	1.4E+01	NA	7.1E+00	7.1E+00 N
77-73-6	Dicyclopentadiene		7.3E+00	2.6E+00	NA	2.9E+00	2.9E+00 N
60-57-1	Dieldrin	5.3E-04		4.1E-04	1.3E+00	NA	1.3E+00 C
60-29-7	Diethyl Ether			5.0E-02	NA	NA	NA
84-66-2	Diethyl Phthalate			2.5E-05	NA	NA	NA
108-20-3	Diisopropyl Ether		7.3E+02	1.0E-01	NA	7.0E+03	7.0E+03 N
1445-75-6	Diisopropyl Methylphosphonate (DIMP)			1.8E-03	NA	NA	NA
120-61-6	Dimethyl Terephthalate			5.5E-03	NA	NA	NA
84-74-2	di-n-Butyl Phthalate			7.4E-05	NA	NA	NA
25321-14-6	Dinitrotoluene Mixture			1.6E-05	NA	NA	NA
115-29-7	Endosulfan			2.7E-03	NA	NA	NA
72-20-8	Endrin			4.1E-04	NA	NA	NA
106-89-8	Epichlorohydrin	2.0E+00	1.0E+00	1.2E-03	1.6E+03	8.0E+02	8.0E+02 N*
759-94-4	Eptc (S-Ethyl Dipropylthiocarbamate)			6.5E-04	NA	NA	NA
141-78-6	Ethyl Acetate			5.5E-03	NA	NA	NA
140-88-5	Ethyl Acrylate			1.4E-02	NA	NA	NA
97-63-2	Ethyl Methacrylate		3.1E+02	2.3E-02	NA	1.3E+04	1.3E+04 N
100-41-4	Ethylbenzene	9.7E-01	1.0E+03	3.2E-01	3.0E+00	3.1E+03	3.0E+00 C
75-21-8	Ethylene Oxide	2.8E-02	3.1E+01	6.1E-03	4.6E+00	5.1E+03	4.6E+00 C
206-44-0	Fluoranthene			3.6E-04	NA	NA	NA
86-73-7	Fluorene			3.9E-03	NA	NA	NA
50-00-0	Formaldehyde	1.9E-01	1.0E+01	1.4E-05	1.4E+04	7.2E+05	1.4E+04 C
110-00-9	Furan			2.2E-01	NA	NA	NA
58-89-9	gamma-BHC (Lindane)	7.8E-03		2.1E-04	3.7E+01	NA	3.7E+01 C
76-44-8	Heptachlor	1.9E-03		1.2E-02	1.6E-01	NA	1.6E-01 C
1024-57-3	Heptachlor Epoxide	9.4E-04		8.6E-04	1.1E+00	NA	1.1E+00 C
118-74-1	Hexachlorobenzene	5.3E-03		7.0E-02	7.6E-02	NA	7.6E-02 C
87-68-3	Hexachlorobutadiene	1.1E-01		4.2E-01	2.6E-01	NA	2.6E-01 C
77-47-4	Hexachlorocyclopentadiene		2.1E-01	1.1E+00	NA	1.9E-01	1.9E-01 N
67-72-1	Hexachloroethane	6.1E-01		1.6E-01	3.8E+00	NA	3.8E+00 C
110-54-3	Hexane		7.3E+02	7.4E+01	NA	9.9E+00	9.9E+00 N
74-90-8	Hydrogen Cyanide		8.3E-01	5.4E-03	NA	1.5E+02	1.5E+02 N
193-39-5	Indeno(1,2,3-cd)pyrene	8.7E-03		1.4E-05	6.1E+02	NA	6.1E+02 C
78-83-1	Isobutanol			4.0E-04	NA	NA	NA
78-59-1	Isophorone		2.1E+03	2.7E-04	NA	7.7E+06	7.7E+06 N
98-82-8	Isopropylbenzene		4.2E+02	4.7E-01	NA	8.9E+02	8.9E+02 N
7439-97-6	Mercury		3.1E-01	4.7E-01	NA	6.6E-01	6.6E-01 N
126-98-7	Methacrylonitrile		7.3E-01	1.0E-02	NA	7.2E+01	7.2E+01 N
72-43-5	Methoxychlor			8.3E-06	NA	NA	NA
79-20-9	Methyl Acetate			4.7E-03	NA	NA	NA
96-33-3	Methyl Acrylate			8.1E-03	NA	NA	NA
80-62-6	Methyl Methacrylate		7.3E+02	1.3E-02	NA	5.6E+04	5.6E+04 N
25013-15-4	Methyl Styrene (Mixture)		4.2E+01	1.0E-01	NA	4.0E+02	4.0E+02 N
1634-04-4	Methyl Tert-Butyl Ether	9.4E+00	3.1E+03	2.4E-02	3.9E+02	1.3E+05	3.9E+02 C
75-09-2	Methylene Chloride	5.2E+00	1.1E+03	1.3E-01	3.9E+01	8.3E+03	3.9E+01 C
108-38-3	m-xylene		1.0E+02	2.9E-01	NA	3.4E+02	3.4E+02 N
91-20-3	Naphthalene	7.2E-02	3.1E+00	1.8E-02	4.0E+00	1.7E+02	4.0E+00 C
98-95-3	Nitrobenzene	6.1E-02	9.4E+00	9.8E-04	6.2E+01	9.6E+03	6.2E+01 C
121-69-7	N-N-Dimethylaniline			2.3E-03	NA	NA	NA
924-16-3	N-Nitroso-di-n-Butylamine	1.5E-03		5.4E-04	2.8E+00	NA	2.8E+00 C
621-64-7	N-Nitroso-di-n-Propylamine	1.2E-03		2.2E-04	5.5E+00	NA	5.5E+00 C
86-30-6	N-Nitrosodiphenylamine	9.4E-01		2.1E-04	4.6E+03	NA	4.6E+03 C
111-84-2	Nonane		2.1E+02	1.4E+02	NA	1.5E+00	1.5E+00 N
103-65-1	N-Propylbenzene		1.0E+03	4.3E-01	NA	2.3E+03	2.3E+03 N
95-47-6	o-Xylene		1.0E+02	2.1E-01	NA	4.7E+02	4.7E+02 N
109-66-0	Pentane		1.0E+03	5.1E+01	NA	2.0E+01	2.0E+01 N
108-95-2	Phenol		2.1E+02	1.4E-05	NA	1.5E+07	1.5E+07 N
75-44-5	Phosgene		3.1E-01	6.8E-01	NA	4.5E-01	4.5E-01 N
123-38-6	Propionaldehyde		8.3E+00	3.0E-03	NA	2.8E+03	2.8E+03 N
75-56-9	Propylene Oxide	6.6E-01	3.1E+01	2.8E-03	2.3E+02	1.1E+04	2.3E+02 C
106-42-3	p-xylene		1.0E+02	2.8E-01	NA	3.5E+02	3.5E+02 N
129-00-0	Pyrene			4.9E-04	NA	NA	NA
110-86-1	Pyridine			4.5E-04	NA	NA	NA

TABLE 1
TARGET GROUNDWATER CONCENTRATION CORRESPONDING
TO TARGET INDOOR AIR CONCENTRATION
RESIDENTIAL

CAS No.	Chemical	Carcinogenic Target Risk (TR) = 1E-06	Noncancer Hazard Index (HI) = 1	Henry's Law Constants	Carcinogenic Screening Level	Noncarcinogenic Screening Level	Screenig Level
		Inhalation	Inhalation	H' (unitless)	Attenuation Factor =0.001		
		ug/m^3	ug/m^3		ug/L	ug/L	ug/L
100-42-5	Styrene		1.0E+03	1.1E-01	NA	8.9E+03	8.9E+03 N
608-73-1	Technical-HCH	4.8E-03		2.1E-04	2.3E+01	NA	2.3E+01 C
127-18-4	Tetrachloroethene	4.1E-01	2.8E+02	7.2E-01	5.7E-01	3.9E+02	5.7E-01 C
78-00-2	Tetraethyl Lead			2.3E+01	NA	NA	NA
463-56-9	Thiocyanate			6.0E-03	NA	NA	NA
108-88-3	Toluene		5.2E+03	2.7E-01	NA	1.9E+04	1.9E+04 N
540-59-0	Total 1,2-Dichloroethene			1.7E-01	NA	NA	NA
1319-77-3	Total Methylphenol		6.3E+02	4.9E-05	NA	1.3E+07	1.3E+07 N
1330-20-7	Total Xylenes		1.0E+02	2.1E-01	NA	4.7E+02	4.7E+02 N
8001-35-2	Toxaphene	7.6E-03		2.5E-04	3.1E+01	NA	3.1E+01 C
156-60-5	trans-1,2-Dichloroethene		6.3E+01	1.7E-01	NA	3.8E+02	3.8E+02 N
110-57-6	trans-1,4-Dichloro-2-Butene	5.8E-04		2.7E-02	2.1E-02	NA	2.1E-02 C
123-73-9	trans-Crotonaldehyde			7.9E-04	NA	NA	NA
79-01-6	Trichloroethene	1.2E+00	1.0E+01	4.0E-01	3.0E+00	2.5E+01	2.5E+01 N*
75-69-4	Trichlorofluoromethane		7.3E+02	4.0E+00	NA	1.8E+02	1.8E+02 N
121-44-8	Triethylamine		7.3E+00	6.1E-03	NA	1.2E+03	1.2E+03 N
108-05-4	Vinyl Acetate		2.1E+02	2.1E-02	NA	1.0E+04	1.0E+04 N
75-01-4	Vinyl Chloride	1.6E-01	1.0E+02	1.1E+00	1.4E-01	8.8E+01	1.4E-01 C

* - Ten percent of noncarcinogenic value is less than carcinogenic value.
Toxicity values and target air concentrations were obtained from the USEPA Regional Screening Level Table, May 2011.

APPENDIX J-2

RAGS PART D TABLES

RAGS Part D Table 1

Selection Of Exposure Pathways

LIST OF TABLES
RAGS PART D TABLE 1
SELECTION OF EXPOSURE PATHWAYS

Table No.

1 Selection of Exposure Pathways

Table 1

Selection of Exposure Pathways
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland
Page 1 of 4

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Surface Soil	Surface Soil	Greater Strawberry Point	Construction Workers	Adult	Ingestion	Quant	Construction workers may have contact with surface soil during excavation activities.
						Dermal	Quant	
				Commercial/ Industrial Worker	Adult	Ingestion	Quant	Industrial workers may contact surface soil during normal work activities.
						Dermal	Quant	
				Trespassers	Child	Ingestion	Quant	Child trespassers may contact surface soil while at the site.
						Dermal	Quant	
					Adolescent	Ingestion	Quant	Adolescent trespassers may contact surface soil while at the site.
						Dermal	Quant	
		Air	Greater Strawberry Point	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to fugitive dust and volatile emissions from surface soil during construction activities.
				Commercial/ Industrial Worker	Adult	Inhalation	Quant	Industrial workers may be exposed to fugitive dust and volatile emissions from surface soil during work activities.
				Trespassers	Child	Inhalation	Quant	Child trespassers may be exposed to fugitive dust and volatile emissions from surface soil while at the site.
					Adolescent	Inhalation	Quant	Adolescent trespassers may be exposed to fugitive dust and volatile emissions from surface soil while at the site.
	Subsurface Soil	Subsurface Soil	Greater Strawberry Point	Construction Workers	Adult	Ingestion	Quant	Construction workers may have contact with subsurface soil during excavation activities.
						Dermal	Quant	
				Commercial/ Industrial Worker	Adult	Ingestion	Quant	Although exposure to subsurface soil by industrial workers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
						Dermal	Quant	
				Trespassers	Child	Ingestion	Quant	Although exposure to subsurface soil by child trespassers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
						Dermal	Quant	
					Adolescent	Ingestion	Quant	Although exposure to subsurface soil by adolescent trespassers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
						Dermal	Quant	
		Air	Greater Strawberry Point	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to fugitive dust and volatile emissions from subsurface soil during construction activities.
				Commercial/ Industrial Worker	Adult	Inhalation	Quant	Although exposure to subsurface soil by industrial workers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
				Trespassers	Child	Inhalation	Quant	Although exposure to subsurface soil by child trespassers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Inhalation	Quant	Although exposure to subsurface soil by adolescent trespassers is considered unlikely at the site, this scenario is included to aid in future risk management decisions.

Table 1

Selection of Exposure Pathways
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Groundwater	Groundwater	Greater Strawberry Point	Construction Workers	Adult	Ingestion Dermal	Quant Quant	Construction workers may have contact with groundwater during excavation activities.
				Commercial/ Industrial Worker	Adult	Ingestion Dermal	None None	Industrial workers are not expected to have contact with groundwater.
				Trespassers	Child	Ingestion Dermal	None None	Adolescent trespassers are not expected to be exposed to groundwater.
					Adolescent	Ingestion Dermal	None None	Adolescent trespassers are not expected to be exposed to groundwater.
		Air	Greater Strawberry Point	Construction Workers	Adult	Inhalation	Quant	Construction workers may be exposed to COPCs that have volatilized from groundwater during excavation activities.
				Commercial/ Industrial Worker	Adult	Inhalation	None	Industrial workers are not expected to be exposed to COPCs that have volatilized from groundwater.
				Trespassers	Child	Inhalation	None	Child trespassers are not expected to be exposed to COPCs that have volatilized from groundwater.
					Adolescent	Inhalation	None	Adolescent trespassers are not expected to be exposed to COPCs that have volatilized from groundwater.
			Vapor Intrusion	Commercial/ Industrial Worker	Adult	Inhalation	Qual	Industrial workers may be exposed to COPCs that have volatilized from groundwater and migrated through building foundations into indoor air.
Future	Surface Soil	Surface Soil	Greater Strawberry Point	Residents	Child	Ingestion Dermal	Quant Quant	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Ingestion Dermal	Quant Quant	
					Adult	Ingestion Dermal	Quant Quant	
				Recreational Users	Child	Ingestion Dermal	Quant Quant	Child recreational users may contact surface soil while at the site.
					Adolescent	Ingestion Dermal	Quant Quant	Adolescent recreational users may contact surface soil while at the site.
					Adult	Ingestion Dermal	Quant Quant	Adult recreational users may contact surface soil while at the site.
		Air	Greater Strawberry Point	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Inhalation	Quant	
					Adult	Inhalation	Quant	
				Recreational Users	Child	Inhalation	Quant	Child recreational users may be exposed to fugitive dust and volatile emissions from surface soil while at the site.
					Adolescent	Inhalation	Quant	Adolescent recreational users may be exposed to fugitive dust and volatile emissions from surface soil while at the site.
					Adult	Inhalation	Quant	Adult recreational users may be exposed to fugitive dust and volatile emissions from surface soil while at the site.

Table 1

Selection of Exposure Pathways
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future	Subsurface Soil	Subsurface Soil	Greater Strawberry Point	Residents	Child	Ingestion Dermal	Quant Quant	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Ingestion Dermal	Quant Quant	
					Adult	Ingestion Dermal	Quant Quant	
				Recreational Users	Child	Ingestion Dermal	Quant Quant	Although exposure to subsurface soil by child recreational users is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Ingestion Dermal	Quant Quant	Although exposure to subsurface soil by adolescent recreational users is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adult	Ingestion Dermal	Quant Quant	Although exposure to subsurface soil by adult recreational users is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
		Air	Greater Strawberry Point	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Inhalation	Quant	
					Adult	Inhalation	Quant	
				Recreational Users	Child	Inhalation	Quant	Although exposure to subsurface soil by child recreational users is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Inhalation	Quant	Although exposure to subsurface soil by adolescent recreational users is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	Although exposure to subsurface soil by adult recreational users is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
	Groundwater	Groundwater	Greater Strawberry Point	Residents	Child	Ingestion Dermal	Quant Quant	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adult	Ingestion Dermal	Quant Quant	
					Adolescent	Ingestion Dermal	Quant Quant	
				Recreational Users	Child	Ingestion Dermal	None None	Child recreational users are not expected to be exposed to groundwater.
					Adolescent	Ingestion Dermal	None None	Adolescent recreational users are not expected to be exposed to groundwater.
					Adult	Ingestion Dermal	None None	Adult recreational users are not expected to be exposed to groundwater.

Table 1

Selection of Exposure Pathways
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future	Groundwater	Air	Greater Strawberry Point	Residents	Child	Inhalation	Quant	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adult	Inhalation	Quant	
					Adolescent	Inhalation	Quant	
				Recreational Users	Child	Inhalation	None	Child recreational users are not expected to be exposed to COPCs that have volatilized from groundwater.
					Adolescent	Inhalation	None	Adolescent recreational users are not expected to be exposed to COPCs that have volatilized from groundwater.
					Adult	Inhalation	None	Adult recreational user are not expected to be exposed to COPCs that have volatilized from groundwater.
			Vapor Intrusion	Residents	Child	Inhalation	Qual	Although a future residential scenario is considered unlikely at the site, this scenario is included to aid in future risk management decisions.
					Adolescent	Inhalation	Qual	
					Adult	Inhalation	Qual	

Notes:
COPC - Chemical of potential concern.
Qual - Qualitative.
Quant - Quantitative.

RAGS Part D Table 2

Occurrence, Distribution And Selection Of Chemicals Of Potential Concern

LIST OF TABLES
RAGS PART D TABLE 2
OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN

Table No.

2.1 Surface Soil - Direct Contact
2.2 Surface Soil - Migration From Soil to Groundwater
2.3 Subsurface Soil - Direct Contact
2.4 Subsurface Soil - Migration From Soil to Groundwater
2.5 Groundwater - Direct Contact
2.6 Groundwater - Vapor Intrusion

TABLE 2-1
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SURFACE SOIL - DIRECT CONTACT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
RECs 9, 10, 11	**VOLATILES**													
	526-73-8	1,2,3-Trimethylbenzene	0.16 J	0.55 J	UG/KG	GSP-SB-77-1-3	4/66	0.095 - 0.2	0.55	NA	5,300 N	NA	No	BSL
	120-82-1	1,2,4-Trichlorobenzene	4.2 J	4.2 J	UG/KG	GSP-SB-119-0-2	1/66	0.15 - 0.32	4.2	NA	6,200 N[8]	78,000	No	BSL
	95-63-6	1,2,4-Trimethylbenzene	0.99 J	0.99 J	UG/KG	GSP-SB-77-1-3	1/66	0.36 - 0.78	0.99	NA	6,200 N	NA	No	BSL
	95-50-1	1,2-Dichlorobenzene	0.35 J	0.35 J	UG/KG	GSP-SB-119-0-2	1/66	0.2 - 0.43	0.35	NA	190,000 N	700,000	No	BSL
	541-73-1	1,3-Dichlorobenzene	6.6	6.6	UG/KG	GSP-SB-119-0-2	1/66	0.2 - 0.42	6.6	NA	2,400 C[9]	23,000	No	BSL
	78-93-3	2-Butanone	1.7 J	10 J	UG/KG	GSP-SB-104-0-2	11/66	0.87 - 4.7	10	NA	2,800,000 N	4,700,000	No	BSL
	108-10-1	4-Methyl-2-Pentanone	0.58 J	0.58 J	UG/KG	GSP-SB-123-0-2	1/66	0.3 - 0.65	0.58	NA	530,000 N	NA	No	BSL
	67-64-1	Acetone	5.9 J	2200 J	UG/KG	GSP-SB-64-0-2	18/66	3.9 - 37	2200	NA	6,100,000 N	7,000,000	No	BSL
	71-43-2	Benzene	0.55 J	0.55 J	UG/KG	GSP-SB-77-1-3	1/66	0.13 - 0.28	0.55	NA	1,100 C	12,000	No	BSL
	75-15-0	Carbon Disulfide	0.8 J	3 J	UG/KG	GSP-SB-101-0-2	3/66	0.25 - 0.53	3	NA	82,000 N	780,000	No	BSL
	108-90-7	Chlorobenzene	0.36 J	0.36 J	UG/KG	GSP-SB-119-0-2	1/66	0.18 - 0.4	0.36	NA	29,000 N	160,000	No	BSL
	156-59-2	cis-1,2-Dichloroethene	0.96 J	0.96 J	UG/KG	GSP-SB-74-0-2	1/66	0.2 - 0.43	0.96	NA	16,000 N	78,000	No	BSL
	100-41-4	Ethylbenzene	0.21 J	0.31 J	UG/KG	GSP-SB-121-0-3	2/66	0.16 - 0.31	0.31	NA	5,400 C	780,000	No	BSL
	75-09-2	Methylene Chloride	1.7 J	3.6 J	UG/KG	GSP-SB-97-0-2	4/66	0.49 - 4.5	3.6	NA	11,000 C	85,000	No	BSL
	91-20-3	Naphthalene	0.76 J	32	UG/KG	GSP-SB-121-0-3	3/66	0.11 - 1.3	32	NA	3,600 C	160,000	No	BSL
	103-65-1	N-Propylbenzene	0.24 J	0.24 J	UG/KG	GSP-SB-106-0-2	1/66	0.25 - 0.48	0.24	NA	340,000 N	NA	No	BSL
	95-47-6	o-Xylene	0.32 J	0.52 J	UG/KG	GSP-SB-110-0-2	3/66	0.2 - 0.42	0.52	NA	69,000 N	1,600,000 [10]	No	BSL
	75-65-0	Tertiary-Butyl Alcohol	8.1 J	8.1 J	UG/KG	GSP-SB-82-0-2	1/1	-	8.1	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.27 J	0.68 J	UG/KG	GSP-SB-77-1-3	11/66	0.15 - 0.31	0.68	NA	500,000 N	630,000	No	BSL
	1330-20-7	Total Xylenes	0.56 J	0.88 J	UG/KG	GSP-SB-77-1-3	2/66	0.38 - 0.81	0.88	NA	63,000 N	1,600,000 [10]	No	BSL
	79-01-6	Trichloroethene	4.1 J	4.1 J	UG/KG	GSP-SB-74-0-2	1/66	0.24 - 0.51	4.1	NA	440 N[8]	1,600	No	BSL
	SEMIVOLATILES													
	91-57-6	2-Methylnaphthalene	8.5	1,700	UG/KG	GSP-SB-68-0-2	36/66	3.6 - 39	1,700	NA	31,000 N	31,000	No	BSL
	83-32-9	Acenaphthene	13	3,300	UG/KG	GSP-SB-68-0-2	38/66	3.6 - 35	3,300	NA	340,000 N	470,000	No	BSL
	208-96-8	Acenaphthylene	5.7 J	3,100	UG/KG	GSP-SB-68-0-2	38/66	3.6 - 35	3,100	NA	340,000 N[11]	470,000	No	BSL
	120-12-7	Anthracene	4.6 J	7,600	UG/KG	GSP-SB-68-0-2	52/66	3.6 - 19	7,600	NA	1,700,000 N	2,300,000	No	BSL
	--	**BaP Equivalent-Half non-detect[16]**	5.7	19,300	UG/KG	GSP-SB-68-0-2	61/66	3.6 - 3.8	19,300	NA	**15 C**	**22**	**Yes**	ASL
	--	**BaP Equivalent-Positive only[16]**	1.3	19,200	UG/KG	GSP-SB-68-0-2	61/66	3.6 - 3.8	19,200	NA	**15 C**	**22**	**Yes**	ASL
	56-55-3	**Benzo(a)anthracene**	11	17,000	UG/KG	GSP-SB-68-0-2	59/66	3.6 - 19	17,000	NA	**150 C**	**220**	**Yes**	ASL
	50-32-8	**Benzo(a)pyrene**	11	15,000	UG/KG	GSP-SB-68-0-2	59/66	3.6 - 19	15,000	NA	**15 C**	**22**	**Yes**	ASL
	205-99-2	**Benzo(b)fluoranthene**	13	17,000	UG/KG	GSP-SB-68-0-2	61/66	3.6 - 3.8	17,000	NA	**150 C**	**220**	**Yes**	ASL
	191-24-2	Benzo(g,h,i)perylene	7.9	9,400	UG/KG	GSP-SB-68-0-2	58/66	3.6 - 19	9,400	NA	170,000 N[12]	230,000	No	BSL
	207-08-9	**Benzo(k)fluoranthene**	10	6,800	UG/KG	GSP-SB-68-0-2	53/66	3.6 - 19	6,800	NA	**1,500 C**	**2,200**	**Yes**	ASL
	117-81-7	Bis(2-ethylhexyl)phthalate	23 J	100 J	UG/KG	GSP-SB-87-0-2	9/65	20 - 620	100	NA	35,000 C	46,000	No	BSL
	85-68-7	Butyl Benzyl Phthalate	250	250	UG/KG	GSP-SB-86-0-2	1/65	10 - 300	250	NA	260,000 C	NA	No	BSL
	105-60-2	Caprolactam	50 J	50 J	UG/KG	GSP-SB-111-0-2	1/65	38 - 1100	50	NA	3,100,000 N	NA	No	BSL
	86-74-8	Carbazole	30 J	2,000	UG/KG	GSP-SB-68-0-2	16/65	28 - 590	2,000	NA	NA	32,000	No	BSL
	218-01-9	**Chrysene**	8.8	17,000	UG/KG	GSP-SB-68-0-2	60/66	1.2 - 6.4	17,000	NA	**15,000 C**	22,000	**Yes**	ASL
	53-70-3	**Dibenzo(a,h)anthracene**	6.3 J	1,400	UG/KG	GSP-SB-71-0-2	34/66	3.6 - 100	1,400	NA	**15 C**	**22**	**Yes**	ASL
	132-64-9	Dibenzofuran	5.2 J	1,200 J	UG/KG	GSP-SB-68-0-2	13/66	3.4 - 300	1,200	NA	7,800 N	7,800	No	BSL
	84-66-2	Diethyl Phthalate	45 J	45 J	UG/KG	GSP-SB-104-0-2	1/65	17 - 490	45	NA	4,900,000 N	6,300,000	No	BSL
	84-74-2	di-n-Butyl Phthalate	16 J	20 J	UG/KG	GSP-SB-104-0-2	4/66	16 - 460	20	NA	610,000 N	780,000	No	BSL

TABLE 2-1
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SURFACE SOIL - DIRECT CONTACT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
	206-44-0	Fluoranthene	5.2 J	33,000	UG/KG	GSP-SB-68-0-2	63/66	3.6 - 3.6	33,000	NA	230,000 N	310,000	No	BSL

TABLE 2-1
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SURFACE SOIL - DIRECT CONTACT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
RECs 9, 10, 11	**SEMIVOLATILES (continued)**													
	86-73-7	Fluorene	9.4	3,600	UG/KG	GSP-SB-68-0-2	38/66	3.6 - 35	3,600	NA	230,000 N	310,000	No	BSL
	193-39-5	**Indeno(1,2,3-cd)pyrene**	8.7	7,500	UG/KG	GSP-SB-68-0-2	56/66	3.6 - 19	7,500	NA	**150 C**	**220**	**Yes**	ASL
	91-20-3	Naphthalene	10	1,900	UG/KG	GSP-SB-68-0-2	37/66	3.6 - 35	1,900	NA	3,600 C	160,000	No	BSL
	621-64-7	**N-Nitroso-di-n-Propylamine**	120	120	UG/KG	GSP-SB-72-0-2	1/65	28 - 820	120	NA	**69 C**	**91**	**Yes**	ASL
	85-01-8	Phenanthrene	7.6	27,000	UG/KG	GSP-SB-68-0-2	60/66	3.6 - 19	27,000	NA	170,000 N[12]	2,300,000	No	BSL
	129-00-0	Pyrene	7.1 J	34,000	UG/KG	GSP-SB-68-0-2	63/66	3.6 - 3.6	34,000	NA	170,000 N	230,000	No	BSL
	POLYCHLORINATED BIPHENYLS													
	11096-82-5	**Aroclor-1260**	22 J	12,000	UG/KG	GSP-SB-78-0-2	21/66	18 - 22	12,000	NA	**220 C**	**320**	**Yes**	ASL
	--	**Total Aroclor**	22	12,000	UG/KG	GSP-SB-78-0-2	21/66	-	12,000	NA	**220 C**	**320**	**Yes**	ASL
	METALS													
	7440-36-0	Antimony	0.066 J	1.2 J	MG/KG	GSP-SB-121-0-3	29/66	0.026 - 1.2	1.2	6	3.1 N	3.1	No	BSL
	7440-38-2	**Arsenic**	0.71	5.6	MG/KG	GSP-SB-110-0-2	66/66	-	5.6	3.6	**0.39 C**	**0.43**	**Yes**	ASL
	7440-39-3	Barium	2.9 J	266 J	MG/KG	GSP-SB-71-0-2	66/66	-	266	73	1,500 N	1,600	No	BSL
	7440-41-7	Beryllium	0.045 J	1.6 J	MG/KG	GSP-SB-71-0-2	60/66	0.03 - 0.053	1.6	0.66	16 N	16	No	BSL
	7440-43-9	Cadmium	0.035 J	1	MG/KG	GSP-SB-130-0-2	26/66	0.0027 - 0.046	1	0.73	7 N	3.9	No	BSL
	7440-47-3	**Chromium**	2.1 J	24.1 K	MG/KG	GSP-SB-82-0-2	66/66	-	24.1	28	**0.29 C**[13]	**23**[13]	**Yes**	ASL
	7440-48-4	**Cobalt**	0.22 J	10.8 J	MG/KG	GSP-SB-87-0-2	66/66	-	10.8	11	**2.3 N**	NA	**Yes**	ASL
	7440-50-8	Copper	1.1 J	38	MG/KG	GSP-SB-94-0-2	66/66	-	38	12	310 N	310	No	BSL
	7439-89-6	**Iron**	866 J	15,000	MG/KG	GSP-SB-82-0-2	28/28	-	15,000	15,000	**5,500 N**	**5,500**	**Yes**	ASL
	7439-92-1	Lead	0.86 J	41	MG/KG	GSP-SB-125-0-2	66/66	-	41	45	400	400	No	BSL
	7439-96-5	**Manganese**	2.5 J	2,390 J	MG/KG	GSP-SB-71-0-2	28/28	-	2,390	480	**180 N**	**160**	**Yes**	ASL
	7439-97-6	Mercury	0.013 J	0.3	MG/KG	GSP-SB-113-0-2	48/66	0.011 - 0.02	0.3	0.51	2.3 N[14]	2.3 [15]	No	BSL
	7439-98-7	Molybdenum	0.051 J	1	MG/KG	GSP-SB-63-0-2, GSP-SB-67-0-2	28/66	0.22 - 1.1	1	NA	39 N	NA	No	BSL
	7440-02-0	Nickel	0.47	15	MG/KG	GSP-SB-108-0-2	66/66	-	15	13	150 N	160	No	BSL
	7782-49-2	Selenium	0.13 J	3.1 L	MG/KG	GSP-SB-82-0-2	44/66	0.08 - 0.56	3.1	2.2	39 N	39	No	BSL
	7440-22-4	Silver	0.038 J	0.49	MG/KG	GSP-SB-86-0-2	20/66	0.0018 - 0.13	0.49	0.94	39 N	39	No	BSL
	7440-28-0	**Thallium**	0.7 J	2.3 K	MG/KG	GSP-SB-101-0-2	4/66	0.014 - 0.7	2.3	3.9	**0.078 N**	**0.55**	**Yes**	ASL
	7440-62-2	**Vanadium**	3.5 J	65	MG/KG	GSP-SB-108-0-2	66/66	-	65	30	**39 N**	**7.8**	**Yes**	ASL
	7440-66-6	Zinc	4.6 J	63.4	MG/KG	GSP-SB-68-0-2	62/66	1.9 - 5	63.4	63	2,300 N	2,300	No	BSL
	PETROLEUM HYDROCARBONS													
	- -	**Diesel Range Organics**	3.6 J	1,800 J	MG/KG	GSP-SB-83-0-2	51/66	3 - 72	1,800	NA	NA	**230**	**Yes**	ASL
	PETROLEUM HYDROCARBONS													
	- -	Gasoline Range Organics	33 J	89 J	UG/KG	GSP-SB-78-0-2	5/66	26 - 36	89	NA	NA	230,000	No	BSL

TABLE 2-1
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SURFACE SOIL - DIRECT CONTACT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration(1)	Maximum Concentration(1)	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects(2)	Concentration Used for Screening(3)	Range of Background Concentrations(4)	Adjusted USEPA RSL - Residential Soil(5)	MDE Cleanup Standard - Residential Soil(6)	COPC Flag	Rationale for Contaminant Deletion or Selection(7)

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008. Appendix 2 - Attachment 2.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, November 2011. Adjusted values correspond to a cancer risk level of 1E-06 or a hazard quotient (HQ) of 0.1.
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
8 - One-tenth the non-carcinogenic level is less than the carcinogenic level; therefore, the non-carcinogenic level is presented.
9 - The value is for 1,4-dichlorobenzene.
10 - The value is for xylenes.
11 - The value is for acenaphthene.
12 - The value is for pyrene.
13 - The value is for hexavalent chromium.
14 - The value is for mercuric chloride (and other mercury salts).
15 - The value is for mercury (inorganic/mercuric dichloride).
16 - See text for BaP equivalent calculation methodology.

Definitions:
BaP = benzo(a)pyrene
C = carcinogen
COPC = chemical of potential concern
J = estimated value
K = biased high
L = biased low
mg/kg = milligram per kilogram
N = non-carcinogen
NA = not applicable/not available
ug/kg = microgram per kilogram

Rationale Codes:
For selection as a COPC:
ASL = above screening level

For elimination as a COPC:
BSL = below screening level
NTX = no toxicity criteria

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples:

GSP-SB-57-0-2	GSP-SB-69-0-2	GSP-SB-84-0-2	GSP-SB-101-0	GSP-SB-113-0-2	GSP-SB-125-0-2
GSP-SB-58-0-2	GSP-SB-70-0-2	GSP-SB-86-0-2	GSP-SB-102-0	GSP-SB-114-0-2	GSP-SB-126-0-2
GSP-SB-59-0-2	GSP-SB-71-0-2	GSP-SB-87-0-2	GSP-SB-103-0	GSP-SB-115-0-2	GSP-SB-127-0-2
GSP-SB-60-0-2	GSP-SB-72-0-2	GSP-SB-90-0-2	GSP-SB-104-0	GSP-SB-116-0-2	GSP-SB-128-0-2
GSP-SB-61-0-2	GSP-SB-74-0-2	GSP-SB-91-0-2	GSP-SB-105-0	GSP-SB-117-0-2	GSP-SB-129-0-2
GSP-SB-62-0-2	GSP-SB-75-0-2	GSP-SB-93-0-2	GSP-SB-106-0	GSP-SB-118-0-2	GSP-SB-130-0-2
GSP-SB-63-0-2	GSP-SB-76-1-3	GSP-SB-94-0-2	GSP-SB-107-0	GSP-SB-119-0-2	
GSP-SB-64-0-2	GSP-SB-77-1-3	GSP-SB-95-0-2	GSP-SB-108-0	GSP-SB-120-0-2	
GSP-SB-65-0-2	GSP-SB-78-0-2	GSP-SB-96-0-2	GSP-SB-109-0	GSP-SB-121-0-3	
GSP-SB-66-0-2	GSP-SB-80-0-2	GSP-SB-97-0-2	GSP-SB-110-0	GSP-SB-122-0-2	
GSP-SB-67-0-2	GSP-SB-82-0-2	GSP-SB-98-0-2	GSP-SB-111-0	GSP-SB-123-0-2	
GSP-SB-68-0-2	GSP-SB-83-0-2	GSP-SB-99-0-2	GSP-SB-112-0	GSP-SB-124-0-2	

TABLE 2.2
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SURFACE SOIL - MIGRATION TO GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA SSL - Groundwater Protection[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
RECs 9, 10, 11	**VOLATILES**													
	526-73-8	1,2,3-Trimethylbenzene	0.16 J	0.55 J	UG/KG	GSP-SB-77-1-3	4/66	0.095 - 0.2	0.55	NA	NA	NA	No	NTX
	120-82-1	1,2,4-Trichlorobenzene	4.2 J	4.2 J	UG/KG	GSP-SB-119-0-2	1/66	0.15 - 0.32	4.2	NA	6.8	2400	No	BSL
	95-63-6	1,2,4-Trimethylbenzene	0.99 J	0.99 J	UG/KG	GSP-SB-77-1-3	1/66	0.36 - 0.78	0.99	NA	21	NA	No	BSL
	95-50-1	1,2-Dichlorobenzene	0.35 J	0.35 J	UG/KG	GSP-SB-119-0-2	1/66	0.2 - 0.43	0.35	NA	360	4600	No	BSL
	541-73-1	**1,3-Dichlorobenzene**	6.6	6.6	UG/KG	GSP-SB-119-0-2	1/66	0.2 - 0.42	6.6	NA	**0.41** [8]	290	**Yes**	ASL
	78-93-3	2-Butanone	1.7 J	10 J	UG/KG	GSP-SB-104-0-2	11/66	0.87 - 4.7	10	NA	1500	29000	No	BSL
	108-10-1	4-Methyl-2-Pentanone	0.58 J	0.58 J	UG/KG	GSP-SB-123-0-2	1/66	0.3 - 0.65	0.58	NA	450	59000	No	BSL
	67-64-1	Acetone	5.9 J	2200 J	UG/KG	GSP-SB-64-0-2	18/66	3.9 - 37	2200	NA	4500	22000	No	BSL
	71-43-2	**Benzene**	0.55 J	0.55 J	UG/KG	GSP-SB-77-1-3	1/66	0.13 - 0.28	0.55	NA	**0.21**	1.9	**Yes**	ASL
	75-15-0	Carbon Disulfide	0.8 J	3 J	UG/KG	GSP-SB-101-0-2	3/66	0.25 - 0.53	3	NA	310	19000	No	BSL
	108-90-7	Chlorobenzene	0.36 J	0.36 J	UG/KG	GSP-SB-119-0-2	1/66	0.18 - 0.4	0.36	NA	62	680	No	BSL
	156-59-2	cis-1,2-Dichloroethene	0.96 J	0.96 J	UG/KG	GSP-SB-74-0-2	1/66	0.2 - 0.43	0.96	NA	21	NA	No	BSL
	100-41-4	Ethylbenzene	0.21 J	0.31 J	UG/KG	GSP-SB-121-0-3	2/66	0.16 - 0.31	0.31	NA	1.7	15000	No	BSL
	75-09-2	**Methylene Chloride**	1.7 J	3.6 J	UG/KG	GSP-SB-97-0-2	4/66	0.49 - 4.5	3.6	NA	**1.2**	19	**Yes**	ASL
	91-20-3	**Naphthalene**	0.76 J	32	UG/KG	GSP-SB-121-0-3	3/66	0.11 - 1.3	32	NA	**0.47**	150	**Yes**	ASL
	103-65-1	N-Propylbenzene	0.24 J	0.24 J	UG/KG	GSP-SB-106-0-2	1/66	0.25 - 0.48	0.24	NA	2500	NA	No	BSL
	95-47-6	o-Xylene	0.32 J	0.52 J	UG/KG	GSP-SB-110-0-2	3/66	0.2 - 0.42	0.52	NA	200	3000 [9]	No	BSL
	75-65-0	Tertiary-Butyl Alcohol	8.1 J	8.1 J	UG/KG	GSP-SB-82-0-2	1/1	-	8.1	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.27 J	0.68 J	UG/KG	GSP-SB-77-1-3	11/66	0.15 - 0.31	0.68	NA	1600	27000	No	BSL
	1330-20-7	Total Xylenes	0.56 J	0.88 J	UG/KG	GSP-SB-77-1-3	2/66	0.38 - 0.81	0.88	NA	200	3000 [9]	No	BSL
	79-01-6	**Trichloroethene**	4.1 J	4.1 J	UG/KG	GSP-SB-74-0-2	1/66	0.24 - 0.51	4.1	NA	**0.23** [15]	**0.26**	**Yes**	ASL
	SEMIVOLATILES													
	91-57-6	**2-Methylnaphthalene**	8.5	1700	UG/KG	GSP-SB-68-0-2	36/66	3.6 - 39	1700	NA	**750**	4400	**Yes**	ASL
	83-32-9	Acenaphthene	13	3300	UG/KG	GSP-SB-68-0-2	38/66	3.6 - 35	3300	NA	22000	100000	No	BSL
	208-96-8	Acenaphthylene	5.7 J	3100	UG/KG	GSP-SB-68-0-2	38/66	3.6 - 35	3100	NA	22000 [10]	100000	No	BSL
	120-12-7	Anthracene	4.6 J	7600	UG/KG	GSP-SB-68-0-2	52/66	3.6 - 19	7600	NA	360000	470000	No	BSL
	--	Bap Equivalent-Half non-detect[14]	5.7288	19285	UG/KG	GSP-SB-68-0-2	61/66	3.6 - 3.8	19285	NA	NA	NA	No	NTX
	--	Bap Equivalent-Positive only[14]	1.3088	19235	UG/KG	GSP-SB-68-0-2	61/66	3.6 - 3.8	19235	NA	NA	NA	No	NTX
	56-55-3	**Benzo(a)anthracene**	11	17000	UG/KG	GSP-SB-68-0-2	59/66	3.6 - 19	17000	NA	**10**	**480**	**Yes**	ASL
	50-32-8	**Benzo(a)pyrene**	11	15000	UG/KG	GSP-SB-68-0-2	59/66	3.6 - 19	15000	NA	**3.5**	**120**	**Yes**	ASL
	205-99-2	**Benzo(b)fluoranthene**	13	17000	UG/KG	GSP-SB-68-0-2	61/66	3.6 - 3.8	17000	NA	**35**	**1500**	**Yes**	ASL
	191-24-2	Benzo(g,h,i)perylene	7.9	9400	UG/KG	GSP-SB-68-0-2	58/66	3.6 - 19	9400	NA	120000 [11]	680000	No	BSL
	207-08-9	**Benzo(k)fluoranthene**	10	6800	UG/KG	GSP-SB-68-0-2	53/66	3.6 - 19	6800	NA	**350**	15000	**Yes**	ASL
	117-81-7	Bis(2-ethylhexyl)phthalate	23 J	100 J	UG/KG	GSP-SB-87-0-2	9/65	20 - 620	100	NA	1100	2900000	No	BSL
	85-68-7	Butyl Benzyl Phthalate	250	250	UG/KG	GSP-SB-86-0-2	1/65	10 - 300	250	NA	510	NA	No	BSL
	105-60-2	Caprolactam	50 J	50 J	UG/KG	GSP-SB-111-0-2	1/65	38 - 1100	50	NA	4500	NA	No	BSL
	86-74-8	**Carbazole**	30 J	2000	UG/KG	GSP-SB-68-0-2	16/65	28 - 590	2000	NA	NA	**470**	**Yes**	ASL
	218-01-9	**Chrysene**	8.8	17000	UG/KG	GSP-SB-68-0-2	60/66	1.2 - 6.4	17000	NA	**1100**	48000	**Yes**	ASL
	53-70-3	**Dibenzo(a,h)anthracene**	6.3 J	1400	UG/KG	GSP-SB-71-0-2	34/66	3.6 - 100	1400	NA	**11**	**460**	**Yes**	ASL
	132-64-9	**Dibenzofuran**	5.2 J	1200 J	UG/KG	GSP-SB-68-0-2	13/66	3.4 - 300	1200	NA	**680**	NA	**Yes**	ASL
	84-66-2	Diethyl Phthalate	45 J	45 J	UG/KG	GSP-SB-104-0-2	1/65	17 - 490	45	NA	12000	450000	No	BSL
	84-74-2	di-n-Butyl Phthalate	16 J	20 J	UG/KG	GSP-SB-104-0-2	4/66	16 - 460	20	NA	9200	5000000	No	BSL
	206-44-0	Fluoranthene	5.2 J	33000	UG/KG	GSP-SB-68-0-2	63/66	3.6 - 3.6	33000	NA	160000	6300000	No	BSL
	86-73-7	Fluorene	9.4	3600	UG/KG	GSP-SB-68-0-2	38/66	3.6 - 35	3600	NA	27000	140000	No	BSL
	193-39-5	**Indeno(1,2,3-cd)pyrene**	8.7	7500	UG/KG	GSP-SB-68-0-2	56/66	3.6 - 19	7500	NA	**120**	**4200**	**Yes**	ASL
	91-20-3	**Naphthalene**	10	1900	UG/KG	GSP-SB-68-0-2	37/66	3.6 - 35	1900	NA	**0.47**	**150**	**Yes**	ASL
	621-64-7	**N-Nitroso-di-n-Propylamine**	120	120	UG/KG	GSP-SB-72-0-2	1/65	28 - 820	120	NA	**0.0072**	**0.047**	**Yes**	ASL

TABLE 2.2
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SURFACE SOIL - MIGRATION TO GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA SSL - Groundwater Protection[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]
RECs 9, 10, 11	**SEMIVOLATILES (continued)**													
	85-01-8	Phenanthrene	7.6	27000	UG/KG	GSP-SB-68-0-2	60/66	3.6 - 19	27000	NA	120000 [11]	470000	No	BSL
	129-00-0	Pyrene	7.1 J	34000	UG/KG	GSP-SB-68-0-2	63/66	3.6 - 3.6	34000	NA	120000	680000	No	BSL
	POLYCHLORINATED BIPHENYLS													
	11096-82-5	**Aroclor-1260**	22 J	12000	UG/KG	GSP-SB-78-0-2	21/66	18 - 22	12000	NA	**24**	NA	**Yes**	ASL
	Not Found	**Total Aroclor**	22	12000	UG/KG	GSP-SB-78-0-2	21/21	-	12000	NA	**24**	NA	**Yes**	ASL
	METALS													
	7440-36-0	**Antimony**	0.066 J	1.2 J	MG/KG	GSP-SB-121-0-3	29/66	0.026 - 1.2	1.2	6	**0.66**	13	**Yes**	ASL
	7440-38-2	**Arsenic**	0.71	5.6	MG/KG	GSP-SB-110-0-2	66/66	-	5.6	3.6	**0.0013**	**0.026**	**Yes**	ASL
	7440-39-3	Barium	2.9 J	266 J	MG/KG	GSP-SB-71-0-2	66/66	-	266	73	300	6000	No	BSL
	7440-41-7	Beryllium	0.045 J	1.6 J	MG/KG	GSP-SB-71-0-2	60/66	0.03 - 0.053	1.6	0.66	58	1200	No	BSL
	7440-43-9	Cadmium	0.035 J	1	MG/KG	GSP-SB-130-0-2	26/66	0.0027 - 0.046	1	0.73	1.4	27	No	BSL
	7440-47-3	**Chromium**	2.1 J	24.1 K	MG/KG	GSP-SB-82-0-2	66/66	-	24.1	28	**0.00083** [12]	42 [12]	**Yes**	ASL
	7440-48-4	**Cobalt**	0.22 J	10.8 J	MG/KG	GSP-SB-87-0-2	66/66	-	10.8	11	**0.49**	NA	**Yes**	ASL
	7440-50-8	Copper	1.1 J	38	MG/KG	GSP-SB-94-0-2	66/66	-	38	12	51	11000	No	BSL
	7439-89-6	**Iron**	866 J	15000	MG/KG	GSP-SB-82-0-2	28/28	-	15000	15,000	**640**	NA	**Yes**	ASL
	7439-92-1	**Lead**	0.86 J	41	MG/KG	GSP-SB-125-0-2	66/66	-	41	45	**14** [13]	NA	**Yes**	ASL
	7439-96-5	**Manganese**	2.5 J	2390 J	MG/KG	GSP-SB-71-0-2	28/28	-	2390	480	**57**	**950**	**Yes**	ASL
	7439-97-6	**Mercury**	0.013 J	0.3	MG/KG	GSP-SB-113-0-2	48/66	0.011 - 0.02	0.3	0.51	**0.033**	NA	**Yes**	ASL
	7439-98-7	Molybdenum	0.051 J	1	MG/KG	GSP-SB-63-0-2, GSP-SB-67-0-2	28/66	0.22 - 1.1	1	NA	3.7	NA	No	BSL
	7440-02-0	Nickel	0.47	15	MG/KG	GSP-SB-108-0-2	66/66	-	15	13	48	NA	No	BSL
	7782-49-2	**Selenium**	0.13 J	3.1 L	MG/KG	GSP-SB-82-0-2	44/66	0.08 - 0.56	3.1	2.2	**0.95**	19	**Yes**	ASL
	7440-22-4	Silver	0.038 J	0.49	MG/KG	GSP-SB-86-0-2	20/66	0.0018 - 0.13	0.49	0.94	1.6	31	No	BSL
	7440-28-0	**Thallium**	0.7 J	2.3 K	MG/KG	GSP-SB-101-0-2	4/66	0.014 - 0.7	2.3	3.9	**0.026**	3.6	**Yes**	ASL
	7440-62-2	Vanadium	3.5 J	65	MG/KG	GSP-SB-108-0-2	66/66	-	65	30	180	730	No	BSL
	7440-66-6	Zinc	4.6 J	63.4	MG/KG	GSP-SB-68-0-2	62/66	1.9 - 5	63.4	63	680	14000	No	BSL
	PETROLEUM HYDROCARBONS													
	- -	Diesel Range Organics	3.6 J	1800 J	MG/KG	GSP-SB-83-0-2	51/66	3 - 72	1800	NA	NA	NA	No	NTX
	PETROLEUM HYDROCARBONS													
	- -	Gasoline Range Organics	33 J	89 J	UG/KG	GSP-SB-78-0-2	5/66	26 - 36	89	NA	NA	NA	No	NTX

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - State of Maryland Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008. Appendix 2 - Attachment 2.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, soil screening levels (SSLs) for groundwater protection, June 2011.
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
8 - The value is for 1,4-dichlorobenzene.
9 - The value is for xylenes.
10 - The value is for acenaphthene.
11 - The value is for pyrene.
12 - The value is for hexavalent chromium.
13 - Maximum Contaminant Level (MCL)-based soil screening level (SSL).
14 - See text for BaP equivalent calculation methodology.
15 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.

Definitions:
BaP = benzo(a)pyrene
C = carcinogen
COPC = chemical of potential concern
J = estimated value
K = biased high
L = biased low
mg/kg = milligram per kilogram
N = non-carcinogen
NA = not applicable/not available
ug/kg = microgram per kilogram

TABLE 2.2
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SURFACE SOIL - MIGRATION TO GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA SSL - Groundwater Protection[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[7]

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Rationale Codes:
For selection as a COPC:
ASL = Above screening level

For elimination as a COPC:
BSL = Below screening level
NTX = No toxicity criteria

Associated Samples:

GSP-SB-57-0-2	GSP-SB-69-0-2	GSP-SB-84-0-2	GSP-SB-101-0-2	GSP-SB-113-0-2	GSP-SB-125-0-2
GSP-SB-58-0-2	GSP-SB-70-0-2	GSP-SB-86-0-2	GSP-SB-102-0-2	GSP-SB-114-0-2	GSP-SB-126-0-2
GSP-SB-59-0-2	GSP-SB-71-0-2	GSP-SB-87-0-2	GSP-SB-103-0-2	GSP-SB-115-0-2	GSP-SB-127-0-2
GSP-SB-60-0-2	GSP-SB-72-0-2	GSP-SB-90-0-2	GSP-SB-104-0-2	GSP-SB-116-0-2	GSP-SB-128-0-2
GSP-SB-61-0-2	GSP-SB-74-0-2	GSP-SB-91-0-2	GSP-SB-105-0-2	GSP-SB-117-0-2	GSP-SB-129-0-2
GSP-SB-62-0-2	GSP-SB-75-0-2	GSP-SB-93-0-2	GSP-SB-106-0-2	GSP-SB-118-0-2	GSP-SB-130-0-2
GSP-SB-63-0-2	GSP-SB-76-1-3	GSP-SB-94-0-2	GSP-SB-107-0-2	GSP-SB-119-0-2	
GSP-SB-64-0-2	GSP-SB-77-1-3	GSP-SB-95-0-2	GSP-SB-108-0-2	GSP-SB-120-0-2	
GSP-SB-65-0-2	GSP-SB-78-0-2	GSP-SB-96-0-2	GSP-SB-109-0-2	GSP-SB-121-0-3	
GSP-SB-66-0-2	GSP-SB-80-0-2	GSP-SB-97-0-2	GSP-SB-110-0-2	GSP-SB-122-0-2	
GSP-SB-67-0-2	GSP-SB-82-0-2	GSP-SB-98-0-2	GSP-SB-111-0-2	GSP-SB-123-0-2	
GSP-SB-68-0-2	GSP-SB-83-0-2	GSP-SB-99-0-2	GSP-SB-112-0-2	GSP-SB-124-0-2	

TABLE 2.3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SUBSURFACE SOIL (2-15 FEET) - DIRECT CONTACT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	Adjusted USEPA SSL - Residential Soil-to-Air[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**VOLATILES**														
	526-73-8	1,2,3-Trimethylbenzene	0.43 J	620 J	UG/KG	GSP-TP-5E-10-12	4/58	0.096 - 0.21	620	NA	710,000,000 N	NA	NA	No	BSL
	95-63-6	1,2,4-Trimethylbenzene	1.8 J	940 J	UG/KG	GSP-TP-5E-10-12	5/58	0.37 - 5.6	940	NA	6,200 N	NA	12,000 N	No	BSL
	78-93-3	2-Butanone	1.3 J	97 J	UG/KG	GSP-TP-5W-10-12	7/58	0.79 - 270	97	NA	2,800,000 N	4,700,000	24,000,000 sat	No	BSL
	591-78-6	2-Hexanone	1.1 J	1.1 J	UG/KG	GSP-TP-6-4-6	1/58	0.36 - 130	1.1	NA	21,000 N	NA	NA	No	BSL
	99-87-6	4-Isopropyltoluene	0.24 J	190 J	UG/KG	GSP-TP-5E-10-12	3/58	0.12 - 5.5	190	NA	NA	NA	NA	No	NTX
	67-64-1	Acetone	6.2 J	220 J	UG/KG	GSP-SB-93-12-14, GSP-SB-121-6-8	8/58	4.3 - 1100	220	NA	6,100,000 N	7,000,000	NA	No	BSL
	71-43-2	Benzene	0.62 J	0.62 J	UG/KG	GSP-SB-91-8-10	1/58	0.13 - 75	0.62	NA	1,100 C	12,000	830 C	No	BSL
	75-15-0	Carbon Disulfide	0.55 J	12 J	UG/KG	GSP-TP-5W-10-12	6/58	0.3 - 75	12	NA	82,000 N	780,000	720,000 sat	No	BSL
	156-59-2	cis-1,2-Dichloroethene	1.7 J	2.2 J	UG/KG	GSP-SB-119-6-8	2/58	0.2 - 43	2.2	NA	16,000 N	78,000	NA	No	BSL
	100-41-4	Ethylbenzene	0.26 J	270 J	UG/KG	GSP-TP-5E-10-12	6/58	0.15 - 6.2	270	NA	5,400 C	780,000	400,000 sat	No	BSL
	98-82-8	Isopropylbenzene	58 J	58 J	UG/KG	GSP-TP-5W-10-12	1/58	0.09 - 41	58	NA	210,000 N	780,000	850,000 sat	No	BSL
	- -	m+p-Xylenes	1.9 J	310 J	UG/KG	GSP-TP-5E-10-12	4/58	0.68 - 56	310	NA	59,000 N[9]	1,600,000 [10]	420,000 sat[10]	No	BSL
	75-09-2	Methylene Chloride	1.3 J	2.4 J	UG/KG	GSP-SB-97-6-8	4/58	0.46 - 820	2.4	NA	11,000 C	85,000	13,000 C	No	BSL
	91-20-3	**Naphthalene**	3.4 J	42,000	UG/KG	GSP-TP-5E-10-12	8/58	0.11 - 25	42,000	NA	**3,600 C**	160,000	**17,000 N**	**Yes**	ASL
	104-51-8	N-Butylbenzene	110 J	270 J	UG/KG	GSP-TP-5E-10-12	2/58	0.13 - 9.2	270	NA	390,000 N	NA	NA	No	BSL
	103-65-1	N-Propylbenzene	85 J	200 J	UG/KG	GSP-TP-5E-10-12	2/58	0.23 - 16	200	NA	340,000 N	NA	NA	No	BSL
	95-47-6	o-Xylene	0.29 J	230 J	UG/KG	GSP-TP-5E-10-12	5/58	0.2 - 9.8	230	NA	69,000 N	1,600,000 [10]	NA	No	BSL
	135-98-8	sec-Butylbenzene	75 J	150 J	UG/KG	GSP-TP-5E-10-12	2/58	0.1 - 5.4	150	NA	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.24 J	44	UG/KG	GSP-SB-113-6-8	18/58	0.15 - 110	44	NA	500,000 N	630,000	650,000 sat	No	BSL
	1330-20-7	Total Xylenes	0.72 J	540 J	UG/KG	GSP-TP-5E-10-12	5/58	0.38 - 9.1	540	NA	63,000 N	1,600,000 [10]	70,000 N	No	BSL
	79-01-6	**Trichloroethene**	0.81 J	360	UG/KG	GSP-SB-93-12-14	6/58	0.24 - 61	360	NA	440 N[11][19]	1,600	**71 C**	**Yes**	ASL
	75-01-4	Vinyl Chloride	0.36 J	0.36 J	UG/KG	GSP-SB-73-12-14-R	1/58	0.22 - 110	0.36	NA	60 C	90	280 C	No	BSL
	SEMIVOLATILES														
	92-52-4	1,1-Biphenyl	1100 J	1,100 J	UG/KG	GSP-TP-5E-10-12	1/58	29 - 760	1,100	NA	5,100 N	NA	NA	No	BSL
	91-57-6	2-Methylnaphthalene	15	13,000	UG/KG	GSP-TP-5E-10-12	13/58	3.6 - 47	13,000	NA	31,000 N	31,000	NA	No	BSL
	83-32-9	Acenaphthene	34	2,000	UG/KG	GSP-TP-5E-10-12	14/58	3.6 - 36	2,000	NA	340,000 N	470,000	NA	No	BSL
	208-96-8	Acenaphthylene	9	1,900	UG/KG	GSP-SB-109-6-8	10/58	3.6 - 47	1,900	NA	340,000 N[12]	470,000	NA	No	BSL
	120-12-7	Anthracene	11 L	5,700	UG/KG	GSP-SB-81-2-4	16/58	3.6 - 9.3	5,700	NA	1,700,000 N	2,300,000	NA	No	BSL
	--	**Bap Equivalent-Half non-detect[19]**	4.8891	20,027	UG/KG	GSP-SB-109-6-8	23/58	3.6 - 9.3	20,027	NA	**15 C**	**22**	NA	**Yes**	ASL
	--	**Bap Equivalent-Positive only[19]**	0.52	20,027	UG/KG	GSP-SB-109-6-8	23/58	3.6 - 9.3	20,027	NA	**15 C**	**22**	NA	**Yes**	ASL
	56-55-3	**Benzo(a)anthracene**	8	13,000	UG/KG	GSP-SB-109-6-8	20/58	3.6 - 9.3	13,000	NA	**150 C**	**220**	NA	**Yes**	ASL
	50-32-8	**Benzo(a)pyrene**	5.9 J	14,000	UG/KG	GSP-SB-109-6-8	20/58	3.6 - 9.3	14,000	NA	**15 C**	**22**	NA	**Yes**	ASL
	205-99-2	**Benzo(b)fluoranthene**	5.2 J	12,000	UG/KG	GSP-SB-109-6-8	22/58	3.6 - 9.3	12,000	NA	**150 C**	**220**	NA	**Yes**	ASL
	191-24-2	Benzo(g,h,i)perylene	13	10,000	UG/KG	GSP-SB-109-6-8	19/58	3.6 - 9.3	10,000	NA	170,000 N[13]	230,000	NA	No	BSL
	207-08-9	**Benzo(k)fluoranthene**	7 J	6,300	UG/KG	GSP-SB-109-6-8	18/58	3.6 - 9.3	6,300	NA	**1,500 C**	**2,200**	NA	**Yes**	ASL
	117-81-7	Bis(2-ethylhexyl)phthalate	22 J	140 J	UG/KG	GSP-TP-5W-10-12	9/58	21 - 540	140	NA	35,000 C	46,000	NA	No	BSL
	105-60-2	Caprolactam	43 J	43 J	UG/KG	GSP-SB-79-4-6	1/58	40 - 1000	43	NA	3,100,000 N	NA	NA	No	BSL
	86-74-8	Carbazole	420 J	1,600	UG/KG	GSP-SB-121-6-8	4/58	29 - 760	1,600	NA	NA	32,000	NA	No	BSL
	218-01-9	Chrysene	7.8 J	14,000	UG/KG	GSP-SB-109-6-8	20/58	1.2 - 3.1	14,000	NA	15,000 C	22,000	NA	No	BSL
	53-70-3	**Dibenzo(a,h)anthracene**	36	2,700	UG/KG	GSP-SB-109-6-8	13/58	3.6 - 36	2,700	NA	**15 C**	**22**	NA	**Yes**	ASL
	132-64-9	Dibenzofuran	22 J	1,000	UG/KG	GSP-SB-121-6-8	9/58	3.6 - 450	1,000	NA	7,800 N	7,800	NA	No	BSL
	84-74-2	di-n-Butyl Phthalate	18 J	34 J	UG/KG	GSP-SB-114-6-8	5/58	16 - 420	34	NA	610,000 N	780,000	NA	No	BSL
	206-44-0	Fluoranthene	8.3	21,000	UG/KG	GSP-SB-109-6-8	22/58	3.6 - 9.3	21,000	NA	230,000 N	310,000	NA	No	BSL
	86-73-7	Fluorene	7.6 L	3,900	UG/KG	GSP-TP-5E-10-12	15/58	3.6 - 36	3,900	NA	230,000 N	310,000	NA	No	BSL
	193-39-5	**Indeno(1,2,3-cd)pyrene**	10	7,500	UG/KG	GSP-SB-109-6-8	18/58	3.6 - 9.3	7,500	NA	**150 C**	**220**	NA	**Yes**	ASL
	91-20-3	**Naphthalene**	23	17,000	UG/KG	GSP-TP-5E-10-12	13/58	3.6 - 47	17,000	NA	**3,600 C**	160,000	17,000 N	**Yes**	ASL
	85-01-8	Phenanthrene	7.6 J	23,000	UG/KG	GSP-SB-81-2-4	20/58	3.6 - 9.3	23,000	NA	170,000 N[13]	2,300,000	NA	No	BSL
	108-95-2	Phenol	54 J	130 J	UG/KG	GSP-SB-120-6-8	2/57	29 - 760	130	NA	1,800,000 N	2,300,000	NA	No	BSL
	129-00-0	Pyrene	6.6 J	32,000	UG/KG	GSP-SB-109-6-8	25/58	3.6 - 9.3	32,000	NA	170,000 N	230,000	NA	No	BSL

TABLE 2.3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SUBSURFACE SOIL (2-15 FEET) - DIRECT CONTACT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	Adjusted USEPA SSL - Residential Soil-to-Air[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**POLYCHLORINATED BIPHENYLS**														
	53469-21-9	Aroclor-1242	21 J	130	UG/KG	GSP-SB-121-6-8	2/58	14 - 150	130	NA	220 C	320	NA	No	BSL
	11096-82-5	**Aroclor-1260**	19 J	2,700	UG/KG	GSP-SB-119-6-8	5/58	18 - 100	2,700	NA	**220 C**	**320**	NA	**Yes**	ASL
	--	**Total Aroclor**	19	2,700	UG/KG	GSP-SB-119-6-8	5/58	-	2,700	NA	**220 C[14]**	**320 [15]**	NA	**Yes**	ASL
	METALS														
	7440-36-0	Antimony	0.075 J	0.79 J	MG/KG	GSP-TP-5W-10-12	10/58	0.019 - 0.99	0.79	6	3.1 N	3.1	NA	No	BSL
	7440-38-2	**Arsenic**	0.4 J	52	MG/KG	GSP-SB-111-6-8	56/58	0.33 - 0.34	52	3.6	**0.39 C**	**0.43**	769 C	**Yes**	ASL
	7440-39-3	Barium	1.1 J	250	MG/KG	GSP-SB-110-6-8	58/58	-	250	73	1,500 N	1,600	70,900 N	No	BSL
	7440-41-7	Beryllium	0.072 J	0.74 J	MG/KG	GSP-SB-81-2-4	16/58	0.021 - 0.054	0.74	0.66	16 N	16	1380 C	No	BSL
	7440-43-9	Cadmium	0.065 J	0.85	MG/KG	GSP-TP-4-3-5	5/58	0.0019 - 0.045	0.85	0.73	7 N	3.9	1840 C	No	BSL
	7440-47-3	**Chromium**	1.4 J	39	MG/KG	GSP-SB-91-8-10	58/58	-	39	28	**0.29 C[16]**	**23 [16]**	276 C	**Yes**	ASL
	7440-48-4	**Cobalt**	0.11 J	8.8	MG/KG	GSP-TP-5W-10-12	51/58	0.15 - 0.2	8.8	11	**2.3 N**	NA	1,180 C	**Yes**	ASL
	7440-50-8	Copper	0.73 J	170	MG/KG	GSP-TP-2-10-12	54/58	0.8 - 0.93	170	12	310 N	310	NA	No	BSL
	7439-89-6	**Iron**	183	15,600 J	MG/KG	GSP-SB-81-2-4	8/8	-	15,600	15,000	**5,500 N**	**5,500**	NA	**Yes**	ASL
	7439-92-1	Lead	0.42	41	MG/KG	GSP-TP-4-3-5	52/58	0.73 - 1.1	41	45	400	400	NA	No	BSL
	7439-96-5	**Manganese**	0.98	713 J	MG/KG	GSP-SB-81-2-4	8/8	-	713	480	**180 N**	**160**	7,090 N	**Yes**	ASL
	7439-97-6	Mercury	0.011 J	0.093	MG/KG	GSP-TP-5W-10-12	19/58	0.011 - 0.02	0.093	0.51	2.3 N[17]	2.3 [18]	NA	No	BSL
	7439-98-7	Molybdenum	0.15 J	0.65	MG/KG	GSP-SB-79-4-6	7/58	0.062 - 2.4	0.65	NA	39 N	NA	NA	No	BSL
	7440-02-0	Nickel	0.21	22	MG/KG	GSP-SB-108-6-8	49/58	0.26 - 0.34	22	13	150 N	160	NA	No	BSL
	7782-49-2	Selenium	0.051 J	0.84 J	MG/KG	GSP-SB-111-6-8	11/58	0.37 - 0.57	0.84	2.2	39 N	39	NA	No	BSL
	7440-22-4	Silver	0.052 J	0.18 J	MG/KG	GSP-SB-130-6-8	3/58	0.0018 - 0.13	0.18	0.94	39 N	39	NA	No	BSL
	7440-28-0	**Thallium**	0.64 J	1.5 J	MG/KG	GSP-SB-110-6-8	9/58	0.016 - 0.69	1.5	3.9	**0.078 N**	**0.55**	NA	**Yes**	ASL
	7440-62-2	**Vanadium**	1.3	300	MG/KG	GSP-SB-111-6-8	57/58	3.7 - 3.7	300	30	**39 N**	**7.8**	NA	**Yes**	ASL
	7440-66-6	Zinc	1.4 J	63	MG/KG	GSP-SB-121-6-8	44/58	0.88 - 5.2	63	63	2,300 N	2,300	NA	No	BSL
	PETROLEUM HYDROCARBONS														
	- -	**Diesel Range Organics**	3.7 J	5,200	MG/KG	GSP-SB-81-2-4	23/58	3.3 - 27	5,200	NA	NA	**230**	NA	**Yes**	ASL
	PETROLEUM HYDROCARBONS														
	- -	Gasoline Range Organics	36 J	88,000	UG/KG	GSP-TP-5E-10-12	8/58	27 - 34	88,000	NA	NA	230,000	NA	No	BSL

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - To determine whether chemical concentrations were within background levels, a statistical analysis was conducted using the site and background datasets.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, June 2011. Adjusted values correspond to a cancer risk level of 1E-06 or a hazard quotient (HQ) of 0.1.
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - USEPA Soil Screening Levels (SSLs). EPA Internet Site at http://rais.ornl.gov/epa/ssl1.shtml.
8 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
9 - The value is for m-xylene.
10 - The value is for xylenes.
11 - One tenth the non-carcinogenic level is less than the carcinogenic level; therefore, the non-carcinogenic level is presented.
12 - The value is for acenaphthene.
13 - The value is for pyrene.
14 - The value is for polychlorinated biphenyls (high risk).
15 - The value is for PCB (total).
16 - The value is for hexavalent chromium.
17 - The value is for mercuric chloride (and other mercury salts).
18 - The value is for mercury (inorganic/mercuric dichloride).
19 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.

Definitions:
BaP = benzo(a)pyrene
C = Carcinogen
COPC = Chemical of potential concern
J = Estimated value
L = Biased low
mg/kg = milligram per kilogram
N = Non-carcinogen
NA = Not applicable/not available
PCB = polychlorinated biphenyl
sat = soil saturation concentration
ug/kg = microgram per kilogram

Rationale Codes:
For selection as a COPC:
ASL = Above screening level

For elimination as a COPC:

BSL = Below screening level
NTX = No toxicity criteria

TABLE 2.3
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL SUBSURFACE SOIL (2-15 FEET) - DIRECT CONTACT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Residential Soil[5]	MDE Cleanup Standard - Residential Soil[6]	Adjusted USEPA SSL - Residential Soil-to-Air[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples:

GSP-SB-56-10-12	GSP-SB-95-6-8	GSP-SB-106-6-8	GSP-SB-118-6-8	GSP-SB-130-6-8
GSP-SB-73-12-14	GSP-SB-96-6-8	GSP-SB-107-6-8	GSP-SB-119-6-8	GSP-TP-1-10-12
GSP-SB-73-12-14-R	GSP-SB-97-6-8	GSP-SB-108-6-8	GSP-SB-120-6-8	GSP-TP-2-10-12
GSP-SB-79-4-6	GSP-SB-98-6-8	GSP-SB-109-6-8	GSP-SB-121-6-8	GSP-TP-3-5-7
GSP-SB-80-14-16	GSP-SB-99-6-8	GSP-SB-110-6-8	GSP-SB-122-6-8	GSP-TP-4-3-5
GSP-SB-81-2-4	GSP-SB-100-2-4	GSP-SB-111-6-8	GSP-SB-123-6-8	GSP-TP-5E-10-12
GSP-SB-85-10-12	GSP-SB-100-6-8	GSP-SB-112-6-8	GSP-SB-124-6-8	GSP-TP-5W-10-12
GSP-SB-88-2-4	GSP-SB-101-6-8	GSP-SB-113-6-8	GSP-SB-125-6-8	GSP-TP-6-4-6
GSP-SB-89-2-4	GSP-SB-102-6-8	GSP-SB-114-6-8	GSP-SB-126-8-10	GSP-TP-7-9-10
GSP-SB-91-8-10	GSP-SB-103-6-8	GSP-SB-115-10-12	GSP-SB-127-6-8	GSP-TP-8-6-7
GSP-SB-93-12-14	GSP-SB-104-6-8	GSP-SB-116-6-8	GSP-SB-128-6-8	GSP-TP-9-8-10
GSP-SB-94-6-8	GSP-SB-105-6-8	GSP-SB-117-6-8	GSP-SB-129-6-8	

TABLE 2.4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF GLOBAL POTENTIAL CONCERN - ALL SUBSURFACE SOIL (2-15 FEET) - MIGRATION TO GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA SSL - Groundwater Protection[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**VOLATILES**													
	526-73-8	1,2,3-Trimethylbenzene	0.43 J	620 J	UG/KG	GSP-TP-5E-10-12	4/58	0.096 - 0.21	620	NA	NA	NA	No	NTX
	95-63-6	**1,2,4-Trimethylbenzene**	1.8 J	940 J	UG/KG	GSP-TP-5E-10-12	5/58	0.37 - 5.6	940	NA	**21**	NA	**Yes**	ASL
	78-93-3	2-Butanone	1.3 J	97 J	UG/KG	GSP-TP-5W-10-12	7/58	0.79 - 270	97	NA	1,500	29000	No	BSL
	591-78-6	2-Hexanone	1.1 J	1.1 J	UG/KG	GSP-TP-6-4-6	1/58	0.36 - 130	1.1	NA	11	NA	No	BSL
	99-87-6	4-Isopropyltoluene	0.24 J	190 J	UG/KG	GSP-TP-5E-10-12	3/58	0.12 - 5.5	190	NA	NA	NA	No	NTX
	67-64-1	Acetone	6.2 J	220 J	UG/KG	GSP-SB-93-12-14, GSP-SB-121-6-8	8/58	4.3 - 1100	220	NA	4,500	22000	No	BSL
	71-43-2	**Benzene**	0.62 J	0.62 J	UG/KG	GSP-SB-91-8-10	1/58	0.13 - 75	0.62	NA	**0.21**	1.9	**Yes**	ASL
	75-15-0	Carbon Disulfide	0.55 J	12 J	UG/KG	GSP-TP-5W-10-12	6/58	0.3 - 75	12	NA	310	19000	No	BSL
	156-59-2	cis-1,2-Dichloroethene	1.7 J	2.2 J	UG/KG	GSP-SB-119-6-8	2/58	0.2 - 43	2.2	NA	21	NA	No	BSL
	100-41-4	**Ethylbenzene**	0.26 J	270 J	UG/KG	GSP-TP-5E-10-12	6/58	0.15 - 6.2	270	NA	**1.7**	15000	**Yes**	ASL
	98-82-8	Isopropylbenzene	58 J	58 J	UG/KG	GSP-TP-5W-10-12	1/58	0.09 - 41	58	NA	1,100	64000	No	BSL
	- -	**m+p-Xylenes**	1.9 J	310 J	UG/KG	GSP-TP-5E-10-12	4/58	0.68 - 56	310	NA	**200**	3000 [9]	**Yes**	ASL
	75-09-2	**Methylene Chloride**	1.3 J	2.4 J	UG/KG	GSP-SB-97-6-8	4/58	0.46 - 820	2.4	NA	**1.2**	19	**Yes**	ASL
	91-20-3	**Naphthalene**	3.4 J	42,000	UG/KG	GSP-TP-5E-10-12	8/58	0.11 - 25	42,000	NA	**0.47**	**150**	**Yes**	ASL
	104-51-8	N-Butylbenzene	110 J	270 J	UG/KG	GSP-TP-5E-10-12	2/58	0.13 - 9.2	270	NA	5,900	NA	No	BSL
	103-65-1	N-Propylbenzene	85 J	200 J	UG/KG	GSP-TP-5E-10-12	2/58	0.23 - 16	200	NA	2,500	NA	No	BSL
	95-47-6	**o-Xylene**	0.29 J	230 J	UG/KG	GSP-TP-5E-10-12	5/58	0.2 - 9.8	230	NA	**200**	3000 [9]	**Yes**	ASL
	135-98-8	sec-Butylbenzene	75 J	150 J	UG/KG	GSP-TP-5E-10-12	2/58	0.1 - 5.4	150	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.24 J	44	UG/KG	GSP-SB-113-6-8	18/58	0.15 - 110	44	NA	1,600	27000	No	BSL
	1330-20-7	**Total Xylenes**	0.72 J	540 J	UG/KG	GSP-TP-5E-10-12	5/58	0.38 - 9.1	540	NA	**200**	3000 [9]	**Yes**	ASL
	79-01-6	**Trichloroethene**	0.81 J	360	UG/KG	GSP-SB-93-12-14	6/58	0.24 - 61	360	NA	**0.23** [16]	**0.26**	**Yes**	ASL
	75-01-4	**Vinyl Chloride**	0.36 J	0.36 J	UG/KG	GSP-SB-73-12-14-R	1/58	0.22 - 110	0.36	NA	**0.0056**	**0.12**	**Yes**	ASL
	SEMIVOLATILES													
	92-52-4	**1,1-Biphenyl**	1100 J	1,100 J	UG/KG	GSP-TP-5E-10-12	1/58	29 - 760	1,100	NA	**8.7**	NA	**Yes**	ASL
	91-57-6	**2-Methylnaphthalene**	15	13,000	UG/KG	GSP-TP-5E-10-12	13/58	3.6 - 47	13,000	NA	**750**	**4400**	**Yes**	ASL
	83-32-9	Acenaphthene	34	2,000	UG/KG	GSP-TP-5E-10-12	14/58	3.6 - 36	2,000	NA	22,000	100000	No	BSL
	208-96-8	Acenaphthylene	9	1,900	UG/KG	GSP-SB-109-6-8	10/58	3.6 - 47	1,900	NA	22,000 [10]	100000	No	BSL
	120-12-7	Anthracene	11 L	5,700	UG/KG	GSP-SB-81-2-4	16/58	3.6 - 9.3	5,700	NA	360,000	470000	No	BSL
	--	Bap Equivalent-Half non-detect[15]	4.8891	20,027	UG/KG	GSP-SB-109-6-8	23/58	3.6 - 9.3	20,027	NA	NA	NA	No	NTX
	--	Bap Equivalent-Positive only[15]	0.52	20,027	UG/KG	GSP-SB-109-6-8	23/58	3.6 - 9.3	20,027	NA	NA	NA	No	NTX
	56-55-3	**Benzo(a)anthracene**	8	13,000	UG/KG	GSP-SB-109-6-8	20/58	3.6 - 9.3	13,000	NA	**10**	**480**	**Yes**	ASL
	50-32-8	**Benzo(a)pyrene**	5.9 J	14,000	UG/KG	GSP-SB-109-6-8	20/58	3.6 - 9.3	14,000	NA	**3.5**	**120**	**Yes**	ASL
	205-99-2	**Benzo(b)fluoranthene**	5.2 J	12,000	UG/KG	GSP-SB-109-6-8	22/58	3.6 - 9.3	12,000	NA	**35**	**1500**	**Yes**	ASL
	191-24-2	Benzo(g,h,i)perylene	13	10,000	UG/KG	GSP-SB-109-6-8	19/58	3.6 - 9.3	10,000	NA	120,000 [11]	680000	No	BSL
	207-08-9	**Benzo(k)fluoranthene**	7 J	6,300	UG/KG	GSP-SB-109-6-8	18/58	3.6 - 9.3	6,300	NA	**350**	15000	**Yes**	ASL
	117-81-7	Bis(2-ethylhexyl)phthalate	22 J	140 J	UG/KG	GSP-TP-5W-10-12	9/58	21 - 540	140	NA	1,100	2900000	No	BSL
	105-60-2	Caprolactam	43 J	43 J	UG/KG	GSP-SB-79-4-6	1/58	40 - 1000	43	NA	4,500	NA	No	BSL
	86-74-8	**Carbazole**	420 J	1,600	UG/KG	GSP-SB-121-6-8	4/58	29 - 760	1,600	NA	NA	**470**	**Yes**	ASL
	218-01-9	**Chrysene**	7.8 J	14,000	UG/KG	GSP-SB-109-6-8	20/58	1.2 - 3.1	14,000	NA	**1,100**	48000	**Yes**	ASL
	53-70-3	**Dibenzo(a,h)anthracene**	36	2,700	UG/KG	GSP-SB-109-6-8	13/58	3.6 - 36	2,700	NA	**11**	**460**	**Yes**	ASL
	132-64-9	**Dibenzofuran**	22 J	1,000	UG/KG	GSP-SB-121-6-8	9/58	3.6 - 450	1,000	NA	**680**	NA	**Yes**	ASL
	84-74-2	di-n-Butyl Phthalate	18 J	34 J	UG/KG	GSP-SB-114-6-8	5/58	16 - 420	34	NA	9,200	5000000	No	BSL
	206-44-0	Fluoranthene	8.3	21,000	UG/KG	GSP-SB-109-6-8	22/58	3.6 - 9.3	21,000	NA	160,000	6300000	No	BSL
	86-73-7	Fluorene	7.6 L	3,900	UG/KG	GSP-TP-5E-10-12	15/58	3.6 - 36	3,900	NA	27,000	140000	No	BSL
	193-39-5	**Indeno(1,2,3-cd)pyrene**	10	7,500	UG/KG	GSP-SB-109-6-8	18/58	3.6 - 9.3	7,500	NA	**120**	**4200**	**Yes**	ASL
	91-20-3	**Naphthalene**	23	17,000	UG/KG	GSP-TP-5E-10-12	13/58	3.6 - 47	17,000	NA	**0.47**	**150**	**Yes**	ASL
	85-01-8	Phenanthrene	7.6 J	23,000	UG/KG	GSP-SB-81-2-4	20/58	3.6 - 9.3	23,000	NA	120,000 [11]	470000	No	BSL
	108-95-2	Phenol	54 J	130 J	UG/KG	GSP-SB-120-6-8	2/57	29 - 760	130	NA	6,300	67000	No	BSL
	129-00-0	Pyrene	6.6 J	32,000	UG/KG	GSP-SB-109-6-8	25/58	3.6 - 9.3	32,000	NA	120,000	680000	No	BSL

TABLE 2.4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF GLOBAL POTENTIAL CONCERN - ALL SUBSURFACE SOIL (2-15 FEET) - MIGRATION TO GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA SSL - Groundwater Protection[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**POLYCHLORINATED BIPHENYLS**													
	53469-21-9	**Aroclor-1242**	21 J	130	UG/KG	GSP-SB-121-6-8	2/58	14 - 150	130	NA	**5.3**	NA	**Yes**	ASL
	11096-82-5	**Aroclor-1260**	19 J	2,700	UG/KG	GSP-SB-119-6-8	5/58	18 - 100	2,700	NA	**24**	NA	**Yes**	ASL
	--	**Total Aroclor**	19	2,700	UG/KG	GSP-SB-119-6-8	5/5	-	2,700	NA	**24** [12]	NA	**Yes**	ASL
	METALS													
	7440-36-0	**Antimony**	0.075 J	0.79 J	MG/KG	GSP-TP-5W-10-12	10/58	0.019 - 0.99	0.79	6	**0.66**	13	**Yes**	ASL
	7440-38-2	**Arsenic**	0.4 J	52	MG/KG	GSP-SB-111-6-8	56/58	0.33 - 0.34	52	3.6	**0.0013**	**0.026**	**Yes**	ASL
	7440-39-3	Barium	1.1 J	250	MG/KG	GSP-SB-110-6-8	58/58	-	250	73	300	6000	No	BSL
	7440-41-7	Beryllium	0.072 J	0.74 J	MG/KG	GSP-SB-81-2-4	16/58	0.021 - 0.054	0.74	0.66	58	1200	No	BSL
	7440-43-9	Cadmium	0.065 J	0.85	MG/KG	GSP-TP-4-3-5	5/58	0.0019 - 0.045	0.85	0.73	1.4	27	No	BSL
	7440-47-3	**Chromium**	1.4 J	39	MG/KG	GSP-SB-91-8-10	58/58	-	39	28	**0.00083** [13]	42 [13]	**Yes**	ASL
	7440-48-4	**Cobalt**	0.11 J	8.8	MG/KG	GSP-TP-5W-10-12	51/58	0.15 - 0.2	8.8	11	**0.49**	NA	**Yes**	ASL
	7440-50-8	**Copper**	0.73 J	170	MG/KG	GSP-TP-2-10-12	54/58	0.8 - 0.93	170	12	**51**	11000	**Yes**	ASL
	7439-89-6	**Iron**	183	15,600 J	MG/KG	GSP-SB-81-2-4	8/8	-	15,600	15,000	**640**	NA	**Yes**	ASL
	7439-92-1	**Lead**	0.42	41	MG/KG	GSP-TP-4-3-5	52/58	0.73 - 1.1	41	45	**14** [14]	NA	**Yes**	ASL
	7439-96-5	**Manganese**	0.98	713 J	MG/KG	GSP-SB-81-2-4	8/8	-	713	480	**57**	950	**Yes**	ASL
	7439-97-6	**Mercury**	0.011 J	0.093	MG/KG	GSP-TP-5W-10-12	19/58	0.011 - 0.02	0.093	0.51	**0.033**	NA	**Yes**	ASL
	7439-98-7	Molybdenum	0.15 J	0.65	MG/KG	GSP-SB-79-4-6	7/58	0.062 - 2.4	0.65	NA	3.7	NA	No	BSL
	7440-02-0	Nickel	0.21	22	MG/KG	GSP-SB-108-6-8	49/58	0.26 - 0.34	22	13	48	NA	No	BSL
	7782-49-2	Selenium	0.051 J	0.84 J	MG/KG	GSP-SB-111-6-8	11/58	0.37 - 0.57	0.84	2.2	0.95	19	No	BSL
	7440-22-4	Silver	0.052 J	0.18 J	MG/KG	GSP-SB-130-6-8	3/58	0.0018 - 0.13	0.18	0.94	1.6	31	No	BSL
	7440-28-0	**Thallium**	0.64 J	1.5 J	MG/KG	GSP-SB-110-6-8	9/58	0.016 - 0.69	1.5	3.9	**0.026**	3.6	**Yes**	ASL
	7440-62-2	**Vanadium**	1.3	300	MG/KG	GSP-SB-111-6-8	57/58	3.7 - 3.7	300	30	**180**	730	**Yes**	ASL
	7440-66-6	Zinc	1.4 J	63	MG/KG	GSP-SB-121-6-8	44/58	0.88 - 5.2	63	63	680	14000	No	BSL
	PETROLEUM HYDROCARBONS													
	- -	Diesel Range Organics	3.7 J	5,200	MG/KG	GSP-SB-81-2-4	23/58	3.3 - 27	5,200	NA	NA	NA	No	NTX
	PETROLEUM HYDROCARBONS													
	- -	Gasoline Range Organics	36 J	88,000	UG/KG	GSP-TP-5E-10-12	8/58	27 - 34	88,000	NA	NA	NA	No	NTX

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - To determine whether chemical concentrations were within background levels, a statistical analysis was conducted using the site and background datasets.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, June 2011. [Cancer benchmark value = 1E-06, Hazard index (HI) = 0.1].
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - USEPA Soil Screening Levels (SSLs). EPA Internet Site at http://rais.ornl.gov/epa/ssl1.shtml.
8 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
9 - The value is for xylenes.
10 - The value is for acenaphthene.
11 - The value is for pyrene.
12 - The value is for polychlorinated biphenyls (high risk).
13 - The value is for hexavalent chromium.
14 - Maximum Contaminant Level (MCL)-based soil screening level (SSL).
15 - See text for BaP equivalent calculation methodology.
16 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.

Definitions:
BaP = benzo(a)pyrene
C = carcinogen
COPC = chemical of potential concern
J = estimated value
L = biased low
mg/kg = milligram per kilogram
N = non-carcinogen
NA = not applicable/not available
sat = soil saturation concentration
ug/kg = microgram per kilogram

Rationale Codes:
For selection as a COPC:
ASL = above screening level

For elimination as a COPC:

BSL = below screening level
NTX = no toxicity criteria

TABLE 2.4
OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF GLOBAL POTENTIAL CONCERN - ALL SUBSURFACE SOIL (2-15 FEET) - MIGRATION TO GROUNDWATER
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	USEPA SSL - Groundwater Protection[5]	MDE Cleanup Standard - Groundwater Protection[6]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples:

GSP-SB-56-10-12	GSP-SB-95-6-8	GSP-SB-106-6-8	GSP-SB-118-6-8	GSP-SB-130-6-8
GSP-SB-73-12-14	GSP-SB-96-6-8	GSP-SB-107-6-8	GSP-SB-119-6-8	GSP-TP-1-10-12
GSP-SB-73-12-14-R	GSP-SB-97-6-8	GSP-SB-108-6-8	GSP-SB-120-6-8	GSP-TP-2-10-12
GSP-SB-79-4-6	GSP-SB-98-6-8	GSP-SB-109-6-8	GSP-SB-121-6-8	GSP-TP-3-5-7
GSP-SB-80-14-16	GSP-SB-99-6-8	GSP-SB-110-6-8	GSP-SB-122-6-8	GSP-TP-4-3-5
GSP-SB-81-2-4	GSP-SB-100-2-4	GSP-SB-111-6-8	GSP-SB-123-6-8	GSP-TP-5E-10-12
GSP-SB-85-10-12	GSP-SB-100-6-8	GSP-SB-112-6-8	GSP-SB-124-6-8	GSP-TP-5W-10-12
GSP-SB-88-2-4	GSP-SB-101-6-8	GSP-SB-113-6-8	GSP-SB-125-6-8	GSP-TP-6-4-6
GSP-SB-89-2-4	GSP-SB-102-6-8	GSP-SB-114-6-8	GSP-SB-126-8-10	GSP-TP-7-9-10
GSP-SB-91-8-10	GSP-SB-103-6-8	GSP-SB-115-10-12	GSP-SB-127-6-8	GSP-TP-8-6-7
GSP-SB-93-12-14	GSP-SB-104-6-8	GSP-SB-116-6-8	GSP-SB-128-6-8	GSP-TP-9-8-10
GSP-SB-94-6-8	GSP-SB-105-6-8	GSP-SB-117-6-8	GSP-SB-129-6-8	

TABLE 2.5
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL GROUNDWATER - DIRECT CONTACT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Tap Water[5]	MDE Cleanup Standard - Groundwater[6]	USEPA MCL[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**VOLATILES**														
	75-35-4	1,1-Dichloroethene	0.45 J	1.3	UG/L	GSP-SB/WP-89-20100528	3/20	0.19 - 3.2	1.3	NA	34 N	7	7	No	BSL
	95-63-6	1,2,4-Trimethylbenzene	0.26 J	0.26 J	UG/L	GSP-MW-1-061711	1/20	0.12 - 2	0.26	NA	1.5 N	NA	NA	No	BSL
	78-93-3	2-Butanone	0.62 J	3.2 J	UG/L	GSP-SB-WP-66-062311	2/20	0.57 - 9.5	3.2	NA	710 N	700	NA	No	BSL
	67-64-1	Acetone	1.5 J	2.6 J	UG/L	GSP-MW-6-062011	4/20	1.1 - 22	2.6	NA	2200 N	550	NA	No	BSL
	71-43-2	**Benzene**	0.13 J	3.1 J	UG/L	GSP-MW-7-062211	2/20	0.13 - 0.35	3.1	NA	**0.41 C**	5	5	**Yes**	ASL
	75-15-0	Carbon Disulfide	0.27 J	0.27 J	UG/L	GSP-SB-WP-66-062311	1/20	0.13 - 2.2	0.27	NA	100 N	100	NA	No	BSL
	56-23-5	**Carbon Tetrachloride**	2.6	2.6	UG/L	GSP-MW-5-062011	1/20	0.13 - 2.2	2.6	NA	**0.44 C**	5	5	**Yes**	ASL
	67-66-3	**Chloroform**	0.92 J	0.92 J	UG/L	GSP-MW-5-062011	1/20	0.16 - 2.7	0.92	NA	**0.19 C**	80	80	**Yes**	ASL
	74-87-3	Chloromethane	0.42 J	0.42 J	UG/L	GSP-MW-8-062311	1/20	0.3 - 5	0.42	NA	19 N	19	NA	No	BSL
	156-59-2	cis-1,2-Dichloroethene	0.32 J	4.5	UG/L	GSP-SB/WP-89-20100528	7/20	0.17 - 2.8	4.5	NA	7.3 N	70	70	No	BSL
	- -	m+p-Xylenes	0.71 J	0.71 J	UG/L	GSP-MW-1-061711	1/20	0.24 - 4	0.71	NA	20 N	10000 [9]	NA	No	BSL
	95-47-6	o-Xylene	0.33 J	0.33 J	UG/L	GSP-MW-1-061711	1/20	0.14 - 2.3	0.33	NA	20 N	10000 [9]	NA	No	BSL
	75-65-0	Tertiary-Butyl Alcohol	6.9 J	6.9 J	UG/L	GSP-SB-WP-66-062311	1/1	-	6.9	NA	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.13 J	22	UG/L	GSP-SB-WP-66-062311	3/20	0.13 - 2.2	22	NA	230 N	1000	1000	No	BSL
	1330-20-7	Total Xylenes	1 J	1 J	UG/L	GSP-MW-1-061711	1/20	0.28 - 4.7	1	NA	20 N	10000 [9]	10000	No	BSL
	156-60-5	trans-1,2-Dichloroethene	0.19 J	0.22 J	UG/L	GSP-SB/WP-89-20100528	2/20	0.19 - 3.2	0.22	NA	11 N	100	100	No	BSL
	79-01-6	**Trichloroethene**	0.27 J	450	UG/L	GSP-MW-7-062211	10/20	0.17 - 0.17	450	NA	**0.66 C**[13]	**5**	**5**	**Yes**	ASL
	75-01-4	**Vinyl Chloride**	0.28 J	0.66 J	UG/L	GSP-MW-4-062011	2/20	0.22 - 3.7	0.66	NA	**0.016 C**	2	2	**Yes**	ASL
	SEMIVOLATILES														
	106-44-5	4-Methylphenol	2.1	8.4	UG/L	GSP-SB/WP-83-20100528	2/6	0.8 - 0.8	8.4	NA	18 N	18	NA	No	BSL
	117-81-7	Bis(2-ethylhexyl)phthalate	0.85 J	1.3 J	UG/L	GSP-SB/WP-84-20100526	3/20	0.76 - 1.2	1.3	NA	4.8 C	6	6	No	BSL
	85-68-7	Butyl Benzyl Phthalate	0.82 J	2.3	UG/L	GSP-SB/WP-66-20100527	4/20	0.76 - 1.2	2.3	NA	35 C	NA	NA	No	BSL
	105-60-2	Caprolactam	0.77 J	0.77 J	UG/L	GSP-MW-1-061711	1/20	0.76 - 1.2	0.77	NA	1800 N	NA	NA	No	BSL
	108-95-2	Phenol	0.69 J	1.7	UG/L	GSP-SB/WP-66-20100527, GSP-SB/WP-83-20100528	5/20	0.57 - 0.91	1.7	NA	1100 N	1100	NA	No	BSL
	DISSOLVED METALS														
	7440-36-0	Antimony	0.23 J	0.49 J	UG/L	GSP-SB-WP-66-062311	2/20	0.06 - 0.55	0.49	NA	1.5 N	6	6	No	BSL
	7440-38-2	**Arsenic**	0.27 J	9.4 J	UG/L	GSP-SB-WP-83-062211	15/20	0.092 - 0.66	9.4	NA	**0.045 C**	10	10	**Yes**	ASL
	7440-39-3	Barium	10	120	UG/L	GSP-MW-3-061711	20/20	-	120	NA	730 N	2000	2000	No	BSL
	7440-41-7	Beryllium	0.16 J	2.8	UG/L	GSP-MW-5-062011	9/20	0.0059 - 0.092	2.8	NA	7.3 N	4	4	No	BSL
	7440-43-9	Cadmium	0.053 J	1.3	UG/L	GSP-MW-5-062011	9/20	0.044 - 0.13	1.3	NA	1.8 N	5	5	No	BSL
	7440-47-3	**Chromium**	0.11 J	5.8	UG/L	GSP-SB/WP-83-20100528	14/20	0.11 - 0.65	5.8	NA	**0.043 C**[10]	100 [10]	100 [11]	**Yes**	ASL
	7440-48-4	**Cobalt**	0.42 J	220	UG/L	GSP-SB-WP-84-062311	20/20	-	220	NA	**1.1 N**	NA	NA	**Yes**	ASL
	7440-50-8	Copper	0.39 J	36	UG/L	GSP-MW-3-061711	14/20	0.42 - 3.3	36	NA	150 N	1300	1300	No	BSL
	7439-89-6	**Iron**	464	19800	UG/L	GSP-SB/WP-83-20100528	6/6	-	19800	NA	**2600 N**	**300**	NA	**Yes**	ASL

TABLE 2.5
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL GROUNDWATER - DIRECT CONTACT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Tap Water[5]	MDE Cleanup Standard - Groundwater[6]	USEPA MCL[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]
RECs 9, 10, 11	**DISSOLVED METALS (CONTINUED)**														
	7439-92-1	Lead	1.2 J	2.7	UG/L	GSP-SB-WP-66-062311	4/20	0.071 - 0.5	2.7	NA	NA	15	15	No	BSL
	7439-96-5	**Manganese**	27.5	772	UG/L	GSP-SB/WP-71-20100528	6/6	-	772	NA	**88 N**	**50**	NA	**Yes**	ASL
	7439-97-6	Mercury	0.09 J	0.09 J	UG/L	GSP-MW-7-062211	1/20	0.066 - 0.1	0.09	NA	1.1 N[12]	2	2	No	BSL
	7439-98-7	Molybdenum	1 J	5.4	UG/L	GSP-SB/WP-71-20100528	5/20	0.27 - 2.9	5.4	NA	18 N	NA	NA	No	BSL
	7440-02-0	**Nickel**	0.73 J	410	UG/L	GSP-SB-WP-84-062311	18/20	0.63 - 0.63	410	NA	**73 N**	**73**	NA	**Yes**	ASL
	7782-49-2	Selenium	0.35 J	5.2	UG/L	GSP-MW-8-062311	7/20	0.15 - 0.87	5.2	NA	18 N	50	50	No	BSL
	7440-28-0	**Thallium**	1.1 J	1.1 J	UG/L	GSP-SB-WP-84-062311	1/20	0.13 - 1	1.1	NA	**0.037 N**	2	2	**Yes**	ASL
	7440-62-2	**Vanadium**	0.45 J	13 J	UG/L	GSP-SB-WP-66-062311, GSP-SB-WP-84-062311	12/20	0.3 - 0.43	13	NA	18 N	**3.7**	NA	**Yes**	ASL
	7440-66-6	**Zinc**	4.9 J	1600 J	UG/L	GSP-SB-WP-84-062311	15/20	0.5 - 22.6	1600	NA	**1100 N**	5000	NA	**Yes**	ASL
	METALS														
	7440-36-0	Antimony	0.43 J	0.53 J	UG/L	GSP-SB-WP-66-062311	2/20	0.073 - 0.39	0.53	NA	1.5 N	6	6	No	BSL
	7440-38-2	**Arsenic**	0.42 J	11 J	UG/L	GSP-MW-3-061711, GSP-SB-WP-83-062211	19/20	0.48 - 0.48	11	NA	**0.045 C**	**10**	**10**	**Yes**	ASL
	7440-39-3	Barium	16	120	UG/L	GSP-MW-1-061711	20/20	-	120	NA	730 N	2000	2000	No	BSL
	7440-41-7	Beryllium	0.12 J	3.5	UG/L	GSP-MW-5-062011	11/20	0.0059 - 0.12	3.5	NA	7.3 N	4	4	No	BSL
	7440-43-9	Cadmium	0.07 J	1.4	UG/L	GSP-MW-5-062011	10/20	0.026 - 0.14	1.4	NA	1.8 N	5	5	No	BSL
	7440-47-3	**Chromium**	0.79 J	8.2	UG/L	GSP-SB-WP-66-062311	17/20	0.36 - 0.73	8.2	NA	**0.043 C[10]**	100 [10]	100 [11]	**Yes**	ASL
	7440-48-4	**Cobalt**	0.68 J	210	UG/L	GSP-SB-WP-84-062311	20/20	-	210	NA	**1.1 N**	NA	NA	**Yes**	ASL
	7440-50-8	Copper	0.93 J	39	UG/L	GSP-SB-WP-61-062211	15/20	0.65 - 5.6	39	NA	150 N	1300	1300	No	BSL
	7439-89-6	**Iron**	5040	20800	UG/L	GSP-SB/WP-83-20100528	6/6	-	20800	NA	**2600 N**	**300**	NA	**Yes**	ASL
	7439-92-1	Lead	0.58 J	8.5	UG/L	GSP-SB-WP-66-062311	13/20	0.073 - 0.84	8.5	NA	NA	15	15	No	BSL
	7439-96-5	**Manganese**	29.8	756	UG/L	GSP-SB/WP-71-20100528	6/6	-	756	NA	**88 N**	**50**	NA	**Yes**	ASL
	7439-97-6	Mercury	0.073 J	0.19 J	UG/L	GSP-MW-7-062211	2/20	0.066 - 0.1	0.19	NA	1.1 N[12]	2	2	No	BSL
	7439-98-7	Molybdenum	0.47 J	5.9	UG/L	GSP-MW-5-062011	6/20	0.27 - 2.6	5.9	NA	18 N	NA	NA	No	BSL
	7440-02-0	**Nickel**	0.69 J	380	UG/L	GSP-SB-WP-84-062311	19/20	0.63 - 0.63	380	NA	**73 N**	**73**	NA	**Yes**	ASL
	7782-49-2	Selenium	0.36 J	5.2	UG/L	GSP-MW-8-062311	8/20	0.26 - 0.9	5.2	NA	18 N	50	50	No	BSL
	7440-28-0	**Thallium**	1.1 J	1.1 J	UG/L	GSP-SB-WP-84-062311	1/20	0.13 - 1.1	1.1	NA	**0.037 N**	2	2	**Yes**	ASL
	7440-62-2	**Vanadium**	0.37 J	48	UG/L	GSP-MW-3-061711	19/20	0.3 - 0.3	48	NA	**18 N**	**3.7**	NA	**Yes**	ASL
	7440-66-6	**Zinc**	6 J	1500 J	UG/L	GSP-SB-WP-84-062311	15/20	3.5 - 98.1	1500	NA	**1100 N**	5000	NA	**Yes**	ASL
	PETROLEUM HYDROCARBONS														
	- -	**Diesel Range Organics**	42 J	1600	UG/L	GSP-MW-6-062011	9/20	30 - 740	1600	NA	NA	**47**	NA	**Yes**	ASL
	- -	**Gasoline Range Organics**	27 J	300	UG/L	GSP-MW-7-062211	3/20	25 - 53	300	NA	NA	**47**	NA	**Yes**	ASL

TABLE 2.5
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL GROUNDWATER - DIRECT CONTACT
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted USEPA RSL - Tap Water[5]	MDE Cleanup Standard - Groundwater[6]	USEPA MCL[7]	COPC Flag	Rationale for Contaminant Deletion or Selection[8]

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available for groundwater.
5 - United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites, June 2011.
Adjusted values correspond to a cancer risk level of 1E-06 or a hazard quotient (HQ) of 0.1.
6 - State of Maryland Department of the Environment (MDE) Cleanup Standards for Soil and Groundwater, June 2008.
7 - 2011 Edition of the Drinking Water Standards and Health Advisories (USEPA, January 2011).
8 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
9 - Value is for xylenes.
10 - The value is for hexavalent chromium.
11 - The value is for total chromium.
12 - The value is for mercuric chloride (and other mercury salts).
13 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples:

GSP-MW-1-061711	GSP-SB/WP-61-20100527	GSP-SB/WP-83-20100528
GSP-MW-2-061711	GSP-SB-WP-61-062211	GSP-SB-WP-83-062211
GSP-MW-3-061711	GSP-SB-WP-61-062311	GSP-SB/WP-84-20100526
GSP-MW-4-062011	GSP-SB/WP-66-20100527	GSP-SB-WP-84-062311
GSP-MW-5-062011	GSP-SB-WP-66-062311	GSP-SB/WP-89-20100528
GSP-MW-6-062011	GSP-SB-WP-66-062411	GSP-SB-WP-89-062311
GSP-MW-7-062211	GSP-SB/WP-71-20100528	
GSP-MW-8-062311	GSP-SB-WP-71-062111	

Definitions:
C = carcinogen
COPC = chemical of potential concern
J = estimated value
N = non-carcinogen
NA = not applicable/not available
ug/L = microgram per liter

Rationale Codes:
For selection as a COPC:
ASL = above screening level

For elimination as a COPC:
BSL = below screening level

NTX = no toxicity criteria

TABLE 2.6
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL GROUNDWATER - VAPOR INTRUSION
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted Groundwater Volatilization Criterion[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
RECs 9, 10, 11	**VOLATILES**														
	75-35-4	1,1-Dichloroethene	0.45 J	1.3	UG/L	GSP-SB/WP-89-20100528	3/20	0.19 - 3.2	1.3	NA	20 N	NA	NA	No	BSL
	95-63-6	1,2,4-Trimethylbenzene	0.26 J	0.26 J	UG/L	GSP-MW-1-061711	1/20	0.12 - 2	0.26	NA	2.9 N	NA	NA	No	BSL
	78-93-3	2-Butanone	0.62 J	3.2 J	UG/L	GSP-SB-WP-66-062311	2/20	0.57 - 9.5	3.2	NA	220000 N	NA	NA	No	BSL
	67-64-1	Acetone	1.5 J	2.6 J	UG/L	GSP-MW-6-062011	4/20	1.1 - 22	2.6	NA	2200000 N	NA	NA	No	BSL
	71-43-2	**Benzene**	0.13 J	3.1 J	UG/L	GSP-MW-7-062211	2/20	0.13 - 0.35	3.1	NA	**1.4 C**	NA	NA	**Yes**	ASL
	75-15-0	Carbon Disulfide	0.27 J	0.27 J	UG/L	GSP-SB-WP-66-062311	1/20	0.13 - 2.2	0.27	NA	120 N	NA	NA	No	BSL
	56-23-5	**Carbon Tetrachloride**	2.6	2.6	UG/L	GSP-MW-5-062011	1/20	0.13 - 2.2	2.6	NA	**0.36 C**	NA	NA	**Yes**	ASL
	67-66-3	**Chloroform**	0.92 J	0.92 J	UG/L	GSP-MW-5-062011	1/20	0.16 - 2.7	0.92	NA	**0.73 C**	NA	NA	**Yes**	ASL
	74-87-3	Chloromethane	0.42 J	0.42 J	UG/L	GSP-MW-8-062311	1/20	0.3 - 5	0.42	NA	26 N	NA	NA	No	BSL
	156-59-2	cis-1,2-Dichloroethene	0.32 J	4.5	UG/L	GSP-SB/WP-89-20100528	7/20	0.17 - 2.8	4.5	NA	38 N[7]	NA	NA	No	BSL
	- -	m+p-Xylenes	0.71 J	0.71 J	UG/L	GSP-MW-1-061711	1/20	0.24 - 4	0.71	NA	34 N[8]	NA	NA	No	BSL
	95-47-6	o-Xylene	0.33 J	0.33 J	UG/L	GSP-MW-1-061711	1/20	0.14 - 2.3	0.33	NA	47 N	NA	NA	No	BSL
	75-65-0	Tertiary-Butyl Alcohol	6.9 J	6.9 J	UG/L	GSP-SB-WP-66-062311	1/1	-	6.9	NA	NA	NA	NA	No	NTX
	108-88-3	Toluene	0.13 J	22	UG/L	GSP-SB-WP-66-062311	3/20	0.13 - 2.2	22	NA	1900 N	NA	NA	No	BSL
	1330-20-7	Total Xylenes	1 J	1 J	UG/L	GSP-MW-1-061711	1/20	0.28 - 4.7	1	NA	47 N	NA	NA	No	BSL
	156-60-5	trans-1,2-Dichloroethene	0.19 J	0.22 J	UG/L	GSP-SB/WP-89-20100528	2/20	0.19 - 3.2	0.22	NA	38 N	NA	NA	No	BSL
	79-01-6	**Trichloroethene**	0.27 J	450	UG/L	GSP-MW-7-062211	10/20	0.17 - 0.17	450	NA	**0.52 N**[9]	NA	NA	**Yes**	ASL
	75-01-4	**Vinyl Chloride**	0.28 J	0.66 J	UG/L	GSP-MW-4-062011	2/20	0.22 - 3.7	0.66	NA	**0.14 C**	NA	NA	**Yes**	ASL
	SEMIVOLATILES														
	106-44-5	4-Methylphenol	2.1	8.4	UG/L	GSP-SB/WP-83-20100528	2/6	0.8 - 0.8	8.4	NA	15000000	NA	NA	No	BSL
	117-81-7	Bis(2-ethylhexyl)phthalate	0.85 J	1.3 J	UG/L	GSP-SB/WP-84-20100526	3/20	0.76 - 1.2	1.3	NA	91000 C	NA	NA	No	BSL
	85-68-7	Butyl Benzyl Phthalate	0.82 J	2.3	UG/L	GSP-SB/WP-66-20100527	4/20	0.76 - 1.2	2.3	NA	NA	NA	NA	No	NTX
	105-60-2	Caprolactam	0.77 J	0.77 J	UG/L	GSP-MW-1-061711	1/20	0.76 - 1.2	0.77	NA	NA	NA	NA	No	NTX
	108-95-2	Phenol	0.69 J	1.7	UG/L	GSP-SB/WP-66-20100527, GSP-SB/WP-83-20100528	5/20	0.57 - 0.91	1.7	NA	15000000	NA	NA	No	BSL
	DISSOLVED METALS														
	7440-36-0	Antimony	0.23 J	0.49 J	UG/L	GSP-SB-WP-66-062311	2/20	0.06 - 0.55	0.49	NA	NA	NA	NA	No	NTX
	7440-38-2	Arsenic	0.27 J	9.4 J	UG/L	GSP-SB-WP-83-062211	15/20	0.092 - 0.66	9.4	NA	NA	NA	NA	No	NTX
	7440-39-3	Barium	10	120	UG/L	GSP-MW-3-061711	20/20	-	120	NA	NA	NA	NA	No	NTX
	7440-41-7	Beryllium	0.16 J	2.8	UG/L	GSP-MW-5-062011	9/20	0.0059 - 0.092	2.8	NA	NA	NA	NA	No	NTX
	7440-43-9	Cadmium	0.053 J	1.3	UG/L	GSP-MW-5-062011	9/20	0.044 - 0.13	1.3	NA	NA	NA	NA	No	NTX
	7440-47-3	Chromium	0.11 J	5.8	UG/L	GSP-SB/WP-83-20100528	14/20	0.11 - 0.65	5.8	NA	NA	NA	NA	No	NTX
	7440-48-4	Cobalt	0.42 J	220	UG/L	GSP-SB-WP-84-062311	20/20	-	220	NA	NA	NA	NA	No	NTX
	7440-50-8	Copper	0.39 J	36	UG/L	GSP-MW-3-061711	14/20	0.42 - 3.3	36	NA	NA	NA	NA	No	NTX
	7439-89-6	Iron	464	19800	UG/L	GSP-SB/WP-83-20100528	6/6	-	19800	NA	NA	NA	NA	No	NTX

TABLE 2.6
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL GROUNDWATER - VAPOR INTRUSION
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted Groundwater Volatilization Criterion[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]
RECs 9, 10, 11	**DISSOLVED METALS (continued)**														
	7439-92-1	Lead	1.2 J	2.7	UG/L	GSP-SB-WP-66-062311	4/20	0.071 - 0.5	2.7	NA	NA	NA	NA	No	NTX
	7439-96-5	Manganese	27.5	772	UG/L	GSP-SB/WP-71-20100528	6/6	-	772	NA	NA	NA	NA	No	NTX
	7439-97-6	Mercury	0.09 J	0.09 J	UG/L	GSP-MW-7-062211	1/20	0.066 - 0.1	0.09	NA	NA	NA	NA	No	NTX
	7439-98-7	Molybdenum	1 J	5.4	UG/L	GSP-SB/WP-71-20100528	5/20	0.27 - 2.9	5.4	NA	NA	NA	NA	No	NTX
	7440-02-0	Nickel	0.73 J	410	UG/L	GSP-SB-WP-84-062311	18/20	0.63 - 0.63	410	NA	NA	NA	NA	No	NTX
	7782-49-2	Selenium	0.35 J	5.2	UG/L	GSP-MW-8-062311	7/20	0.15 - 0.87	5.2	NA	NA	NA	NA	No	NTX
	7440-28-0	Thallium	1.1 J	1.1 J	UG/L	GSP-SB-WP-84-062311	1/20	0.13 - 1	1.1	NA	NA	NA	NA	No	NTX
	7440-62-2	Vanadium	0.45 J	13 J	UG/L	GSP-SB-WP-66-062311, GSP-SB-WP-84-062311	12/20	0.3 - 0.43	13	NA	NA	NA	NA	No	NTX
	7440-66-6	Zinc	4.9 J	1600 J	UG/L	GSP-SB-WP-84-062311	15/20	0.5 - 22.6	1600	NA	NA	NA	NA	No	NTX
	METALS														
	7440-36-0	Antimony	0.43 J	0.53 J	UG/L	GSP-SB-WP-66-062311	2/20	0.073 - 0.39	0.53	NA	NA	NA	NA	No	NTX
	7440-38-2	Arsenic	0.42 J	11 J	UG/L	GSP-MW-3-061711, GSP-SB-WP-83-062211	19/20	0.48 - 0.48	11	NA	NA	NA	NA	No	NTX
	7440-39-3	Barium	16	120	UG/L	GSP-MW-1-061711	20/20	-	120	NA	NA	NA	NA	No	NTX
	7440-41-7	Beryllium	0.12 J	3.5	UG/L	GSP-MW-5-062011	11/20	0.0059 - 0.12	3.5	NA	NA	NA	NA	No	NTX
	7440-43-9	Cadmium	0.07 J	1.4	UG/L	GSP-MW-5-062011	10/20	0.026 - 0.14	1.4	NA	NA	NA	NA	No	NTX
	7440-47-3	Chromium	0.79 J	8.2	UG/L	GSP-SB-WP-66-062311	17/20	0.36 - 0.73	8.2	NA	NA	NA	NA	No	NTX
	7440-48-4	Cobalt	0.68 J	210	UG/L	GSP-SB-WP-84-062311	20/20	-	210	NA	NA	NA	NA	No	NTX
	7440-50-8	Copper	0.93 J	39	UG/L	GSP-SB-WP-61-062211	15/20	0.65 - 5.6	39	NA	NA	NA	NA	No	NTX
	7439-89-6	Iron	5040	20800	UG/L	GSP-SB/WP-83-20100528	6/6	-	20800	NA	NA	NA	NA	No	NTX
	7439-92-1	Lead	0.58 J	8.5	UG/L	GSP-SB-WP-66-062311	13/20	0.073 - 0.84	8.5	NA	NA	NA	NA	No	NTX
	7439-96-5	Manganese	29.8	756	UG/L	GSP-SB/WP-71-20100528	6/6	-	756	NA	NA	NA	NA	No	NTX
	7439-97-6	Mercury	0.073 J	0.19 J	UG/L	GSP-MW-7-062211	2/20	0.066 - 0.1	0.19	NA	NA	NA	NA	No	NTX
	7439-98-7	Molybdenum	0.47 J	5.9	UG/L	GSP-MW-5-062011	6/20	0.27 - 2.6	5.9	NA	NA	NA	NA	No	NTX
	7440-02-0	Nickel	0.69 J	380	UG/L	GSP-SB-WP-84-062311	19/20	0.63 - 0.63	380	NA	NA	NA	NA	No	NTX
	7782-49-2	Selenium	0.36 J	5.2	UG/L	GSP-MW-8-062311	8/20	0.26 - 0.9	5.2	NA	NA	NA	NA	No	NTX
	7440-28-0	Thallium	1.1 J	1.1 J	UG/L	GSP-SB-WP-84-062311	1/20	0.13 - 1.1	1.1	NA	NA	NA	NA	No	NTX
	7440-62-2	Vanadium	0.37 J	48	UG/L	GSP-MW-3-061711	19/20	0.3 - 0.3	48	NA	NA	NA	NA	No	NTX
	7440-66-6	Zinc	6 J	1500 J	UG/L	GSP-SB-WP-84-062311	15/20	3.5 - 98.1	1500	NA	NA	NA	NA	No	NTX
	PETROLEUM HYDROCARBONS														
	- -	Diesel Range Organics	42 J	1600	UG/L	GSP-MW-6-062011	9/20	30 - 740	1600	NA	NA	NA	NA	No	NTX
	- -	Gasoline Range Organics	27 J	300	UG/L	GSP-MW-7-062211	3/20	25 - 53	300	NA	NA	NA	NA	No	NTX

TABLE 2.6
OCCURRENCE, DISTRIBUTION, AND SELECTION OF GLOBAL CHEMICALS OF POTENTIAL CONCERN - ALL GROUNDWATER - VAPOR INTRUSION
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Exposure Point	CAS Number	Chemical	Minimum Concentration[1]	Maximum Concentration[1]	Units	Sample of Maximum Concentration	Frequency of Detection	Range of Nondetects[2]	Concentration Used for Screening[3]	Range of Background Concentrations[4]	Adjusted Groundwater Volatilization Criterion[5]	Potential ARAR/TBC	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection[6]

Footnotes:
1 - Sample and duplicate are considered as two separate samples when determining the minimum and maximum concentrations.
2 - Values presented are sample-specific quantitation limits.
3 - The maximum detected concentration is used for screening purposes.
4 - No background data is available for groundwater.
5 - Calculated using methodology presented in Appendix D of USEPA's Draft Guidance for Evaluating the
Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils, November 2002. EPA530-F-02-052.
Adjusted values correspond to a target cancer risk level of 1E-06 or a hazard quotient (HQ) of 0.1 and an attenuation factor of 0.001.
6 - The chemical is selected as a COPC if the maximum detected concentration exceeds the risk-based COPC screening level.
7 - Value is for trans-1,2-dichloroethene.
8 - Value is for m-xylene.
9 - The screening level for trichloroethene was calculated using revised toxicity criteria from USEPA's Integrated Risk Information System.

Shaded criterion indicates that the maximum detected concentration exceeds one or more screening criteria. Shaded chemical name indicates that the chemical was retained as a COPC.

Associated Samples:

GSP-MW-1-061711	GSP-SB/WP-66-20100527
GSP-MW-2-061711	GSP-SB-WP-66-062311
GSP-MW-3-061711	GSP-SB-WP-66-062411
GSP-MW-4-062011	GSP-SB/WP-71-20100528
GSP-MW-5-062011	GSP-SB-WP-71-062111
GSP-MW-6-062011	GSP-SB/WP-83-20100528
GSP-MW-7-062211	GSP-SB-WP-83-062211
GSP-MW-8-062311	GSP-SB/WP-84-20100526
GSP-SB/WP-61-20100527	GSP-SB-WP-84-062311
GSP-SB-WP-61-062211	GSP-SB/WP-89-20100528
GSP-SB-WP-61-062311	GSP-SB-WP-89-062311

Definitions:
ARAR/TBC = Applicable or relevant and appropriate requirements to be considered
C = Carcinogen
COPC = Chemical of potential concern
J = Estimated value
N = Non-carcinogen
NA = Not applicable/not available
ug/L = microgram per liter

Rationale Codes:
For selection as a COPC:
ASL = Above screening level

For elimination as a COPC:
BSL = Below screening level
NTX = No toxicity criteria

RAGS Part D Table 3

Medium-Specific Exposure Point Concentration Summary

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RAGS PART D TABLE 3
MEDIUM-SPECIFIC EXPOSURE POINT CONCENTRATION SUMMARY

Table No.	
	Reasonable Maximum Exposures
3.1.RME	Surface Soil - RECs #9 and #10
3.2.RME	Subsurface Soil - RECs #9 and #10
3.3.RME	Surface Soil - REC #11
3.4.RME	Subsurface Soil - REC #11
3.5.RME	Groundwater - RECs #9 and #10
3.6.RME	Groundwater - REC #11

TABLE 3.1.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Greater Strawberry Point - RECs 9 and 10	Benzo(a)pyrene Equivalents	mg/kg	1.3	7.8 (NP)	19	7.8	mg/kg	99% KM (Chebyshev) UCL	ProUCL v. 4.1
	n-Nitroso-di-n-propylamine	mg/kg	NA(1)	NA(1)	NA	NA	mg/kg	NA	(1)
	Aroclor-1260	mg/kg	NA(2)	NA(2)	0.063 J	0.063	mg/kg	Maximum Detected Concentration	(2)
	Arsenic	mg/kg	2.5	2.9 (G)	5.6	2.9	mg/kg	95% Approximate Gamma UCL	ProUCL v. 4.1
	Chromium	mg/kg	10.3	11.8 (N)	24 K	11.8(3)	mg/kg	95% Student's-t UCL	ProUCL v. 4.1
	Cobalt	mg/kg	2.4	2.9 (G)	7.1	2.9	mg/kg	95% Approximate Gamma UCL	ProUCL v. 4.1
	Iron	mg/kg	6,900	8,400 (N)	12,900	8,400	mg/kg	95% Student's-t UCL	ProUCL v. 4.1
	Manganese	mg/kg	400	2,200 (L)	2,390 J	2,200	mg/kg	99% Chebyshev (Mean, Sd) UCL	ProUCL v. 4.1
	Thallium	mg/kg	0.29	0.91 (N)	2.3 K	0.91	mg/kg	95% KM (t) UCL	ProUCL v. 4.1
	Vanadium	mg/kg	19.2	24 (L)	65	24	mg/kg	95% H-UCL	ProUCL v. 4.1
	Diesel Range Organics	mg/kg	150	350 (G)	1,200 J	350	mg/kg	95% KM (Chebyshev) UCL	ProUCL v. 4.1

1 - Not detected in this exposure unit.
2 - Less than 3 positive detections - too few detections to calculate meaningful statistics.
3 - One percent of total chromium is assumed to be hexavalent chromium for risk assessment purposes; therefore, the EPC for hexavalent chromium is 0.12 mg/kg.

G = Gamma distribution.
J = Estimated value.
K = Biased high.
L = Lognormal distribution.
N = Normal distribution.
NA = Not applicable.
NP = Non-parametric distribution.

TABLE 3.2.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Subsurface Soil
Exposure Medium: Subsurface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Greater Strawberry Point - RECs 9 and 10	Naphthalene (VOC)	mg/kg	1.6	4.5 (N)	42	4.5[4]	mg/kg	95% KM (t) UCL	ProUCL v. 4.1
	Trichloroethene	mg/kg	NA[1]	NA[1]	0.36	0.36	mg/kg	Maximum Detected Concentration	(1)
	Benzo(a)pyrene Equivalents	mg/kg	1.0	2.2 (G)	20	2.2	mg/kg	95% KM (t) UCL	ProUCL v. 4.1
	Naphthalene (SVOC)	mg/kg	0.72	1.8 (G)	17	1.8[4]	mg/kg	95% KM (t) UCL	ProUCL v. 4.1
	Aroclor-1260	mg/kg	NA[1]	NA[1]	0.64	0.64	mg/kg	Maximum Detected Concentration	(1)
	Arsenic	mg/kg	2.4	3.8 (G)	6.8	3.8	mg/kg	95% KM (Chebyshev) UCL	ProUCL v. 4.1
	Chromium	mg/kg	11.5	14.9 (G)	39	14.9[3]	mg/kg	95% Approximate Gamma UCL	ProUCL v. 4.1
	Cobalt	mg/kg	2.1	5.1 (L)	8.8	5.1	mg/kg	97.5% KM (Chebyshev) UCL	ProUCL v. 4.1
	Iron	mg/kg	NA[2]	NA[2]	1,020	1,020	mg/kg	Maximum Detected Concentration	(2)
	Manganese	mg/kg	NA[2]	NA[2]	2	2	mg/kg	Maximum Detected Concentration	(2)
	Thallium	mg/kg	0.43	0.81 (N)	1.5 J	0.81	mg/kg	95% KM (t) UCL	ProUCL v. 4.1
	Vanadium	mg/kg	19.4	25.9 (G)	93	25.9	mg/kg	95% Approximate Gamma UCL	ProUCL v. 4.1
	Diesel Range Organics	mg/kg	120	220 (N)	1,100 J	220	mg/kg	95% KM (Percentile Bootstrap) UCL	ProUCL v. 4.1

1 - Less than 3 positive detections - too few detections to calculate meaningful statistics.
2 - Only one sample - cannot calculate statistics.
3 - One percent of total chromium is assumed to be hexavalent chromium for risk assessment purposes; therefore, the EPC for hexavalent chromium is 0.15 mg/kg.
4 - The EPC for napthalene in the VOC fraction is greater than that for the SVOC fraction; therefore, naphthalene in the VOC fraction was evaluated in the quantitative risk assessment.

G = Gamma distribution.
J = Estimated value.
L = Lognormal distribution.
N = Normal distribution.
NA = Not applicable.

TABLE 3.3.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Surface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Greater Strawberry Point - REC 11	Benzo(a)pyrene Equivalents	mg/kg	1.2	1.8 (G)	7.4	1.8	mg/kg	95% Approximate Gamma UCL	ProUCL v. 4.1
	n-Nitroso-di-n-propylamine	mg/kg	NA(1)	NA(1)	0.12	0.12	mg/kg	Maximum Detected Concentration	(1)
	Aroclor-1260	mg/kg	0.92	1.6 (G)	12	1.6	mg/kg	95% KM (BCA) UCL	ProUCL v. 4.1
	Arsenic	mg/kg	3.1	3.3 (N)	4.5	3.3	mg/kg	95% Student's-t UCL	ProUCL v. 4.1
	Chromium	mg/kg	13.2	14.4 (N)	24.1 K	14.4(2)	mg/kg	95% Student's-t UCL	ProUCL v. 4.1
	Cobalt	mg/kg	3.0	3.8 (G)	10.8 J	3.8	mg/kg	95% Approximate Gamma UCL	ProUCL v. 4.1
	Iron	mg/kg	8,200	10,000 (N)	15,000	10,000	mg/kg	95% Student's-t UCL	ProUCL v. 4.1
	Manganese	mg/kg	175	370 (G)	1,050	370	mg/kg	95% Approximate Gamma UCL	ProUCL v. 4.1
	Thallium	mg/kg	NA(1)	NA(1)	0.92 J	0.92	mg/kg	Maximum Detected Concentration	(1)
	Vanadium	mg/kg	22.2	24.7 (G)	54.2	24.7	mg/kg	95% Approximate Gamma UCL	ProUCL v. 4.1
	Diesel Range Organics	mg/kg	230	660 (L)	1,800 J	660	mg/kg	97.5% KM (Chebyshev) UCL	ProUCL v. 4.1

1 - Less than 3 positive detections - too few detections to calculate meaningful statistics.
2 - One percent of total chromium is assumed to be hexavalent chromium for risk assessment purposes; therefore, the EPC for hexavalent chromium is 0.14 mg/kg.

G = Gamma distribution.
J = Estimated value.
K = Biased high.
L = Lognormal distribution.
N = Normal distribution.
NA = Not applicable.

TABLE 3.4.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Subsurface Soil
Exposure Medium: Subsurface Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Greater Strawberry Point - REC 11	Naphthalene (VOC)	mg/kg	0.15	0.31 (N)	1.7 J	0.31[3]	mg/kg	95% KM (t) UCL	ProUCL v. 4.1
	Trichloroethene	mg/kg	0.0018	0.0033 (N)	19 J	0.0033	mg/kg	95% KM (t) UCL	ProUCL v. 4.1
	Benzo(a)pyrene Equivalents	mg/kg	1.2	2.3 (G)	14	2.3	mg/kg	95% KM (t) UCL	ProUCL v. 4.1
	Naphthalene (SVOC)	mg/kg	0.16	0.37 (G)	2.9	0.37[3]	mg/kg	95% KM (t) UCL	ProUCL v. 4.1
	Aroclor-1260	mg/kg	0.11	1.2 (L)	2.7	1.2	mg/kg	99% KM (Chebyshev) UCL	ProUCL v. 4.1
	Arsenic	mg/kg	3.7	11.9 (NP)	52	11.9	mg/kg	95% KM (Chebyshev) UCL	ProUCL v. 4.1
	Chromium	mg/kg	10.0	13.2 (G)	27	13.2[2]	mg/kg	95% Approximate Gamma UCL	ProUCL v. 4.1
	Cobalt	mg/kg	1.4	1.9 (G)	6 J	1.9	mg/kg	95% KM (BCA) UCL	ProUCL v. 4.1
	Iron	mg/kg	6600	12,000 (N)	15,600 J	15,600	mg/kg	Maximum Detected Concentration	(1)
	Manganese	mg/kg	130	1,300 (G)	713 J	713	mg/kg	Maximum Detected Concentration	(1)
	Thallium	mg/kg	0.28	0.68 (N)	0.94 J	0.68	mg/kg	95% KM (t) UCL	ProUCL v. 4.1
	Vanadium	mg/kg	25.2	72.0 (NP)	300	72.0	mg/kg	95% KM (Chebyshev) UCL	ProUCL v. 4.1
	Diesel Range Organics	mg/kg	230	1,400 (L)	5,200	1,400	mg/kg	97.5% KM (Chebyshev) UCL	ProUCL v. 4.1

1 - Less than 10 samples available; therefore, the maximum concentration is used as the EPC.
2 - One percent of total chromium is assumed to be hexavalent chromium for risk assessment purposes; therefore, the EPC for hexavalent chromium is 0.13 mg/kg.
3 - The EPC for napthalene in the SVOC fraction is greater than that for the VOC fraction; therefore, naphthalene in the SVOC fraction was evaluated in the quantitative risk assessment.

G = Gamma distribution.
J = Estimated value.
L = Lognormal distribution.
N = Normal distribution.
NP = Non-parametric distribution.

TABLE 3.5.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Greater Strawberry Point - RECs 9 and 10	Benzene	ug/L	NA(1)	NA(1)	3.1 J	3.1	ug/L	Maximum Detected Concentration	(1)
	Carbon Tetrachloride	ug/L	NA(1)	NA(1)	2.6	2.6	ug/L	Maximum Detected Concentration	(1)
	Chloroform	ug/L	NA(1)	NA(1)	0.92 J	0.92	ug/L	Maximum Detected Concentration	(1)
	Trichloroethene	ug/L	NA(1)	NA(1)	450	450	ug/L	Maximum Detected Concentration	(1)
	Vinyl Chloride	ug/L	NA(2)	NA(2)	NA(2)	NA	ug/L	NA	(2)
	Arsenic	ug/L	2.9	12.1 (L)	9.7 J	9.7	ug/L	Maximum Detected Concentration	(4)
	Chromium	ug/L	4.0	6.4 (N)	8.2	8.2	ug/L	Maximum Detected Concentration	(4)
	Cobalt	ug/L	20.4	61.1 (G)	76	76	ug/L	Maximum Detected Concentration	(4)
	Iron	ug/L	NA(3)	NA(3)	13,600	13,600	ug/L	Maximum Detected Concentration	(3)
	Manganese	ug/L	NA(3)	NA(3)	756	756	ug/L	Maximum Detected Concentration	(3)
	Nickel	ug/L	15	45.2 (G)	53	53	ug/L	Maximum Detected Concentration	(4)
	Thallium	ug/L	NA(2)	NA(2)	NA(2)	NA	ug/L	NA	(2)
	Vanadium	ug/L	6.4	18.4 (G)	23	23	ug/L	Maximum Detected Concentration	(4)
	Zinc	ug/L	29.7	47.5 (N)	79	79	ug/L	Maximum Detected Concentration	(4)
	Diesel Range Organics	ug/L	576	1200 (N)	1600	1600	ug/L	Maximum Detected Concentration	(4)
	Gasoline Range Organics	ug/L	60.7	300 (NP)	300	300	ug/L	Maximum Detected Concentration	(4)

1 - Less than 3 positive detections - too few detections to calculate meaningful statistics.
2 - Not detected in this exposure unit.
3 - Only three samples - cannot calculate meaningful statistics.
4 - Less than 10 samples available - therefore, the maximum concentration is used.

G = Gamma distribution.
L = Lognormal distribution.
N = Normal distribution.
NA = Not applicable.
NP = Nonparametric distribution.

TABLE 3.6.RME
EXPOSURE POINT CONCENTRATION SUMMARY
REASONABLE MAXIMUM EXPOSURE
LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Greater Strawberry Point - REC 11	Benzene	ug/L	NA(1)	NA(1)	0.13 J	0.13	ug/L	Maximum Detected Concentration	(1)
	Carbon Tetrachloride	ug/L	NA(2)	NA(2)	NA(2)	NA	ug/L	NA	(2)
	Chloroform	ug/L	NA(2)	NA(2)	NA(2)	NA	ug/L	NA	(2)
	Trichloroethene	ug/L	7.3	14.2 (N)	25	25	ug/L	Maximum Detected Concentration	(4)
	Vinyl Chloride	ug/L	NA(1)	NA(1)	0.66 J	0.66	ug/L	Maximum Detected Concentration	(1)
	Arsenic	ug/L	6.0	9.2 (N)	11 J	11	ug/L	Maximum Detected Concentration	(4)
	Chromium	ug/L	4.2	6.2 (N)	7.5	7.5	ug/L	Maximum Detected Concentration	(4)
	Cobalt	ug/L	55.2	140 (G)	210	210	ug/L	Maximum Detected Concentration	(4)
	Iron	ug/L	NA(3)	NA(3)	20,800	20,800	ug/L	Maximum Detected Concentration	(3)
	Manganese	ug/L	NA(3)	NA(3)	215	215	ug/L	Maximum Detected Concentration	(3)
	Nickel	ug/L	85.9	330 (G)	380	380	ug/L	Maximum Detected Concentration	(4)
	Thallium	ug/L	NA(1)	NA(1)	1.1 J	1	ug/L	Maximum Detected Concentration	(1)
	Vanadium	ug/L	11.9	25 (N)	48	48	ug/L	Maximum Detected Concentration	(4)
	Zinc	ug/L	290	1900 (G)	1500 J	1500	ug/L	Maximum Detected Concentration	(4)
	Diesel Range Organics	ug/L	200	300 (N)	360 J	360	ug/L	Maximum Detected Concentration	(4)
	Gasoline Range Organics	ug/L	NA(2)	NA(2)	NA(2)	NA	ug/L	NA	(2)

1 - Less than 3 positive detections - too few detections to calculate meaningful statistics.
2 - Not detected in this exposure unit.
3 - Only three samples - cannot calculate meaningful statistics.
4 - Less than 10 samples available - therefore, the maximum concentration is used.

G = Gamma distribution.
J = Estimated value.
N = Normal distribution.
NA = Not applicable.

RAGS Part D Table 4

Values Used For Daily Intake Calculations

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4.2.RME	Construction Workers Exposed to Air Emissions from Surface Soil/Subsurface Soil
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TABLE 4.1.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CONSTRUCTION WORKERS- SOILS

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Construction Workers	Adult	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	480	mg/day	MDE, 2008	
				CF3	Conversion Factor 3	0.000001	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	(1)	BW x AT
				EF	Exposure Frequency	250	days/year	(1)	
				ED	Exposure Duration	1	years	(1)	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	
Dermal	Construction Workers	Adult	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	3280	cm2	MDE, 2008	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.3	mg/cm2/event	MDE, 2008	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	250	days/year	(1)	
				ED	Exposure Duration	1	years	(1)	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	

Notes:

1 - Professional judgment.

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

MDE (Maryland Department of the Environment), 2008: Cleanup Standards for Soil and Groundwater. Interim Final Guidance, June.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Cancer Ingestion Intake = 6.71E-08 Cancer Dermal Intake = 1.38E-07

Noncancer Ingestion Intake = 4.70E-06 Noncancer Dermal Intake = 9.63E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.2.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CONSTRUCTION WORKERS - SOILS TO AIR

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Construction Workers	Adult	Greater Strawberry Point	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	$\frac{CA \times ET \times EF \times ED}{AT \times 24\ hours/day}$
				EF	Exposure Frequency	250	days/year	(1)	
				ED	Exposure Duration	1	years	(1)	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	
				PEF	Particulate Emission Factor	1.43E+06	m3/kg	USEPA, 2002a	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	

Notes:

1 - Professional judgment.

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 1997: Exposure Factors Handbook. USEPA/600/8-95/002FA.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Cancer Inhalation Intake = 3.26E-03 Noncancer Inhalation Intake = 2.28E-01

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.3.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CONSTRUCTION WORKERS - GROUNDWATER

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Construction Workers	Adult	Greater Strawberry Point	CGW	Chemical Concentration in Groundwater	Max or 95% UCL	ug/L	USEPA, 2002	Chronic Daily Intake (CDI) (mg/kg/day) =
				CF	Conversion Factor	0.001	mg/ug	--	
				IR-GW	Ingestion Rate of Groundwater	0.02	L/day	(1)	CGW x CF x IR-GW x EF x ED
				EF	Exposure Frequency	90	days/year	(1)	BW x AT
				ED	Exposure Duration	1	years	(1)	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	
Dermal	Construction Workers	Adult	Greater Strawberry Point	Daevent	Dermally Absorbed Dose per Event	Calculated	mg/cm2-event	USEPA, 2004	Dermally Absorbed Dose (mg/kg/day) =
				Cw	Chemical Concentration in Groundwater	Max or 95% UCL	mg/kg	USEPA, 2002	
				FA	Fraction Absorbed	Chemical Specific	unitless	USEPA, 2004	DAevent x EV x EF x ED x SA
				CF	Conversion factor	0.001	L/cm^3	- -	BW x AT
				Kp	Permeability coefficient	Chemical Specific	cm/hr	USEPA, 2004	
				τ	Lag time	Chemical Specific	hr/event	USEPA, 2004	For inorganics
				t*	Time it takes to reach steady state	Chemical Specific	hr/event	USEPA, 2004	DAevent = Kp x CW x CF x tevent
				tevent	Duration of event	4	hr/event	(1)	
				B	Bunge model constant	Chemical Specific	unitless	USEPA, 2004	For organics if tevent <= t*
				SA	Skin Surface Available for Contact	3300	cm2	USEPA, 2004	DAevent= 2 x FA x Kp x Cw x CF x sqrt[(6 x τ x tevent)/pi]
				EV	Event Frequency	1	events/day	(1)	
				EF	Exposure Frequency	90	days/year	(1)	For organics if tevent > t*
				ED	Exposure Duration	1	years	(1)	DAevent =FA x Kp x Cw x CF x [tevent/(1+B) +
				BW	Body Weight	70	kg	USEPA, 1989	2 x τ +(1 + 3B + $3B^2$)/(1+B^2)
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	

Notes

1 - Professional judgment.

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Dermal Intake = (SA x EV x EF x ED)/(BW x AT)

Cancer Dermal Intake = 1.66E-01 Noncancer Dermal Intake = 1.16E+01

Cancer risk from dermal contact = Groundwater concentration x Cancer Dermal Intake x DAevent x Dermal Cancer Slope Factor

Hazard Index from dermal contact = Groundwater concentration x Noncancer Dermal Intake x DAevent / Dermal Reference Dose

TABLE 4.4.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CONSTRUCTION WORKERS - GROUNDWATER TO AIR

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Construction Workers	Adult	Greater Strawberry Point	CA	Chemical concentration in air	Calculated	mg/m3	VDEQ, 2004	Exposure Concentration (mg/m^3) =
				CW	Chemical concentration in water.	Average	ug/L	--	
				CF	Conversion Factor	0.001	mg/ug	--	$\frac{CA \times ET \times EF \times ED}{AT \times 24\ hours/day}$
				ET	Exposure Time	4	hours/day	(1)	
				EF	Exposure Frequency	90	days/year	(1)	
				ED	Exposure Duration	1	years	(1)	CA = CW x CF x VF
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	365	days	USEPA, 1989	
				VF	Volatilization Factor	Calculated	(mg/m3)/(mg/L)	VDEQ, 2004	

Notes:

1 - Professional judgment.

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

VDEQ, 2004: Virginia Department of Environmental Quality (VDEQ, online- http://www.deq.state.va.us/vrprisk/homepage.html).

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Cancer Inhalation Intake = 5.87E-07 Noncancer Inhalation Intake = 4.11E-05

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.5.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - INDUSTRIAL WORKERS - SOIL

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Industrial Workers	Adult	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	50	mg/day	MDE, 2008	
				CF3	Conversion Factor 3	0.000001	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	USEPA, 2002b	BW x AT
				EF	Exposure Frequency	250	days/year	USEPA, 2002b	
				ED	Exposure Duration	25	years	USEPA, 2002b	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 1989	
Dermal	Industrial Workers	Adult	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	3300	cm2	USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	250	days/year	USEPA, 2002b	
				ED	Exposure Duration	25	years	USEPA, 1989	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 1989	

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.

USEPA, 2002a:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

MDE (Maryland Department of the Environment), 2008: Cleanup Standards for Soil and Groundwater. Interim Final Guidance, June.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Cancer Ingestion Intake = 1.75E-07 Cancer Dermal Intake = 2.31E-06

Noncancer Ingestion Intake = 4.89E-07 Noncancer Dermal Intake = 6.46E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.6.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - INDUSTRIAL WORKERS - SOIL TO AIR

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Industrial Workers	Adult	Greater Strawberry Point	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	$\frac{CA \times ET \times EF \times ED}{AT \times 24\ hours/day}$
				EF	Exposure Frequency	250	days/year	USEPA, 2002a	
				ED	Exposure Duration	25	years	USEPA, 2002a	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	CA = (1/PEF + 1/VF) x Cs
				AT-N	Averaging Time (Non-Cancer)	9125	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2011	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA 2011	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA 2011	
				Um	Mean annual wind speed	4.29	m/sec	USEPA 2011	
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2011	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2011	

Notes:

1 - Length of typical work day.

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2011: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm. Site-specific values for Philadelphia, PA.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Cancer Inhalation Intake = 8.15E-02 Noncancer Inhalation Intake = 2.28E-01

Cancer risk from ingestion = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from ingestion = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.7.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CHILD TRESPASSERS - SOILS

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Trespasser	Child	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	200	mg/day	(1)	
				CF3	Conversion Factor 3	0.000001	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	(1)	BW x AT
				EF	Exposure Frequency	52	days/year	(2)	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), (3), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), (3), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	(1), USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
Dermal	Trespasser	Child	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	2,800	cm2	(1), USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm2/event	(1), USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	70	days/year	(2)	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), (3), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), (3), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	(1), USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	

Notes:

1 - Assumed same as resident.

2 - Assumed on site for an average of 1 day per week.

3 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, children trespassers will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 6) = 1.63E-07 Cancer Dermal Intake (Age 0 - 6) = 6.14E-07

Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 2) = 5.43E-08 Cancer Dermal Intake (Age 0 - 2) = 2.05E-07

Cancer Ingestion Intake (Age 2 - 6) = 1.09E-07 Cancer Dermal Intake (Age 2 - 6) = 4.09E-07

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 1.90E-06 Noncancer Dermal Intake = 7.16E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.8.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CHILD TRESPASSERS - SOILS TO AIR

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Trespasser	Child	Greater Strawberry Point	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	$\frac{CA \times ET \times EF \times ED}{AT \times 24\ hours/day}$
				EF	Exposure Frequency	52	days/year	(1)	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(2), (3), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(2), (3), USEPA, 1989, 2005	CA = (1/PEF + 1/VF) x Cs
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2011	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA, 2011	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA, 2011	
				Um	Mean annual wind speed	4.29	m/sec	USEPA, 2011	
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2011	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2011	

Notes:

1 - Assumed on site for an average of 1 day per week.

2 - Assumed same as resident.

3 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, children trespassers will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2011: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm. Site-specific values for Philadelphia, PA.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake (Age 0 - 6) = 4.07E-03 Noncancer Inhalation Intake = 4.75E-02

Mutagenic Chemicals

Cancer Inhalation Intake (Age 0 - 2) = 1.36E-03

Cancer Inhalation Intake (Age 2 - 6) = 2.71E-03

Cancer risk from inhalation = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from inhalation = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.9.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADOLESCENT TRESPASSERS - SOILS

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Trespasser	Adolescent	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	100	mg/day	(1)	
				CF3	Conversion Factor 3	0.000001	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	(1)	BW x AT
				EF	Exposure Frequency	52	days/year	(2)	
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), (3), MDE, 2008, USEPA, 2005	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(1), (3), MDE, 2008, USEPA, 2005	
				BW	Body Weight	40	kg	(1), USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4380	days	USEPA, 1989	
Dermal	Trespasser	Adolescent	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	4,320	cm2	(1), MDE, 2008	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.07	mg/cm2/event	(1), USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	52	days/year	(2)	
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), (3), MDE, 2008, USEPA, 2005	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(1), (3), MDE, 2008, USEPA, 2005	
				BW	Body Weight	40	kg	(1), USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4380	days	USEPA, 1989	

Notes:

1 - Assumed same as resident.

2 - Assumed on site for an average of 1 day per week.

3 - For chemicals that act via the mutagenic mode of action, the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

MDE (Maryland Department of the Environment), 2008: Cleanup Standards for Soil and Groundwater. Interim Final Guidance, June.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 18) = 6.11E-08 Cancer Dermal Intake (Age 6 - 18) = 1.85E-07

Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 16) = 5.09E-08 Cancer Dermal Intake (Age 6 - 16) = 1.54E-07

Cancer Ingestion Intake (Age 16 - 18) = 1.02E-08 Cancer Dermal Intake (Age 16 - 18) = 3.08E-08

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 3.56E-07 Noncancer Dermal Intake = 1.08E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.10.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADOLESCENT TRESPASSERS - SOILS TO AIR

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Trespasser	Adolescent	Greater Strawberry Point	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	$\frac{CA \times ET \times EF \times ED}{AT \times 24\ hours/day}$
				EF	Exposure Frequency	52	days/year	(1)	
				ED1	Exposure Duration (Age 6 - 16)	10	years	(2), (3), MDE, 2008, USEPA, 2005	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(2), (3), MDE, 2008, USEPA, 2005	CA = (1/PEF + 1/VF) x Cs
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2011	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA, 2011	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA, 2011	
				Um	Mean annual wind speed	4.29	m/sec	USEPA, 2011	
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2011	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2011	

Notes:

1 - Assumed on site for an average of 1 day per week.

2 - Assumed same as resident.

3 - For chemicals that act via the mutagenic mode of action, the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2011: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm. Site-specific values for Philadelphia, PA.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake (Age 6 - 18) = 8.14E-03

Noncancer Inhalation Intake = 4.75E-02

Mutagenic Chemicals

Cancer Inhalation Intake (Age 6 - 16) = 6.78E-03

Cancer Inhalation Intake (Age 16 - 18) = 1.36E-03

Cancer risk from inhalation = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from inhalation = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.11.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CHILD RECREATIONAL USERS - SOILS

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Child	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	200	mg/day	(1)	
				CF3	Conversion Factor 3	0.000001	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	(1)	BW x AT
				EF	Exposure Frequency	70	days/year	(2)	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), (3), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), (3), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	(1), USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
Dermal	Recreational User	Child	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	2,800	cm2	(1), USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm2/event	(1), USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	70	days/year	(2)	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), (3), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), (3), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	(1), USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	

Notes:

1 - Assumed same as resident.

2 - Recreational users' exposure frequency and time on site are assumed to be 70 days per year and 8 hours per day.

3 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, children recreational users will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 6) = 2.19E-07 Cancer Dermal Intake (Age 0 - 6) = 6.14E-07

Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 2) = 7.31E-08 Cancer Dermal Intake (Age 0 - 2) = 2.05E-07

Cancer Ingestion Intake (Age 2 - 6) = 1.46E-07 Cancer Dermal Intake (Age 2 - 6) = 4.09E-07

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 2.56E-06 Noncancer Dermal Intake = 7.16E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.12.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CHILD RECREATIONAL USERS - SOILS TO AIR

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Recreational User	Child	Greater Strawberry Point	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	$\frac{CA \times ET \times EF \times ED}{AT \times 24\ hours/day}$
				EF	Exposure Frequency	70	days/year	(1)	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(2), (3), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(2), (3), USEPA, 1989, 2005	$CA = (1/PEF + 1/VF) \times Cs$
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2011	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA, 2011	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA, 2011	
				Um	Mean annual wind speed	4.29	m/sec	USEPA, 2011	
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2011	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2011	

Notes:

1 - Recreational users' exposure frequency and time on site are assumed to be 70 days per year and 8 hours per day.

2 - Assumed same as resident.

3 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, children recreational users will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2011: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm. Site-specific values for Philadelphia, PA.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake (Age 0 - 6) = 5.48E-03 Noncancer Inhalation Intake = 6.39E-02

Mutagenic Chemicals

Cancer Inhalation Intake (Age 0 - 2) = 1.83E-03

Cancer Inhalation Intake (Age 2 - 6) = 3.65E-03

Cancer risk from inhalation = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from inhalation = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.13.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADOLESCENT RECREATIONAL USERS - SOILS

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adolescent	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	100	mg/day	(1)	
				CF3	Conversion Factor 3	0.000001	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	(1)	BW x AT
				EF	Exposure Frequency	70	days/year	(2)	
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), (3), MDE, 2008, USEPA, 2005	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(1), (3), MDE, 2008, USEPA, 2005	
				BW	Body Weight	40	kg	(1), USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4380	days	USEPA, 1989	
Dermal	Recreational User	Adolescent	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	0.000001	kg/mg	--	
				SA	Skin Surface Available for Contact	4,320	cm2	(1), MDE, 2008	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.07	mg/cm2/event	(1), USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	70	days/year	(2)	
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), (3), MDE, 2008, USEPA, 2005	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(1), (3), MDE, 2008, USEPA, 2005	
				BW	Body Weight	40	kg	(1), USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4380	days	USEPA, 1989	

Notes:

1 - Assumed same as resident.

2 - Recreational users' exposure frequency and time on site are assumed to be 70 days per year and 8 hours per day.

3 - For chemicals that act via the mutagenic mode of action, the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

MDE (Maryland Department of the Environment), 2008: Cleanup Standards for Soil and Groundwater. Interim Final Guidance, June.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 18) = 8.22E-08 Cancer Dermal Intake (Age 0 - 6) = 2.49E-07

Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 16) = 6.85E-08 Cancer Dermal Intake (Age 6 - 16) = 2.07E-07

Cancer Ingestion Intake (Age 16 - 18) = 1.37E-08 Cancer Dermal Intake (Age 16 - 18) = 4.14E-08

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 4.79E-07 Noncancer Dermal Intake = 1.45E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.14.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADOLESCENT RECREATIONAL USERS - SOILS TO AIR

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Recreational User	Adolescent	Greater Strawberry Point	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	$\frac{CA \times ET \times EF \times ED}{AT \times 24\ hours/day}$
				EF	Exposure Frequency	70	days/year	(1)	
				ED1	Exposure Duration (Age 6 - 16)	10	years	(2), (3), MDE, 2008, USEPA, 2005	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(2), (3), MDE, 2008, USEPA, 2005	CA = (1/PEF + 1/VF) x Cs
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2011	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA, 2011	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA, 2011	
				Um	Mean annual wind speed	4.29	m/sec	USEPA, 2011	
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2011	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2011	

Notes:

1 - Recreational users' exposure frequency and time on site are assumed to be 70 days per year and 8 hours per day.

2 - Assumed same as resident.

3 - For chemicals that act via the mutagenic mode of action, the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2011: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm. Site-specific values for Philadelphia, PA.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake (Age 6 - 18) = 1.10E-02

Noncancer Inhalation Intake = 6.39E-02

Mutagenic Chemicals

Cancer Inhalation Intake (Age 6 - 16) = 9.13E-03

Cancer Inhalation Intake (Age 16 - 18) = 1.83E-03

Cancer risk from inhalation = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from inhalation = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.15.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADULT RECREATIONAL USERS - SOILS

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational User	Adult	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	100	mg/day	(1)	
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	(1)	BW x AT
				EF	Exposure Frequency	70	days/year	(2)	
				ED	Exposure Duration (Age 18 - 30)	12	years	(3), MDE, 2008, 2005	
				BW	Body Weight	70	kg	(1), USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	
Dermal	Recreational User	Adult	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	
				SA	Skin Surface Available for Contact	5,700	cm2	(1)	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.07	mg/cm2/event	(1)	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	70	days/year	(2)	
				ED	Exposure Duration (Age 18 - 30)	12	years	(3), MDE, 2008, 2005	
				BW	Body Weight	70	kg	(1). USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	

Notes:

1 - Assumed same as resident.

2 - Recreational users' exposure frequency and time on site are assumed to be 70 days per year and 8 hours per day.

3 - For chemicals that act via the mutagenic mode of action, the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 18 - 30) = 4.70E-08 Cancer Dermal Intake (Age 18 - 30) = 1.87E-07

Mutagenic Chemicals

Cancer Ingestion Intake (Age 18 - 30) = 4.70E-08 Cancer Dermal Intake (Age 18 - 30) = 1.87E-07

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 2.74E-07 Noncancer Dermal Intake = 1.09E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.16.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADULT RECREATIONAL USERS - SOILS TO AIR

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Current/Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Recreational User	Adult	Greater Strawberry Point	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	8	hours/day	(1)	$\frac{CA \times ET \times EF \times ED}{AT \times 24\ hours/day}$
				EF	Exposure Frequency	70	days/year	(1)	
				ED	Exposure Duration (Age 18 - 30)	12	years	(2), MDE, 2008, USEPA, 2005	CA = (1/PEF + 1/VF) x Cs
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4380	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2011	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA 2011	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA 2011	
				Um	Mean annual wind speed	4.29	m/sec	USEPA 2011	
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2011	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2011	

Notes:

1 - Recreational users' exposure frequency and time on site are assumed to be 70 days per year and 8 hours per day.

2 - For chemicals that act via the mutagenic mode of action, the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2011: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm. Site-specific values for Philadelphia, PA.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake (Age 18 - 30) = 1.10E-02

Noncarcinogenic Chemicals

Noncancer Inhalation Intake = 6.39E-02

Mutagenic Chemicals

Cancer Inhalation Intake (Age 18 - 30) = 1.10E-02

Cancer risk from inhalation = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from inhalation = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.17.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CHILD RESIDENTS - SOILS

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Child	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	200	mg/day	USEPA, 1991	
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	USEPA, 1991	BW x AT
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
Dermal	Resident	Child	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	1E-06	kg/mg	--	
				SA	Skin Surface Available for Contact	2,800	cm2	USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	

Notes:

1 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential children will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 2002a:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 6) = 1.10E-06 Cancer Dermal Intake (Age 0 - 6) = 3.07E-06

Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 2) = 3.65E-07 Cancer Dermal Intake (Age 0 - 2) = 1.02E-06

Cancer Ingestion Intake (Age 2 - 6) = 7.31E-07 Cancer Dermal Intake (Age 2 - 6) = 2.05E-06

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 1.28E-05 Noncancer Dermal Intake = 3.58E-05

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.18.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CHILD RESIDENTS SOILS TO AIR

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Child	Greater Strawberry Point	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	24	hours/day	USEPA, 1991	$\frac{CA \times ET \times EF \times ED}{AT \times 24\ hours/day}$
				EF	Exposure Frequency	350	days/year	USEPA, 1994	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 1989, 2005	CA = (1/PEF + 1/VF) x Cs
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2190	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2004	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA 2008	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA 2008	
				Um	Mean annual wind speed	4.29	m/sec	USEPA 2008	
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2008	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2008	

Notes:

1 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential children will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2011: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm. Site-specific values for Philadelphia, PA.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake (Age 0 - 6) = 8.22E-02

Noncarcinogenic Chemicals

Noncancer Inhalation Intake = 1.92E+00

Mutagenic Chemicals

Cancer Inhalation Intake (Age 0 - 2) = 2.74E-02

Cancer Inhalation Intake (Age 2 - 6) = 5.48E-02

Cancer risk from inhalation = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from inhalation = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.19.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - CHILD RESIDENTS - GROUNDWATER

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Residents	Child	Greater Strawberry Point	CGW	Chemical Concentration in Groundwater	Max or 95% UCL	mg/kg	USEPA, 2002	Chronic Daily Intake (CDI) (mg/kg/day) =
				CF	Conversion Factor	0.001	mg/ug	--	
				IR-GW	Ingestion Rate of Groundwater	1	L/day	USEPA, 1997	CGW x CF x IR-GW x EF x ED
				EF	Exposure Frequency	350	days/year	USEPA, 1991	BW x AT
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	15	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	
Dermal	Residents	Child	Greater Strawberry Point	Daevent	Dermally Absorbed Dose per Event	Calculated	mg/cm2-event	USEPA, 2004	Dermally Absorbed Dose (mg/kg/day) =
				Cw	Chemical Concentration in Groundwater	Max or 95% UCL	mg/kg	USEPA, 2002	
				FA	Fraction Absorbed	Chemical Specific	unitless	USEPA, 2004	DAevent x EV x EF x ED x SA
				CF	Conversion factor	0.001	L/cm^3	- -	BW x AT
				Kp	Permeability coefficient	Chemical Specific	cm/hr	USEPA, 2004	
				τ	Lag time	Chemical Specific	hr/event	USEPA, 2004	For inorganics
				t*	Time it takes to reach steady state	Chemical Specific	hr/event	USEPA, 2004	DAevent = Kp x CW x CF x tevent
				tevent	Duration of event	1	hr/event	USEPA, 2004	
				B	Bunge model constant	Chemical Specific	unitless	USEPA, 2004	For organics if tevent <= t*
				SA	Skin Surface Available for Contact	6,600	cm2	USEPA, 2004	DAevent= 2 x FA x Kp x Cw x CF x sqrt[(6 xτ x tevent)/pi]
				EV	Event Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 1991	
				ED1	Exposure Duration (Age 0 - 2)	2	years	(1), USEPA, 1989, 2005	DAevent =FA x Kp x Cw x CF x [tevent/(1+B) +
				ED2	Exposure Duration (Age 2 - 6)	4	years	(1), USEPA, 1989, 2005	2 x τ +(1 + 3B + $3B^3$)/(1+B^2)
				BW	Body Weight	15	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	USEPA, 1989	

Notes:

1 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential children will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 1997: Exposure Factors Handbook. EPA/600/P-95/002Fa

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Unit Intake Calculations

Ingestion Intake = (IR-GW x EF x ED)/(BW x AT)

Dermal Intake = (SA x EV x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 6) = 5.48E-06 Cancer Dermal Intake Time (Age 0 - 6) = 3.62E+01

Mutagenic Chemicals

Cancer Ingestion Intake (Age 0 - 2) = 1.83E-06 Cancer Dermal Intake (Age 0 - 2) = 1.21E+01

Cancer Ingestion Intake (Age 2 - 6) = 3.65E-06 Cancer Dermal Intake (Age 2 - 6) = 2.41E+01

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 6.39E-05 Noncancer Dermal Intake = 4.22E+02

Cancer risk from ingestion = Groundwater concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Groundwater concentration x Cancer Dermal Intake x DAevent x Dermal Cancer Slope Factor

Hazard Index from ingestion = Groundwater concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Groundwater concentration x Noncancer Dermal Intake x DAevent / Dermal Reference Dose

TABLE 4.20.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADOLESCENT RESIDENTS - SOILS

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Adolescent	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	100	mg/day	USEPA, 1991	
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	USEPA, 1991	BW x AT
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	40	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	
Dermal	Resident	Adolescent	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	1E-06	kg/mg	--	
				SA	Skin Surface Available for Contact	4,320	cm2	MDE, 2008	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.1	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), USEPA, 1989, 2005	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(1), USEPA, 1989, 2005	
				BW	Body Weight	40	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	

Notes:

1 - For chemicals that act via the mutagenic mode of action, the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 2002a:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

MDE (Maryland Department of the Environment), 2008: Cleanup Standards for Soil and Groundwater. Interim Final Guidance, June.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 18) = 4.11E-07 Cancer Dermal Intake (Age 6 - 18) = 1.24E-06

Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 16) = 3.42E-07 Cancer Dermal Intake (Age 6 - 16) = 1.04E-06

Cancer Ingestion Intake Age 16 - 18) = 6.85E-08 ake Exposure Duration (Age 16 - 18) = 2.07E-07

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 2.40E-06 Noncancer Dermal Intake = 7.25E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.21.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADOLESCENT RESIDENTS SOILS TO AIR

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Adolescent	Greater Strawberry Point	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	24	hours/day	USEPA, 1991	$\frac{CA \times ET \times EF \times ED}{AT \times 24\ hours/day}$
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), MDE, 2008, USEPA, 2005	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(1), MDE, 2008, USEPA, 2005	CA = (1/PEF + 1/VF) x Cs
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4380	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2011	
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at center of source	87.36898	g/m2-s per kg/m3	USEPA 2011	
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA 2011	
				Um	Mean annual wind speed	4.29	m/sec	USEPA 2011	
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2011	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2011	

Notes:

1 - For chemicals that act via the mutagenic mode of action, the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2011: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm. Site-specific values for Philadelphia, PA.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake (Age 6 - 18) = 1.64E-01

Noncarcinogenic Chemicals

Noncancer Inhalation Intake = 1.92E+00

Mutagenic Chemicals

Cancer Inhalation Intake (Age 6 - 16) = 1.37E-01

Cancer Inhalation Intake (Age 16 - 18) = 2.74E-02

Cancer risk from inhalation = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from inhalation = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.22.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE - ADOLESCENT RESIDENTS - GROUNDWATER
LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Residents	Adolescent	Greater Strawberry Point	CGW	Chemical Concentration in Groundwater	Max or 95% UCL	mg/kg	USEPA, 2002a	Chronic Daily Intake (CDI) (mg/kg/day) =
				CF	Conversion Factor	0.001	mg/ug	--	
				IR-GW	Ingestion Rate of Groundwater	2	L/day	USEPA, 1997	CGW x CF x IR-GW x EF x ED
				EF	Exposure Frequency	350	days/year	USEPA, 1991	BW x AT
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), MDE, 2008, USEPA, 2005	
				ED2	Exposure Duration (Age 16 - 18)	2	years	(1), MDE, 2008, USEPA, 2005	
				BW	Body Weight	40	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	
Dermal	Residents	Adolescent	Greater Strawberry Point	Daevent	Dermally Absorbed Dose per Event	Calculated	mg/cm2-event	USEPA, 2004	Dermally Absorbed Dose (mg/kg/day) =
				Cw	Chemical Concentration in Groundwater	Max or 95% UCL	mg/kg	USEPA, 2002a	
				FA	Fraction Absorbed	Chemical Specific	unitless	USEPA, 2004	DAevent x EV x EF x ED x SA
				CF	Conversion factor	0.001	L/cm^3	- -	BW x AT
				Kp	Permeability coefficient	Chemical Specific	cm/hr	USEPA, 2004	
				τ	Lag time	Chemical Specific	hr/event	USEPA, 2004	For inorganics
				t*	Time it takes to reach steady state	Chemical Specific	hr/event	USEPA, 2004	DAevent = Kp x CW x CF x tevent
				tevent	Duration of event	0.58	hr/event	USEPA, 2004	
				B	Bunge model constant	Chemical Specific	unitless	USEPA, 2004	For organics if tevent <= t*
				SA	Skin Surface Available for Contact	13,100	cm2	MDE, 2008	DAevent= 2 x FA x Kp x Cw x CF x sqrt[(6 xτ x tevent)/pi]
				EV	Event Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 1991	
				ED1	Exposure Duration (Age 6 - 16)	10	years	(1), MDE, 2008, USEPA, 2005	DAevent =FA x Kp x Cw x CF x [tevent/(1+B) +
				ED2	Exposure Duration (Age 16 - 18)	2	years	(1), MDE, 2008, USEPA, 2005	2 x τ +(1 + 3B + $3B^2$)/(1+B^2)
				BW	Body Weight	40	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	

Notes:
1 - Children will be evaluated as one age group (0 - 6 years) for non-mutagenic chemicals. For chemicals that act via the mutagenic mode of action, residential children will be evaluated as two age groups, 0 - 2 years and 2 - 6 years in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.
USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.
USEPA, 1997: Exposure Factors Handbook. EPA/600/P-95/002Fa
USEPA, 2002:Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.
USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.
MDE (Maryland Department of the Environment), 2008: Cleanup Standards for Soil and Groundwater. Interim Final Guidance, June.

Unit Intake Calculations

Ingestion Intake = (IR-GW x EF x ED)/(BW x AT)

Dermal Intake = (SA x EV x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 18) = 8.22E-06 Cancer Dermal Intake (Age 6 - 18) = 5.38E+01

Mutagenic Chemicals

Cancer Ingestion Intake (Age 6 - 16) = 6.85E-06 Cancer Dermal Intake (Age 6 - 16) = 4.49E+01

Cancer Ingestion Intake (Age 16 - 18) = 1.37E-06 Cancer Dermal Intake (Age 16 - 18) = 8.97E+00

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 4.79E-05 Noncancer Dermal Intake = 3.14E+02

Cancer risk from ingestion = Groundwater concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor
Cancer risk from dermal contact = Groundwater concentration x Cancer Dermal Intake x DAevent x Dermal Cancer Slope Factor
Hazard Index from ingestion = Groundwater concentration x Noncancer Ingestion Intake / Oral Reference Dose
Hazard Index from dermal contact = Groundwater concentration x Noncancer Dermal Intake x DAevent / Dermal Reference Dose

TABLE 4.23.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADULT RESIDENTS - SOILS

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface Soil/Subsurface Soil
Exposure Medium: Surface/Subsurface Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Adult	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Intake (mg/kg/day) =
				IR-S	Ingestion Rate	100	mg/day	USEPA, 1991	
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	CS x IRS x CF3 x FI x EF x ED
				FI	Fraction Ingested	1	unitless	USEPA, 1991	BW x AT
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED	Exposure Duration (Age 18 - 30)	12	years	(1), MDE, 2008, USEPA, 2005	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	
Dermal	Resident	Adult	Greater Strawberry Point	CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002a	Dermally Absorbed Dose (mg/kg/day) =
				CF3	Conversion Factor 3	1.0E-06	kg/mg	--	
				SA	Skin Surface Available for Contact	5,700	cm2	USEPA, 2004	CS x CF3 x SA x SSAF x DABS x EV x EF x ED
				SSAF	Soil to Skin Adherence Factor	0.07	mg/cm2/event	USEPA, 2004	BW x AT
				DABS	Absorption Factor	Chemical Specific	unitless	USEPA, 2004	
				EV	Events Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 2002b	
				ED	Exposure Duration (Age 18 - 30)	12	years	(1), MDE, 2008, USEPA, 2005	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	

Notes:

1 - For chemicals that act via the mutagenic mode of action, the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 2002a: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10, December.

USEPA, 2002b: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

MDE (Maryland Department of the Environment), 2008: Cleanup Standards for Soil and Groundwater. Interim Final Guidance, June.

Unit Intake Calculations

Incidental Ingestion Intake = (IR-S x CF3 x FI x EF x ED)/(BW x AT)

Dermal Intake = (CF3 x SA x SSAF x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 18 - 30) = 2.35E-07 Cancer Dermal Intake (Age 6 - 30) = 9.37E-07

Mutagenic Chemicals

Cancer Ingestion Intake (Age 18 - 30) = 2.35E-07 Cancer Dermal Intake (Age 18 - 30) = 9.37E-07

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 1.37E-06 Noncancer Dermal Intake = 5.47E-06

Cancer risk from ingestion = Soil concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Soil concentration x Cancer Dermal Intake x Absorption Factor x Dermal Cancer Slope Factor

Hazard Index from ingestion = Soil concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Soil concentration x Noncancer Dermal Intake x Absorption Factor / Dermal Reference Dose

TABLE 4.24.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADULT RESIDENTS - SOILS TO AIR

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Surface/Subsurface Soil
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Adult	Greater Strawberry Point	CA	Chemical concentration in air	Calculated	mg/m3	USEPA, 2002a	Exposure Concentration (mg/m^3) =
				CS	Chemical concentration in soil	Max or 95% UCL	mg/kg	USEPA, 2002b	
				ET	Exposure Time	24	hours/day	USEPA, 1991	$\frac{CA \times ET \times EF \times ED}{AT \times 24\ hours/day}$
				EF	Exposure Frequency	350	days/year	USEPA, 2002a	
				ED	Exposure Duration (Age 18 - 30)	12	years	(1), MDE, 2008, USEPA, 2005	CA = (1/PEF + 1/VF) x Cs
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4380	days	USEPA, 1989	
				PEF	Particulate Emission Factor	3.23E+09	m3/kg	USEPA 2011	$PEF = \frac{Q / C \times 3600}{0.036 \times (1 - V) \times (U_m / U_t)^3 \times F(x)}$
				VF	Volatilization Factor	Chemical-specific	m3/kg	USEPA, 2002a	
				Q/C	Inverse of mean concentration at	87.36898	g/m2-s per	USEPA 2011	
					center of source		kg/m3		$F(x) = 0.18 * (8x^3 + 12x) * \exp(-x^2)$
				Ut	Equivalent threshold of wind velocity at 7m.	11.32	m/sec	USEPA 2011	
				Um	Mean annual wind speed	4.29	m/sec	USEPA 2011	x = 0.886 * Ut / Um
				V	Fraction of vegetative cover	0.5	unitless	USEPA 2011	
				F(x)	Function dependent of Um/Ut	0.0993	unitless	USEPA 2011	

Notes:

1 - For chemicals that act via the mutagenic mode of action, the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. USEPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance - Standard Default Exposure Factors Interim Final.

USEPA, 1994: USEPA Region I Risk Updates, August 1994.

USEPA, 2002a: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.

USEPA, 2002b: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10.

USEPA, 2011: Soil Screening Guidance calculation Internet site at http://risk.lsd.ornl.gov/calc_start.htm. Site-specific values for Philadelphia, PA.

Unit Intake Calculations

Unit Exposure Concentration = (ET x EF x ED)/(AT x 24 hours/day)

Non-Mutagenic Chemicals

Cancer Inhalation Intake (Age 18 - 30) = 1.64E-01

Noncarcinogenic Chemicals

Noncancer Inhalation Intake = 9.59E-01

Mutagenic Chemicals

Cancer Inhalation Intake (Age 18 - 30) = 1.64E-01

Cancer risk from inhalation = Air concentration x Cancer Inhalation Intake x Inhalation Cancer Slope Factor

Hazard Index from inhalation = Air concentration x Noncancer Inhalation Intake / Inhalation Reference Dose

TABLE 4.25.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE - ADULT RESIDENTS - GROUNDWATER

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Residents	Adult	Greater Strawberry Point	CGW	Chemical Concentration in Groundwater	95% UCL or Max	ug/L	USEPA, 2002	Chronic Daily Intake (CDI) (mg/kg/day) =
				CF	Conversion Factor	0.001	mg/ug	--	
				IR-GW	Ingestion Rate of Groundwater	2	L/day	USEPA, 1997	CGW x CF x IR-GW x EF x ED
				EF	Exposure Frequency	350	days/year	USEPA, 1991	BW x AT
				ED	Exposure Duration (Age 18 - 30)	12	years	(1), MDE, 2008, USEPA, 2005	
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	
Dermal	Residents	Adult	Greater Strawberry Point	Daevent	Dermally Absorbed Dose per Event	Calculated	mg/cm2-event	USEPA, 2004	Dermally Absorbed Dose (mg/kg/day) =
				Cw	Chemical Concentration in Groundwater	Max or 95% UCL	mg/kg	USEPA, 2002a	DAevent x EV x EF x ED x SA
				FA	Fraction Absorbed	Chemical Specific	unitless	USEPA, 2004	BW x AT
				CF	Conversion factor	0.001	L/cm^3	- -	
				Kp	Permeability coefficient	Chemical Specific	cm/hr	USEPA, 2004	For inorganics
				τ	Lag time	Chemical Specific	hr/event	USEPA, 2004	DAevent = Kp x CW x CF x tevent
				t*	Time it takes to reach steady state	Chemical Specific	hr/event	USEPA, 2004	
				tevent	Duration of event	0.58	hr/event	USEPA, 2004	For organics if tevent <= t*
				B	Bunge model constant	Chemical Specific	unitless	USEPA, 2004	DAevent= 2 x FA x Kp x Cw x CF x sqrt[(6 xτ x tevent)/pi]
				SA	Skin Surface Available for Contact	18,000	cm2	USEPA, 2004	
				EV	Event Frequency	1	events/day	USEPA, 2004	
				EF	Exposure Frequency	350	days/year	USEPA, 1994	For organics if tevent > t*
				ED	Exposure Duration (Age 18 - 30)	12	years	(1), MDE, 2008, USEPA, 2005	$2 x\tau +(1 + 3B + 3B^2)/(1+B^2)$
				BW	Body Weight	70	kg	USEPA, 1989	
				AT-C	Averaging Time (Cancer)	25,550	days	USEPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	4,380	days	USEPA, 1989	

Notes:

1 - For chemicals that act via the mutagenic mode of action, the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources:

USEPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

USEPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

USEPA, 1997: Exposure Factors Handbook. USEPA/600/8-95/002FA.

USEPA, 2002: Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 9285.6-10.

USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

MDE (Maryland Department of the Environment), 2008: Cleanup Standards for Soil and Groundwater. Interim Final Guidance, June.

Unit Intake Calculations

Ingestion Intake = (IR-GW x EF x ED)/(BW x AT)

Dermal Intake = (SA x EV x EF x ED)/(BW x AT)

Non-Mutagenic Chemicals

Cancer Ingestion Intake (Age 18 - 30) = 4.70E-06 Cancer Dermal Intake (Age 18 - 30) = 4.23E+01

Mutagenic Chemicals

Cancer Ingestion Intake (Age 18 - 30) = 4.70E-06 Cancer Dermal Intake (Age 18 - 30) = 4.23E+01

Noncarcinogenic Chemicals

Noncancer Ingestion Intake = 2.74E-05 Noncancer Dermal Intake = 2.47E+02

Cancer risk from ingestion = Groundwater concentration x Cancer Ingestion Intake x Oral Cancer Slope Factor

Cancer risk from dermal contact = Groundwater concentration x Cancer Dermal Intake x DAevent x Dermal Cancer Slope Factor

Hazard Index from ingestion = Groundwater concentration x Noncancer Ingestion Intake / Oral Reference Dose

Hazard Index from dermal contact = Groundwater concentration x Noncancer Dermal Intake x DAevent / Dermal Reference Dose

TABLE 4.26.RME

VALUES USED FOR DAILY INTAKE CALCULATIONS

REASONABLE MAXIMUM EXPOSURE

LOCKHEED MARTIN, MARTIN STATE AIRPORT, MIDDLE RIVER, MARYLAND

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Residents	Adult	Greater Strawberry Point	S	Volatile Chemical Generation Rate	Derived	mg/m3-min-shower	Foster&Chrostowski 1987	Exposure Concentration (mg/m^3)=
				K	Masss Transfer Coefficient	Derived	min	Foster&Chrostowski 1987	
				EF	Exposure Frequency	350	showers/year	USEPA, 1991	S x K x EF x ED
				ED	Exposure Duration (Age 18 - 30)	12	years	(1), MDE, 2008, USEPA, 2005	
				Ra	Air Exchange Rate	0.017	min^{-1}	Foster&Chrostowski 1987	
				CF	Conversion Factor	1440	min/day	--	
				Ds	Shower Duration	30	min	USEPA, 2004	
				Dt	Total Time in Bathroom	60	min	Professional judgement	
				Fr	Shower Water Flow Rate	10	L/min	Foster&Chrostowski 1987	
				Sv	Shower Room Air Volume	12	m^3	Foster&Chrostowski 1987	
				ts	Shower Dropler Drop Time	0.5	sec	Foster&Chrostowski 1987	
				d	Shower Droplet Diameter	1	mm	Foster&Chrostowski 1987	
				T1	Calibration Water Temperature	293	K	Foster&Chrostowski 1987	
				Ts	Shower Water Temperature	318	K	Foster&Chrostowski 1987	
				m1	Water Viscosity at T1	1.002	cp	Foster&Chrostowski 1987	
				ms	Water Viscosity at Ts	0.596	cp	Foster&Chrostowski 1987	
				AT-C	Averaging Time (Cancer)	25550	days	U.S. EPA, 1989	
				AT-N	Averaging Time (Noncancer)	4380	days	U.S. EPA ,1989	

Notes:

1 - For chemicals that act via the mutagenic mode of action, the intake will be multiplied by the appropriate age-dependent adjustment factor in accordance with USEPA's Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens (USEPA, 2005).

Sources

U.S. EPA, 1989: Risk Assessment Guidance for Superfund. Vol 1: Human Health Evaluation Manual, Part A. EPA/540/1-86/060.

U.S. EPA, 1991: Risk Assessment Guidance for Superfund - Supplemental Guidance- Standard Default Exposure Factors Interim Final.

U.S. EPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Foster, S.A. and P.C. Chrostowski, 1987. Inhalation Exposure to Volatile Organic Contaminants in the Shower.

MDE (Maryland Department of the Environment), 2008: Cleanup Standards for Soil and Groundwater. Interim Final Guidance, June.

Unit Intake Calculations

Inhalation Intake = (EF x ED x ET)/(AT x Ra x CF)

Non-Mutagenic Chemicals		Noncarcinogenic Chemicals	
Cancer Inhalation Intake (Age 18 - 30) =	6.85E-03	Noncancer Inhalation Intake =	4.00E-02

Mutagenic Chemicals

Cancer Inhalation Intake (Age 18 - 30) = 6.85E-03

RAGS Part D Table 5

Non-Cancer Toxicity Data

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NON-CANCER TOXICITY DATA

Table No.

5.1 Non-Cancer Toxicity Data - Oral/Dermal
5.2 Non-Cancer Toxicity Data - Inhalation

TABLE 5.1

NON-CANCER TOXICITY DATA -- ORAL/DERMAL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal[1]	Absorbed RfD for Dermal[2]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfD: Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Volatile Organic Compounds										
Benzene	Subchronic	1.0E-02	mg/kg/day	1	1.0E-02	mg/kg/day	Blood	100/1	PPRTV	9/29/2009
	Chronic	4.0E-03	mg/kg/day	1	4.0E-03	mg/kg/day	Blood	300/1	IRIS	10/10/2011
Carbon Tetrachloride	Subchronic	7.0E-03	mg/kg/day	1	7.0E-03	mg/kg/day	Liver	100/1	ATSDR	9/2005
	Chronic	4.0E-03	mg/kg/day	1	4.0E-03	mg/kg/day	Liver	1000/1	IRIS	10/10/2011
Chloroform	Subchronic	1.0E-01	mg/kg/day	1	1.0E-01	mg/kg/day	Liver	100/1	ATSDR	9/1997
	Chronic	1.0E-02	mg/kg/day	1	1.0E-02	mg/kg/day	Liver	100/1	IRIS	10/10/2011
Naphthalene	Subchronic	6.0E-01	mg/kg/day	1	6.0E-01	mg/kg/day	CNS	90/1	ATSDR	9/2005
	Chronic	2.0E-02	mg/kg/day	1	2.0E-02	mg/kg/day	Body Weight	3000/1	IRIS	10/10/2011
Trichloroethene	Chronic	5.0E-04	mg/kg/day	1	5.0E-04	mg/kg/day	CVS, Fetotoxicity, Immune	10 to 100/1	IRIS	10/10/2011
Vinyl Chloride	Chronic	3.0E-03	mg/kg/day	1	3.0E-03	mg/kg/day	Liver	30/1	IRIS	10/10/2011
Semivolatile Organic Compounds										
BaP Equivalent[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	Subchronic	6.0E-01	mg/kg/day	1	6.0E-01	mg/kg/day	CNS	90/1	ATSDR	9/2005
	Chronic	2.0E-02	mg/kg/day	1	2.0E-02	mg/kg/day	Body Weight	3000/1	IRIS	10/10/2011
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls										
Aroclor-1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics										
Arsenic	Chronic	3.0E-04	mg/kg/day	1	3.0E-04	mg/kg/day	Skin, CVS	3/1	IRIS	10/10/2011
Chromium VI[4]	Subchronic	2.0E-02	mg/kg/day	0.025	5.0E-04	mg/kg/day	None Reported	100/3	HEAST	9/1997
	Chronic	3.0E-03	mg/kg/day	0.025	7.5E-05	mg/kg/day	None Reported	300/3	IRIS	10/10/2011
Cobalt	Subchronic	3.0E-03	mg/kg/day	1	3.0E-03	mg/kg/day	Thyroid	300/1	PPRTV	8/25/2008
	Chronic	3.0E-04	mg/kg/day	1	3.0E-04	mg/kg/day	Blood	NA	PPRTV	8/25/2008
Iron	Subchronic	7.0E-01	mg/kg/day	1	7.0E-01	mg/kg/day	GS	1.5	PPRTV	9/11/2006
	Chronic	7.0E-01	mg/kg/day	1	7.0E-01	mg/kg/day	GS	1.5	PPRTV	9/11/2006
Manganese[5]	Chronic	2.4E-02	mg/kg/day	0.04	9.6E-04	mg/kg/day	CNS	1	IRIS	10/10/2011
Nickel	Chronic	2.0E-02	mg/kg/day	0.04	8.0E-04	mg/kg/day	Body Weight	300/1	IRIS	10/10/2011
Thallium	Subchronic	4.0E-05	mg/kg/day	1	4.0E-05	mg/kg/day	Skin	1/1000	PPRTV	10/2010
	Chronic	1.0E-05	mg/kg/day	1	1.0E-05	mg/kg/day	Skin	1/3000	PPRTV	10/2010
Vanadium	Chronic	5.0E-03	mg/kg/day	1	5.0E-03	mg/kg/day	Kidney	300	RSL	6/2011
Zinc	Chronic	3.0E-01	mg/kg/day	1	3.0E-01	mg/kg/day	Blood	3/1	IRIS	10/10/2011
Petroleum Hydrocarbons										
Diesel Range Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gasoline Range Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
1 - U.S. EPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.
2 - Adjusted dermal RfD = Oral RfD x Oral Absorption Efficiency for Dermal.
3 - See text for BaP equivalent calculation methodology.
4 - Hexavalent chromium toxicity criteria are used to evaluate one percent of total chromium - see text.
5 - Adjusted IRIS value in accordance with recommendations on IRIS.

Definitions:
BaP = benzo(a)pyrene
CNS = central nervous system
CVS = cardiovascular system
GS = gastrointestinal system
HEAST = Health Effects Assessment Summary Tables
IRIS = Integrated Risk Information System
NA = not available
RfD = reference dose
RSL = USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites, June 2011.
PPRTV = Provisional Peer Reviewed Toxicity Value

TABLE 5.2

NON-CANCER TOXICITY DATA -- INHALATION
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND
PAGE 1 OF 2

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD[1]		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Volatile Organic Compounds									
Benzene	Subchronic	8.0E-02	mg/m^3	2.3E-02	(mg/kg/day)	Blood	100/1	PPRTV	9/29/2009
	Chronic	3.0E-02	mg/m^3	8.6E-03	(mg/kg/day)	Blood	300/1	IRIS	10/10/2011
Carbon Tetrachloride	Subchronic	1.9E-01	mg/m^3	5.4E-02	(mg/kg/day)	Liver	30/1	ATSDR	9/2005
	Chronic	1.0E-01	mg/m^3	2.9E-02	(mg/kg/day)	Liver	100/1	IRIS	10/10/2011
Chloroform	Subchronic	2.4E-01	mg/m^3	6.9E-02	(mg/kg/day)	Liver	300/1	ATSDR	9/1997
	Chronic	9.8E-02	mg/m^3	2.8E-02	(mg/kg/day)	Liver	NA	ATSDR	9/1997
Naphthalene	Chronic	3.0E-03	mg/m^3	8.6E-04	(mg/kg/day)	Respiratory	3000/1	IRIS	10/10/2011
Trichloroethene	Subchronic	5.4E-01	mg/m^3	1.5E-01	(mg/kg/day)	CNS	300/1	ATSDR	9/1997
	Chronic	2.0E-03	mg/m^3	5.7E-04	(mg/kg/day)	CVS, Immune	10 to 100/1	IRIS	10/10/2011
Vinyl chloride	Subchronic	7.7E-02	mg/m^3	2.2E-02	(mg/kg/day)	Liver	30/1	ATSDR	7/2006
	Chronic	1.0E-01	mg/m^3	2.9E-02	(mg/kg/day)	Liver	30/1	IRIS	10/10/2011
Semivolatile Organic Compounds									
BaP Equivalent[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	Chronic	3.0E-03	mg/m^3	8.6E-04	(mg/kg/day)	Respiratory	3000/1	IRIS	10/10/2011
n-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls									
Aroclor-1260	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics									
Arsenic	Chronic	1.5E-05	mg/m^3	4.3E-06	(mg/kg/day)	Skin, CVS	NA	Cal EPA	9/2009
Chromium VI[3]	Chronic	1.0E-04	mg/m^3	2.9E-05	(mg/kg/day)	Respiratory	300/1	IRIS	10/10/2011
Cobalt	Subchronic	2.0E-05	mg/m^3	5.7E-06	(mg/kg/day)	Respiratory	100/1	PPRTV	8/25/2008
	Chronic	6.0E-06	mg/m^3	1.7E-06	(mg/kg/day)	Respiratory	NA	PPRTV	8/25/2008
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	Chronic	5.0E-05	mg/m^3	1.4E-05	(mg/kg/day)	CNS	1000/1	IRIS	10/10/2011

TABLE 5.2

NON-CANCER TOXICITY DATA -- INHALATION
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND
PAGE 2 OF 2

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD(1)		Primary Target Organ(s)	Combined Uncertainty/Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Inorganics (Continued)									
	Subchronic	2.0E-04	mg/m^3	5.7E-05	(mg/kg/day)	Respiratory	30/1	ATSDR	9/2005
Nickel	Chronic	9.0E-05	mg/m^3	2.6E-05	(mg/kg/day)	Respiratory	30/1	ATSDR	9/2005
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA
Petroleum Hydrocarbons									
Diesel Range Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gasoline Range Organics	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

1 - Extrapolated RfD = RfC *$20m^3$/day / 70 kg

2 - See text for BaP equivalent calculation methodology.

3 - Hexavalent chromium toxicity criteria are used to evaluate one percent of total chromium - see text.

Definitions:

ATSDR = Agency for Toxic Substances and Disease Registry

BaP = benzo(a)pyrene

Cal EPA = California Environmental Protection Agency, Technical Support Document for Describing Available Cancer Slope Factors, September 2009.

CNS = central nervous system

CVS = cardiovascular system

HEAST= Health Effects Assessment Summary Tables

IRIS = Integrated Risk Information System

NA = not available

PPRTV = Provisional Peer Reviewed Toxicity Value

RfC = reference concentration

RfD = reference dose

RAGS Part D Table 6

Cancer Toxicity Data

LIST OF TABLES
RAGS PART D TABLE 6
CANCER TOXICITY DATA

Table No.

6.1 Cancer Toxicity Data - Oral/Dermal
6.2 Cancer Toxicity Data - Inhalation

TABLE 6.1

CANCER TOXICITY DATA -- ORAL/DERMAL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal[1]	Absorbed Cancer Slope Factor for Dermal[2]		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Volatile Organic Compounds								
Benzene	5.5E-02	$(mg/kg/day)^{-1}$	1	5.5E-02	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	10/10/2011
Carbon Tetrachloride	7.0E-02	$(mg/kg/day)^{-1}$	1	7.0E-02	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	10/10/2011
Chloroform	3.1E-02	$(mg/kg/day)^{-1}$	1	3.1E-02	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA	9/2009
Naphthalene	NA	NA	NA	NA	NA	C / Inadequate data of carcinogenicity in humans	IRIS	10/10/2011
Trichloroethene	4.6E-02	$(mg/kg/day)^{-1}$	1	4.6E-02	$(mg/kg/day)^{-1}$	Carcinogenic to humans	IRIS	10/10/2011
Vinyl Chloride	7.2E-01	$(mg/kg/day)^{-1}$	1	7.2E-01	$(mg/kg/day)^{-1}$	A / Likely human carcinogen	IRIS	10/10/2011
Semivolatile Organic Compounds								
BaP Equivalent[3][4]	7.3E+00	$(mg/kg/day)^{-1}$	1	7.3E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	10/10/2011
Benzo(a)anthracene[4]	7.3E-01	$(mg/kg/day)^{-1}$	1	7.3E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	ECAO	1993
Benzo(a)pyrene[4]	7.3E+00	$(mg/kg/day)^{-1}$	1	7.3E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	10/10/2011
Benzo(b)fluoranthene[4]	7.3E-01	$(mg/kg/day)^{-1}$	1	7.3E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	ECAO	1993
Benzo(k)fluoranthene[4]	7.3E-02	$(mg/kg/day)^{-1}$	1	7.3E-02	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	ECAO	1993
Chrysene[4]	7.3E-03	$(mg/kg/day)^{-1}$	1	7.3E-03	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	ECAO	1993
Dibenzo(a,h)anthracene[4]	7.3E+00	$(mg/kg/day)^{-1}$	1	7.3E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	ECAO	1993
Indeno(1,2,3-cd)pyrene[4]	7.3E-01	$(mg/kg/day)^{-1}$	1	7.3E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	ECAO	1993
Naphthalene	NA	NA	NA	NA	NA	C / Inadequate data of carcinogenicity in humans	IRIS	10/10/2011
n-Nitroso-di-n-propylamine	7.0E+00	$(mg/kg/day)^{-1}$	1	7.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	10/10/2011
PCBs								
Aroclor-1260	2.0E+00	$(mg/kg/day)^{-1}$	1	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA	9/1996
Inorganics								
Arsenic	1.5E+00	$(mg/kg/day)^{-1}$	1	1.5E+00	$(mg/kg/day)^{-1}$	A	IRIS	10/10/2011
Chromium VI[4][5]	5.0E-01	$(mg/kg/day)^{-1}$	0.025	2.0E+01	$(mg/kg/day)^{-1}$	A / Known human carcinogen	NJDEP	11/2010
Cobalt	NA	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	NA	D (Not classifiable as to human carcinogenicity)	IRIS	10/10/2011
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	D (Not classifiable as to human carcinogenicity)	NA	NA
Petroleum Hydrocarbons								
Diesel Range Organics	NA	NA	NA	NA	NA	NA	NA	NA
Gasoline Range Organics	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 6.1

CANCER TOXICITY DATA -- ORAL/DERMAL
GREATER STRAWBERRY POINT
LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND
PAGE 2 OF 2

Notes:

1 - USEPA, 2004: Risk Assessment Guidance for Superfund (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim. EPA/540/R/99/005.

2 - Adjusted cancer slope factor for dermal = Oral cancer slope factor / Oral Absorption Efficiency for Dermal.

3 - See text for BaP equivalent calculation methodology.

4 - Benzo(a)pyrene and related compounds and hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

5 - Hexavalent chromium toxicity criteria are used to evaluate one percent of total chromium - see text.

BaP = benzo(a)pyrene

Cal EPA = California Environmental Protection Agency, Technical Support Document for Describing Available Cancer Slope Factors, September 2009.

CSF = cancer slope factor

ECAO = Environmental Criteria and Assessment Office (USEPA, 1993).

IRIS = Integrated Risk Information System

NA = not available

NJDEP = New Jersey Department of Environmental Protection, Derivation of Ingestion-Based Soil Remediation Criterion for Cr+6 Based on the NTP Chronic Bioassay Data for Sodium Dichromate Dihydrate, April 8, 2009.

USEPA = USEPA, PCBs: Cancer Dose-Response Assessment and Applications to Environmental Mixtures, September 1996, EPA/600/P-96/001F.

TABLE 6.2

CANCER TOXICITY DATA -- INHALATION
GREATER STRAWBERRY POINT
LOCKHEE MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND
PAGE 1 OF 2

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor[1]		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Volatile Organic Compounds							
Benzene	7.8E-06	$(ug/m^3)^{-1}$	2.7E-02	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	10/10/2011
Carbon Tetrachloride	6.0E-06	$(ug/m^3)^{-1}$	2.1E-02	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	10/10/2011
Chloroform	2.3E-05	$(ug/m^3)^{-1}$	8.1E-02	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	IRIS	10/10/2011
Naphthalene	3.4E-05	$(ug/m^3)^{-1}$	1.2E-01	$(mg/kg/day)^{-1}$	C / Possible Human Carcinogen	Cal EPA(1)	8/2004
Trichloroethene	4.1E-06	$(ug/m^3)^{-1}$	1.4E-02	$(mg/kg/day)^{-1}$	Carcinogenic to humans	IRIS	10/10/2011
Vinyl Chloride	4.4E-06	$(ug/m^3)^{-1}$	1.5E-02	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	10/10/2011
Semivolatile Organic Compounds							
BaP Equivalent[2][3]	1.1E-03	$(ug/m^3)^{-1}$	3.9E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Benzo(a)anthracene[3]	1.1E-04	$(ug/m^3)^{-1}$	3.9E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Benzo(a)pyrene[3]	1.1E-03	$(ug/m^3)^{-1}$	3.9E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Benzo(b)fluoranthene[3]	1.1E-04	$(ug/m^3)^{-1}$	3.9E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Benzo(k)fluoranthene[3]	1.1E-04	$(ug/m^3)^{-1}$	3.9E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Chrysene[3]	1.1E-05	$(ug/m^3)^{-1}$	3.9E-02	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Dibenzo(a,h)anthracene[3]	1.2E-03	$(ug/m^3)^{-1}$	4.2E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Indeno(1,2,3-cd)pyrene[3]	1.1E-04	$(ug/m^3)^{-1}$	3.9E-01	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Naphthalene	3.4E-05	$(ug/m^3)^{-1}$	1.2E-01	$(mg/kg/day)^{-1}$	C / Possible Human Carcinogen	Cal EPA(1)	8/2004
n-Nitroso-di-n-propylamine	2.0E-03	$(ug/m^3)^{-1}$	7.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	Cal EPA(2)	9/2009
Polychlorinated Biphenyls							
Aroclor-1260	5.7E-04	$(ug/m^3)^{-1}$	2.0E+00	$(mg/kg/day)^{-1}$	B2 / Probable human carcinogen	USEPA	9/1996
Inorganics							
Arsenic	4.3E-03	$(ug/m^3)^{-1}$	1.5E+01	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	10/10/2011

TABLE 6.2

CANCER TOXICITY DATA -- INHALATION
GREATER STRAWBERRY POINT
LOCKHEE MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND
PAGE 2 OF 2

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor[(1)]		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Inorganics (Continued)							
Chromium VI	8.4E-02	$(ug/m^3)^{-1}$	2.9E+02	$(mg/kg/day)^{-1}$	A / Known human carcinogen	IRIS	10/10/2011
Cobalt	9.0E-03	$(ug/m^3)^{-1}$	3.2E+01	$(mg/kg/day)^{-1}$	NA	PPRTV	8/25/2008
Iron	NA	NA	NA	NA	NA	NA	NA
Manganese	NA	NA	NA	NA	D / Not classifiable as to human carcinogenicity	IRIS	10/10/2011
Nickel	2.6E-04	$(ug/m^3)^{-1}$	9.1E-01	$(mg/kg/day)^{-1}$	NA	Cal EPA(2)	9/2009
Thallium	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	D (Not classifiable as to human carcinogenicity)	NA	NA
Petroleum Hydrocarbons							
Diesel Range Organics	NA	NA	NA	NA	NA	NA	NA
Gasoline Range Organics	NA	NA	NA	NA	NA	NA	NA

Notes:

1 - Inhalation CSF = Unit Risk * 70 kg / $20m^3$/day.

2 - See text for BaP equivalent calculation methodology.

3 - Benzo(a)pyrene and related compounds and hexavalent chromium are considered to act via the mutagenic mode of action. These chemicals are evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

4 - Hexavalent chromium toxicity criteria are used to evaluate one percent of total chromium - see text.

Definitions:

BaP = benzo(a)pyrene

Cal EPA(1) = Adoption of Unit Risk Values for Naphthalene, August 2004.

Cal EPA(2) = California Environmental Protection Agency, Technical Support Document for Describing Available Cancer Slope Factors, September 2009.

CSF = cancer slope factor

IRIS = Integrated Risk Information System.

NA = not available

PPRTV = Provisional Peer Reviewed Toxicity Value

USEPA = USEPA, PCBs: Cancer Dose-Response Assessment and Applications to Environmental Mixtures, September 1996, EPA/600/P-96/001F.

RAGS Part D Table 7

Calculation Of Cancer Risks and Non-Cancer Hazards

LIST OF TABLES
RAGS PART D TABLE 7
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

Table No.	REASONABLE MAXIMUM EXPOSURES
7.1.RME	Construction Worker
7.2.RME	Industrial Worker
7.3.RME	Child Trespasser
7.4.RME	Adolescent Trespasser
7.5.RME	Child Recreational User
7.6.RME	Adolescent Recreational User
7.7.RME	Adult Recreational User
7.8.RME	Child Resident
7.9.RME	Adolescent Resident
7.10.RME	Adult Resident

Note: Tables are sub-area-specific.

TABLE 7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	REC #11	Ingestion	Benzo(a)pyrene Equivalents	1.80	mg/kg	1.2E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	8.8E-07	8.5E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	8.1E-09	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	5.6E-08	5.6E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	1.1E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.1E-07	7.5E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	2.2E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.3E-07	1.5E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.05
				Chromium VI	0.140	mg/kg	9.4E-09	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	4.7E-09	6.6E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00003
				Cobalt	3.80	mg/kg	2.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-05	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.006
				Iron	10,000	mg/kg	6.7E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.7E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.07
				Manganese	370	mg/kg	2.5E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.07
				Thallium	0.920	mg/kg	6.2E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.3E-06	(mg/kg/day)	4.0E-05	(mg/kg/day)	0.1
				Vanadium	24.7	mg/kg	1.7E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-04	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.02
				Diesel Range Organics	660	mg/kg	4.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.1E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.5E-06					0.3
			Dermal	Benzo(a)pyrene Equivalents	1.80	mg/kg	3.2E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.3E-07	2.3E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	1.7E-09	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	1.2E-08	1.2E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	3.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	6.2E-08	2.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	1.4E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.0E-08	9.5E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Chromium VI	0.140	mg/kg	1.9E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	3.9E-09	1.3E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.00003
				Cobalt	3.80	mg/kg	5.2E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.7E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0001
				Iron	10,000	mg/kg	1.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.6E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.001
				Manganese	370	mg/kg	5.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.6E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.04
				Thallium	0.920	mg/kg	1.3E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.9E-08	(mg/kg/day)	4.0E-05	(mg/kg/day)	0.002
				Vanadium	24.7	mg/kg	3.4E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0005
				Diesel Range Organics	660	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.3E-07					0.04
		Exposure Point Total									1.8E-06					0.4
	Exposure Medium Total										1.8E-06					0.4
	Air	REC #11	Inhalation	Benzo(a)pyrene Equivalents	1.3E-6	mg/m^3	4.1E-09	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	4.5E-09	2.9E-07	(mg/m^3)	NA	(mg/m^3)	--
				n-Nitroso-di-n-propylamine	8.4E-8	mg/m^3	2.7E-10	(mg/m^3)	2.0E-03	$(ug/m^3)^{-1}$	5.5E-10	1.9E-08	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	1.1E-6	mg/m^3	3.6E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.1E-09	2.6E-07	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	2.3E-6	mg/m^3	7.5E-09	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	3.2E-08	5.3E-07	(mg/m^3)	1.5E-05	(mg/m^3)	0.04
				Chromium VI	9.8E-8	mg/m^3	3.2E-10	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	2.7E-08	2.2E-08	(mg/m^3)	1.0E-04	(mg/m^3)	0.0002
				Cobalt	2.7E-6	mg/m^3	8.7E-09	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	7.8E-08	6.1E-07	(mg/m^3)	2.0E-05	(mg/m^3)	0.03
				Iron	0.007	mg/m^3	2.3E-05	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.6E-03	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	2.6E-4	mg/m^3	8.4E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.9E-05	(mg/m^3)	5.0E-05	(mg/m^3)	1.2
				Thallium	6.4E-7	mg/m^3	2.1E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.5E-07	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	1.7E-5	mg/m^3	5.6E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.9E-06	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	4.6E-4	mg/m^3	1.5E-06	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.1E-04	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.4E-07					1.2
		Exposure Point Total									1.4E-07					1.2
	Exposure Medium Total										1.4E-07					1.2
Medium Total											2.0E-06					1.6

TABLE 7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	REC #11	Ingestion	Trichloroethene	0.003	mg/kg	2.2E-10	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.0E-11	1.5E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.00003
				Benzo(a)pyrene Equivalents	2.30	mg/kg	1.5E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.1E-06	1.1E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	2.5E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-06	(mg/kg/day)	6.0E-01	(mg/kg/day)	0.000003
				Aroclor-1260	1.20	mg/kg	8.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.6E-07	5.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	8.0E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.2E-06	5.6E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.2
				Chromium VI	0.130	mg/kg	8.7E-09	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	4.4E-09	6.1E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00003
				Cobalt	1.90	mg/kg	1.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.9E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.003
				Iron	15,600	mg/kg	1.0E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.3E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.1
				Manganese	713	mg/kg	4.8E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.3E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.1
				Thallium	0.680	mg/kg	4.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.2E-06	(mg/kg/day)	4.0E-05	(mg/kg/day)	0.08
				Vanadium	72.0	mg/kg	4.8E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.4E-04	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.07
				Diesel Range Organics	1,400	mg/kg	9.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.6E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.5E-06					0.6
			Dermal	Trichloroethene	0.003	mg/kg	1.4E-11	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	6.3E-13	9.5E-10	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.000002
				Benzo(a)pyrene Equivalents	2.30	mg/kg	4.1E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.0E-07	2.9E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	6.6E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.6E-07	(mg/kg/day)	6.0E-01	(mg/kg/day)	0.0000008
				Aroclor-1260	1.20	mg/kg	2.3E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.6E-08	1.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	4.9E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	7.4E-08	3.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.01
				Chromium VI	0.130	mg/kg	1.8E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	3.6E-09	1.3E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.00003
				Cobalt	1.90	mg/kg	2.6E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00006
				Iron	15,600	mg/kg	2.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.002
				Manganese	713	mg/kg	9.8E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.9E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.07
				Thallium	0.680	mg/kg	9.4E-10	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.5E-08	(mg/kg/day)	4.0E-05	(mg/kg/day)	0.002
				Vanadium	72.0	mg/kg	9.9E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.9E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.001
				Diesel Range Organics	1,400	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								4.2E-07					0.09
		Exposure Point Total									2.9E-06					0.7
	Exposure Medium Total										2.9E-06					0.7
	Air	REC #11	Inhalation	Trichloroethene	6.7E-6	mg/m^3	2.2E-08	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	9.0E-11	1.5E-06	(mg/m^3)	5.4E-01	(mg/m^3)	0.000003
				Benzo(a)pyrene Equivalents	1.6E-6	mg/m^3	5.2E-09	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	5.8E-09	3.7E-07	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	3.6E-5	mg/m^3	1.2E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	4.0E-09	8.3E-06	(mg/m^3)	3.0E-03	(mg/m^3)	0.003
				Aroclor-1260	8.4E-7	mg/m^3	2.7E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.6E-09	1.9E-07	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	8.3E-6	mg/m^3	2.7E-08	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	1.2E-07	1.9E-06	(mg/m^3)	1.5E-05	(mg/m^3)	0.1
				Chromium VI	9.1E-8	mg/m^3	3.0E-10	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	2.5E-08	2.1E-08	(mg/m^3)	1.0E-04	(mg/m^3)	0.0002
				Cobalt	1.3E-6	mg/m^3	4.3E-09	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	3.9E-08	3.0E-07	(mg/m^3)	2.0E-05	(mg/m^3)	0.02
				Iron	0.011	mg/m^3	3.6E-05	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.5E-03	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	5.0E-4	mg/m^3	1.6E-06	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.1E-04	(mg/m^3)	5.0E-05	(mg/m^3)	2.3
				Thallium	4.8E-7	mg/m^3	1.6E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.1E-07	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	5.0E-5	mg/m^3	1.6E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.1E-05	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	9.8E-4	mg/m^3	3.2E-06	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.2E-04	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.9E-07					2.4
		Exposure Point Total									1.9E-07					2.4
	Exposure Medium Total										1.9E-07					2.4
Medium Total											3.1E-06					3.1

TABLE 7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	REC #11	Ingestion	Benzene	0.130	ug/L	1.3E-10	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	7.2E-12	9.2E-09	(mg/kg/day)	1.0E-02	(mg/kg/day)	0.0000009
				Trichloroethene	25.0	ug/L	2.5E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.2E-09	1.8E-06	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.004
				Vinyl Chloride	0.660	ug/L	6.6E-10	(mg/kg/day)	7.2E-01	$(mg/kg/day)^{-1}$	4.8E-10	4.6E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00002
				Arsenic	11.0	ug/L	1.1E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.7E-08	7.7E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Chromium VI	7.50	ug/L	7.5E-09	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	3.8E-09	5.3E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00003
				Cobalt	210	ug/L	2.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-05	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.005
				Iron	20,800	ug/L	2.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.002
				Manganese	215	ug/L	2.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-05	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.0006
				Nickel	380	ug/L	3.8E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.7E-05	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.001
				Thallium	1.10	ug/L	1.1E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.7E-08	(mg/kg/day)	4.0E-05	(mg/kg/day)	0.002
				Vanadium	48.0	ug/L	4.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.4E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0007
				Zinc	1,500	ug/L	1.5E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-04	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.0004
				Diesel Range Organics	360	ug/L	3.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.5E-05	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.2E-08					0.02
			Dermal	Benzene	0.130	ug/L	1.4E-09	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	7.8E-11	9.9E-08	(mg/kg/day)	1.0E-02	(mg/kg/day)	0.000010
				Trichloroethene	25.0	ug/L	2.4E-07	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.1E-08	1.7E-05	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.03
				Vinyl Chloride	0.660	ug/L	2.7E-09	(mg/kg/day)	7.2E-01	$(mg/kg/day)^{-1}$	2.0E-09	1.9E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00006
				Arsenic	11.0	ug/L	7.3E-09	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.1E-08	5.1E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	7.50	ug/L	1.0E-08	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	2.0E-07	7.0E-07	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.001
				Cobalt	210	ug/L	5.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.9E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.001
				Iron	20,800	ug/L	1.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.7E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.001
				Manganese	215	ug/L	1.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.01
				Nickel	380	ug/L	5.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.5E-06	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.004
				Thallium	1.10	ug/L	7.3E-10	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.1E-08	(mg/kg/day)	4.0E-05	(mg/kg/day)	0.001
				Vanadium	48.0	ug/L	3.2E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0004
				Zinc	1,500	ug/L	6.0E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.2E-05	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.0001
				Diesel Range Organics	360	ug/L	NA	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	NA	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.2E-07					0.06
		Exposure Point Total									2.5E-07					0.07
	Exposure Medium Total										2.5E-07					0.07
	Air	REC #11	Inhalation	Benzene	5.4E-6	mg/m^3	3.2E-09	(mg/m^3)	7.8E-06	$(ug/m^3)^{-1}$	2.5E-11	2.2E-07	(mg/m^3)	8.0E-02	(mg/m^3)	0.000003
				Trichloroethene	8.0E-4	mg/m^3	4.7E-07	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	1.9E-09	3.3E-05	(mg/m^3)	5.4E-01	(mg/m^3)	0.00006
				Vinyl Chloride	3.1E-5	mg/m^3	1.8E-08	(mg/m^3)	4.4E-06	$(ug/m^3)^{-1}$	8.0E-11	1.3E-06	(mg/m^3)	7.7E-02	(mg/m^3)	0.00002
				Arsenic	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	1.5E-05	(mg/m^3)	--
				Chromium VI	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	1.0E-04	(mg/m^3)	--
				Cobalt	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	2.0E-05	(mg/m^3)	--
				Iron	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	5.0E-05	(mg/m^3)	--
				Nickel	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	2.6E-04	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	2.0E-04	(mg/m^3)	--
				Thallium	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Zinc	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.0E-09					0.00008
		Exposure Point Total									2.0E-09					0.00008
	Exposure Medium Total										2.0E-09					0.00008
Medium Total											2.5E-07					0.07
										Total of Receptor Risks Across All Media	5.3E-06			Total of Receptor Hazards Across All Media		4.8

TABLE 7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	RECs #9 and #10	Ingestion	Benzo(a)pyrene Equivalents	7.80	mg/kg	5.2E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.8E-06	3.7E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	4.2E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	8.5E-09	3.0E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	1.9E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.9E-07	1.4E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.05
				Chromium VI	0.120	mg/kg	8.1E-09	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	4.0E-09	5.6E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00003
				Cobalt	2.90	mg/kg	1.9E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-05	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.005
				Iron	8,400	mg/kg	5.6E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.9E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.06
				Manganese	2,200	mg/kg	1.5E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-02	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.4
				Thallium	0.910	mg/kg	6.1E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.3E-06	(mg/kg/day)	4.0E-05	(mg/kg/day)	0.1
				Vanadium	24.0	mg/kg	1.6E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-04	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.02
				Diesel Range Organics	350	mg/kg	2.3E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								4.1E-06					0.7
			Dermal	Benzo(a)pyrene Equivalents	7.80	mg/kg	1.4E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.0E-06	9.8E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	1.2E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.4E-09	8.5E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	1.2E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.8E-08	8.4E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Chromium VI	0.120	mg/kg	1.7E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	3.3E-09	1.2E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.00002
				Cobalt	2.90	mg/kg	4.0E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.8E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00009
				Iron	8,400	mg/kg	1.2E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.1E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.001
				Manganese	2,200	mg/kg	3.0E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-04	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.2
				Thallium	0.910	mg/kg	1.3E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.8E-08	(mg/kg/day)	4.0E-05	(mg/kg/day)	0.002
				Vanadium	24.0	mg/kg	3.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.3E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0005
				Diesel Range Organics	350	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.0E-06					0.2
		Exposure Point Total									5.2E-06					0.9
	Exposure Medium Total										5.2E-06					0.9
	Air	RECs #9 and #10	Inhalation	Benzo(a)pyrene Equivalents	5.5E-6	mg/m^3	1.8E-08	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	2.0E-08	1.2E-06	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	4.4E-8	mg/m^3	1.4E-10	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	8.2E-11	1.0E-08	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	2.0E-6	mg/m^3	6.6E-09	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	2.8E-08	4.6E-07	(mg/m^3)	1.5E-05	(mg/m^3)	0.03
				Chromium VI	8.4E-8	mg/m^3	2.7E-10	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	2.3E-08	1.9E-08	(mg/m^3)	1.0E-04	(mg/m^3)	0.0002
				Cobalt	2.0E-6	mg/m^3	6.6E-09	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	6.0E-08	4.6E-07	(mg/m^3)	2.0E-05	(mg/m^3)	0.02
				Iron	0.006	mg/m^3	1.9E-05	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.3E-03	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	0.002	mg/m^3	5.0E-06	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.5E-04	(mg/m^3)	5.0E-05	(mg/m^3)	7.0
				Thallium	6.4E-7	mg/m^3	2.1E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.5E-07	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	1.7E-5	mg/m^3	5.5E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.8E-06	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	2.4E-4	mg/m^3	8.0E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.6E-05	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.3E-07					7.1
		Exposure Point Total									1.3E-07					7.1
	Exposure Medium Total										1.3E-07					7.1
Medium Total											5.3E-06					8.0

TABLE 7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Ingestion	Naphthalene	4.50	mg/kg	3.0E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-05	(mg/kg/day)	6.0E-01	(mg/kg/day)	0.00004
				Trichloroethene	0.360	mg/kg	2.4E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.1E-09	1.7E-06	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.003
				Benzo(a)pyrene Equivalents	2.20	mg/kg	1.5E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.1E-06	1.0E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	4.3E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	8.6E-08	3.0E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	2.5E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.8E-07	1.8E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.06
				Chromium VI	0.150	mg/kg	1.0E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	5.0E-09	7.0E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00004
				Cobalt	5.10	mg/kg	3.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-05	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.008
				Iron	1,020	mg/kg	6.8E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.8E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.007
				Manganese	2.00	mg/kg	1.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.4E-06	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.0004
				Thallium	0.810	mg/kg	5.4E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.8E-06	(mg/kg/day)	4.0E-05	(mg/kg/day)	0.10
				Vanadium	25.9	mg/kg	1.7E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-04	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.02
				Diesel Range Organics	220	mg/kg	1.5E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.6E-06					0.2
			Dermal	Naphthalene	4.50	mg/kg	8.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.6E-06	(mg/kg/day)	6.0E-01	(mg/kg/day)	0.000009
				Trichloroethene	0.360	mg/kg	1.5E-09	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	6.8E-11	1.0E-07	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0002
				Benzo(a)pyrene Equivalents	2.20	mg/kg	3.9E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.9E-07	2.8E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	1.2E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.5E-08	8.6E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	1.6E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.4E-08	1.1E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.004
				Chromium VI	0.150	mg/kg	2.1E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	4.1E-09	1.4E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.00003
				Cobalt	5.10	mg/kg	7.0E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.9E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0002
				Iron	1,020	mg/kg	1.4E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.8E-05	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0001
				Manganese	2.00	mg/kg	2.8E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-07	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.0002
				Thallium	0.810	mg/kg	1.1E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.8E-08	(mg/kg/day)	4.0E-05	(mg/kg/day)	0.002
				Vanadium	25.9	mg/kg	3.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.5E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0005
				Diesel Range Organics	220	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.4E-07					0.007
		Exposure Point Total									1.9E-06					0.2
	Exposure Medium Total										1.9E-06					0.2
	Air	RECs #9 and #10	Inhalation	Naphthalene	4.4E-4	mg/m^3	1.4E-06	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	4.9E-08	1.0E-04	(mg/m^3)	3.0E-03	(mg/m^3)	0.03
				Trichloroethene	7.3E-4	mg/m^3	2.4E-06	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	9.8E-09	1.7E-04	(mg/m^3)	5.4E-01	(mg/m^3)	0.0003
				Benzo(a)pyrene Equivalents	1.5E-6	mg/m^3	5.0E-09	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	5.5E-09	3.5E-07	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	4.5E-7	mg/m^3	1.5E-09	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	8.3E-10	1.0E-07	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	2.7E-6	mg/m^3	8.7E-09	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	3.7E-08	6.1E-07	(mg/m^3)	1.5E-05	(mg/m^3)	0.04
				Chromium VI	1.0E-7	mg/m^3	3.4E-10	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	2.9E-08	2.4E-08	(mg/m^3)	1.0E-04	(mg/m^3)	0.0002
				Cobalt	3.6E-6	mg/m^3	1.2E-08	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	1.0E-07	8.1E-07	(mg/m^3)	2.0E-05	(mg/m^3)	0.04
				Iron	7.1E-4	mg/m^3	2.3E-06	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.6E-04	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	1.4E-6	mg/m^3	4.6E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.2E-07	(mg/m^3)	5.0E-05	(mg/m^3)	0.006
				Thallium	5.7E-7	mg/m^3	1.8E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.3E-07	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	1.8E-5	mg/m^3	5.9E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.1E-06	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	1.5E-4	mg/m^3	5.0E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.5E-05	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.4E-07					0.1
		Exposure Point Total									2.4E-07					0.1
	Exposure Medium Total										2.4E-07					0.1
Medium Total											2.1E-06					0.3

TABLE 7.1.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	RECs #9 and #10	Ingestion	Benzene	3.10	ug/L	3.1E-09	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	1.7E-10	2.2E-07	(mg/kg/day)	1.0E-02	(mg/kg/day)	0.00002
				Carbon Tetrachloride	2.60	ug/L	2.6E-09	(mg/kg/day)	7.0E-02	$(mg/kg/day)^{-1}$	1.8E-10	1.8E-07	(mg/kg/day)	7.0E-03	(mg/kg/day)	0.00003
				Chloroform	0.920	ug/L	9.3E-10	(mg/kg/day)	3.1E-02	$(mg/kg/day)^{-1}$	2.9E-11	6.5E-08	(mg/kg/day)	1.0E-01	(mg/kg/day)	0.0000006
				Trichloroethene	450	ug/L	4.5E-07	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	2.1E-08	3.2E-05	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.06
				Arsenic	9.70	ug/L	9.8E-09	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.5E-08	6.8E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	8.20	ug/L	8.3E-09	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	4.1E-09	5.8E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00003
				Cobalt	76.0	ug/L	7.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.4E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.002
				Iron	13,600	ug/L	1.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.6E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.001
				Manganese	756	ug/L	7.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.3E-05	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.002
				Nickel	53.0	ug/L	5.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.7E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0002
				Vanadium	23.0	ug/L	2.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0003
				Zinc	79.0	ug/L	8.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.6E-06	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.00002
				Diesel Range Organics	1,600	ug/L	1.6E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-04	(mg/kg/day)	NA	(mg/kg/day)	--
				Gasoline Range Organics	300	ug/L	3.0E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-05	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								4.0E-08					0.07
			Dermal	Benzene	3.10	ug/L	3.4E-08	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	1.9E-09	2.4E-06	(mg/kg/day)	1.0E-02	(mg/kg/day)	0.0002
				Carbon Tetrachloride	2.60	ug/L	3.8E-08	(mg/kg/day)	7.0E-02	$(mg/kg/day)^{-1}$	2.7E-09	2.7E-06	(mg/kg/day)	7.0E-03	(mg/kg/day)	0.0004
				Chloroform	0.920	ug/L	5.1E-09	(mg/kg/day)	3.1E-02	$(mg/kg/day)^{-1}$	1.6E-10	3.6E-07	(mg/kg/day)	1.0E-01	(mg/kg/day)	0.000004
				Trichloroethene	450	ug/L	4.4E-06	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	2.0E-07	3.1E-04	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.6
				Arsenic	9.70	ug/L	6.4E-09	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	9.7E-09	4.5E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	8.20	ug/L	1.1E-08	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	2.2E-07	7.6E-07	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.002
				Cobalt	76.0	ug/L	2.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0005
				Iron	13,600	ug/L	9.0E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.3E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0009
				Manganese	756	ug/L	5.0E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.5E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.04
				Nickel	53.0	ug/L	7.0E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.9E-07	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.0006
				Vanadium	23.0	ug/L	1.5E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0002
				Zinc	79.0	ug/L	3.1E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-06	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.000007
				Diesel Range Organics	1,600	ug/L	NA	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	NA	(mg/kg/day)	NA	(mg/kg/day)	--
				Gasoline Range Organics	300	ug/L	NA	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	NA	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								4.3E-07					0.7
		Exposure Point Total									4.7E-07					0.7
	Exposure Medium Total										4.7E-07					0.7
	Air	RECs #9 and #10	Inhalation	Benzene	1.3E-4	mg/m^3	7.6E-08	(mg/m^3)	7.8E-06	$(ug/m^3)^{-1}$	5.9E-10	5.3E-06	(mg/m^3)	8.0E-02	(mg/m^3)	0.00007
				Carbon Tetrachloride	7.8E-5	mg/m^3	4.6E-08	(mg/m^3)	6.0E-06	$(ug/m^3)^{-1}$	2.7E-10	3.2E-06	(mg/m^3)	1.9E-01	(mg/m^3)	0.00002
				Chloroform	3.1E-5	mg/m^3	1.8E-08	(mg/m^3)	2.3E-05	$(ug/m^3)^{-1}$	4.2E-10	1.3E-06	(mg/m^3)	2.4E-01	(mg/m^3)	0.000005
				Trichloroethene	0.014	mg/m^3	8.5E-06	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	3.5E-08	6.0E-04	(mg/m^3)	5.4E-01	(mg/m^3)	0.001
				Arsenic	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	1.5E-05	(mg/m^3)	--
				Chromium VI	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	1.0E-04	(mg/m^3)	--
				Cobalt	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	2.0E-05	(mg/m^3)	--
				Iron	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	5.0E-05	(mg/m^3)	--
				Nickel	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	2.6E-04	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	2.0E-04	(mg/m^3)	--
				Vanadium	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Zinc	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Gasoline Range Organics	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								3.6E-08					0.001
		Exposure Point Total									3.6E-08					0.001
	Exposure Medium Total										3.6E-08					0.001
Medium Total											5.1E-07					0.7
										Total of Receptor Risks Across All Media	7.9E-06			Total of Receptor Hazards Across All Media		9.0

TABLE 7.2.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	REC #11	Ingestion	Benzo(a)pyrene Equivalents	1.80	mg/kg	3.1E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.3E-06	8.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	2.1E-08	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	1.5E-07	5.9E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	2.8E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.6E-07	7.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	5.8E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	8.6E-07	1.6E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Chromium VI	0.140	mg/kg	2.4E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.2E-08	6.8E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00002
				Cobalt	3.80	mg/kg	6.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.006
				Iron	10,000	mg/kg	1.7E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.9E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.007
				Manganese	370	mg/kg	6.5E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.008
				Thallium	0.920	mg/kg	1.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.5E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.05
				Vanadium	24.7	mg/kg	4.3E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Diesel Range Organics	660	mg/kg	1.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.2E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.9E-06					0.07
			Dermal	Benzo(a)pyrene Equivalents	1.80	mg/kg	5.4E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.9E-06	1.5E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	2.8E-08	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	1.9E-07	7.7E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	5.2E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.0E-06	1.4E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	2.3E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.4E-07	6.4E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.140	mg/kg	3.2E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	6.5E-08	9.0E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	3.80	mg/kg	8.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.5E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0008
				Iron	10,000	mg/kg	2.3E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.5E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0009
				Manganese	370	mg/kg	8.5E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.02
				Thallium	0.920	mg/kg	2.1E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.9E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.006
				Vanadium	24.7	mg/kg	5.7E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0003
				Diesel Range Organics	660	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								5.6E-06					0.04
		Exposure Point Total									9.5E-06					0.1
	Exposure Medium Total										9.5E-06					0.1
	Air	REC #11	Inhalation	Benzo(a)pyrene Equivalents	5.6E-10	mg/m^3	4.5E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	5.0E-11	1.3E-10	(mg/m^3)	NA	(mg/m^3)	--
				n-Nitroso-di-n-propylamine	3.7E-11	mg/m^3	3.0E-12	(mg/m^3)	2.0E-03	$(ug/m^3)^{-1}$	6.1E-12	8.5E-12	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	5.0E-10	mg/m^3	4.0E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.3E-11	1.1E-10	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.0E-9	mg/m^3	8.3E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	3.6E-10	2.3E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00002
				Chromium VI	4.3E-11	mg/m^3	3.5E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	3.0E-10	9.9E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000010
				Cobalt	1.2E-9	mg/m^3	9.6E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	8.6E-10	2.7E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.00004
				Iron	3.1E-6	mg/m^3	2.5E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.1E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	1.1E-7	mg/m^3	9.3E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.6E-08	(mg/m^3)	5.0E-05	(mg/m^3)	0.0005
				Thallium	2.8E-10	mg/m^3	2.3E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	6.5E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.6E-9	mg/m^3	6.2E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.7E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	2.0E-7	mg/m^3	1.7E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.7E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.6E-09					0.0006
		Exposure Point Total									1.6E-09					0.0006
	Exposure Medium Total										1.6E-09					0.0006
Medium Total											9.5E-06					0.1

TABLE 7.2.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	REC #11	Ingestion	Trichloroethene	0.003	mg/kg	5.8E-10	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	2.7E-11	1.6E-09	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.000003
				Benzo(a)pyrene Equivalents	2.30	mg/kg	4.0E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.9E-06	1.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	6.5E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000009
				Aroclor-1260	1.20	mg/kg	2.1E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.2E-07	5.9E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	2.1E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.1E-06	5.8E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Chromium VI	0.130	mg/kg	2.3E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.1E-08	6.4E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00002
				Cobalt	1.90	mg/kg	3.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.3E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Iron	15,600	mg/kg	2.7E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.6E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.01
				Manganese	713	mg/kg	1.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.5E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.01
				Thallium	0.680	mg/kg	1.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.3E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.03
				Vanadium	72.0	mg/kg	1.3E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.5E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.007
				Diesel Range Organics	1,400	mg/kg	2.4E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.8E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								6.5E-06					0.09
			Dermal	Trichloroethene	0.003	mg/kg	2.3E-10	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.1E-11	6.4E-10	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.000001
				Benzo(a)pyrene Equivalents	2.30	mg/kg	6.9E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	5.0E-06	1.9E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	1.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.1E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00002
				Aroclor-1260	1.20	mg/kg	3.9E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.7E-07	1.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	8.2E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.2E-06	2.3E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.008
				Chromium VI	0.130	mg/kg	3.0E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	6.0E-08	8.4E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	1.90	mg/kg	4.4E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0004
				Iron	15,600	mg/kg	3.6E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.001
				Manganese	713	mg/kg	1.6E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.6E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.05
				Thallium	0.680	mg/kg	1.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.4E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.004
				Vanadium	72.0	mg/kg	1.7E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.6E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0009
				Diesel Range Organics	1,400	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								7.1E-06					0.06
		Exposure Point Total									1.4E-05					0.2
	Exposure Medium Total										1.4E-05					0.2
	Air	REC #11	Inhalation	Trichloroethene	1.1E-6	mg/m^3	8.9E-08	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	3.6E-10	2.5E-07	(mg/m^3)	2.0E-03	(mg/m^3)	0.0001
				Benzo(a)pyrene Equivalents	7.1E-10	mg/m^3	5.8E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	6.4E-11	1.6E-10	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	5.8E-6	mg/m^3	4.7E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	1.6E-08	1.3E-06	(mg/m^3)	3.0E-03	(mg/m^3)	0.0004
				Aroclor-1260	3.7E-10	mg/m^3	3.0E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.7E-11	8.5E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	3.7E-9	mg/m^3	3.0E-10	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	1.3E-09	8.4E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00006
				Chromium VI	4.0E-11	mg/m^3	3.3E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	2.8E-10	9.2E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000009
				Cobalt	5.9E-10	mg/m^3	4.8E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	4.3E-10	1.3E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.00002
				Iron	4.8E-6	mg/m^3	3.9E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.1E-06	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	2.2E-7	mg/m^3	1.8E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.0E-08	(mg/m^3)	5.0E-05	(mg/m^3)	0.001
				Thallium	2.1E-10	mg/m^3	1.7E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.8E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	2.2E-8	mg/m^3	1.8E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.1E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	4.3E-7	mg/m^3	3.5E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	9.9E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.9E-08					0.002
		Exposure Point Total									1.9E-08					0.002
	Exposure Medium Total										1.9E-08					0.002
Medium Total											1.4E-05					0.2
										Total of Receptor Risks Across All Media	2.3E-05			Total of Receptor Hazards Across All Media		0.3

TABLE 7.2.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	RECs #9 and #10	Ingestion	Benzo(a)pyrene Equivalents	7.80	mg/kg	1.4E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	9.9E-06	3.8E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	1.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.2E-08	3.1E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	5.1E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	7.6E-07	1.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Chromium VI	0.120	mg/kg	2.1E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.0E-08	5.9E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00002
				Cobalt	2.90	mg/kg	5.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Iron	8,400	mg/kg	1.5E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.1E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.006
				Manganese	2,200	mg/kg	3.8E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.04
				Thallium	0.910	mg/kg	1.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.5E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.04
				Vanadium	24.0	mg/kg	4.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Diesel Range Organics	350	mg/kg	6.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.1E-05					0.1
			Dermal	Benzo(a)pyrene Equivalents	7.80	mg/kg	2.3E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.7E-05	6.5E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	2.0E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.1E-08	5.7E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	2.0E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.0E-07	5.6E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.120	mg/kg	2.8E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	5.5E-08	7.7E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	2.90	mg/kg	6.7E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0006
				Iron	8,400	mg/kg	1.9E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.4E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0008
				Manganese	2,200	mg/kg	5.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-04	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.1
				Thallium	0.910	mg/kg	2.1E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.9E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.006
				Vanadium	24.0	mg/kg	5.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0003
				Diesel Range Organics	350	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.7E-05					0.2
		Exposure Point Total									2.8E-05					0.3
	Exposure Medium Total										2.8E-05					0.3
	Air	RECs #9 and #10	Inhalation	Benzo(a)pyrene Equivalents	2.4E-9	mg/m^3	2.0E-10	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	2.2E-10	5.5E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-11	mg/m^3	1.6E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	9.1E-13	4.5E-12	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	9.0E-10	mg/m^3	7.3E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	3.1E-10	2.0E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00001
				Chromium VI	3.7E-11	mg/m^3	3.0E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	2.5E-10	8.5E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000008
				Cobalt	9.0E-10	mg/m^3	7.3E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	6.6E-10	2.0E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.00003
				Iron	2.6E-6	mg/m^3	2.1E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.9E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.8E-7	mg/m^3	5.6E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.6E-07	(mg/m^3)	5.0E-05	(mg/m^3)	0.003
				Thallium	2.8E-10	mg/m^3	2.3E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	6.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.4E-9	mg/m^3	6.1E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.7E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	1.1E-7	mg/m^3	8.8E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.5E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.4E-09					0.003
		Exposure Point Total									1.4E-09					0.003
	Exposure Medium Total										1.4E-09					0.003
Medium Total											2.8E-05					0.3

TABLE 7.2.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Ingestion	Naphthalene	4.50	mg/kg	7.9E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0001
				Trichloroethene	0.360	mg/kg	6.3E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	2.9E-09	1.8E-07	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0004
				Benzo(a)pyrene Equivalents	2.20	mg/kg	3.8E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.8E-06	1.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	1.1E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.2E-07	3.1E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	6.6E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.0E-06	1.9E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.006
				Chromium VI	0.150	mg/kg	2.6E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.3E-08	7.3E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00002
				Cobalt	5.10	mg/kg	8.9E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.5E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.008
				Iron	1,020	mg/kg	1.8E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.0E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0007
				Manganese	2.00	mg/kg	3.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.8E-07	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.00004
				Thallium	0.810	mg/kg	1.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.0E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.04
				Vanadium	25.9	mg/kg	4.5E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.003
				Diesel Range Organics	220	mg/kg	3.8E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								4.0E-06					0.06
			Dermal	Naphthalene	4.50	mg/kg	1.3E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.8E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0002
				Trichloroethene	0.360	mg/kg	2.5E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.1E-09	7.0E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0001
				Benzo(a)pyrene Equivalents	2.20	mg/kg	6.6E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	4.8E-06	1.8E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	2.1E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.1E-07	5.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	2.6E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.9E-07	7.4E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.150	mg/kg	3.5E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	6.9E-08	9.7E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	5.10	mg/kg	1.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.3E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.001
				Iron	1,020	mg/kg	2.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.6E-05	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.00009
				Manganese	2.00	mg/kg	4.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-07	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.0001
				Thallium	0.810	mg/kg	1.9E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.2E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.005
				Vanadium	25.9	mg/kg	6.0E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0003
				Diesel Range Organics	220	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								5.7E-06					0.010
		Exposure Point Total									9.7E-06					0.07
	Exposure Medium Total										9.7E-06					0.07
	Air	RECs #9 and #10	Inhalation	Naphthalene	7.1E-5	mg/m^3	5.8E-06	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	2.0E-07	1.6E-05	(mg/m^3)	3.0E-03	(mg/m^3)	0.005
				Trichloroethene	1.2E-4	mg/m^3	9.7E-06	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	4.0E-08	2.7E-05	(mg/m^3)	2.0E-03	(mg/m^3)	0.01
				Benzo(a)pyrene Equivalents	6.8E-10	mg/m^3	5.6E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	6.1E-11	1.6E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-10	mg/m^3	1.6E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	9.2E-12	4.5E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.2E-9	mg/m^3	9.6E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	4.1E-10	2.7E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00002
				Chromium VI	4.6E-11	mg/m^3	3.8E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	3.2E-10	1.1E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000001
				Cobalt	1.6E-9	mg/m^3	1.3E-10	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	1.2E-09	3.6E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.00006
				Iron	3.2E-7	mg/m^3	2.6E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.2E-08	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.2E-10	mg/m^3	5.0E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.4E-10	(mg/m^3)	5.0E-05	(mg/m^3)	0.000003
				Thallium	2.5E-10	mg/m^3	2.0E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.7E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	8.0E-9	mg/m^3	6.5E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.8E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	6.8E-8	mg/m^3	5.6E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.6E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.4E-07					0.02
		Exposure Point Total									2.4E-07					0.02
	Exposure Medium Total										2.4E-07					0.02
Medium Total											1.0E-05					0.09
											Total of Receptor Risks Across All Media	3.8E-05		Total of Receptor Hazards Across All Media		0.4

TABLE 7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	REC #11	Ingestion	Benzo(a)pyrene Equivalents	1.80	mg/kg	1.6E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.1E-05	3.4E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	2.0E-08	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	1.4E-07	2.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	2.6E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.2E-07	3.0E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	5.4E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	8.1E-07	6.3E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Chromium VI	0.140	mg/kg	1.2E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	6.1E-08	2.7E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00009
				Cobalt	3.80	mg/kg	6.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.2E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Iron	10,000	mg/kg	1.6E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.03
				Manganese	370	mg/kg	6.0E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.0E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.03
				Thallium	0.920	mg/kg	1.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.2
				Vanadium	24.7	mg/kg	4.0E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.7E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.009
				Diesel Range Organics	660	mg/kg	1.1E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.3E-05					0.3
			Dermal	Benzo(a)pyrene Equivalents	1.80	mg/kg	7.7E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	5.6E-06	1.7E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	7.4E-09	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	5.2E-08	8.6E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	1.4E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.7E-07	1.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	6.1E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	9.1E-08	7.1E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.140	mg/kg	4.6E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	9.2E-08	1.0E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	3.80	mg/kg	2.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.7E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0009
				Iron	10,000	mg/kg	6.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.2E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.001
				Manganese	370	mg/kg	2.3E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.03
				Thallium	0.920	mg/kg	5.6E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.6E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.007
				Vanadium	24.7	mg/kg	1.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0004
				Diesel Range Organics	660	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								6.1E-06					0.04
		Exposure Point Total									1.9E-05					0.3
	Exposure Medium Total										1.9E-05					0.3
	Air	REC #11	Inhalation	Benzo(a)pyrene Equivalents	5.6E-10	mg/m^3	1.2E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.3E-11	2.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				n-Nitroso-di-n-propylamine	3.7E-11	mg/m^3	1.5E-13	(mg/m^3)	2.0E-03	$(ug/m^3)^{-1}$	3.0E-13	1.8E-12	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	5.0E-10	mg/m^3	2.0E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.1E-12	2.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.0E-9	mg/m^3	4.2E-12	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	1.8E-11	4.9E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000003
				Chromium VI	4.3E-11	mg/m^3	9.4E-13	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	7.9E-11	2.1E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000002
				Cobalt	1.2E-9	mg/m^3	4.8E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	4.3E-11	5.6E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.000009
				Iron	3.1E-6	mg/m^3	1.3E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.5E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	1.1E-7	mg/m^3	4.7E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.4E-09	(mg/m^3)	5.0E-05	(mg/m^3)	0.0001
				Thallium	2.8E-10	mg/m^3	1.2E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.6E-9	mg/m^3	3.1E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.6E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	2.0E-7	mg/m^3	8.3E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	9.7E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.5E-10					0.0001
		Exposure Point Total									1.5E-10					0.0001
	Exposure Medium Total										1.5E-10					0.0001
Medium Total											1.9E-05					0.3

TABLE 7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	REC #11	Ingestion	Trichloroethene	0.003	mg/kg	5.4E-10	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	2.5E-11	6.3E-09	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.00001
				Benzo(a)pyrene Equivalents	2.30	mg/kg	2.0E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.5E-05	4.4E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	6.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.0E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00004
				Aroclor-1260	1.20	mg/kg	2.0E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.9E-07	2.3E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	1.9E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.9E-06	2.3E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.08
				Chromium VI	0.130	mg/kg	1.1E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	5.6E-08	2.5E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00008
				Cobalt	1.90	mg/kg	3.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.6E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.01
				Iron	15,600	mg/kg	2.5E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.0E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.04
				Manganese	713	mg/kg	1.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.06
				Thallium	0.680	mg/kg	1.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.1
				Vanadium	72.0	mg/kg	1.2E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-04	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.03
				Diesel Range Organics	1,400	mg/kg	2.3E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.7E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.8E-05					0.3
			Dermal	Trichloroethene	0.003	mg/kg	6.1E-11	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	2.8E-12	7.1E-10	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.000001
				Benzo(a)pyrene Equivalents	2.30	mg/kg	9.8E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	7.1E-06	2.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	3.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.4E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00002
				Aroclor-1260	1.20	mg/kg	1.0E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.1E-07	1.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	2.2E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.3E-07	2.6E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.009
				Chromium VI	0.130	mg/kg	4.3E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	8.5E-08	9.3E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	1.90	mg/kg	1.2E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0005
				Iron	15,600	mg/kg	9.6E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.002
				Manganese	713	mg/kg	4.4E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.1E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.05
				Thallium	0.680	mg/kg	4.2E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.9E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.005
				Vanadium	72.0	mg/kg	4.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.2E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.001
				Diesel Range Organics	1,400	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								7.8E-06					0.07
		Exposure Point Total									2.6E-05					0.4
	Exposure Medium Total										2.6E-05					0.4
	Air	REC #11	Inhalation	Trichloroethene	1.1E-6	mg/m^3	4.4E-09	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	1.8E-11	5.2E-08	(mg/m^3)	2.0E-03	(mg/m^3)	0.00003
				Benzo(a)pyrene Equivalents	7.1E-10	mg/m^3	1.5E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.7E-11	3.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	5.8E-6	mg/m^3	2.4E-08	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	8.0E-10	2.8E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.00009
				Aroclor-1260	3.7E-10	mg/m^3	1.5E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	8.6E-13	1.8E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	3.7E-9	mg/m^3	1.5E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	6.4E-11	1.7E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00001
				Chromium VI	4.0E-11	mg/m^3	8.7E-13	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	7.3E-11	1.9E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000002
				Cobalt	5.9E-10	mg/m^3	2.4E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	2.2E-11	2.8E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.000005
				Iron	4.8E-6	mg/m^3	2.0E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.3E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	2.2E-7	mg/m^3	9.0E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.0E-08	(mg/m^3)	5.0E-05	(mg/m^3)	0.0002
				Thallium	2.1E-10	mg/m^3	8.6E-13	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.0E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	2.2E-8	mg/m^3	9.1E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.1E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	4.3E-7	mg/m^3	1.8E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.1E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.0E-09					0.0003
		Exposure Point Total									1.0E-09					0.0003
	Exposure Medium Total										1.0E-09					0.0003
Medium Total											2.6E-05					0.4
										Total of Receptor Risks Across All Media	4.5E-05			Total of Receptor Hazards Across All Media		0.7

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	RECs #9 and #10	Ingestion	Benzo(a)pyrene Equivalents	7.80	mg/kg	6.8E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	4.9E-05	1.5E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	1.0E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.1E-08	1.2E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	4.7E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	7.1E-07	5.5E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Chromium VI	0.120	mg/kg	1.0E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	5.2E-08	2.3E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00008
				Cobalt	2.90	mg/kg	4.7E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.5E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Iron	8,400	mg/kg	1.4E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.02
				Manganese	2,200	mg/kg	3.6E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.2E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.2
				Thallium	0.910	mg/kg	1.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.2
				Vanadium	24.0	mg/kg	3.9E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.6E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.009
				Diesel Range Organics	350	mg/kg	5.7E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.6E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								5.0E-05					0.4
			Dermal	Benzo(a)pyrene Equivalents	7.80	mg/kg	3.3E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.4E-05	7.3E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	5.4E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.1E-08	6.3E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	5.3E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	8.0E-08	6.2E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.120	mg/kg	3.9E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	7.9E-08	8.6E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	2.90	mg/kg	1.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0007
				Iron	8,400	mg/kg	5.2E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.0E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0009
				Manganese	2,200	mg/kg	1.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-04	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.2
				Thallium	0.910	mg/kg	5.6E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.5E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.007
				Vanadium	24.0	mg/kg	1.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0003
				Diesel Range Organics	350	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.4E-05					0.2
		Exposure Point Total									7.5E-05					0.6
	Exposure Medium Total										7.5E-05					0.6
	Air	RECs #9 and #10	Inhalation	Benzo(a)pyrene Equivalents	2.4E-9	mg/m^3	5.2E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	5.8E-11	1.1E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-11	mg/m^3	7.9E-14	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	4.5E-14	9.3E-13	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	9.0E-10	mg/m^3	3.7E-12	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	1.6E-11	4.3E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000003
				Chromium VI	3.7E-11	mg/m^3	8.1E-13	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	6.8E-11	1.8E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000002
				Cobalt	9.0E-10	mg/m^3	3.7E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	3.3E-11	4.3E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.000007
				Iron	2.6E-6	mg/m^3	1.1E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.2E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.8E-7	mg/m^3	2.8E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.2E-08	(mg/m^3)	5.0E-05	(mg/m^3)	0.0006
				Thallium	2.8E-10	mg/m^3	1.1E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.3E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.4E-9	mg/m^3	3.0E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.5E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	1.1E-7	mg/m^3	4.4E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.1E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.7E-10					0.0007
		Exposure Point Total									1.7E-10					0.0007
	Exposure Medium Total										1.7E-10					0.0007
Medium Total											7.5E-05					0.6

TABLE 7.3.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Ingestion	Naphthalene	4.50	mg/kg	7.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.5E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0004
				Trichloroethene	0.360	mg/kg	5.9E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	2.7E-09	6.8E-07	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.001
				Benzo(a)pyrene Equivalents	2.20	mg/kg	1.9E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.4E-05	4.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	1.0E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.1E-07	1.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	6.2E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	9.3E-07	7.2E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Chromium VI	0.150	mg/kg	1.3E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	6.5E-08	2.8E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00009
				Cobalt	5.10	mg/kg	8.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.7E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.03
				Iron	1,020	mg/kg	1.7E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.003
				Manganese	2.00	mg/kg	3.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.8E-06	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.0002
				Thallium	0.810	mg/kg	1.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.2
				Vanadium	25.9	mg/kg	4.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.9E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.010
				Diesel Range Organics	220	mg/kg	3.6E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.2E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.5E-05					0.2
			Dermal	Naphthalene	4.50	mg/kg	3.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.2E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0002
				Trichloroethene	0.360	mg/kg	6.6E-09	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	3.0E-10	7.7E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0002
				Benzo(a)pyrene Equivalents	2.20	mg/kg	9.4E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	6.8E-06	2.0E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	5.5E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.1E-07	6.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	7.0E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.0E-07	8.2E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Chromium VI	0.150	mg/kg	4.9E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	9.8E-08	1.1E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	5.10	mg/kg	3.1E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.7E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.001
				Iron	1,020	mg/kg	6.3E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.3E-05	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0001
				Manganese	2.00	mg/kg	1.2E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-07	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.0001
				Thallium	0.810	mg/kg	5.0E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.8E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.006
				Vanadium	25.9	mg/kg	1.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0004
				Diesel Range Organics	220	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								7.1E-06					0.01
		Exposure Point Total									2.2E-05					0.2
	Exposure Medium Total										2.2E-05					0.2
	Air	RECs #9 and #10	Inhalation	Naphthalene	7.1E-5	mg/m^3	2.9E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	9.8E-09	3.4E-06	(mg/m^3)	3.0E-03	(mg/m^3)	0.001
				Trichloroethene	1.2E-4	mg/m^3	4.8E-07	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	2.0E-09	5.6E-06	(mg/m^3)	2.0E-03	(mg/m^3)	0.003
				Benzo(a)pyrene Equivalents	6.8E-10	mg/m^3	1.5E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.6E-11	3.2E-11	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-10	mg/m^3	8.1E-13	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	4.6E-13	9.4E-12	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.2E-9	mg/m^3	4.8E-12	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	2.1E-11	5.6E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000004
				Chromium VI	4.6E-11	mg/m^3	1.0E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	8.5E-11	2.2E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000002
				Cobalt	1.6E-9	mg/m^3	6.4E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	5.8E-11	7.5E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.00001
				Iron	3.2E-7	mg/m^3	1.3E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.5E-08	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.2E-10	mg/m^3	2.5E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.9E-11	(mg/m^3)	5.0E-05	(mg/m^3)	0.0000006
				Thallium	2.5E-10	mg/m^3	1.0E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.2E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	8.0E-9	mg/m^3	3.3E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.8E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	6.8E-8	mg/m^3	2.8E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.2E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.2E-08					0.004
		Exposure Point Total									1.2E-08					0.004
	Exposure Medium Total										1.2E-08					0.004
Medium Total											2.2E-05					0.2
										Total of Receptor Risks Across All Media	9.7E-05			Total of Receptor Hazards Across All Media		0.8

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	REC #11	Ingestion	Benzo(a)pyrene Equivalents	1.80	mg/kg	2.9E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.1E-06	6.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	7.3E-09	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	5.1E-08	4.3E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	9.8E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.0E-07	5.7E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	2.0E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.0E-07	1.2E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.004
				Chromium VI	0.140	mg/kg	2.3E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.1E-08	5.0E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00002
				Cobalt	3.80	mg/kg	2.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Iron	10,000	mg/kg	6.1E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.6E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.005
				Manganese	370	mg/kg	2.3E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.005
				Thallium	0.920	mg/kg	5.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.3E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.03
				Vanadium	24.7	mg/kg	1.5E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.8E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Diesel Range Organics	660	mg/kg	4.0E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.7E-06					0.05
			Dermal	Benzo(a)pyrene Equivalents	1.80	mg/kg	1.2E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	8.4E-07	2.5E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	2.2E-09	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	1.6E-08	1.3E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	4.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	8.3E-08	2.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	1.8E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.7E-08	1.1E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0004
				Chromium VI	0.140	mg/kg	6.9E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	1.4E-08	1.5E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00002
				Cobalt	3.80	mg/kg	7.0E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.1E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0001
				Iron	10,000	mg/kg	1.8E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0002
				Manganese	370	mg/kg	6.8E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.0E-06	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.004
				Thallium	0.920	mg/kg	1.7E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.9E-09	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.0010
				Vanadium	24.7	mg/kg	4.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.7E-07	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.00005
				Diesel Range Organics	660	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								9.8E-07					0.006
		Exposure Point Total									3.7E-06					0.06
		Exposure Medium Total									3.7E-06					0.06
	Air	REC #11	Inhalation	Benzo(a)pyrene Equivalents	5.6E-10	mg/m^3	1.2E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.3E-11	2.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				n-Nitroso-di-n-propylamine	3.7E-11	mg/m^3	3.0E-13	(mg/m^3)	2.0E-03	$(ug/m^3)^{-1}$	6.0E-13	1.8E-12	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	5.0E-10	mg/m^3	4.0E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.3E-12	2.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.0E-9	mg/m^3	8.3E-12	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	3.6E-11	4.9E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000003
				Chromium VI	4.3E-11	mg/m^3	9.4E-13	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	7.9E-11	2.1E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000002
				Cobalt	1.2E-9	mg/m^3	9.6E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	8.6E-11	5.6E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.000009
				Iron	3.1E-6	mg/m^3	2.5E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.5E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	1.1E-7	mg/m^3	9.3E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.4E-09	(mg/m^3)	5.0E-05	(mg/m^3)	0.0001
				Thallium	2.8E-10	mg/m^3	2.3E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.6E-9	mg/m^3	6.2E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.6E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	2.0E-7	mg/m^3	1.7E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	9.7E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.2E-10					0.0001
		Exposure Point Total									2.2E-10					0.0001
		Exposure Medium Total									2.2E-10					0.0001
Medium Total											3.7E-06					0.06

TABLE 7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	REC #11	Ingestion	Trichloroethene	0.003	mg/kg	2.0E-10	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	9.3E-12	1.2E-09	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.000002
				Benzo(a)pyrene Equivalents	2.30	mg/kg	3.7E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.7E-06	8.2E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	2.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000007
				Aroclor-1260	1.20	mg/kg	7.3E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.5E-07	4.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	7.3E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.1E-06	4.2E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.01
				Chromium VI	0.130	mg/kg	2.1E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.1E-08	4.6E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00002
				Cobalt	1.90	mg/kg	1.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.8E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Iron	15,600	mg/kg	9.5E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.6E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.008
				Manganese	713	mg/kg	4.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.5E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.01
				Thallium	0.680	mg/kg	4.2E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.02
				Vanadium	72.0	mg/kg	4.4E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.005
				Diesel Range Organics	1,400	mg/kg	8.5E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.0E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								4.0E-06					0.06
			Dermal	Trichloroethene	0.003	mg/kg	1.8E-11	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	8.4E-13	1.1E-10	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0000002
				Benzo(a)pyrene Equivalents	2.30	mg/kg	1.5E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.1E-06	3.2E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	8.9E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.2E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000003
				Aroclor-1260	1.20	mg/kg	3.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	6.2E-08	1.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	6.6E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	9.9E-08	3.8E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.001
				Chromium VI	0.130	mg/kg	6.4E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	1.3E-08	1.4E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00002
				Cobalt	1.90	mg/kg	3.5E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.0E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.00007
				Iron	15,600	mg/kg	2.9E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0002
				Manganese	713	mg/kg	1.3E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.7E-06	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.008
				Thallium	0.680	mg/kg	1.3E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.3E-09	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.0007
				Vanadium	72.0	mg/kg	1.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.8E-07	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0002
				Diesel Range Organics	1,400	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.2E-06					0.01
		Exposure Point Total									5.2E-06					0.07
	Exposure Medium Total										5.2E-06					0.07
	Air	REC #11	Inhalation	Trichloroethene	1.1E-6	mg/m^3	8.8E-09	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	3.6E-11	5.2E-08	(mg/m^3)	2.0E-03	(mg/m^3)	0.00003
				Benzo(a)pyrene Equivalents	7.1E-10	mg/m^3	1.5E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.7E-11	3.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	5.8E-6	mg/m^3	4.7E-08	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	1.6E-09	2.8E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.00009
				Aroclor-1260	3.7E-10	mg/m^3	3.0E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.7E-12	1.8E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	3.7E-9	mg/m^3	3.0E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	1.3E-10	1.7E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00001
				Chromium VI	4.0E-11	mg/m^3	8.7E-13	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	7.3E-11	1.9E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000002
				Cobalt	5.9E-10	mg/m^3	4.8E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	4.3E-11	2.8E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.000005
				Iron	4.8E-6	mg/m^3	3.9E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.3E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	2.2E-7	mg/m^3	1.8E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.0E-08	(mg/m^3)	5.0E-05	(mg/m^3)	0.0002
				Thallium	2.1E-10	mg/m^3	1.7E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.0E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	2.2E-8	mg/m^3	1.8E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.1E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	4.3E-7	mg/m^3	3.5E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.1E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.9E-09					0.0003
		Exposure Point Total									1.9E-09					0.0003
	Exposure Medium Total										1.9E-09					0.0003
Medium Total											5.2E-06					0.08
										Total of Receptor Risks Across All Media	8.9E-06			Total of Receptor Hazards Across All Media		0.1

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	RECs #9 and #10	Ingestion	Benzo(a)pyrene Equivalents	7.80	mg/kg	1.3E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	9.3E-06	2.8E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	3.8E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.7E-09	2.2E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	1.8E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.7E-07	1.0E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Chromium VI	0.120	mg/kg	2.0E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	9.8E-09	4.3E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00001
				Cobalt	2.90	mg/kg	1.8E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Iron	8,400	mg/kg	5.1E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.0E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.004
				Manganese	2,200	mg/kg	1.3E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.8E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.03
				Thallium	0.910	mg/kg	5.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.2E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.03
				Vanadium	24.0	mg/kg	1.5E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.5E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Diesel Range Organics	350	mg/kg	2.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								9.6E-06					0.08
			Dermal	Benzo(a)pyrene Equivalents	7.80	mg/kg	5.0E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.6E-06	1.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	1.6E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.3E-09	9.5E-09	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	1.6E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.4E-08	9.4E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0003
				Chromium VI	0.120	mg/kg	5.9E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	1.2E-08	1.3E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00002
				Cobalt	2.90	mg/kg	5.4E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.1E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0001
				Iron	8,400	mg/kg	1.6E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.0E-05	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0001
				Manganese	2,200	mg/kg	4.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.02
				Thallium	0.910	mg/kg	1.7E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.8E-09	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.0010
				Vanadium	24.0	mg/kg	4.4E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-07	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.00005
				Diesel Range Organics	350	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.7E-06					0.03
		Exposure Point Total									1.3E-05					0.1
	Exposure Medium Total										1.3E-05					0.1
	Air	RECs #9 and #10	Inhalation	Benzo(a)pyrene Equivalents	2.4E-9	mg/m^3	5.2E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	5.8E-11	1.1E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-11	mg/m^3	1.6E-13	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	9.1E-14	9.3E-13	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	9.0E-10	mg/m^3	7.3E-12	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	3.1E-11	4.3E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000003
				Chromium VI	3.7E-11	mg/m^3	8.1E-13	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	6.8E-11	1.8E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000002
				Cobalt	9.0E-10	mg/m^3	7.3E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	6.6E-11	4.3E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.000007
				Iron	2.6E-6	mg/m^3	2.1E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.2E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.8E-7	mg/m^3	5.5E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.2E-08	(mg/m^3)	5.0E-05	(mg/m^3)	0.0006
				Thallium	2.8E-10	mg/m^3	2.3E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.3E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.4E-9	mg/m^3	6.0E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.5E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	1.1E-7	mg/m^3	8.8E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.1E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.2E-10					0.0007
		Exposure Point Total									2.2E-10					0.0007
	Exposure Medium Total										2.2E-10					0.0007
Medium Total											1.3E-05					0.1

TABLE 7.4.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Ingestion	Naphthalene	4.50	mg/kg	2.7E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00008
				Trichloroethene	0.360	mg/kg	2.2E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.0E-09	1.3E-07	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0003
				Benzo(a)pyrene Equivalents	2.20	mg/kg	3.6E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.6E-06	7.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	3.9E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.8E-08	2.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	2.3E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.5E-07	1.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Chromium VI	0.150	mg/kg	2.4E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.2E-08	5.3E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00002
				Cobalt	5.10	mg/kg	3.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.006
				Iron	1,020	mg/kg	6.2E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.6E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0005
				Manganese	2.00	mg/kg	1.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.1E-07	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.00003
				Thallium	0.810	mg/kg	4.9E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.9E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.03
				Vanadium	25.9	mg/kg	1.6E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.2E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Diesel Range Organics	220	mg/kg	1.3E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.8E-05	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.1E-06					0.04
			Dermal	Naphthalene	4.50	mg/kg	1.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.3E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00003
				Trichloroethene	0.360	mg/kg	2.0E-09	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	9.2E-11	1.2E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.00002
				Benzo(a)pyrene Equivalents	2.20	mg/kg	1.4E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.0E-06	3.1E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	1.7E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.3E-08	9.7E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	2.1E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.2E-08	1.2E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0004
				Chromium VI	0.150	mg/kg	7.4E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	1.5E-08	1.6E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00002
				Cobalt	5.10	mg/kg	9.4E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.5E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0002
				Iron	1,020	mg/kg	1.9E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-05	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.00002
				Manganese	2.00	mg/kg	3.7E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-08	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.00002
				Thallium	0.810	mg/kg	1.5E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.7E-09	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.0009
				Vanadium	25.9	mg/kg	4.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.8E-07	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.00006
				Diesel Range Organics	220	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.1E-06					0.002
		Exposure Point Total									4.2E-06					0.04
	Exposure Medium Total										4.2E-06					0.04
	Air	RECs #9 and #10	Inhalation	Naphthalene	7.1E-5	mg/m^3	5.7E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	2.0E-08	3.4E-06	(mg/m^3)	3.0E-03	(mg/m^3)	0.001
				Trichloroethene	1.2E-4	mg/m^3	9.6E-07	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	4.0E-09	5.6E-06	(mg/m^3)	2.0E-03	(mg/m^3)	0.003
				Benzo(a)pyrene Equivalents	6.8E-10	mg/m^3	1.5E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.6E-11	3.2E-11	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-10	mg/m^3	1.6E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	9.2E-13	9.4E-12	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.2E-9	mg/m^3	9.6E-12	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	4.1E-11	5.6E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000004
				Chromium VI	4.6E-11	mg/m^3	1.0E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	8.5E-11	2.2E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000002
				Cobalt	1.6E-9	mg/m^3	1.3E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	1.2E-10	7.5E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.00001
				Iron	3.2E-7	mg/m^3	2.6E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.5E-08	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.2E-10	mg/m^3	5.0E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.9E-11	(mg/m^3)	5.0E-05	(mg/m^3)	0.0000006
				Thallium	2.5E-10	mg/m^3	2.0E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.2E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	8.0E-9	mg/m^3	6.5E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.8E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	6.8E-8	mg/m^3	5.5E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.2E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.4E-08					0.004
		Exposure Point Total									2.4E-08					0.004
	Exposure Medium Total										2.4E-08					0.004
Medium Total											4.2E-06					0.05
											Total of Receptor Risks Across All Media					1.7E-05
																Total of Receptor Hazards Across All Media
																0.2

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.5.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	REC #11	Ingestion	Benzo(a)pyrene Equivalents	1.80	mg/kg	2.1E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.5E-05	4.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	2.6E-08	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	1.8E-07	3.1E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	3.5E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.0E-07	4.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	7.2E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.1E-06	8.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.03
				Chromium VI	0.140	mg/kg	1.6E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	8.2E-08	3.6E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0001
				Cobalt	3.80	mg/kg	8.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.7E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.03
				Iron	10,000	mg/kg	2.2E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.04
				Manganese	370	mg/kg	8.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.5E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.04
				Thallium	0.920	mg/kg	2.0E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.2
				Vanadium	24.7	mg/kg	5.4E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.3E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.01
				Diesel Range Organics	660	mg/kg	1.4E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.7E-05					0.4
			Dermal	Benzo(a)pyrene Equivalents	1.80	mg/kg	7.7E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	5.6E-06	1.7E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	7.4E-09	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	5.2E-08	8.6E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	1.4E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.7E-07	1.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	6.1E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	9.1E-08	7.1E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.140	mg/kg	4.6E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	9.2E-08	1.0E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	3.80	mg/kg	2.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.7E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0009
				Iron	10,000	mg/kg	6.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.2E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.001
				Manganese	370	mg/kg	2.3E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.03
				Thallium	0.920	mg/kg	5.6E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.6E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.007
				Vanadium	24.7	mg/kg	1.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0004
				Diesel Range Organics	660	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								6.1E-06					0.04
		Exposure Point Total									2.4E-05					0.4
		Exposure Medium Total									2.4E-05					0.4
	Air	REC #11	Inhalation	Benzo(a)pyrene Equivalents	5.6E-10	mg/m^3	1.6E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.8E-11	3.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				n-Nitroso-di-n-propylamine	3.7E-11	mg/m^3	2.0E-13	(mg/m^3)	2.0E-03	$(ug/m^3)^{-1}$	4.1E-13	2.4E-12	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	5.0E-10	mg/m^3	2.7E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.5E-12	3.2E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.0E-9	mg/m^3	5.6E-12	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	2.4E-11	6.5E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000004
				Chromium VI	4.3E-11	mg/m^3	1.3E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1.1E-10	2.8E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000003
				Cobalt	1.2E-9	mg/m^3	6.4E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	5.8E-11	7.5E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.00001
				Iron	3.1E-6	mg/m^3	1.7E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.0E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	1.1E-7	mg/m^3	6.3E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.3E-09	(mg/m^3)	5.0E-05	(mg/m^3)	0.0001
				Thallium	2.8E-10	mg/m^3	1.6E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.8E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.6E-9	mg/m^3	4.2E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.9E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	2.0E-7	mg/m^3	1.1E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.3E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.1E-10					0.0002
		Exposure Point Total									2.1E-10					0.0002
		Exposure Medium Total									2.1E-10					0.0002
Medium Total											2.4E-05					0.4

TABLE 7.5.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	REC #11	Ingestion	Trichloroethene	0.003	mg/kg	7.2E-10	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	3.3E-11	8.4E-09	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.00002
				Benzo(a)pyrene Equivalents	2.30	mg/kg	2.7E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.0E-05	5.9E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	8.1E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.5E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00005
				Aroclor-1260	1.20	mg/kg	2.6E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.3E-07	3.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	2.6E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.9E-06	3.0E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.1
				Chromium VI	0.130	mg/kg	1.5E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	7.6E-08	3.3E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0001
				Cobalt	1.90	mg/kg	4.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.9E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Iron	15,600	mg/kg	3.4E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.0E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.06
				Manganese	713	mg/kg	1.6E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.08
				Thallium	0.680	mg/kg	1.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.2
				Vanadium	72.0	mg/kg	1.6E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-04	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.04
				Diesel Range Organics	1,400	mg/kg	3.1E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.6E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.4E-05					0.5
			Dermal	Trichloroethene	0.003	mg/kg	6.1E-11	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	2.8E-12	7.1E-10	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.000001
				Benzo(a)pyrene Equivalents	2.30	mg/kg	9.8E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	7.1E-06	2.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	3.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.4E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00002
				Aroclor-1260	1.20	mg/kg	1.0E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.1E-07	1.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	2.2E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.3E-07	2.6E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.009
				Chromium VI	0.130	mg/kg	4.3E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	8.5E-08	9.3E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	1.90	mg/kg	1.2E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0005
				Iron	15,600	mg/kg	9.6E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.002
				Manganese	713	mg/kg	4.4E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.1E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.05
				Thallium	0.680	mg/kg	4.2E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.9E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.005
				Vanadium	72.0	mg/kg	4.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.2E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.001
				Diesel Range Organics	1,400	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								7.8E-06					0.07
		Exposure Point Total									3.2E-05					0.5
	Exposure Medium Total										3.2E-05					0.5
	Air	REC #11	Inhalation	Trichloroethene	1.1E-6	mg/m^3	5.9E-09	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	2.4E-11	6.9E-08	(mg/m^3)	2.0E-03	(mg/m^3)	0.00003
				Benzo(a)pyrene Equivalents	7.1E-10	mg/m^3	2.1E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	2.3E-11	4.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	5.8E-6	mg/m^3	3.2E-08	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	1.1E-09	3.7E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.0001
				Aroclor-1260	3.7E-10	mg/m^3	2.0E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.2E-12	2.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	3.7E-9	mg/m^3	2.0E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	8.7E-11	2.4E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00002
				Chromium VI	4.0E-11	mg/m^3	1.2E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	9.9E-11	2.6E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000003
				Cobalt	5.9E-10	mg/m^3	3.2E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	2.9E-11	3.8E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.000006
				Iron	4.8E-6	mg/m^3	2.6E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.1E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	2.2E-7	mg/m^3	1.2E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.4E-08	(mg/m^3)	5.0E-05	(mg/m^3)	0.0003
				Thallium	2.1E-10	mg/m^3	1.2E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.3E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	2.2E-8	mg/m^3	1.2E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.4E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	4.3E-7	mg/m^3	2.4E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.8E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.3E-09					0.0005
		Exposure Point Total									1.3E-09					0.0005
	Exposure Medium Total										1.3E-09					0.0005
Medium Total											3.2E-05					0.5
										Total of Receptor Risks Across All Media	5.5E-05			Total of Receptor Hazards Across All Media		1.0

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.5.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	RECs #9 and #10	Ingestion	Benzo(a)pyrene Equivalents	7.80	mg/kg	9.1E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	6.7E-05	2.0E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	1.4E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.8E-08	1.6E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	6.4E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	9.5E-07	7.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Chromium VI	0.120	mg/kg	1.4E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	7.0E-08	3.1E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0001
				Cobalt	2.90	mg/kg	6.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Iron	8,400	mg/kg	1.8E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.03
				Manganese	2,200	mg/kg	4.8E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.6E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.2
				Thallium	0.910	mg/kg	2.0E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.3E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.2
				Vanadium	24.0	mg/kg	5.3E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.1E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.01
				Diesel Range Organics	350	mg/kg	7.7E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.9E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								6.8E-05					0.6
			Dermal	Benzo(a)pyrene Equivalents	7.80	mg/kg	3.3E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.4E-05	7.3E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	5.4E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.1E-08	6.3E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	5.3E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	8.0E-08	6.2E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.120	mg/kg	3.9E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	7.9E-08	8.6E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	2.90	mg/kg	1.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0007
				Iron	8,400	mg/kg	5.2E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.0E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0009
				Manganese	2,200	mg/kg	1.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-04	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.2
				Thallium	0.910	mg/kg	5.6E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.5E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.007
				Vanadium	24.0	mg/kg	1.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0003
				Diesel Range Organics	350	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.4E-05					0.2
		Exposure Point Total									9.2E-05					0.7
	Exposure Medium Total										9.2E-05					0.7
	Air	RECs #9 and #10	Inhalation	Benzo(a)pyrene Equivalents	2.4E-9	mg/m^3	7.1E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	7.8E-11	1.5E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-11	mg/m^3	1.1E-13	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	6.1E-14	1.2E-12	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	9.0E-10	mg/m^3	4.9E-12	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	2.1E-11	5.7E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000004
				Chromium VI	3.7E-11	mg/m^3	1.1E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	9.1E-11	2.4E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000002
				Cobalt	9.0E-10	mg/m^3	4.9E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	4.4E-11	5.7E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.000010
				Iron	2.6E-6	mg/m^3	1.4E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.7E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.8E-7	mg/m^3	3.7E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.4E-08	(mg/m^3)	5.0E-05	(mg/m^3)	0.0009
				Thallium	2.8E-10	mg/m^3	1.5E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.8E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.4E-9	mg/m^3	4.1E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	1.1E-7	mg/m^3	5.9E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	6.9E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.3E-10					0.0009
		Exposure Point Total									2.3E-10					0.0009
	Exposure Medium Total										2.3E-10					0.0009
Medium Total											9.2E-05					0.7

TABLE 7.5.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Ingestion	Naphthalene	4.50	mg/kg	9.9E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-05	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0006
				Trichloroethene	0.360	mg/kg	7.9E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	3.6E-09	9.2E-07	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.002
				Benzo(a)pyrene Equivalents	2.20	mg/kg	2.6E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.9E-05	5.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	1.4E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.8E-07	1.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	8.3E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.2E-06	9.7E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.03
				Chromium VI	0.150	mg/kg	1.8E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	8.8E-08	3.8E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0001
				Cobalt	5.10	mg/kg	1.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.04
				Iron	1,020	mg/kg	2.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.004
				Manganese	2.00	mg/kg	4.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.1E-06	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.0002
				Thallium	0.810	mg/kg	1.8E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.2
				Vanadium	25.9	mg/kg	5.7E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.6E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.01
				Diesel Range Organics	220	mg/kg	4.8E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.6E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.0E-05					0.3
			Dermal	Naphthalene	4.50	mg/kg	3.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.2E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0002
				Trichloroethene	0.360	mg/kg	6.6E-09	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	3.0E-10	7.7E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0002
				Benzo(a)pyrene Equivalents	2.20	mg/kg	9.4E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	6.8E-06	2.0E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	5.5E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.1E-07	6.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	7.0E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.0E-07	8.2E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Chromium VI	0.150	mg/kg	4.9E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	9.8E-08	1.1E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	5.10	mg/kg	3.1E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.7E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.001
				Iron	1,020	mg/kg	6.3E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.3E-05	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0001
				Manganese	2.00	mg/kg	1.2E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-07	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.0001
				Thallium	0.810	mg/kg	5.0E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.8E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.006
				Vanadium	25.9	mg/kg	1.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0004
				Diesel Range Organics	220	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								7.1E-06					0.01
		Exposure Point Total									2.8E-05					0.3
	Exposure Medium Total										2.8E-05					0.3
	Air	RECs #9 and #10	Inhalation	Naphthalene	7.1E-5	mg/m^3	3.9E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	1.3E-08	4.5E-06	(mg/m^3)	3.0E-03	(mg/m^3)	0.002
				Trichloroethene	1.2E-4	mg/m^3	6.5E-07	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	2.7E-09	7.6E-06	(mg/m^3)	2.0E-03	(mg/m^3)	0.004
				Benzo(a)pyrene Equivalents	6.8E-10	mg/m^3	2.0E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	2.2E-11	4.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-10	mg/m^3	1.1E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	6.2E-13	1.3E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.2E-9	mg/m^3	6.4E-12	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	2.8E-11	7.5E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000005
				Chromium VI	4.6E-11	mg/m^3	1.4E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1.1E-10	3.0E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000003
				Cobalt	1.6E-9	mg/m^3	8.7E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	7.8E-11	1.0E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.00002
				Iron	3.2E-7	mg/m^3	1.7E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.0E-08	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.2E-10	mg/m^3	3.4E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.0E-11	(mg/m^3)	5.0E-05	(mg/m^3)	0.0000008
				Thallium	2.5E-10	mg/m^3	1.4E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	8.0E-9	mg/m^3	4.4E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.1E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	6.8E-8	mg/m^3	3.7E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.4E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.6E-08					0.005
		Exposure Point Total									1.6E-08					0.005
	Exposure Medium Total										1.6E-08					0.005
Medium Total											2.8E-05					0.3
										Total of Receptor Risks Across All Media	1.2E-04			Total of Receptor Hazards Across All Media		1.1

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.6.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	REC #11	Ingestion	Benzo(a)pyrene Equivalents	1.80	mg/kg	3.9E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.9E-06	8.6E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	9.9E-09	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	6.9E-08	5.8E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	1.3E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.6E-07	7.7E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	2.7E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	4.1E-07	1.6E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Chromium VI	0.140	mg/kg	3.1E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.5E-08	6.7E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00002
				Cobalt	3.80	mg/kg	3.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.006
				Iron	10,000	mg/kg	8.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.8E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.007
				Manganese	370	mg/kg	3.0E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.007
				Thallium	0.920	mg/kg	7.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.4E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.04
				Vanadium	24.7	mg/kg	2.0E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Diesel Range Organics	660	mg/kg	5.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.2E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.6E-06					0.07
			Dermal	Benzo(a)pyrene Equivalents	1.80	mg/kg	1.6E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.1E-06	3.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	3.0E-09	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	2.1E-08	1.7E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	5.6E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.1E-07	3.2E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	2.5E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.7E-08	1.4E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0005
				Chromium VI	0.140	mg/kg	9.3E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	1.9E-08	2.0E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00003
				Cobalt	3.80	mg/kg	9.4E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.5E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0002
				Iron	10,000	mg/kg	2.5E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0002
				Manganese	370	mg/kg	9.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.4E-06	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.006
				Thallium	0.920	mg/kg	2.3E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.001
				Vanadium	24.7	mg/kg	6.1E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.6E-07	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.00007
				Diesel Range Organics	660	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.3E-06					0.008
		Exposure Point Total									5.0E-06					0.08
	Exposure Medium Total										5.0E-06					0.08
	Air	REC #11	Inhalation	Benzo(a)pyrene Equivalents	5.6E-10	mg/m^3	1.6E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.8E-11	3.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				n-Nitroso-di-n-propylamine	3.7E-11	mg/m^3	4.1E-13	(mg/m^3)	2.0E-03	$(ug/m^3)^{-1}$	8.1E-13	2.4E-12	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	5.0E-10	mg/m^3	5.4E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	3.1E-12	3.2E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.0E-9	mg/m^3	1.1E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	4.8E-11	6.5E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000004
				Chromium VI	4.3E-11	mg/m^3	1.3E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1.1E-10	2.8E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000003
				Cobalt	1.2E-9	mg/m^3	1.3E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	1.2E-10	7.5E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.00001
				Iron	3.1E-6	mg/m^3	3.4E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.0E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	1.1E-7	mg/m^3	1.3E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.3E-09	(mg/m^3)	5.0E-05	(mg/m^3)	0.0001
				Thallium	2.8E-10	mg/m^3	3.1E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.8E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.6E-9	mg/m^3	8.4E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.9E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	2.0E-7	mg/m^3	2.2E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.3E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.9E-10					0.0002
		Exposure Point Total									2.9E-10					0.0002
	Exposure Medium Total										2.9E-10					0.0002
Medium Total											5.0E-06					0.08

TABLE 7.6.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	REC #11	Ingestion	Trichloroethene	0.003	mg/kg	2.7E-10	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.2E-11	1.6E-09	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.000003
				Benzo(a)pyrene Equivalents	2.30	mg/kg	5.0E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.7E-06	1.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	3.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000009
				Aroclor-1260	1.20	mg/kg	9.9E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.0E-07	5.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	9.8E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.5E-06	5.7E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Chromium VI	0.130	mg/kg	2.8E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.4E-08	6.2E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00002
				Cobalt	1.90	mg/kg	1.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.1E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Iron	15,600	mg/kg	1.3E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.5E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.01
				Manganese	713	mg/kg	5.9E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.4E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.01
				Thallium	0.680	mg/kg	5.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.3E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.03
				Vanadium	72.0	mg/kg	5.9E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.5E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.007
				Diesel Range Organics	1,400	mg/kg	1.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.7E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								5.4E-06					0.09
			Dermal	Trichloroethene	0.003	mg/kg	2.5E-11	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.1E-12	1.4E-10	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0000003
				Benzo(a)pyrene Equivalents	2.30	mg/kg	2.0E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.4E-06	4.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	1.2E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.0E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000003
				Aroclor-1260	1.20	mg/kg	4.2E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	8.4E-08	2.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	8.9E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.3E-07	5.2E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.130	mg/kg	8.6E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	1.7E-08	1.9E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00003
				Cobalt	1.90	mg/kg	4.7E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.8E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.00009
				Iron	15,600	mg/kg	3.9E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.3E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0003
				Manganese	713	mg/kg	1.8E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.01
				Thallium	0.680	mg/kg	1.7E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.9E-09	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.0010
				Vanadium	72.0	mg/kg	1.8E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0002
				Diesel Range Organics	1,400	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.7E-06					0.01
		Exposure Point Total									7.0E-06					0.1
	Exposure Medium Total										7.0E-06					0.1
	Air	REC #11	Inhalation	Trichloroethene	1.1E-6	mg/m^3	1.2E-08	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	4.9E-11	6.9E-08	(mg/m^3)	2.0E-03	(mg/m^3)	0.00003
				Benzo(a)pyrene Equivalents	7.1E-10	mg/m^3	2.1E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	2.3E-11	4.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	5.8E-6	mg/m^3	6.4E-08	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	2.2E-09	3.7E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.0001
				Aroclor-1260	3.7E-10	mg/m^3	4.1E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.3E-12	2.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	3.7E-9	mg/m^3	4.0E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	1.7E-10	2.4E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00002
				Chromium VI	4.0E-11	mg/m^3	1.2E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	9.9E-11	2.6E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000003
				Cobalt	5.9E-10	mg/m^3	6.4E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	5.8E-11	3.8E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.000006
				Iron	4.8E-6	mg/m^3	5.3E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.1E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	2.2E-7	mg/m^3	2.4E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.4E-08	(mg/m^3)	5.0E-05	(mg/m^3)	0.0003
				Thallium	2.1E-10	mg/m^3	2.3E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.3E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	2.2E-8	mg/m^3	2.4E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.4E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	4.3E-7	mg/m^3	4.7E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.8E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.6E-09					0.0005
		Exposure Point Total									2.6E-09					0.0005
	Exposure Medium Total										2.6E-09					0.0005
Medium Total											7.0E-06					0.1
										Total of Receptor Risks Across All Media	1.2E-05			Total of Receptor Hazards Across All Media		0.2

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.6.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	RECs #9 and #10	Ingestion	Benzo(a)pyrene Equivalents	7.80	mg/kg	1.7E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.2E-05	3.7E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	5.2E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.0E-08	3.0E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	2.4E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.6E-07	1.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Chromium VI	0.120	mg/kg	2.6E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.3E-08	5.8E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00002
				Cobalt	2.90	mg/kg	2.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Iron	8,400	mg/kg	6.9E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.0E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.006
				Manganese	2,200	mg/kg	1.8E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.04
				Thallium	0.910	mg/kg	7.5E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.4E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.04
				Vanadium	24.0	mg/kg	2.0E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Diesel Range Organics	350	mg/kg	2.9E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.3E-05					0.1
			Dermal	Benzo(a)pyrene Equivalents	7.80	mg/kg	6.7E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	4.9E-06	1.5E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	2.2E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.4E-09	1.3E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	2.2E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.2E-08	1.3E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0004
				Chromium VI	0.120	mg/kg	8.0E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	1.6E-08	1.7E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00002
				Cobalt	2.90	mg/kg	7.2E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.2E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0001
				Iron	8,400	mg/kg	2.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0002
				Manganese	2,200	mg/kg	5.5E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.2E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.03
				Thallium	0.910	mg/kg	2.3E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.001
				Vanadium	24.0	mg/kg	6.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.5E-07	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.00007
				Diesel Range Organics	350	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								5.0E-06					0.04
		Exposure Point Total									1.8E-05					0.1
	Exposure Medium Total										1.8E-05					0.1
	Air	RECs #9 and #10	Inhalation	Benzo(a)pyrene Equivalents	2.4E-9	mg/m^3	7.1E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	7.8E-11	1.5E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-11	mg/m^3	2.1E-13	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.2E-13	1.2E-12	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	9.0E-10	mg/m^3	9.8E-12	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	4.2E-11	5.7E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000004
				Chromium VI	3.7E-11	mg/m^3	1.1E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	9.1E-11	2.4E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000002
				Cobalt	9.0E-10	mg/m^3	9.8E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	8.9E-11	5.7E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.000010
				Iron	2.6E-6	mg/m^3	2.8E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.7E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.8E-7	mg/m^3	7.5E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.4E-08	(mg/m^3)	5.0E-05	(mg/m^3)	0.0009
				Thallium	2.8E-10	mg/m^3	3.1E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.8E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.4E-9	mg/m^3	8.1E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	1.1E-7	mg/m^3	1.2E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	6.9E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								3.0E-10					0.0009
		Exposure Point Total									3.0E-10					0.0009
	Exposure Medium Total										3.0E-10					0.0009
Medium Total											1.8E-05					0.1

TABLE 7.6.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Ingestion	Naphthalene	4.50	mg/kg	3.7E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0001
				Trichloroethene	0.360	mg/kg	3.0E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.4E-09	1.7E-07	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0003
				Benzo(a)pyrene Equivalents	2.20	mg/kg	4.8E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.5E-06	1.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	5.3E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.1E-07	3.1E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	3.1E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	4.7E-07	1.8E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.006
				Chromium VI	0.150	mg/kg	3.3E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.6E-08	7.2E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00002
				Cobalt	5.10	mg/kg	4.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.008
				Iron	1,020	mg/kg	8.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.9E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0007
				Manganese	2.00	mg/kg	1.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.6E-07	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.00004
				Thallium	0.810	mg/kg	6.7E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.9E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.04
				Vanadium	25.9	mg/kg	2.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Diesel Range Organics	220	mg/kg	1.8E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								4.1E-06					0.06
			Dermal	Naphthalene	4.50	mg/kg	1.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.5E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00004
				Trichloroethene	0.360	mg/kg	2.7E-09	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.2E-10	1.6E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.00003
				Benzo(a)pyrene Equivalents	2.20	mg/kg	1.9E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.4E-06	4.1E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	2.2E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.5E-08	1.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	2.8E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	4.3E-08	1.7E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0006
				Chromium VI	0.150	mg/kg	9.9E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	2.0E-08	2.2E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00003
				Cobalt	5.10	mg/kg	1.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.4E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0002
				Iron	1,020	mg/kg	2.5E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-05	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.00002
				Manganese	2.00	mg/kg	5.0E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.9E-08	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.00003
				Thallium	0.810	mg/kg	2.0E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.001
				Vanadium	25.9	mg/kg	6.4E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.8E-07	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.00008
				Diesel Range Organics	220	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.5E-06					0.002
		Exposure Point Total									5.6E-06					0.06
	Exposure Medium Total										5.6E-06					0.06
	Air	RECs #9 and #10	Inhalation	Naphthalene	7.1E-5	mg/m^3	7.7E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	2.6E-08	4.5E-06	(mg/m^3)	3.0E-03	(mg/m^3)	0.002
				Trichloroethene	1.2E-4	mg/m^3	1.3E-06	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	5.3E-09	7.6E-06	(mg/m^3)	2.0E-03	(mg/m^3)	0.004
				Benzo(a)pyrene Equivalents	6.8E-10	mg/m^3	2.0E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	2.2E-11	4.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-10	mg/m^3	2.2E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.2E-12	1.3E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.2E-9	mg/m^3	1.3E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	5.5E-11	7.5E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000005
				Chromium VI	4.6E-11	mg/m^3	1.4E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1.1E-10	3.0E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000003
				Cobalt	1.6E-9	mg/m^3	1.7E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	1.6E-10	1.0E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.00002
				Iron	3.2E-7	mg/m^3	3.5E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.0E-08	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.2E-10	mg/m^3	6.8E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.0E-11	(mg/m^3)	5.0E-05	(mg/m^3)	0.0000008
				Thallium	2.5E-10	mg/m^3	2.7E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	8.0E-9	mg/m^3	8.8E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.1E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	6.8E-8	mg/m^3	7.5E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.4E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								3.2E-08					0.005
		Exposure Point Total									3.2E-08					0.005
	Exposure Medium Total										3.2E-08					0.005
Medium Total											5.6E-06					0.06
										Total of Receptor Risks Across All Media	2.3E-05			Total of Receptor Hazards Across All Media		0.2

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.7.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	REC #11	Ingestion	Benzo(a)pyrene Equivalents	1.80	mg/kg	8.5E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	6.2E-07	4.9E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	5.6E-09	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	3.9E-08	3.3E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	7.5E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.5E-07	4.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	1.5E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.3E-07	9.0E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Chromium VI	0.140	mg/kg	6.6E-09	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	3.3E-09	3.8E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00001
				Cobalt	3.80	mg/kg	1.8E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Iron	10,000	mg/kg	4.7E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.7E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.004
				Manganese	370	mg/kg	1.7E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.004
				Thallium	0.920	mg/kg	4.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.5E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.03
				Vanadium	24.7	mg/kg	1.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.8E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.001
				Diesel Range Organics	660	mg/kg	3.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.0E-06					0.04
			Dermal	Benzo(a)pyrene Equivalents	1.80	mg/kg	4.4E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.2E-07	2.6E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	2.2E-09	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	1.6E-08	1.3E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	4.2E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	8.4E-08	2.4E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	1.9E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.8E-08	1.1E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0004
				Chromium VI	0.140	mg/kg	2.6E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	5.2E-09	1.5E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00002
				Cobalt	3.80	mg/kg	7.1E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.2E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0001
				Iron	10,000	mg/kg	1.9E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0002
				Manganese	370	mg/kg	6.9E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.0E-06	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.004
				Thallium	0.920	mg/kg	1.7E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.001
				Vanadium	24.7	mg/kg	4.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.7E-07	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.00005
				Diesel Range Organics	660	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								4.5E-07					0.006
		Exposure Point Total									1.5E-06					0.05
	Exposure Medium Total										1.5E-06					0.05
	Air	REC #11	Inhalation	Benzo(a)pyrene Equivalents	5.6E-10	mg/m^3	6.1E-12	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	6.7E-12	3.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				n-Nitroso-di-n-propylamine	3.7E-11	mg/m^3	4.1E-13	(mg/m^3)	2.0E-03	$(ug/m^3)^{-1}$	8.1E-13	2.4E-12	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	5.0E-10	mg/m^3	5.4E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	3.1E-12	3.2E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.0E-9	mg/m^3	1.1E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	4.8E-11	6.5E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000004
				Chromium VI	4.3E-11	mg/m^3	4.7E-13	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	4.0E-11	2.8E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000003
				Cobalt	1.2E-9	mg/m^3	1.3E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	1.2E-10	7.5E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.00001
				Iron	3.1E-6	mg/m^3	3.4E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.0E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	1.1E-7	mg/m^3	1.3E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.3E-09	(mg/m^3)	5.0E-05	(mg/m^3)	0.0001
				Thallium	2.8E-10	mg/m^3	3.1E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.8E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.6E-9	mg/m^3	8.4E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.9E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	2.0E-7	mg/m^3	2.2E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.3E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.1E-10					0.0002
		Exposure Point Total									2.1E-10					0.0002
	Exposure Medium Total										2.1E-10					0.0002
Medium Total											1.5E-06					0.05

TABLE 7.7.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	REC #11	Ingestion	Trichloroethene	0.003	mg/kg	1.5E-10	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	7.1E-12	9.0E-10	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.000002
				Benzo(a)pyrene Equivalents	2.30	mg/kg	1.1E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	7.9E-07	6.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	1.7E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000005
				Aroclor-1260	1.20	mg/kg	5.6E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.1E-07	3.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	5.6E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	8.4E-07	3.3E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.01
				Chromium VI	0.130	mg/kg	6.1E-09	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	3.1E-09	3.6E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00001
				Cobalt	1.90	mg/kg	8.9E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.2E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Iron	15,600	mg/kg	7.3E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.3E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.006
				Manganese	713	mg/kg	3.3E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.0E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.008
				Thallium	0.680	mg/kg	3.2E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.02
				Vanadium	72.0	mg/kg	3.4E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.0E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.004
				Diesel Range Organics	1,400	mg/kg	6.6E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.8E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.7E-06					0.05
			Dermal	Trichloroethene	0.003	mg/kg	1.9E-11	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	8.5E-13	1.1E-10	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0000002
				Benzo(a)pyrene Equivalents	2.30	mg/kg	5.6E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	4.1E-07	3.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	9.0E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.3E-08	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.000003
				Aroclor-1260	1.20	mg/kg	3.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	6.3E-08	1.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	6.7E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.0E-07	3.9E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.001
				Chromium VI	0.130	mg/kg	2.4E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	4.9E-09	1.4E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00002
				Cobalt	1.90	mg/kg	3.6E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.00007
				Iron	15,600	mg/kg	2.9E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0002
				Manganese	713	mg/kg	1.3E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.8E-06	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.008
				Thallium	0.680	mg/kg	1.3E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.4E-09	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.0007
				Vanadium	72.0	mg/kg	1.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.9E-07	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0002
				Diesel Range Organics	1,400	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								5.8E-07					0.01
		Exposure Point Total									2.3E-06					0.06
	Exposure Medium Total										2.3E-06					0.06
	Air	REC #11	Inhalation	Trichloroethene	1.1E-6	mg/m^3	1.2E-08	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	4.9E-11	6.9E-08	(mg/m^3)	2.0E-03	(mg/m^3)	0.00003
				Benzo(a)pyrene Equivalents	7.1E-10	mg/m^3	7.8E-12	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	8.6E-12	4.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	5.8E-6	mg/m^3	6.4E-08	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	2.2E-09	3.7E-07	(mg/m^3)	3.0E-03	(mg/m^3)	0.0001
				Aroclor-1260	3.7E-10	mg/m^3	4.1E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.3E-12	2.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	3.7E-9	mg/m^3	4.0E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	1.7E-10	2.4E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00002
				Chromium VI	4.0E-11	mg/m^3	4.4E-13	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	3.7E-11	2.6E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000003
				Cobalt	5.9E-10	mg/m^3	6.4E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	5.8E-11	3.8E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.000006
				Iron	4.8E-6	mg/m^3	5.3E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.1E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	2.2E-7	mg/m^3	2.4E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.4E-08	(mg/m^3)	5.0E-05	(mg/m^3)	0.0003
				Thallium	2.1E-10	mg/m^3	2.3E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.3E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	2.2E-8	mg/m^3	2.4E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.4E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	4.3E-7	mg/m^3	4.7E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.8E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.5E-09					0.0005
		Exposure Point Total									2.5E-09					0.0005
	Exposure Medium Total										2.5E-09					0.0005
Medium Total											2.3E-06					0.06
										Total of Receptor Risks Across All Media	3.8E-06			Total of Receptor Hazards Across All Media		0.1

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.7.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	RECs #9 and #10	Ingestion	Benzo(a)pyrene Equivalents	7.80	mg/kg	3.7E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.7E-06	2.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	3.0E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.9E-09	1.7E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	1.4E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.0E-07	7.9E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Chromium VI	0.120	mg/kg	5.6E-09	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	2.8E-09	3.3E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00001
				Cobalt	2.90	mg/kg	1.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.9E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Iron	8,400	mg/kg	3.9E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.3E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.003
				Manganese	2,200	mg/kg	1.0E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.0E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.03
				Thallium	0.910	mg/kg	4.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.5E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.02
				Vanadium	24.0	mg/kg	1.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.6E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.001
				Diesel Range Organics	350	mg/kg	1.6E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.6E-05	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.9E-06					0.06
			Dermal	Benzo(a)pyrene Equivalents	7.80	mg/kg	1.9E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.4E-06	1.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	1.7E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.3E-09	9.6E-09	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	1.6E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.4E-08	9.5E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0003
				Chromium VI	0.120	mg/kg	2.2E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	4.5E-09	1.3E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00002
				Cobalt	2.90	mg/kg	5.4E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.2E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0001
				Iron	8,400	mg/kg	1.6E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.2E-05	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0001
				Manganese	2,200	mg/kg	4.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.03
				Thallium	0.910	mg/kg	1.7E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.9E-09	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.0010
				Vanadium	24.0	mg/kg	4.5E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-07	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.00005
				Diesel Range Organics	350	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.4E-06					0.03
		Exposure Point Total									4.3E-06					0.09
	Exposure Medium Total										4.3E-06					0.09
	Air	RECs #9 and #10	Inhalation	Benzo(a)pyrene Equivalents	2.4E-9	mg/m^3	2.6E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	2.9E-11	1.5E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-11	mg/m^3	2.1E-13	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.2E-13	1.2E-12	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	9.0E-10	mg/m^3	9.8E-12	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	4.2E-11	5.7E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000004
				Chromium VI	3.7E-11	mg/m^3	4.1E-13	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	3.4E-11	2.4E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000002
				Cobalt	9.0E-10	mg/m^3	9.8E-12	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	8.9E-11	5.7E-11	(mg/m^3)	6.0E-06	(mg/m^3)	0.000010
				Iron	2.6E-6	mg/m^3	2.8E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.7E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.8E-7	mg/m^3	7.5E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.4E-08	(mg/m^3)	5.0E-05	(mg/m^3)	0.0009
				Thallium	2.8E-10	mg/m^3	3.1E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.8E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.4E-9	mg/m^3	8.1E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	1.1E-7	mg/m^3	1.2E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	6.9E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.9E-10					0.0009
		Exposure Point Total									1.9E-10					0.0009
	Exposure Medium Total										1.9E-10					0.0009
Medium Total											4.3E-06					0.09

TABLE 7.7.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Ingestion	Naphthalene	4.50	mg/kg	2.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00006
				Trichloroethene	0.360	mg/kg	1.7E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	7.8E-10	9.9E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0002
				Benzo(a)pyrene Equivalents	2.20	mg/kg	1.0E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	7.5E-07	6.0E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	3.0E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	6.0E-08	1.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	1.8E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.7E-07	1.0E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Chromium VI	0.150	mg/kg	7.0E-09	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	3.5E-09	4.1E-08	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00001
				Cobalt	5.10	mg/kg	2.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Iron	1,020	mg/kg	4.8E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.8E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0004
				Manganese	2.00	mg/kg	9.4E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.5E-07	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.00002
				Thallium	0.810	mg/kg	3.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.02
				Vanadium	25.9	mg/kg	1.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.1E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.001
				Diesel Range Organics	220	mg/kg	1.0E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.0E-05	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.1E-06					0.03
			Dermal	Naphthalene	4.50	mg/kg	1.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.4E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00003
				Trichloroethene	0.360	mg/kg	2.0E-09	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	9.3E-11	1.2E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.00002
				Benzo(a)pyrene Equivalents	2.20	mg/kg	5.4E-08	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.9E-07	3.1E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	1.7E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.4E-08	9.8E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	2.1E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.2E-08	1.2E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0004
				Chromium VI	0.150	mg/kg	2.8E-10	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	5.6E-09	1.6E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00002
				Cobalt	5.10	mg/kg	9.6E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.6E-08	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0002
				Iron	1,020	mg/kg	1.9E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-05	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.00002
				Manganese	2.00	mg/kg	3.7E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-08	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.00002
				Thallium	0.810	mg/kg	1.5E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.9E-09	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.0009
				Vanadium	25.9	mg/kg	4.9E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.8E-07	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.00006
				Diesel Range Organics	220	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								4.6E-07					0.002
		Exposure Point Total									1.5E-06					0.03
	Exposure Medium Total										1.5E-06					0.03
	Air	RECs #9 and #10	Inhalation	Naphthalene	7.1E-5	mg/m^3	7.7E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	2.6E-08	4.5E-06	(mg/m^3)	3.0E-03	(mg/m^3)	0.002
				Trichloroethene	1.2E-4	mg/m^3	1.3E-06	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	5.3E-09	7.6E-06	(mg/m^3)	2.0E-03	(mg/m^3)	0.004
				Benzo(a)pyrene Equivalents	6.8E-10	mg/m^3	7.5E-12	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	8.2E-12	4.4E-11	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-10	mg/m^3	2.2E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.2E-12	1.3E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.2E-9	mg/m^3	1.3E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	5.5E-11	7.5E-11	(mg/m^3)	1.5E-05	(mg/m^3)	0.000005
				Chromium VI	4.6E-11	mg/m^3	5.1E-13	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	4.3E-11	3.0E-12	(mg/m^3)	1.0E-04	(mg/m^3)	0.00000003
				Cobalt	1.6E-9	mg/m^3	1.7E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	1.6E-10	1.0E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.00002
				Iron	3.2E-7	mg/m^3	3.5E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.0E-08	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.2E-10	mg/m^3	6.8E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.0E-11	(mg/m^3)	5.0E-05	(mg/m^3)	0.0000008
				Thallium	2.5E-10	mg/m^3	2.7E-12	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	8.0E-9	mg/m^3	8.8E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.1E-10	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	6.8E-8	mg/m^3	7.5E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.4E-09	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								3.2E-08					0.005
		Exposure Point Total									3.2E-08					0.005
	Exposure Medium Total										3.2E-08					0.005
Medium Total											1.6E-06					0.04
										Total of Receptor Risks Across All Media	5.9E-06			Total of Receptor Hazards Across All Media		0.1

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.8.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	REC #11	Ingestion	Benzo(a)pyrene Equivalents	1.80	mg/kg	1.1E-05	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	7.7E-05	2.3E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	1.3E-07	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	9.2E-07	1.5E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	1.8E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.5E-06	2.0E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	3.6E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	5.4E-06	4.2E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.1
				Chromium VI	0.140	mg/kg	8.2E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	4.1E-07	1.8E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0006
				Cobalt	3.80	mg/kg	4.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.9E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.2
				Iron	10,000	mg/kg	1.1E-02	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-01	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.2
				Manganese	370	mg/kg	4.1E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.7E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.2
				Thallium	0.920	mg/kg	1.0E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-05	(mg/kg/day)	1.0E-05	(mg/kg/day)	1.2
				Vanadium	24.7	mg/kg	2.7E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.2E-04	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.06
				Diesel Range Organics	660	mg/kg	7.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.4E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								8.7E-05					1.9
			Dermal	Benzo(a)pyrene Equivalents	1.80	mg/kg	3.8E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.8E-05	8.4E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	3.7E-08	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	2.6E-07	4.3E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	6.9E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.4E-06	8.0E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	3.0E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	4.6E-07	3.5E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.01
				Chromium VI	0.140	mg/kg	2.3E-08	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	4.6E-07	5.0E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0007
				Cobalt	3.80	mg/kg	1.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Iron	10,000	mg/kg	3.1E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.6E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.005
				Manganese	370	mg/kg	1.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-04	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.1
				Thallium	0.920	mg/kg	2.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.3E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.03
				Vanadium	24.7	mg/kg	7.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.8E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Diesel Range Organics	660	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.1E-05					0.2
		Exposure Point Total									1.2E-04					2.1
	Exposure Medium Total										1.2E-04					2.1
	Air	REC #11	Inhalation	Benzo(a)pyrene Equivalents	5.6E-10	mg/m^3	2.4E-10	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	2.7E-10	5.3E-10	(mg/m^3)	NA	(mg/m^3)	--
				n-Nitroso-di-n-propylamine	3.7E-11	mg/m^3	3.1E-12	(mg/m^3)	2.0E-03	$(ug/m^3)^{-1}$	6.1E-12	3.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	5.0E-10	mg/m^3	4.1E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	2.3E-11	4.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.0E-9	mg/m^3	8.4E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	3.6E-10	9.8E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00007
				Chromium VI	4.3E-11	mg/m^3	1.9E-11	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1.6E-09	4.2E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000004
				Cobalt	1.2E-9	mg/m^3	9.7E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	8.7E-10	1.1E-09	(mg/m^3)	6.0E-06	(mg/m^3)	0.0002
				Iron	3.1E-6	mg/m^3	2.5E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.0E-06	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	1.1E-7	mg/m^3	9.4E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.1E-07	(mg/m^3)	5.0E-05	(mg/m^3)	0.002
				Thallium	2.8E-10	mg/m^3	2.3E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.6E-9	mg/m^3	6.3E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.3E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	2.0E-7	mg/m^3	1.7E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.0E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								3.1E-09					0.002
		Exposure Point Total									3.1E-09					0.002
	Exposure Medium Total										3.1E-09					0.002
Medium Total											1.2E-04					2.1

TABLE 7.8.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	REC #11	Ingestion	Trichloroethene	0.003	mg/kg	3.6E-09	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.7E-10	4.2E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.00008
				Benzo(a)pyrene Equivalents	2.30	mg/kg	1.3E-05	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	9.8E-05	2.9E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	4.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.7E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0002
				Aroclor-1260	1.20	mg/kg	1.3E-06	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.6E-06	1.5E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	1.3E-05	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.0E-05	1.5E-04	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.5
				Chromium VI	0.130	mg/kg	7.6E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	3.8E-07	1.7E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0006
				Cobalt	1.90	mg/kg	2.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.08
				Iron	15,600	mg/kg	1.7E-02	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.0E-01	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.3
				Manganese	713	mg/kg	7.8E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.1E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.4
				Thallium	0.680	mg/kg	7.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.7E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.9
				Vanadium	72.0	mg/kg	7.9E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.2E-04	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.2
				Diesel Range Organics	1,400	mg/kg	1.5E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-02	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.2E-04					2.3
			Dermal	Trichloroethene	0.003	mg/kg	3.0E-10	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.4E-11	3.5E-09	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.000007
				Benzo(a)pyrene Equivalents	2.30	mg/kg	4.9E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.6E-05	1.1E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	1.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00009
				Aroclor-1260	1.20	mg/kg	5.2E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.0E-06	6.0E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	1.1E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.6E-06	1.3E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.04
				Chromium VI	0.130	mg/kg	2.1E-08	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	4.3E-07	4.7E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0006
				Cobalt	1.90	mg/kg	5.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.8E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Iron	15,600	mg/kg	4.8E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.6E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.008
				Manganese	713	mg/kg	2.2E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-04	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.3
				Thallium	0.680	mg/kg	2.1E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.02
				Vanadium	72.0	mg/kg	2.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.005
				Diesel Range Organics	1,400	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.9E-05					0.3
		Exposure Point Total									1.6E-04					2.7
	Exposure Medium Total										1.6E-04					2.7
	Air	REC #11	Inhalation	Trichloroethene	1.1E-6	mg/m^3	8.9E-08	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	3.7E-10	1.0E-06	(mg/m^3)	2.0E-03	(mg/m^3)	0.0005
				Benzo(a)pyrene Equivalents	7.1E-10	mg/m^3	3.1E-10	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	3.4E-10	6.8E-10	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	5.8E-6	mg/m^3	4.8E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	1.6E-08	5.6E-06	(mg/m^3)	3.0E-03	(mg/m^3)	0.002
				Aroclor-1260	3.7E-10	mg/m^3	3.1E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.7E-11	3.6E-10	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	3.7E-9	mg/m^3	3.0E-10	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	1.3E-09	3.5E-09	(mg/m^3)	1.5E-05	(mg/m^3)	0.0002
				Chromium VI	4.0E-11	mg/m^3	1.8E-11	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1.5E-09	3.9E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000004
				Cobalt	5.9E-10	mg/m^3	4.8E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	4.4E-10	5.6E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.00009
				Iron	4.8E-6	mg/m^3	4.0E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.6E-06	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	2.2E-7	mg/m^3	1.8E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.1E-07	(mg/m^3)	5.0E-05	(mg/m^3)	0.004
				Thallium	2.1E-10	mg/m^3	1.7E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.0E-10	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	2.2E-8	mg/m^3	1.8E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.1E-08	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	4.3E-7	mg/m^3	3.6E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.2E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.0E-08					0.007
		Exposure Point Total									2.0E-08					0.007
	Exposure Medium Total										2.0E-08					0.007
Medium Total											1.6E-04					2.7

TABLE 7.8.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	REC #11	Ingestion	Benzene	0.130	ug/L	7.1E-07	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	3.9E-08	8.3E-06	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.002
				Trichloroethene	25.0	ug/L	1.4E-04	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	6.3E-06	1.6E-03	(mg/kg/day)	5.0E-04	(mg/kg/day)	3.2
				Vinyl Chloride	0.660	ug/L	4.8E-05	(mg/kg/day)	7.2E-01	$(mg/kg/day)^{-1}$	3.4E-05	4.2E-05	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.01
				Arsenic	11.0	ug/L	6.0E-05	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	9.0E-05	7.0E-04	(mg/kg/day)	3.0E-04	(mg/kg/day)	2.3
				Chromium VI	7.50	ug/L	2.2E-04	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.1E-04	4.8E-04	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.2
				Cobalt	210	ug/L	1.2E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-02	(mg/kg/day)	3.0E-04	(mg/kg/day)	45
				Iron	20,800	ug/L	1.1E-01	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E+00	(mg/kg/day)	7.0E-01	(mg/kg/day)	1.9
				Manganese	215	ug/L	1.2E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-02	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.6
				Nickel	380	ug/L	2.1E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-02	(mg/kg/day)	2.0E-02	(mg/kg/day)	1.2
				Thallium	1.10	ug/L	6.0E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.0E-05	(mg/kg/day)	1.0E-05	(mg/kg/day)	7.0
				Vanadium	48.0	ug/L	2.6E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.1E-03	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.6
				Zinc	1,500	ug/L	8.2E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.6E-02	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.3
				Diesel Range Organics	360	ug/L	2.0E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.3E-02	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.4E-04					62
			Dermal	Benzene	0.130	ug/L	1.1E-07	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	6.0E-09	1.3E-06	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.0003
				Trichloroethene	25.0	ug/L	2.2E-05	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.0E-06	2.6E-04	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.5
				Vinyl Chloride	0.660	ug/L	2.6E-06	(mg/kg/day)	7.2E-01	$(mg/kg/day)^{-1}$	1.9E-06	2.3E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0008
				Arsenic	11.0	ug/L	4.0E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	6.0E-07	4.6E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Chromium VI	7.50	ug/L	2.9E-06	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	5.8E-05	6.3E-06	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.08
				Cobalt	210	ug/L	3.0E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.5E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.1
				Iron	20,800	ug/L	7.5E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.8E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.01
				Manganese	215	ug/L	7.8E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.1E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.09
				Nickel	380	ug/L	2.7E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.2E-05	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.04
				Thallium	1.10	ug/L	4.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.6E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.05
				Vanadium	48.0	ug/L	1.7E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.0E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.004
				Zinc	1,500	ug/L	3.3E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.8E-04	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.001
				Diesel Range Organics	360	ug/L	NA	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	NA	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								6.1E-05					0.9
		Exposure Point Total									3.0E-04					63
	Exposure Medium Total										3.0E-04					63
Medium Total											3.0E-04					63
										Total of Receptor Risks Across All Media	5.8E-04			Total of Receptor Hazards Across All Media		68

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.8.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	RECs #9 and #10	Ingestion	Benzo(a)pyrene Equivalents	7.80	mg/kg	4.6E-05	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.3E-04	1.0E-04	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	6.9E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.4E-07	8.1E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	3.2E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	4.8E-06	3.7E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.1
				Chromium VI	0.120	mg/kg	7.0E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	3.5E-07	1.5E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0005
				Cobalt	2.90	mg/kg	3.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.7E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.1
				Iron	8,400	mg/kg	9.2E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-01	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.2
				Manganese	2,200	mg/kg	2.4E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.8E-02	(mg/kg/day)	2.4E-02	(mg/kg/day)	1.2
				Thallium	0.910	mg/kg	1.0E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-05	(mg/kg/day)	1.0E-05	(mg/kg/day)	1.2
				Vanadium	24.0	mg/kg	2.6E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.1E-04	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.06
				Diesel Range Organics	350	mg/kg	3.8E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.5E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.4E-04					2.8
			Dermal	Benzo(a)pyrene Equivalents	7.80	mg/kg	1.7E-05	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.2E-04	3.6E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	2.7E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.4E-08	3.2E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	2.7E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	4.0E-07	3.1E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.01
				Chromium VI	0.120	mg/kg	2.0E-08	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	3.9E-07	4.3E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0006
				Cobalt	2.90	mg/kg	8.9E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Iron	8,400	mg/kg	2.6E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.0E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.004
				Manganese	2,200	mg/kg	6.8E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.9E-04	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.8
				Thallium	0.910	mg/kg	2.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.3E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.03
				Vanadium	24.0	mg/kg	7.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.6E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Diesel Range Organics	350	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.2E-04					0.9
		Exposure Point Total									4.6E-04					3.7
	Exposure Medium Total										4.6E-04					3.7
	Air	RECs #9 and #10	Inhalation	Benzo(a)pyrene Equivalents	2.4E-9	mg/m^3	1.1E-09	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.2E-09	2.3E-09	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-11	mg/m^3	1.6E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	9.1E-13	1.9E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	9.0E-10	mg/m^3	7.4E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	3.2E-10	8.6E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00006
				Chromium VI	3.7E-11	mg/m^3	1.6E-11	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1.4E-09	3.6E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000004
				Cobalt	9.0E-10	mg/m^3	7.4E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	6.6E-10	8.6E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.0001
				Iron	2.6E-6	mg/m^3	2.1E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.5E-06	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.8E-7	mg/m^3	5.6E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	6.5E-07	(mg/m^3)	5.0E-05	(mg/m^3)	0.01
				Thallium	2.8E-10	mg/m^3	2.3E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.4E-9	mg/m^3	6.1E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.1E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	1.1E-7	mg/m^3	8.9E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.0E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								3.5E-09					0.01
		Exposure Point Total									3.5E-09					0.01
	Exposure Medium Total										3.5E-09					0.01
Medium Total											4.6E-04					3.7

TABLE 7.8.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Ingestion	Naphthalene	4.50	mg/kg	4.9E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.8E-05	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.003
				Trichloroethene	0.360	mg/kg	3.9E-07	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.8E-08	4.6E-06	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.009
				Benzo(a)pyrene Equivalents	2.20	mg/kg	1.3E-05	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	9.4E-05	2.8E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	7.0E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.4E-06	8.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	4.2E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	6.2E-06	4.9E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.2
				Chromium VI	0.150	mg/kg	8.8E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	4.4E-07	1.9E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0006
				Cobalt	5.10	mg/kg	5.6E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.5E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.2
				Iron	1,020	mg/kg	1.1E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.02
				Manganese	2.00	mg/kg	2.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-05	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.001
				Thallium	0.810	mg/kg	8.9E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-05	(mg/kg/day)	1.0E-05	(mg/kg/day)	1.0
				Vanadium	25.9	mg/kg	2.8E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.3E-04	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.07
				Diesel Range Organics	220	mg/kg	2.4E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.8E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.0E-04					1.5
			Dermal	Naphthalene	4.50	mg/kg	1.8E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-05	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.001
				Trichloroethene	0.360	mg/kg	3.3E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.5E-09	3.9E-07	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0008
				Benzo(a)pyrene Equivalents	2.20	mg/kg	4.7E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.4E-05	1.0E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	2.7E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.5E-07	3.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	3.5E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	5.2E-07	4.1E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.01
				Chromium VI	0.150	mg/kg	2.5E-08	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	4.9E-07	5.4E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0007
				Cobalt	5.10	mg/kg	1.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.006
				Iron	1,020	mg/kg	3.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.7E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0005
				Manganese	2.00	mg/kg	6.1E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.2E-07	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.0007
				Thallium	0.810	mg/kg	2.5E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.9E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.03
				Vanadium	25.9	mg/kg	7.9E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.3E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Diesel Range Organics	220	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.6E-05					0.05
		Exposure Point Total									1.4E-04					1.6
	Exposure Medium Total										1.4E-04					1.6
	Air	RECs #9 and #10	Inhalation	Naphthalene	7.1E-5	mg/m^3	5.8E-06	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	2.0E-07	6.8E-05	(mg/m^3)	3.0E-03	(mg/m^3)	0.02
				Trichloroethene	1.2E-4	mg/m^3	9.7E-06	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	4.0E-08	1.1E-04	(mg/m^3)	2.0E-03	(mg/m^3)	0.06
				Benzo(a)pyrene Equivalents	6.8E-10	mg/m^3	3.0E-10	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	3.3E-10	6.5E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-10	mg/m^3	1.6E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	9.3E-12	1.9E-10	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.2E-9	mg/m^3	9.7E-11	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	4.2E-10	1.1E-09	(mg/m^3)	1.5E-05	(mg/m^3)	0.00008
				Chromium VI	4.6E-11	mg/m^3	2.0E-11	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1.7E-09	4.5E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000004
				Cobalt	1.6E-9	mg/m^3	1.3E-10	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	1.2E-09	1.5E-09	(mg/m^3)	6.0E-06	(mg/m^3)	0.0003
				Iron	3.2E-7	mg/m^3	2.6E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.0E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.2E-10	mg/m^3	5.1E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.9E-10	(mg/m^3)	5.0E-05	(mg/m^3)	0.00001
				Thallium	2.5E-10	mg/m^3	2.1E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.4E-10	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	8.0E-9	mg/m^3	6.6E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.7E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	6.8E-8	mg/m^3	5.6E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	6.5E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.4E-07					0.08
		Exposure Point Total									2.4E-07					0.08
	Exposure Medium Total										2.4E-07					0.08
Medium Total											1.4E-04					1.6

TABLE 7.8.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	RECs #9 and #10	Ingestion	Benzene	3.10	ug/L	1.7E-05	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	9.3E-07	2.0E-04	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.05
				Carbon Tetrachloride	2.60	ug/L	1.4E-05	(mg/kg/day)	7.0E-02	$(mg/kg/day)^{-1}$	1.0E-06	1.7E-04	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.04
				Chloroform	0.920	ug/L	5.0E-06	(mg/kg/day)	3.1E-02	$(mg/kg/day)^{-1}$	1.6E-07	5.9E-05	(mg/kg/day)	1.0E-02	(mg/kg/day)	0.006
				Trichloroethene	450	ug/L	2.5E-03	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.1E-04	2.9E-02	(mg/kg/day)	5.0E-04	(mg/kg/day)	58
				Arsenic	9.70	ug/L	5.3E-05	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	8.0E-05	6.2E-04	(mg/kg/day)	3.0E-04	(mg/kg/day)	2.1
				Chromium VI	8.20	ug/L	2.4E-04	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.2E-04	5.2E-04	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.2
				Cobalt	76.0	ug/L	4.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.9E-03	(mg/kg/day)	3.0E-04	(mg/kg/day)	16
				Iron	13,600	ug/L	7.5E-02	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.7E-01	(mg/kg/day)	7.0E-01	(mg/kg/day)	1.2
				Manganese	756	ug/L	4.1E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.8E-02	(mg/kg/day)	2.4E-02	(mg/kg/day)	2.0
				Nickel	53.0	ug/L	2.9E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.4E-03	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.2
				Vanadium	23.0	ug/L	1.3E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-03	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.3
				Zinc	79.0	ug/L	4.3E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.1E-03	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.02
				Diesel Range Organics	1,600	ug/L	8.8E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-01	(mg/kg/day)	NA	(mg/kg/day)	--
				Gasoline Range Organics	300	ug/L	1.6E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-02	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.2E-04					80
			Dermal	Benzene	3.10	ug/L	2.6E-06	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	1.4E-07	3.0E-05	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.008
				Carbon Tetrachloride	2.60	ug/L	3.7E-06	(mg/kg/day)	7.0E-02	$(mg/kg/day)^{-1}$	2.6E-07	4.4E-05	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.01
				Chloroform	0.920	ug/L	4.4E-07	(mg/kg/day)	3.1E-02	$(mg/kg/day)^{-1}$	1.4E-08	5.2E-06	(mg/kg/day)	1.0E-02	(mg/kg/day)	0.0005
				Trichloroethene	450	ug/L	4.0E-04	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.8E-05	4.7E-03	(mg/kg/day)	5.0E-04	(mg/kg/day)	9.3
				Arsenic	9.70	ug/L	3.5E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	5.3E-07	4.1E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.01
				Chromium VI	8.20	ug/L	3.2E-06	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	6.3E-05	6.9E-06	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.09
				Cobalt	76.0	ug/L	1.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.04
				Iron	13,600	ug/L	4.9E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.7E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.008
				Manganese	756	ug/L	2.7E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.2E-04	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.3
				Nickel	53.0	ug/L	3.8E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.5E-06	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.006
				Vanadium	23.0	ug/L	8.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.7E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Zinc	79.0	ug/L	1.7E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.0E-05	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.00007
				Diesel Range Organics	1,600	ug/L	NA	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	NA	(mg/kg/day)	NA	(mg/kg/day)	--
				Gasoline Range Organics	300	ug/L	NA	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	NA	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								8.3E-05					9.8
		Exposure Point Total									4.0E-04					90
	Exposure Medium Total										4.0E-04					90
Medium Total											4.0E-04					90
										Total of Receptor Risks Across All Media	1.0E-03			Total of Receptor Hazards Across All Media		95

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.9.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	RECs #11	Ingestion	Benzo(a)pyrene Equivalents	1.80	mg/kg	2.0E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.4E-05	4.3E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	4.9E-08	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	3.5E-07	2.9E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	6.6E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.3E-06	3.8E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	1.4E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.0E-06	7.9E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.03
				Chromium VI	0.140	mg/kg	1.5E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	7.7E-08	3.4E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0001
				Cobalt	3.80	mg/kg	1.6E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.1E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.03
				Iron	10,000	mg/kg	4.1E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.03
				Manganese	370	mg/kg	1.5E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.9E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.04
				Thallium	0.920	mg/kg	3.8E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.2
				Vanadium	24.7	mg/kg	1.0E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.9E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.01
				Diesel Range Organics	660	mg/kg	2.7E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.8E-05					0.4
			Dermal	Benzo(a)pyrene Equivalents	1.80	mg/kg	7.8E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	5.7E-06	1.7E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	1.5E-08	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	1.0E-07	8.7E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	2.8E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.6E-07	1.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	1.2E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.8E-07	7.2E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.140	mg/kg	4.6E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	9.3E-08	1.0E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	3.80	mg/kg	4.7E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.8E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0009
				Iron	10,000	mg/kg	1.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.2E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.001
				Manganese	370	mg/kg	4.6E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.7E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.03
				Thallium	0.920	mg/kg	1.1E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.7E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.007
				Vanadium	24.7	mg/kg	3.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0004
				Diesel Range Organics	660	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								6.6E-06					0.04
		Exposure Point Total									2.5E-05					0.4
	Exposure Medium Total										2.5E-05					0.4
	Air	RECs #11	Inhalation	Benzo(a)pyrene Equivalents	5.6E-10	mg/m^3	2.4E-10	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	2.7E-10	5.3E-10	(mg/m^3)	NA	(mg/m^3)	--
				n-Nitroso-di-n-propylamine	3.7E-11	mg/m^3	6.1E-12	(mg/m^3)	2.0E-03	$(ug/m^3)^{-1}$	1.2E-11	3.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	5.0E-10	mg/m^3	8.1E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	4.6E-11	4.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.0E-9	mg/m^3	1.7E-10	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	7.2E-10	9.8E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00007
				Chromium VI	4.3E-11	mg/m^3	1.9E-11	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1.6E-09	4.2E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000004
				Cobalt	1.2E-9	mg/m^3	1.9E-10	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	1.7E-09	1.1E-09	(mg/m^3)	6.0E-06	(mg/m^3)	0.0002
				Iron	3.1E-6	mg/m^3	5.1E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.0E-06	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	1.1E-7	mg/m^3	1.9E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.1E-07	(mg/m^3)	5.0E-05	(mg/m^3)	0.002
				Thallium	2.8E-10	mg/m^3	4.7E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.6E-9	mg/m^3	1.3E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.3E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	2.0E-7	mg/m^3	3.4E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.0E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								4.4E-09					0.002
		Exposure Point Total									4.4E-09					0.002
	Exposure Medium Total										4.4E-09					0.002
Medium Total											2.5E-05					0.4

TABLE 7.9.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	RECs #11	Ingestion	Trichloroethene	0.003	mg/kg	1.4E-09	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	6.2E-11	7.9E-09	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.00002
				Benzo(a)pyrene Equivalents	2.30	mg/kg	2.5E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.8E-05	5.5E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	1.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.9E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00004
				Aroclor-1260	1.20	mg/kg	4.9E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	9.9E-07	2.9E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	4.9E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	7.3E-06	2.9E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.10
				Chromium VI	0.130	mg/kg	1.4E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	7.1E-08	3.1E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0001
				Cobalt	1.90	mg/kg	7.8E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.6E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Iron	15,600	mg/kg	6.4E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.7E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.05
				Manganese	713	mg/kg	2.9E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.07
				Thallium	0.680	mg/kg	2.8E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.2
				Vanadium	72.0	mg/kg	3.0E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-04	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.03
				Diesel Range Organics	1,400	mg/kg	5.8E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.4E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.7E-05					0.4
			Dermal	Trichloroethene	0.003	mg/kg	1.2E-10	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	5.7E-12	7.2E-10	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.000001
				Benzo(a)pyrene Equivalents	2.30	mg/kg	9.9E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	7.2E-06	2.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	6.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.5E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00002
				Aroclor-1260	1.20	mg/kg	2.1E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.2E-07	1.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	4.4E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	6.7E-07	2.6E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.009
				Chromium VI	0.130	mg/kg	4.3E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	8.6E-08	9.4E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	1.90	mg/kg	2.4E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0005
				Iron	15,600	mg/kg	1.9E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.002
				Manganese	713	mg/kg	8.9E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.2E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.05
				Thallium	0.680	mg/kg	8.5E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.9E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.005
				Vanadium	72.0	mg/kg	8.9E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.2E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.001
				Diesel Range Organics	1,400	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								8.4E-06					0.07
		Exposure Point Total									3.5E-05					0.5
	Exposure Medium Total										3.5E-05					0.5
	Air	RECs #11	Inhalation	Trichloroethene	1.1E-6	mg/m^3	1.8E-07	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	7.3E-10	1.0E-06	(mg/m^3)	2.0E-03	(mg/m^3)	0.0005
				Benzo(a)pyrene Equivalents	7.1E-10	mg/m^3	3.1E-10	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	3.4E-10	6.8E-10	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	5.8E-6	mg/m^3	9.5E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	3.2E-08	5.6E-06	(mg/m^3)	3.0E-03	(mg/m^3)	0.002
				Aroclor-1260	3.7E-10	mg/m^3	6.1E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	3.5E-11	3.6E-10	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	3.7E-9	mg/m^3	6.1E-10	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	2.6E-09	3.5E-09	(mg/m^3)	1.5E-05	(mg/m^3)	0.0002
				Chromium VI	4.0E-11	mg/m^3	1.8E-11	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1.5E-09	3.9E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000004
				Cobalt	5.9E-10	mg/m^3	9.7E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	8.7E-10	5.6E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.00009
				Iron	4.8E-6	mg/m^3	7.9E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.6E-06	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	2.2E-7	mg/m^3	3.6E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.1E-07	(mg/m^3)	5.0E-05	(mg/m^3)	0.004
				Thallium	2.1E-10	mg/m^3	3.5E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.0E-10	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	2.2E-8	mg/m^3	3.7E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.1E-08	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	4.3E-7	mg/m^3	7.1E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.2E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								3.8E-08					0.007
		Exposure Point Total									3.8E-08					0.007
	Exposure Medium Total										3.8E-08					0.007
Medium Total											3.5E-05					0.5

TABLE 7.9.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	RECs #11	Ingestion	Benzene	0.130	ug/L	1.1E-06	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	5.9E-08	6.2E-06	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.002
				Trichloroethene	25.0	ug/L	2.1E-04	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	9.5E-06	1.2E-03	(mg/kg/day)	5.0E-04	(mg/kg/day)	2.4
				Vinyl Chloride	0.660	ug/L	5.4E-06	(mg/kg/day)	7.2E-01	$(mg/kg/day)^{-1}$	3.9E-06	3.2E-05	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.01
				Arsenic	11.0	ug/L	9.0E-05	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.4E-04	5.3E-04	(mg/kg/day)	3.0E-04	(mg/kg/day)	1.8
				Chromium VI	7.50	ug/L	1.6E-04	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	8.2E-05	3.6E-04	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.1
				Cobalt	210	ug/L	1.7E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-02	(mg/kg/day)	3.0E-04	(mg/kg/day)	34
				Iron	20,800	ug/L	1.7E-01	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E+00	(mg/kg/day)	7.0E-01	(mg/kg/day)	1.4
				Manganese	215	ug/L	1.8E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-02	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.4
				Nickel	380	ug/L	3.1E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.8E-02	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.9
				Thallium	1.10	ug/L	9.0E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.3E-05	(mg/kg/day)	1.0E-05	(mg/kg/day)	5.3
				Vanadium	48.0	ug/L	3.9E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.3E-03	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.5
				Zinc	1,500	ug/L	1.2E-02	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.2E-02	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.2
				Diesel Range Organics	360	ug/L	3.0E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-02	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.3E-04					47
			Dermal	Benzene	0.130	ug/L	1.2E-07	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	6.5E-09	6.9E-07	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.0002
				Trichloroethene	25.0	ug/L	2.5E-05	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.2E-06	1.5E-04	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.3
				Vinyl Chloride	0.660	ug/L	2.1E-07	(mg/kg/day)	7.2E-01	$(mg/kg/day)^{-1}$	1.5E-07	1.2E-06	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0004
				Arsenic	11.0	ug/L	3.4E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	5.2E-07	2.0E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.007
				Chromium VI	7.50	ug/L	1.2E-06	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	2.5E-05	2.7E-06	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.04
				Cobalt	210	ug/L	2.6E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.05
				Iron	20,800	ug/L	6.5E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.8E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.005
				Manganese	215	ug/L	6.7E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.9E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.04
				Nickel	380	ug/L	2.4E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-05	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.02
				Thallium	1.10	ug/L	3.4E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.0E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.02
				Vanadium	48.0	ug/L	1.5E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.7E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.002
				Zinc	1,500	ug/L	2.8E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-04	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.0005
				Diesel Range Organics	360	ug/L	NA	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	NA	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.7E-05					0.5
		Exposure Point Total									2.6E-04					47
	Exposure Medium Total										2.6E-04					47
Medium Total											2.6E-04					47
										Total of Receptor Risks Across All Media	3.2E-04			Total of Receptor Hazards Across All Media		48

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.9.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	RECs #9 and #10	Ingestion	Benzo(a)pyrene Equivalents	7.80	mg/kg	8.5E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	6.2E-05	1.9E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	2.6E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.2E-08	1.5E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	1.2E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.8E-06	7.0E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Chromium VI	0.120	mg/kg	1.3E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	6.6E-08	2.9E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00010
				Cobalt	2.90	mg/kg	1.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.0E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Iron	8,400	mg/kg	3.5E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.0E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.03
				Manganese	2,200	mg/kg	9.0E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.3E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.2
				Thallium	0.910	mg/kg	3.7E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.2
				Vanadium	24.0	mg/kg	9.9E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.8E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.01
				Diesel Range Organics	350	mg/kg	1.4E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.4E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								6.4E-05					0.5
			Dermal	Benzo(a)pyrene Equivalents	7.80	mg/kg	3.4E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.5E-05	7.4E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	1.1E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.2E-08	6.4E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	1.1E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.6E-07	6.3E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.120	mg/kg	4.0E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	8.0E-08	8.7E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	2.90	mg/kg	3.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0007
				Iron	8,400	mg/kg	1.0E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.1E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0009
				Manganese	2,200	mg/kg	2.7E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-04	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.2
				Thallium	0.910	mg/kg	1.1E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.6E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.007
				Vanadium	24.0	mg/kg	3.0E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.7E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0003
				Diesel Range Organics	350	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.5E-05					0.2
		Exposure Point Total									8.9E-05					0.7
	Exposure Medium Total										8.9E-05					0.7
	Air	RECs #9 and #10	Inhalation	Benzo(a)pyrene Equivalents	2.4E-9	mg/m^3	1.1E-09	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.2E-09	2.3E-09	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-11	mg/m^3	3.2E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.8E-12	1.9E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	9.0E-10	mg/m^3	1.5E-10	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	6.3E-10	8.6E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00006
				Chromium VI	3.7E-11	mg/m^3	1.6E-11	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1.4E-09	3.6E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000004
				Cobalt	9.0E-10	mg/m^3	1.5E-10	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	1.3E-09	8.6E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.0001
				Iron	2.6E-6	mg/m^3	4.3E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.5E-06	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.8E-7	mg/m^3	1.1E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	6.5E-07	(mg/m^3)	5.0E-05	(mg/m^3)	0.01
				Thallium	2.8E-10	mg/m^3	4.6E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.4E-9	mg/m^3	1.2E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.1E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	1.1E-7	mg/m^3	1.8E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.0E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								4.5E-09					0.01
		Exposure Point Total									4.5E-09					0.01
	Exposure Medium Total										4.5E-09					0.01
Medium Total											8.9E-05					0.7

TABLE 7.9.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Ingestion	Naphthalene	4.50	mg/kg	1.8E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-05	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0005
				Trichloroethene	0.360	mg/kg	1.5E-07	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	6.8E-09	8.6E-07	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.002
				Benzo(a)pyrene Equivalents	2.20	mg/kg	2.4E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.8E-05	5.3E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	2.6E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.3E-07	1.5E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	1.6E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.3E-06	9.1E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.03
				Chromium VI	0.150	mg/kg	1.6E-07	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	8.2E-08	3.6E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0001
				Cobalt	5.10	mg/kg	2.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.04
				Iron	1,020	mg/kg	4.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.4E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.003
				Manganese	2.00	mg/kg	8.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.8E-06	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.0002
				Thallium	0.810	mg/kg	3.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.2
				Vanadium	25.9	mg/kg	1.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.2E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.01
				Diesel Range Organics	220	mg/kg	9.0E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.3E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.1E-05					0.3
			Dermal	Naphthalene	4.50	mg/kg	7.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.2E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0002
				Trichloroethene	0.360	mg/kg	1.3E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	6.2E-10	7.8E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0002
				Benzo(a)pyrene Equivalents	2.20	mg/kg	9.5E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	6.9E-06	2.1E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	1.1E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	2.2E-07	6.5E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	1.4E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	2.1E-07	8.3E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.003
				Chromium VI	0.150	mg/kg	5.0E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	9.9E-08	1.1E-08	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	5.10	mg/kg	6.3E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.7E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.001
				Iron	1,020	mg/kg	1.3E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.4E-05	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0001
				Manganese	2.00	mg/kg	2.5E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-07	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.0002
				Thallium	0.810	mg/kg	1.0E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.9E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.006
				Vanadium	25.9	mg/kg	3.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0004
				Diesel Range Organics	220	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								7.5E-06					0.01
		Exposure Point Total									2.8E-05					0.3
	Exposure Medium Total										2.8E-05					0.3
	Air	RECs #9 and #10	Inhalation	Naphthalene	7.1E-5	mg/m^3	1.2E-05	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	3.9E-07	6.8E-05	(mg/m^3)	3.0E-03	(mg/m^3)	0.02
				Trichloroethene	1.2E-4	mg/m^3	1.9E-05	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	8.0E-08	1.1E-04	(mg/m^3)	2.0E-03	(mg/m^3)	0.06
				Benzo(a)pyrene Equivalents	6.8E-10	mg/m^3	3.0E-10	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	3.3E-10	6.5E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-10	mg/m^3	3.3E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.9E-11	1.9E-10	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.2E-9	mg/m^3	1.9E-10	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	8.3E-10	1.1E-09	(mg/m^3)	1.5E-05	(mg/m^3)	0.00008
				Chromium VI	4.6E-11	mg/m^3	2.0E-11	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	1.7E-09	4.5E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000004
				Cobalt	1.6E-9	mg/m^3	2.6E-10	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	2.3E-09	1.5E-09	(mg/m^3)	6.0E-06	(mg/m^3)	0.0003
				Iron	3.2E-7	mg/m^3	5.2E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.0E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.2E-10	mg/m^3	1.0E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.9E-10	(mg/m^3)	5.0E-05	(mg/m^3)	0.00001
				Thallium	2.5E-10	mg/m^3	4.1E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.4E-10	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	8.0E-9	mg/m^3	1.3E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.7E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	6.8E-8	mg/m^3	1.1E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	6.5E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								4.8E-07					0.08
		Exposure Point Total									4.8E-07					0.08
	Exposure Medium Total										4.8E-07					0.08
Medium Total											2.8E-05					0.4

TABLE 7.9.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	RECs #9 and #10	Ingestion	Benzene	3.10	ug/L	2.5E-05	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	1.4E-06	1.5E-04	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.04
				Carbon Tetrachloride	2.60	ug/L	2.1E-05	(mg/kg/day)	7.0E-02	$(mg/kg/day)^{-1}$	1.5E-06	1.2E-04	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.03
				Chloroform	0.920	ug/L	7.6E-06	(mg/kg/day)	3.1E-02	$(mg/kg/day)^{-1}$	2.3E-07	4.4E-05	(mg/kg/day)	1.0E-02	(mg/kg/day)	0.004
				Trichloroethene	450	ug/L	3.7E-03	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.7E-04	2.2E-02	(mg/kg/day)	5.0E-04	(mg/kg/day)	43
				Arsenic	9.70	ug/L	8.0E-05	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.2E-04	4.7E-04	(mg/kg/day)	3.0E-04	(mg/kg/day)	1.6
				Chromium VI	8.20	ug/L	1.8E-04	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	9.0E-05	3.9E-04	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.1
				Cobalt	76.0	ug/L	6.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.6E-03	(mg/kg/day)	3.0E-04	(mg/kg/day)	12
				Iron	13,600	ug/L	1.1E-01	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.5E-01	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.9
				Manganese	756	ug/L	6.2E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.6E-02	(mg/kg/day)	2.4E-02	(mg/kg/day)	1.5
				Nickel	53.0	ug/L	4.4E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.5E-03	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.1
				Vanadium	23.0	ug/L	1.9E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-03	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.2
				Zinc	79.0	ug/L	6.5E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.8E-03	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.01
				Diesel Range Organics	1,600	ug/L	1.3E-02	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.7E-02	(mg/kg/day)	NA	(mg/kg/day)	--
				Gasoline Range Organics	300	ug/L	2.5E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-02	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								3.8E-04					60
			Dermal	Benzene	3.10	ug/L	2.8E-06	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	1.6E-07	1.6E-05	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.004
				Carbon Tetrachloride	2.60	ug/L	4.2E-06	(mg/kg/day)	7.0E-02	$(mg/kg/day)^{-1}$	3.0E-07	2.5E-05	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.006
				Chloroform	0.920	ug/L	5.0E-07	(mg/kg/day)	3.1E-02	$(mg/kg/day)^{-1}$	1.6E-08	2.9E-06	(mg/kg/day)	1.0E-02	(mg/kg/day)	0.0003
				Trichloroethene	450	ug/L	4.5E-04	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	2.1E-05	2.6E-03	(mg/kg/day)	5.0E-04	(mg/kg/day)	5.3
				Arsenic	9.70	ug/L	3.0E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	4.5E-07	1.8E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.006
				Chromium VI	8.20	ug/L	1.4E-06	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	2.7E-05	3.0E-06	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.04
				Cobalt	76.0	ug/L	9.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.5E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Iron	13,600	ug/L	4.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.5E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.004
				Manganese	756	ug/L	2.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-04	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.1
				Nickel	53.0	ug/L	3.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-06	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.002
				Vanadium	23.0	ug/L	7.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.2E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0008
				Zinc	79.0	ug/L	1.5E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.6E-06	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.00003
				Diesel Range Organics	1,600	ug/L	#VALUE!	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	#VALUE!	(mg/kg/day)	NA	(mg/kg/day)	--
				Gasoline Range Organics	300	ug/L	#VALUE!	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	#VALUE!	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								4.9E-05					5.5
		Exposure Point Total									4.3E-04					65
	Exposure Medium Total										4.3E-04					65
Medium Total											4.3E-04					65
										Total of Receptor Risks Across All Media	5.5E-04			Total of Receptor Hazards Across All Media		66

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.10.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	REC #11	Ingestion	Benzo(a)pyrene Equivalents	1.80	mg/kg	4.2E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.1E-06	2.5E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	2.8E-08	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	2.0E-07	1.6E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	3.8E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	7.5E-07	2.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	7.7E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.2E-06	4.5E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Chromium VI	0.140	mg/kg	3.3E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.6E-08	1.9E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00006
				Cobalt	3.80	mg/kg	8.9E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.2E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Iron	10,000	mg/kg	2.3E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.02
				Manganese	370	mg/kg	8.7E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.1E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.02
				Thallium	0.920	mg/kg	2.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.1
				Vanadium	24.7	mg/kg	5.8E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.4E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.007
				Diesel Range Organics	660	mg/kg	1.5E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.0E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								5.2E-06					0.2
			Dermal	Benzo(a)pyrene Equivalents	1.80	mg/kg	2.2E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.6E-06	1.3E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				n-Nitroso-di-n-propylamine	0.120	mg/kg	1.1E-08	(mg/kg/day)	7.0E+00	$(mg/kg/day)^{-1}$	7.9E-08	6.6E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	1.60	mg/kg	2.1E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	4.2E-07	1.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.30	mg/kg	9.3E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.4E-07	5.4E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.140	mg/kg	1.3E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	2.6E-08	7.7E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	3.80	mg/kg	3.6E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0007
				Iron	10,000	mg/kg	9.4E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.5E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0008
				Manganese	370	mg/kg	3.5E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.0E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.02
				Thallium	0.920	mg/kg	8.6E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.0E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.005
				Vanadium	24.7	mg/kg	2.3E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0003
				Diesel Range Organics	660	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.3E-06					0.03
		Exposure Point Total									7.5E-06					0.2
	Exposure Medium Total										7.5E-06					0.2
	Air	REC #11	Inhalation	Benzo(a)pyrene Equivalents	5.6E-10	mg/m^3	9.2E-11	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.0E-10	5.3E-10	(mg/m^3)	NA	(mg/m^3)	--
				n-Nitroso-di-n-propylamine	3.7E-11	mg/m^3	6.1E-12	(mg/m^3)	2.0E-03	$(ug/m^3)^{-1}$	1.2E-11	3.6E-11	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	5.0E-10	mg/m^3	8.1E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	4.6E-11	4.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.0E-9	mg/m^3	1.7E-10	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	7.2E-10	9.8E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00007
				Chromium VI	4.3E-11	mg/m^3	7.1E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	6.0E-10	4.2E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000004
				Cobalt	1.2E-9	mg/m^3	1.9E-10	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	1.7E-09	1.1E-09	(mg/m^3)	6.0E-06	(mg/m^3)	0.0002
				Iron	3.1E-6	mg/m^3	5.1E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.0E-06	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	1.1E-7	mg/m^3	1.9E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.1E-07	(mg/m^3)	5.0E-05	(mg/m^3)	0.002
				Thallium	2.8E-10	mg/m^3	4.7E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.6E-9	mg/m^3	1.3E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.3E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	2.0E-7	mg/m^3	3.4E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.0E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								3.2E-09					0.002
		Exposure Point Total									3.2E-09					0.002
	Exposure Medium Total										3.2E-09					0.002
Medium Total											7.5E-06					0.2

TABLE 7.10.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	REC #11	Ingestion	Trichloroethene	0.003	mg/kg	7.7E-10	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	3.6E-11	4.5E-09	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.000009
				Benzo(a)pyrene Equivalents	2.30	mg/kg	5.4E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.9E-06	3.2E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	8.7E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.1E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00003
				Aroclor-1260	1.20	mg/kg	2.8E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	5.6E-07	1.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	2.8E-06	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	4.2E-06	1.6E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.05
				Chromium VI	0.130	mg/kg	3.1E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.5E-08	1.8E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00006
				Cobalt	1.90	mg/kg	4.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.009
				Iron	15,600	mg/kg	3.7E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.03
				Manganese	713	mg/kg	1.7E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.8E-04	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.04
				Thallium	0.680	mg/kg	1.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.3E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.09
				Vanadium	72.0	mg/kg	1.7E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.9E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.02
				Diesel Range Organics	1,400	mg/kg	3.3E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								8.7E-06					0.2
			Dermal	Trichloroethene	0.003	mg/kg	9.3E-11	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	4.3E-12	5.4E-10	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.000001
				Benzo(a)pyrene Equivalents	2.30	mg/kg	2.8E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.0E-06	1.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Naphthalene	0.370	mg/kg	4.5E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.6E-07	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.00001
				Aroclor-1260	1.20	mg/kg	1.6E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.1E-07	9.2E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	11.9	mg/kg	3.3E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	5.0E-07	2.0E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.007
				Chromium VI	0.130	mg/kg	1.2E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	2.4E-08	7.1E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00009
				Cobalt	1.90	mg/kg	1.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0003
				Iron	15,600	mg/kg	1.5E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.5E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.001
				Manganese	713	mg/kg	6.7E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.9E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.04
				Thallium	0.680	mg/kg	6.4E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.7E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.004
				Vanadium	72.0	mg/kg	6.7E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.9E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0008
				Diesel Range Organics	1,400	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.9E-06					0.05
		Exposure Point Total									1.2E-05					0.3
	Exposure Medium Total										1.2E-05					0.3
	Air	REC #11	Inhalation	Trichloroethene	1.1E-6	mg/m^3	1.8E-07	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	7.3E-10	1.0E-06	(mg/m^3)	2.0E-03	(mg/m^3)	0.0005
				Benzo(a)pyrene Equivalents	7.1E-10	mg/m^3	1.2E-10	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.3E-10	6.8E-10	(mg/m^3)	NA	(mg/m^3)	--
				Naphthalene	5.8E-6	mg/m^3	9.5E-07	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	3.2E-08	5.6E-06	(mg/m^3)	3.0E-03	(mg/m^3)	0.002
				Aroclor-1260	3.7E-10	mg/m^3	6.1E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	3.5E-11	3.6E-10	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	3.7E-9	mg/m^3	6.1E-10	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	2.6E-09	3.5E-09	(mg/m^3)	1.5E-05	(mg/m^3)	0.0002
				Chromium VI	4.0E-11	mg/m^3	6.6E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	5.6E-10	3.9E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000004
				Cobalt	5.9E-10	mg/m^3	9.7E-11	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	8.7E-10	5.6E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.00009
				Iron	4.8E-6	mg/m^3	7.9E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.6E-06	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	2.2E-7	mg/m^3	3.6E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.1E-07	(mg/m^3)	5.0E-05	(mg/m^3)	0.004
				Thallium	2.1E-10	mg/m^3	3.5E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.0E-10	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	2.2E-8	mg/m^3	3.7E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.1E-08	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	4.3E-7	mg/m^3	7.1E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	4.2E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								3.7E-08					0.007
		Exposure Point Total									3.7E-08					0.007
	Exposure Medium Total										3.7E-08					0.007
Medium Total											1.2E-05					0.3

TABLE 7.10.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	REC #11	Ingestion	Benzene	0.130	ug/L	6.1E-07	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	3.4E-08	3.6E-06	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.0009
				Trichloroethene	25.0	ug/L	1.2E-04	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	5.4E-06	6.8E-04	(mg/kg/day)	5.0E-04	(mg/kg/day)	1.4
				Vinyl Chloride	0.660	ug/L	3.1E-06	(mg/kg/day)	7.2E-01	$(mg/kg/day)^{-1}$	2.2E-06	1.8E-05	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.006
				Arsenic	11.0	ug/L	5.2E-05	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	7.7E-05	3.0E-04	(mg/kg/day)	3.0E-04	(mg/kg/day)	1.0
				Chromium VI	7.50	ug/L	3.5E-05	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.8E-05	2.1E-04	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.07
				Cobalt	210	ug/L	9.9E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.8E-03	(mg/kg/day)	3.0E-04	(mg/kg/day)	19
				Iron	20,800	ug/L	9.8E-02	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.7E-01	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.8
				Manganese	215	ug/L	1.0E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.9E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.2
				Nickel	380	ug/L	1.8E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.0E-02	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.5
				Thallium	1.10	ug/L	5.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.0E-05	(mg/kg/day)	1.0E-05	(mg/kg/day)	3.0
				Vanadium	48.0	ug/L	2.3E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-03	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.3
				Zinc	1,500	ug/L	7.0E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.1E-02	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.1
				Diesel Range Organics	360	ug/L	1.7E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	9.9E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.0E-04					27
			Dermal	Benzene	0.130	ug/L	9.3E-08	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	5.1E-09	5.4E-07	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.0001
				Trichloroethene	25.0	ug/L	2.0E-05	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	9.1E-07	1.2E-04	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.2
				Vinyl Chloride	0.660	ug/L	1.6E-07	(mg/kg/day)	7.2E-01	$(mg/kg/day)^{-1}$	1.2E-07	9.6E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.0003
				Arsenic	11.0	ug/L	2.7E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	4.0E-07	1.6E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Chromium VI	7.50	ug/L	3.7E-07	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	7.4E-06	2.1E-06	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.03
				Cobalt	210	ug/L	2.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-05	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.04
				Iron	20,800	ug/L	5.1E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.0E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.004
				Manganese	215	ug/L	5.3E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.1E-05	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.03
				Nickel	380	ug/L	1.9E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-05	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.01
				Thallium	1.10	ug/L	2.7E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-07	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.02
				Vanadium	48.0	ug/L	1.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.9E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.001
				Zinc	1,500	ug/L	2.2E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-04	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.0004
				Diesel Range Organics	360	ug/L	NA	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	NA	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								8.8E-06					0.4
		Exposure Point Total									1.1E-04					27
	Exposure Medium Total										1.1E-04					27
	Air	REC #11	Inhalation	Benzene	2.5E-4	mg/m^3	1.7E-06	(mg/m^3)	7.8E-06	$(ug/m^3)^{-1}$	1.4E-08	1.0E-05	(mg/m^3)	3.0E-02	(mg/m^3)	0.0003
				Trichloroethene	0.039	mg/m^3	2.7E-04	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	1.1E-06	1.6E-03	(mg/m^3)	2.0E-03	(mg/m^3)	0.8
				Vinyl Chloride	0.001	mg/m^3	1.0E-05	(mg/m^3)	4.4E-06	$(ug/m^3)^{-1}$	4.4E-08	5.9E-05	(mg/m^3)	1.0E-01	(mg/m^3)	0.0006
				Arsenic	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	1.5E-05	(mg/m^3)	--
				Chromium VI	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	1.0E-04	(mg/m^3)	--
				Cobalt	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	6.0E-06	(mg/m^3)	--
				Iron	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	5.0E-05	(mg/m^3)	--
				Nickel	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	2.6E-04	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	9.0E-05	(mg/m^3)	--
				Thallium	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Zinc	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								1.2E-06					0.8
		Exposure Point Total									1.2E-06					0.8
	Exposure Medium Total										1.2E-06					0.8
Medium Total											1.1E-04					28
										Total of Receptor Risks Across All Media	1.3E-04			Total of Receptor Hazards Across All Media		28

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 7.10.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Soil	Surface Soil	RECs #9 and #10	Ingestion	Benzo(a)pyrene Equivalents	7.80	mg/kg	1.8E-06	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	1.3E-05	1.1E-05	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	1.5E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.0E-08	8.6E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	6.8E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.0E-06	4.0E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.01
				Chromium VI	0.120	mg/kg	2.8E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.4E-08	1.6E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00005
				Cobalt	2.90	mg/kg	6.8E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.0E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.01
				Iron	8,400	mg/kg	2.0E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-02	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.02
				Manganese	2,200	mg/kg	5.2E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.0E-03	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.1
				Thallium	0.910	mg/kg	2.1E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.1
				Vanadium	24.0	mg/kg	5.6E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.3E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.007
				Diesel Range Organics	350	mg/kg	8.2E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.8E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.4E-05					0.3
			Dermal	Benzo(a)pyrene Equivalents	7.80	mg/kg	9.5E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	6.9E-06	5.5E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.063	mg/kg	8.3E-09	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.7E-08	4.8E-08	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	2.90	mg/kg	8.2E-08	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.2E-07	4.8E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.120	mg/kg	1.1E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	2.2E-08	6.6E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.00009
				Cobalt	2.90	mg/kg	2.7E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.6E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0005
				Iron	8,400	mg/kg	7.9E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.6E-04	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.0007
				Manganese	2,200	mg/kg	2.1E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.2E-04	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.1
				Thallium	0.910	mg/kg	8.5E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.0E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.005
				Vanadium	24.0	mg/kg	2.2E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.3E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0003
				Diesel Range Organics	350	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								7.1E-06					0.1
		Exposure Point Total									2.2E-05					0.4
	Exposure Medium Total										2.2E-05					0.4
	Air	RECs #9 and #10	Inhalation	Benzo(a)pyrene Equivalents	2.4E-9	mg/m^3	4.0E-10	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	4.4E-10	2.3E-09	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-11	mg/m^3	3.2E-12	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.8E-12	1.9E-11	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	9.0E-10	mg/m^3	1.5E-10	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	6.3E-10	8.6E-10	(mg/m^3)	1.5E-05	(mg/m^3)	0.00006
				Chromium VI	3.7E-11	mg/m^3	6.1E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	5.1E-10	3.6E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000004
				Cobalt	9.0E-10	mg/m^3	1.5E-10	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	1.3E-09	8.6E-10	(mg/m^3)	6.0E-06	(mg/m^3)	0.0001
				Iron	2.6E-6	mg/m^3	4.3E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.5E-06	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.8E-7	mg/m^3	1.1E-07	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	6.5E-07	(mg/m^3)	5.0E-05	(mg/m^3)	0.01
				Thallium	2.8E-10	mg/m^3	4.6E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.7E-10	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	7.4E-9	mg/m^3	1.2E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.1E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	1.1E-7	mg/m^3	1.8E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	1.0E-07	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.9E-09					0.01
		Exposure Point Total									2.9E-09					0.01
	Exposure Medium Total										2.9E-09					0.01
Medium Total											2.2E-05					0.4

TABLE 7.10.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Ingestion	Naphthalene	4.50	mg/kg	1.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.2E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0003
				Trichloroethene	0.360	mg/kg	8.5E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	3.9E-09	4.9E-07	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0010
				Benzo(a)pyrene Equivalents	2.20	mg/kg	5.2E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	3.8E-06	3.0E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	1.5E-07	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	3.0E-07	8.8E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	8.9E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.3E-06	5.2E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Chromium VI	0.150	mg/kg	3.5E-08	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.8E-08	2.1E-07	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.00007
				Cobalt	5.10	mg/kg	1.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	7.0E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.02
				Iron	1,020	mg/kg	2.4E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.002
				Manganese	2.00	mg/kg	4.7E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.7E-06	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.0001
				Thallium	0.810	mg/kg	1.9E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-06	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.1
				Vanadium	25.9	mg/kg	6.1E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.5E-05	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.007
				Diesel Range Organics	220	mg/kg	5.2E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.0E-04	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								5.4E-06					0.2
			Dermal	Naphthalene	4.50	mg/kg	5.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.2E-06	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.0002
				Trichloroethene	0.360	mg/kg	1.0E-08	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	4.7E-10	5.9E-08	(mg/kg/day)	5.0E-04	(mg/kg/day)	0.0001
				Benzo(a)pyrene Equivalents	2.20	mg/kg	2.7E-07	(mg/kg/day)	7.3E+00	$(mg/kg/day)^{-1}$	2.0E-06	1.6E-06	(mg/kg/day)	NA	(mg/kg/day)	--
				Aroclor-1260	0.640	mg/kg	8.4E-08	(mg/kg/day)	2.0E+00	$(mg/kg/day)^{-1}$	1.7E-07	4.9E-07	(mg/kg/day)	NA	(mg/kg/day)	--
				Arsenic	3.80	mg/kg	1.1E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	1.6E-07	6.2E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.002
				Chromium VI	0.150	mg/kg	1.4E-09	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	2.8E-08	8.2E-09	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.0001
				Cobalt	5.10	mg/kg	4.8E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.8E-07	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.0009
				Iron	1,020	mg/kg	9.6E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	5.6E-05	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.00008
				Manganese	2.00	mg/kg	1.9E-08	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-07	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.0001
				Thallium	0.810	mg/kg	7.6E-09	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.4E-08	(mg/kg/day)	1.0E-05	(mg/kg/day)	0.004
				Vanadium	25.9	mg/kg	2.4E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.4E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0003
				Diesel Range Organics	220	mg/kg	0.0E+00	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	0.0E+00	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.3E-06					0.008
		Exposure Point Total									7.7E-06					0.2
	Exposure Medium Total										7.7E-06					0.2
	Air	RECs #9 and #10	Inhalation	Naphthalene	7.1E-5	mg/m^3	1.2E-05	(mg/m^3)	3.4E-05	$(ug/m^3)^{-1}$	3.9E-07	6.8E-05	(mg/m^3)	3.0E-03	(mg/m^3)	0.02
				Trichloroethene	1.2E-4	mg/m^3	1.9E-05	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	8.0E-08	1.1E-04	(mg/m^3)	2.0E-03	(mg/m^3)	0.06
				Benzo(a)pyrene Equivalents	6.8E-10	mg/m^3	1.1E-10	(mg/m^3)	1.1E-03	$(ug/m^3)^{-1}$	1.2E-10	6.5E-10	(mg/m^3)	NA	(mg/m^3)	--
				Aroclor-1260	2.0E-10	mg/m^3	3.3E-11	(mg/m^3)	5.7E-04	$(ug/m^3)^{-1}$	1.9E-11	1.9E-10	(mg/m^3)	NA	(mg/m^3)	--
				Arsenic	1.2E-9	mg/m^3	1.9E-10	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	8.3E-10	1.1E-09	(mg/m^3)	1.5E-05	(mg/m^3)	0.00008
				Chromium VI	4.6E-11	mg/m^3	7.6E-12	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	6.4E-10	4.5E-11	(mg/m^3)	1.0E-04	(mg/m^3)	0.0000004
				Cobalt	1.6E-9	mg/m^3	2.6E-10	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	2.3E-09	1.5E-09	(mg/m^3)	6.0E-06	(mg/m^3)	0.0003
				Iron	3.2E-7	mg/m^3	5.2E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	3.0E-07	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	6.2E-10	mg/m^3	1.0E-10	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	5.9E-10	(mg/m^3)	5.0E-05	(mg/m^3)	0.00001
				Thallium	2.5E-10	mg/m^3	4.1E-11	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	2.4E-10	(mg/m^3)	NA	(mg/m^3)	--
				Vanadium	8.0E-9	mg/m^3	1.3E-09	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	7.7E-09	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	6.8E-8	mg/m^3	1.1E-08	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	6.5E-08	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								4.8E-07					0.08
		Exposure Point Total									4.8E-07					0.08
	Exposure Medium Total										4.8E-07					0.08
Medium Total											8.2E-06					0.3

TABLE 7.10.RME
CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Groundwater	Groundwater	RECs #9 and #10	Ingestion	Benzene	3.10	ug/L	1.5E-05	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	8.0E-07	8.5E-05	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.02
				Carbon Tetrachloride	2.60	ug/L	1.2E-05	(mg/kg/day)	7.0E-02	$(mg/kg/day)^{-1}$	8.5E-07	7.1E-05	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.02
				Chloroform	0.920	ug/L	4.3E-06	(mg/kg/day)	3.1E-02	$(mg/kg/day)^{-1}$	1.3E-07	2.5E-05	(mg/kg/day)	1.0E-02	(mg/kg/day)	0.003
				Trichloroethene	450	ug/L	2.1E-03	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	9.7E-05	1.2E-02	(mg/kg/day)	5.0E-04	(mg/kg/day)	25
				Arsenic	9.70	ug/L	4.6E-05	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	6.8E-05	2.7E-04	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.9
				Chromium VI	8.20	ug/L	3.9E-05	(mg/kg/day)	5.0E-01	$(mg/kg/day)^{-1}$	1.9E-05	2.2E-04	(mg/kg/day)	3.0E-03	(mg/kg/day)	0.07
				Cobalt	76.0	ug/L	3.6E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-03	(mg/kg/day)	3.0E-04	(mg/kg/day)	6.9
				Iron	13,600	ug/L	6.4E-02	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.7E-01	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.5
				Manganese	756	ug/L	3.6E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.1E-02	(mg/kg/day)	2.4E-02	(mg/kg/day)	0.9
				Nickel	53.0	ug/L	2.5E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-03	(mg/kg/day)	2.0E-02	(mg/kg/day)	0.07
				Vanadium	23.0	ug/L	1.1E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.3E-04	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.1
				Zinc	79.0	ug/L	3.7E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	2.2E-03	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.007
				Diesel Range Organics	1,600	ug/L	7.5E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.4E-02	(mg/kg/day)	NA	(mg/kg/day)	--
				Gasoline Range Organics	300	ug/L	1.4E-03	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	8.2E-03	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								1.9E-04					34
			Dermal	Benzene	3.10	ug/L	2.2E-06	(mg/kg/day)	5.5E-02	$(mg/kg/day)^{-1}$	1.2E-07	1.3E-05	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.003
				Carbon Tetrachloride	2.60	ug/L	3.3E-06	(mg/kg/day)	7.0E-02	$(mg/kg/day)^{-1}$	2.3E-07	1.9E-05	(mg/kg/day)	4.0E-03	(mg/kg/day)	0.005
				Chloroform	0.920	ug/L	3.9E-07	(mg/kg/day)	3.1E-02	$(mg/kg/day)^{-1}$	1.2E-08	2.3E-06	(mg/kg/day)	1.0E-02	(mg/kg/day)	0.0002
				Trichloroethene	450	ug/L	3.6E-04	(mg/kg/day)	4.6E-02	$(mg/kg/day)^{-1}$	1.6E-05	2.1E-03	(mg/kg/day)	5.0E-04	(mg/kg/day)	4.1
				Arsenic	9.70	ug/L	2.4E-07	(mg/kg/day)	1.5E+00	$(mg/kg/day)^{-1}$	3.6E-07	1.4E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.005
				Chromium VI	8.20	ug/L	4.0E-07	(mg/kg/day)	2.0E+01	$(mg/kg/day)^{-1}$	8.0E-06	2.3E-06	(mg/kg/day)	7.5E-05	(mg/kg/day)	0.03
				Cobalt	76.0	ug/L	7.5E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	4.3E-06	(mg/kg/day)	3.0E-04	(mg/kg/day)	0.01
				Iron	13,600	ug/L	3.3E-04	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.9E-03	(mg/kg/day)	7.0E-01	(mg/kg/day)	0.003
				Manganese	756	ug/L	1.9E-05	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.1E-04	(mg/kg/day)	9.6E-04	(mg/kg/day)	0.1
				Nickel	53.0	ug/L	2.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	1.5E-06	(mg/kg/day)	8.0E-04	(mg/kg/day)	0.002
				Vanadium	23.0	ug/L	5.6E-07	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	3.3E-06	(mg/kg/day)	5.0E-03	(mg/kg/day)	0.0007
				Zinc	79.0	ug/L	1.2E-06	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	6.8E-06	(mg/kg/day)	3.0E-01	(mg/kg/day)	0.00002
				Diesel Range Organics	1,600	ug/L	NA	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	NA	(mg/kg/day)	NA	(mg/kg/day)	--
				Gasoline Range Organics	300	ug/L	NA	(mg/kg/day)	NA	$(mg/kg/day)^{-1}$	- -	NA	(mg/kg/day)	NA	(mg/kg/day)	--
			Exp. Route Total								2.5E-05					4.3
		Exposure Point Total									2.1E-04					39
	Exposure Medium Total										2.1E-04					39
	Air	RECs #9 and #10	Inhalation	Benzene	0.006	mg/m^3	4.1E-05	(mg/m^3)	7.8E-06	$(ug/m^3)^{-1}$	3.2E-07	2.4E-04	(mg/m^3)	3.0E-02	(mg/m^3)	0.008
				Carbon Tetrachloride	0.004	mg/m^3	2.6E-05	(mg/m^3)	6.0E-06	$(ug/m^3)^{-1}$	1.6E-07	1.5E-04	(mg/m^3)	1.0E-01	(mg/m^3)	0.002
				Chloroform	0.001	mg/m^3	9.9E-06	(mg/m^3)	2.3E-05	$(ug/m^3)^{-1}$	2.3E-07	5.8E-05	(mg/m^3)	9.8E-02	(mg/m^3)	0.0006
				Trichloroethene	0.702	mg/m^3	4.8E-03	(mg/m^3)	4.1E-06	$(ug/m^3)^{-1}$	2.0E-05	2.8E-02	(mg/m^3)	2.0E-03	(mg/m^3)	14
				Arsenic	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	4.3E-03	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	1.5E-05	(mg/m^3)	--
				Chromium VI	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	8.4E-02	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	1.0E-04	(mg/m^3)	--
				Cobalt	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	9.0E-03	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	6.0E-06	(mg/m^3)	--
				Iron	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Manganese	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	5.0E-05	(mg/m^3)	--
				Nickel	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	2.6E-04	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	9.0E-05	(mg/m^3)	--
				Vanadium	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Zinc	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Diesel Range Organics	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
				Gasoline Range Organics	0.0E+0	mg/m^3	0.0E+00	(mg/m^3)	NA	$(ug/m^3)^{-1}$	- -	0.0E+00	(mg/m^3)	NA	(mg/m^3)	--
			Exp. Route Total								2.0E-05					14
		Exposure Point Total									2.0E-05					14
	Exposure Medium Total										2.0E-05					14
Medium Total											2.3E-04					53
										Total of Receptor Risks Across All Media	2.6E-04			Total of Receptor Hazards Across All Media		53

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

RAGS Part D Table 9

Summary of Receptor Risks and Hazards for COPC

LIST OF TABLES
RAGS PART D TABLE 9
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPC

Table No.	
	REASONABLE MAXIMUM EXPOSURES
9.1.RME	Construction Worker
9.2.RME	Industrial Worker
9.3.RME	Child Trespasser
9.4.RME	Adolescent Trespasser
9.5.RME	Child Recreational User
9.6.RME	Adolescent Recreational User
9.7.RME	Adult Recreational User
9.8.RME	Lifelong Recreational User
9.9.RME	Child Resident
9.10.RME	Adolescent Resident
9.11.RME	Adult Resident
9.12.RME	Lifelong Resident

Note: Tables are sub-area-specific.

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	REC #11	Benzo(a)pyrene Equivalents	9E-07	--	2E-07	--	1E-06	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	6E-08	--	1E-08	--	7E-08	NA	--	--	--	--
			Aroclor-1260	2E-07	--	6E-08	--	3E-07	NA	--	--	--	--
			Arsenic	3E-07	--	2E-08	--	4E-07	Skin, CVS	0.05	--	0.003	0.05
			Chromium VI	5E-09	--	4E-09	--	9E-09	None Reported	0.00003	--	0.00003	0.00006
			Cobalt	- -	--	- -	--	- -	Thyroid	0.006	--	0.0001	0.006
			Iron	- -	--	- -	--	- -	GS	0.07	--	0.001	0.07
			Manganese	- -	--	- -	--	- -	CNS	0.07	--	0.04	0.1
			Thallium	- -	--	- -	--	- -	Skin	0.1	--	0.002	0.1
			Vanadium	- -	--	- -	--	- -	Kidney	0.02	--	0.0005	0.02
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	1E-06	--	3E-07	--	2E-06		0.3	--	0.04	0.4
		Exposure Point Total						2E-06					0.4
	Exposure Medium Total							2E-06					0.4
	Air	REC #11	Benzo(a)pyrene Equivalents	--	5E-09	--	--	5E-09	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	--	5E-10	--	--	5E-10	NA	--	--	--	--
			Aroclor-1260	--	2E-09	--	--	2E-09	NA	--	--	--	--
			Arsenic	--	3E-08	--	--	3E-08	Skin, CVS	--	0.04	--	0.04
			Chromium VI	--	3E-08	--	--	3E-08	Respiratory	--	0.0002	--	0.0002
			Cobalt	--	8E-08	--	--	8E-08	Respiratory	--	0.03	--	0.03
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	1	--	1
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	1E-07	--	--	1E-07		- -	1	- -	1
		Exposure Point Total						1E-07					1
	Exposure Medium Total							1E-07					1
Medium Total								2E-06					2

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	REC #11	Trichloroethene	1E-11	--	6E-13	--	1E-11	CVS, Fetotoxicity, Immu	0.00003	--	0.000002	0.00003
			Benzo(a)pyrene Equivalents	1E-06	--	3E-07	--	1E-06	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	CNS	0.000003	--	0.0000008	0.000004
			Aroclor-1260	2E-07	--	5E-08	--	2E-07	NA	--	--	--	--
			Arsenic	1E-06	--	7E-08	--	1E-06	Skin, CVS	0.2	--	0.01	0.2
			Chromium VI	4E-09	--	4E-09	--	8E-09	None Reported	0.00003	--	0.00003	0.00006
			Cobalt	- -	--	- -	--	- -	Thyroid	0.003	--	0.00006	0.003
			Iron	- -	--	- -	--	- -	GS	0.1	--	0.002	0.1
			Manganese	- -	--	- -	--	- -	CNS	0.1	--	0.07	0.2
			Thallium	- -	--	- -	--	- -	Skin	0.08	--	0.002	0.08
			Vanadium	- -	--	- -	--	- -	Kidney	0.07	--	0.001	0.07
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-06	--	4E-07	--	3E-06		0.6	--	0.09	0.7
		Exposure Point Total						3E-06					0.7
	Exposure Medium Total							3E-06					0.7
	Air	REC #11	Trichloroethene	--	9E-11	--	--	9E-11	CNS	--	0.000003	--	0.000003
			Benzo(a)pyrene Equivalents	--	6E-09	--	--	6E-09	NA	--	--	--	--
			Naphthalene	--	4E-09	--	--	4E-09	Respiratory	--	0.003	--	0.003
			Aroclor-1260	--	2E-09	--	--	2E-09	NA	--	--	--	--
			Arsenic	--	1E-07	--	--	1E-07	Skin, CVS	--	0.1	--	0.1
			Chromium VI	--	2E-08	--	--	2E-08	Respiratory	--	0.0002	--	0.0002
			Cobalt	--	4E-08	--	--	4E-08	Respiratory	--	0.02	--	0.02
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	2	--	2
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-07	--	--	2E-07		- -	2	- -	2
		Exposure Point Total						2E-07					2
	Exposure Medium Total							2E-07					2
Medium Total								3E-06					3

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	Groundwater	REC #11	Benzene	7E-12	--	8E-11	--	9E-11	Blood	0.0000009	--	0.000010	0.00001
			Trichloroethene	1E-09	--	1E-08	--	1E-08	/S, Fetotoxicity, Immu	0.004	--	0.03	0.04
			Vinyl Chloride	5E-10	--	2E-09	--	2E-09	Liver	0.00002	--	0.00006	0.00008
			Arsenic	2E-08	--	1E-08	--	3E-08	Skin, CVS	0.003	--	0.002	0.004
			Chromium VI	4E-09	--	2E-07	--	2E-07	None Reported	0.00003	--	0.001	0.001
			Cobalt	- -	--	- -	--	- -	Thyroid	0.005	--	0.001	0.006
			Iron	- -	--	- -	--	- -	GS	0.002	--	0.001	0.003
			Manganese	- -	--	- -	--	- -	CNS	0.0006	--	0.01	0.01
			Nickel	- -	--	- -	--	- -	Body Weight	0.001	--	0.004	0.006
			Thallium	- -	--	- -	--	- -	Skin	0.002	--	0.001	0.003
			Vanadium	- -	--	- -	--	- -	Kidney	0.0007	--	0.0004	0.001
			Zinc	- -	--	- -	--	- -	Blood	0.0004	--	0.0001	0.0005
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-08	--	2E-07	--	2E-07		0.02	--	0.06	0.07
		Exposure Point Total						2E-07					0.07
	Exposure Medium Total							2E-07					0.07
	Air	REC #11	Benzene	--	2E-11	--	--	2E-11	Blood	--	0.000003	--	0.000003
			Trichloroethene	--	2E-09	--	--	2E-09	CNS	--	0.00006	--	0.00006
			Vinyl Chloride	--	8E-11	--	--	8E-11	Liver	--	0.00002	--	0.00002
			Arsenic	--	- -	--	--	- -	Skin, CVS	--	--	--	--
			Chromium VI	--	- -	--	--	- -	Respiratory	--	--	--	--
			Cobalt	--	- -	--	--	- -	Respiratory	--	--	--	--
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	--	--	--
			Nickel	--	- -	--	--	- -	Respiratory	--	--	--	--
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Zinc	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-09	--	--	2E-09		- -	0.00008	- -	0.00008
		Exposure Point Total						2E-09					0.00008
	Exposure Medium Total							2E-09					0.00008
Medium Total								2E-07					0.07
Receptor Total							Receptor Risk Total	5E-06				Receptor HI Total	5

Total Blood HI	0.0005
Total Body Weight HI	0.006
Total CNS HI	4
Total CVS HI	0.5
Total Fetotoxicity HI	0.04
Total GS HI	0.2
Total Immune HI	0.04
Total Kidney HI	0.09
Total Liver HI	0.00010
Total Respiratory HI	0.05
Total None Reported HI	0.002
Total Skin HI	0.6
Total Thyroid HI	0.02

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #9 and #10	Benzo(a)pyrene Equivalents	4E-06	--	1E-06	--	5E-06	NA	--	--	--	--
			Aroclor-1260	8E-09	--	2E-09	--	1E-08	NA	--	--	--	--
			Arsenic	3E-07	--	2E-08	--	3E-07	Skin, CVS	0.05	--	0.003	0.05
			Chromium VI	4E-09	--	3E-09	--	7E-09	None Reported	0.00003	--	0.00002	0.00005
			Cobalt	- -	--	- -	--	- -	Thyroid	0.005	--	0.00009	0.005
			Iron	- -	--	- -	--	- -	GS	0.06	--	0.001	0.06
			Manganese	- -	--	- -	--	- -	CNS	0.4	--	0.2	0.7
			Thallium	- -	--	- -	--	- -	Skin	0.1	--	0.002	0.1
			Vanadium	- -	--	- -	--	- -	Kidney	0.02	--	0.0005	0.02
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	4E-06	--	1E-06	--	5E-06		0.7	--	0.2	0.9
		Exposure Point Total						5E-06					0.9
	Exposure Medium Total							5E-06					0.9
	Air	RECs #9 and #10	Benzo(a)pyrene Equivalents	--	2E-08	--	--	2E-08	NA	--	--	--	--
			Aroclor-1260	--	8E-11	--	--	8E-11	NA	--	--	--	--
			Arsenic	--	3E-08	--	--	3E-08	Skin, CVS	--	0.03	--	0.03
			Chromium VI	--	2E-08	--	--	2E-08	Respiratory	--	0.0002	--	0.0002
			Cobalt	--	6E-08	--	--	6E-08	Respiratory	--	0.02	--	0.02
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	7	--	7
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	1E-07	--	--	1E-07		- -	7	- -	7
		Exposure Point Total						1E-07					7
	Exposure Medium Total							1E-07					7
Medium Total								5E-06					8

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Naphthalene	- -	--	- -	--	- -	CNS	0.00004	--	0.000009	0.00004
			Trichloroethene	1E-09	--	7E-11	--	1E-09	/S, Fetotoxicity, Immu	0.003	--	0.0002	0.004
			Benzo(a)pyrene Equivalents	1E-06	--	3E-07	--	1E-06	NA	--	--	--	--
			Aroclor-1260	9E-08	--	2E-08	--	1E-07	NA	--	--	--	--
			Arsenic	4E-07	--	2E-08	--	4E-07	Skin, CVS	0.06	--	0.004	0.06
			Chromium VI	5E-09	--	4E-09	--	9E-09	None Reported	0.00004	--	0.00003	0.00006
			Cobalt	- -	--	- -	--	- -	Thyroid	0.008	--	0.0002	0.008
			Iron	- -	--	- -	--	- -	GS	0.007	--	0.0001	0.007
			Manganese	- -	--	- -	--	- -	CNS	0.0004	--	0.0002	0.0006
			Thallium	- -	--	- -	--	- -	Skin	0.10	--	0.002	0.10
			Vanadium	- -	--	- -	--	- -	Kidney	0.02	--	0.0005	0.02
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-06	--	3E-07	--	2E-06		0.2	--	0.007	0.2
		Exposure Point Total						2E-06					0.2
	Exposure Medium Total							2E-06					0.2
	Air	RECs #9 and #10	Naphthalene	--	5E-08	--	--	5E-08	Respiratory	--	0.03	--	0.03
			Trichloroethene	--	1E-08	--	--	1E-08	CNS	--	0.0003	--	0.0003
			Benzo(a)pyrene Equivalents	--	6E-09	--	--	6E-09	NA	--	--	--	--
			Aroclor-1260	--	8E-10	--	--	8E-10	NA	--	--	--	--
			Arsenic	--	4E-08	--	--	4E-08	Skin, CVS	--	0.04	--	0.04
			Chromium VI	--	3E-08	--	--	3E-08	Respiratory	--	0.0002	--	0.0002
			Cobalt	--	1E-07	--	--	1E-07	Respiratory	--	0.04	--	0.04
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.006	--	0.006
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-07	--	--	2E-07		- -	0.1	- -	0.1
		Exposure Point Total						2E-07					0.1
	Exposure Medium Total							2E-07					0.1
Medium Total								2E-06					0.3

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	Groundwater	RECs #9 and #10	Benzene	2E-10	--	2E-09	--	2E-09	Blood	0.00002	--	0.0002	0.0003
			Carbon Tetrachloride	2E-10	--	3E-09	--	3E-09	Liver	0.00003	--	0.0004	0.0004
			Chloroform	3E-11	--	2E-10	--	2E-10	Liver	0.0000006	--	0.000004	0.000004
			Trichloroethene	2E-08	--	2E-07	--	2E-07	/S, Fetotoxicity, Immu	0.06	--	0.6	0.7
			Arsenic	1E-08	--	1E-08	--	2E-08	Skin, CVS	0.002	--	0.002	0.004
			Chromium VI	4E-09	--	2E-07	--	2E-07	None Reported	0.00003	--	0.002	0.002
			Cobalt	- -	--	- -	--	- -	Thyroid	0.002	--	0.0005	0.002
			Iron	- -	--	- -	--	- -	GS	0.001	--	0.0009	0.002
			Manganese	- -	--	- -	--	- -	CNS	0.002	--	0.04	0.04
			Nickel	- -	--	- -	--	- -	Body Weight	0.0002	--	0.0006	0.0008
			Vanadium	- -	--	- -	--	- -	Kidney	0.0003	--	0.0002	0.0005
			Zinc	- -	--	- -	--	- -	Blood	0.00002	--	0.000007	0.00003
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Gasoline Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	4E-08	--	4E-07	--	5E-07		0.07	--	0.7	0.7
		Exposure Point Total						5E-07					0.7
	Exposure Medium Total							5E-07					0.7
	Air	RECs #9 and #10	Benzene	--	6E-10	--	--	6E-10	Blood	--	0.00007	--	0.00007
			Carbon Tetrachloride	--	3E-10	--	--	3E-10	Liver	--	0.00002	--	0.00002
			Chloroform	--	4E-10	--	--	4E-10	Liver	--	0.000005	--	0.000005
			Trichloroethene	--	3E-08	--	--	3E-08	CNS	--	0.001	--	0.001
			Arsenic	--	- -	--	--	- -	Skin, CVS	--	--	--	--
			Chromium VI	--	- -	--	--	- -	Respiratory	--	--	--	--
			Cobalt	--	- -	--	--	- -	Respiratory	--	--	--	--
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	--	--	--
			Nickel	--	- -	--	--	- -	Respiratory	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Zinc	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Gasoline Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	4E-08	--	--	4E-08		- -	0.001	- -	0.001
		Exposure Point Total						4E-08					0.001
	Exposure Medium Total							4E-08					0.001
Medium Total								5E-07					0.7
Receptor Total							Receptor Risk Total	8E-06				Receptor HI Total	9

TABLE 9.1.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Construction Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

Total Blood HI	0.0004
Total Body Weight HI	0.0008
Total CNS HI	8
Total CVS HI	0.9
Total Fetotoxicity HI	0.7
Total GS HI	0.07
Total Immune HI	0.7
Total Kidney HI	0.05
Total Liver HI	0.0004
Total Respiratory HI	0.10
Total None Reported HI	0.002
Total Skin HI	0.4
Total Thyroid HI	0.02

TABLE 9.2.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	REC #11	Benzo(a)pyrene Equivalents	2E-06	--	4E-06	--	6E-06	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	1E-07	--	2E-07	--	3E-07	NA	--	--	--	--
			Aroclor-1260	6E-07	--	1E-06	--	2E-06	NA	--	--	--	--
			Arsenic	9E-07	--	3E-07	--	1E-06	Skin, CVS	0.005	--	0.002	0.008
			Chromium VI	1E-08	--	6E-08	--	8E-08	None Reported	0.00002	--	0.0001	0.0001
			Cobalt	- -	--	- -	--	- -	Blood	0.006	--	0.0008	0.007
			Iron	- -	--	- -	--	- -	GS	0.007	--	0.0009	0.008
			Manganese	- -	--	- -	--	- -	CNS	0.008	--	0.02	0.03
			Thallium	- -	--	- -	--	- -	Skin	0.05	--	0.006	0.05
			Vanadium	- -	--	- -	--	- -	Kidney	0.002	--	0.0003	0.003
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	4E-06	--	6E-06	--	9E-06		0.07	--	0.04	0.1
		Exposure Point Total						9E-06					0.1
	Exposure Medium Total							9E-06					0.1
	Air	REC #11	Benzo(a)pyrene Equivalents	--	5E-11	--	--	5E-11	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	--	6E-12	--	--	6E-12	NA	--	--	--	--
			Aroclor-1260	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Arsenic	--	4E-10	--	--	4E-10	Skin, CVS	--	0.00002	--	0.00002
			Chromium VI	--	3E-10	--	--	3E-10	Respiratory	--	0.00000010	--	0.00000010
			Cobalt	--	9E-10	--	--	9E-10	Respiratory	--	0.00004	--	0.00004
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0005	--	0.0005
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-09	--	--	2E-09		- -	0.0006	- -	0.0006
		Exposure Point Total						2E-09					0.0006
	Exposure Medium Total							2E-09					0.0006
Medium Total								9E-06					0.1

TABLE 9.2.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	REC #11	Trichloroethene	3E-11	--	1E-11	--	4E-11	VS, Fetotoxicity, Immu	0.000003	--	0.000001	0.000005
			Benzo(a)pyrene Equivalents	3E-06	--	5E-06	--	8E-06	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.000009	--	0.00002	0.00002
			Aroclor-1260	4E-07	--	8E-07	--	1E-06	NA	--	--	--	--
			Arsenic	3E-06	--	1E-06	--	4E-06	Skin, CVS	0.02	--	0.008	0.03
			Chromium VI	1E-08	--	6E-08	--	7E-08	None Reported	0.00002	--	0.0001	0.0001
			Cobalt	- -	--	- -	--	- -	Blood	0.003	--	0.0004	0.004
			Iron	- -	--	- -	--	- -	GS	0.01	--	0.001	0.01
			Manganese	- -	--	- -	--	- -	CNS	0.01	--	0.05	0.06
			Thallium	- -	--	- -	--	- -	Skin	0.03	--	0.004	0.04
			Vanadium	- -	--	- -	--	- -	Kidney	0.007	--	0.0009	0.008
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	6E-06	--	7E-06	--	1E-05		0.09	--	0.06	0.2
		Exposure Point Total						1E-05					0.2
	Exposure Medium Total							1E-05					0.2
	Air	REC #11	Trichloroethene	--	4E-10	--	--	4E-10	CVS, Immune	--	0.0001	--	0.0001
			Benzo(a)pyrene Equivalents	--	6E-11	--	--	6E-11	NA	--	--	--	--
			Naphthalene	--	2E-08	--	--	2E-08	Respiratory	--	0.0004	--	0.0004
			Aroclor-1260	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Arsenic	--	1E-09	--	--	1E-09	Skin, CVS	--	0.00006	--	0.00006
			Chromium VI	--	3E-10	--	--	3E-10	Respiratory	--	0.00000009	--	0.00000009
			Cobalt	--	4E-10	--	--	4E-10	Respiratory	--	0.00002	--	0.00002
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.001	--	0.001
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-08	--	--	2E-08		- -	0.002	- -	0.002
		Exposure Point Total						2E-08					0.002
	Exposure Medium Total							2E-08					0.002
Medium Total								1E-05					0.2
Receptor Total							Receptor Risk Total	2E-05				Receptor HI Total	0.3

Total Blood HI	0.01
Total Body Weight HI	0.00002
Total CNS HI	0.10
Total CVS HI	0.03
Total Fetotoxicity HI	0.000005
Total GS HI	0.02
Total Immune HI	0.0001
Total Kidney HI	0.01
Total Respiratory HI	0.0005
Total None Reported HI	0.0003
Total Skin HI	0.1

TABLE 9.2.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #9 and #10	Benzo(a)pyrene Equivalents	1E-05	--	2E-05	--	3E-05	NA	--	--	--	--
			Aroclor-1260	2E-08	--	4E-08	--	6E-08	NA	--	--	--	--
			Arsenic	8E-07	--	3E-07	--	1E-06	Skin, CVS	0.005	--	0.002	0.007
			Chromium VI	1E-08	--	6E-08	--	7E-08	None Reported	0.00002	--	0.0001	0.0001
			Cobalt	- -	--	- -	--	- -	Blood	0.005	--	0.0006	0.005
			Iron	- -	--	- -	--	- -	GS	0.006	--	0.0008	0.007
			Manganese	- -	--	- -	--	- -	CNS	0.04	--	0.1	0.2
			Thallium	- -	--	- -	--	- -	Skin	0.04	--	0.006	0.05
			Vanadium	- -	--	- -	--	- -	Kidney	0.002	--	0.0003	0.003
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	1E-05	--	2E-05	--	3E-05		0.1	--	0.2	0.3
		Exposure Point Total						3E-05					0.3
	Exposure Medium Total							3E-05					0.3
	Air	RECs #9 and #10	Benzo(a)pyrene Equivalents	--	2E-10	--	--	2E-10	NA	--	--	--	--
			Aroclor-1260	--	9E-13	--	--	9E-13	NA	--	--	--	--
			Arsenic	--	3E-10	--	--	3E-10	Skin, CVS	--	0.00001	--	0.00001
			Chromium VI	--	3E-10	--	--	3E-10	Respiratory	--	0.00000008	--	0.00000008
			Cobalt	--	7E-10	--	--	7E-10	Respiratory	--	0.00003	--	0.00003
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.003	--	0.003
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	1E-09	--	--	1E-09		- -	0.003	- -	0.003
		Exposure Point Total						1E-09					0.003
	Exposure Medium Total							1E-09					0.003
Medium Total								3E-05					0.3

TABLE 9.2.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Industrial Workers
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Naphthalene	- -	--	- -	--	- -	Body Weight	0.0001	--	0.0002	0.0003
			Trichloroethene	3E-09	--	1E-09	--	4E-09	VS, Fetotoxicity, Immu	0.0004	--	0.0001	0.0005
			Benzo(a)pyrene Equivalents	3E-06	--	5E-06	--	8E-06	NA	--	--	--	--
			Aroclor-1260	2E-07	--	4E-07	--	6E-07	NA	--	--	--	--
			Arsenic	1E-06	--	4E-07	--	1E-06	Skin, CVS	0.006	--	0.002	0.009
			Chromium VI	1E-08	--	7E-08	--	8E-08	None Reported	0.00002	--	0.0001	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.008	--	0.001	0.009
			Iron	- -	--	- -	--	- -	GS	0.0007	--	0.00009	0.0008
			Manganese	- -	--	- -	--	- -	CNS	0.00004	--	0.0001	0.0002
			Thallium	- -	--	- -	--	- -	Skin	0.04	--	0.005	0.04
			Vanadium	- -	--	- -	--	- -	Kidney	0.003	--	0.0003	0.003
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	4E-06	--	6E-06	--	1E-05		0.06	--	0.010	0.07
		Exposure Point Total						1E-05					0.07
	Exposure Medium Total							1E-05					0.07
	Air	RECs #9 and #10	Naphthalene	--	2E-07	--	--	2E-07	Respiratory	--	0.005	--	0.005
			Trichloroethene	--	4E-08	--	--	4E-08	CVS, Immune	--	0.01	--	0.01
			Benzo(a)pyrene Equivalents	--	6E-11	--	--	6E-11	NA	--	--	--	--
			Aroclor-1260	--	9E-12	--	--	9E-12	NA	--	--	--	--
			Arsenic	--	4E-10	--	--	4E-10	Skin, CVS	--	0.00002	--	0.00002
			Chromium VI	--	3E-10	--	--	3E-10	Respiratory	--	0.0000001	--	0.0000001
			Cobalt	--	1E-09	--	--	1E-09	Respiratory	--	0.00006	--	0.00006
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.000003	--	0.000003
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-07	--	--	2E-07		- -	0.02	- -	0.02
		Exposure Point Total						2E-07					0.02
	Exposure Medium Total							2E-07					0.02
Medium Total								1E-05					0.09
Receptor Total							Receptor Risk Total	4E-05				Receptor HI Total	0.4

Total Blood HI	0.01
Total Body Weight HI	0.0003
Total CNS HI	0.2
Total CVS HI	0.03
Total Fetotoxicity HI	0.0005
Total GS HI	0.007
Total Immune HI	0.01
Total Kidney HI	0.006
Total Respiratory HI	0.005
Total None Reported HI	0.0003
Total Skin HI	0.1

TABLE 9.3.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	REC #11	Benzo(a)pyrene Equivalents	1E-05	--	6E-06	--	2E-05	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	1E-07	--	5E-08	--	2E-07	NA	--	--	--	--
			Aroclor-1260	5E-07	--	3E-07	--	8E-07	NA	--	--	--	--
			Arsenic	8E-07	--	9E-08	--	9E-07	Skin, CVS	0.02	--	0.002	0.02
			Chromium VI	6E-08	--	9E-08	--	2E-07	None Reported	0.00009	--	0.0001	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.02	--	0.0009	0.02
			Iron	- -	--	- -	--	- -	GS	0.03	--	0.001	0.03
			Manganese	- -	--	- -	--	- -	CNS	0.03	--	0.03	0.06
			Thallium	- -	--	- -	--	- -	Skin	0.2	--	0.007	0.2
			Vanadium	- -	--	- -	--	- -	Kidney	0.009	--	0.0004	0.010
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	1E-05	--	6E-06	--	2E-05		0.3	--	0.04	0.3
		Exposure Point Total						2E-05					0.3
	Exposure Medium Total							2E-05					0.3
	Air	REC #11	Benzo(a)pyrene Equivalents	--	1E-11	--	--	1E-11	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	--	3E-13	--	--	3E-13	NA	--	--	--	--
			Aroclor-1260	--	1E-12	--	--	1E-12	NA	--	--	--	--
			Arsenic	--	2E-11	--	--	2E-11	Skin, CVS	--	0.000003	--	0.000003
			Chromium VI	--	8E-11	--	--	8E-11	Respiratory	--	0.00000002	--	0.00000002
			Cobalt	--	4E-11	--	--	4E-11	Respiratory	--	0.000009	--	0.000009
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0001	--	0.0001
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-10	--	--	2E-10		- -	0.0001	- -	0.0001
		Exposure Point Total						2E-10					0.0001
	Exposure Medium Total							2E-10					0.0001
Medium Total								2E-05					0.3

TABLE 9.3.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	REC #11	Trichloroethene	2E-11	--	3E-12	--	3E-11	CVS, Fetotoxicity, Immu	0.00001	--	0.000001	0.00001
			Benzo(a)pyrene Equivalents	1E-05	--	7E-06	--	2E-05	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.00004	--	0.00002	0.00005
			Aroclor-1260	4E-07	--	2E-07	--	6E-07	NA	--	--	--	--
			Arsenic	3E-06	--	3E-07	--	3E-06	Skin, CVS	0.08	--	0.009	0.08
			Chromium VI	6E-08	--	9E-08	--	1E-07	None Reported	0.00008	--	0.0001	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.01	--	0.0005	0.01
			Iron	- -	--	- -	--	- -	GS	0.04	--	0.002	0.04
			Manganese	- -	--	- -	--	- -	CNS	0.06	--	0.05	0.1
			Thallium	- -	--	- -	--	- -	Skin	0.1	--	0.005	0.1
			Vanadium	- -	--	- -	--	- -	Kidney	0.03	--	0.001	0.03
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-05	--	8E-06	--	3E-05		0.3	--	0.07	0.4
		Exposure Point Total						3E-05					0.4
	Exposure Medium Total							3E-05					0.4
	Air	REC #11	Trichloroethene	--	2E-11	--	--	2E-11	CVS, Immune	--	0.00003	--	0.00003
			Benzo(a)pyrene Equivalents	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Naphthalene	--	8E-10	--	--	8E-10	Respiratory	--	0.00009	--	0.00009
			Aroclor-1260	--	9E-13	--	--	9E-13	NA	--	--	--	--
			Arsenic	--	6E-11	--	--	6E-11	Skin, CVS	--	0.00001	--	0.00001
			Chromium VI	--	7E-11	--	--	7E-11	Respiratory	--	0.00000002	--	0.00000002
			Cobalt	--	2E-11	--	--	2E-11	Respiratory	--	0.000005	--	0.000005
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0002	--	0.0002
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	1E-09	--	--	1E-09		- -	0.0003	- -	0.0003
		Exposure Point Total						1E-09					0.0003
	Exposure Medium Total							1E-09					0.0003
Medium Total								3E-05					0.4
Receptor Total							Receptor Risk Total	4E-05				Receptor HI Total	0.7

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	0.04
Total Body Weight HI	0.00005
Total CNS HI	0.2
Total CVS HI	0.1
Total Fetotoxicity HI	0.00001
Total GS HI	0.07
Total Immune HI	0.00004
Total Kidney HI	0.04
Total Respiratory HI	0.0001
Total None Reported HI	0.0004
Total Skin HI	0.4

TABLE 9.3.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #9 and #10	Benzo(a)pyrene Equivalents	5E-05	--	2E-05	--	7E-05	NA	--	--	--	--
			Aroclor-1260	2E-08	--	1E-08	--	3E-08	NA	--	--	--	--
			Arsenic	7E-07	--	8E-08	--	8E-07	Skin, CVS	0.02	--	0.002	0.02
			Chromium VI	5E-08	--	8E-08	--	1E-07	None Reported	0.00008	--	0.0001	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.02	--	0.0007	0.02
			Iron	- -	--	- -	--	- -	GS	0.02	--	0.0009	0.02
			Manganese	- -	--	- -	--	- -	CNS	0.2	--	0.2	0.3
			Thallium	- -	--	- -	--	- -	Skin	0.2	--	0.007	0.2
			Vanadium	- -	--	- -	--	- -	Kidney	0.009	--	0.0003	0.009
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	5E-05	--	2E-05	--	7E-05		0.4	--	0.2	0.6
		Exposure Point Total						7E-05					0.6
	Exposure Medium Total							7E-05					0.6
	Air	RECs #9 and #10	Benzo(a)pyrene Equivalents	--	6E-11	--	--	6E-11	NA	--	--	--	--
			Aroclor-1260	--	5E-14	--	--	5E-14	NA	--	--	--	--
			Arsenic	--	2E-11	--	--	2E-11	Skin, CVS	--	0.000003	--	0.000003
			Chromium VI	--	7E-11	--	--	7E-11	Respiratory	--	0.00000002	--	0.00000002
			Cobalt	--	3E-11	--	--	3E-11	Respiratory	--	0.000007	--	0.000007
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0006	--	0.0006
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-10	--	--	2E-10		- -	0.0007	- -	0.0007
		Exposure Point Total						2E-10					0.0007
	Exposure Medium Total							2E-10					0.0007
Medium Total								7E-05					0.6

TABLE 9.3.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Naphthalene	- -	--	- -	--	- -	Body Weight	0.0004	--	0.0002	0.0006
			Trichloroethene	3E-09	--	3E-10	--	3E-09	/S, Fetotoxicity, Immu	0.001	--	0.0002	0.002
			Benzo(a)pyrene Equivalents	1E-05	--	7E-06	--	2E-05	NA	--	--	--	--
			Aroclor-1260	2E-07	--	1E-07	--	3E-07	NA	--	--	--	--
			Arsenic	9E-07	--	1E-07	--	1E-06	Skin, CVS	0.02	--	0.003	0.03
			Chromium VI	7E-08	--	1E-07	--	2E-07	None Reported	0.00009	--	0.0001	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.03	--	0.001	0.03
			Iron	- -	--	- -	--	- -	GS	0.003	--	0.0001	0.003
			Manganese	- -	--	- -	--	- -	CNS	0.0002	--	0.0001	0.0003
			Thallium	- -	--	- -	--	- -	Skin	0.2	--	0.006	0.2
			Vanadium	- -	--	- -	--	- -	Kidney	0.010	--	0.0004	0.01
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-05	--	7E-06	--	2E-05		0.2	--	0.01	0.2
		Exposure Point Total						2E-05					0.2
	Exposure Medium Total							2E-05					0.2
	Air	RECs #9 and #10	Naphthalene	--	1E-08	--	--	1E-08	Respiratory	--	0.001	--	0.001
			Trichloroethene	--	2E-09	--	--	2E-09	CVS, Immune	--	0.003	--	0.003
			Benzo(a)pyrene Equivalents	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Aroclor-1260	--	5E-13	--	--	5E-13	NA	--	--	--	--
			Arsenic	--	2E-11	--	--	2E-11	Skin, CVS	--	0.000004	--	0.000004
			Chromium VI	--	8E-11	--	--	8E-11	Respiratory	--	0.00000002	--	0.00000002
			Cobalt	--	6E-11	--	--	6E-11	Respiratory	--	0.00001	--	0.00001
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0000006	--	0.0000006
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	1E-08	--	--	1E-08		- -	0.004	- -	0.004
		Exposure Point Total						1E-08					0.004
	Exposure Medium Total							1E-08					0.004
Medium Total								2E-05					0.2
Receptor Total			Receptor Risk Total					1E-04	Receptor HI Total				0.8

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	0.05
Total Body Weight HI	0.0006
Total CNS HI	0.3
Total CVS HI	0.05
Total Fetotoxicity HI	0.002
Total GS HI	0.03
Total Immune HI	0.004
Total Kidney HI	0.02
Total Respiratory HI	0.001
Total None Reported HI	0.0004
Total Skin HI	0.4

TABLE 9.4.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	REC #11	Benzo(a)pyrene Equivalents	2E-06	--	8E-07	--	3E-06	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	5E-08	--	2E-08	--	7E-08	NA	--	--	--	--
			Aroclor-1260	2E-07	--	8E-08	--	3E-07	NA	--	--	--	--
			Arsenic	3E-07	--	3E-08	--	3E-07	Skin, CVS	0.004	--	0.0004	0.004
			Chromium VI	1E-08	--	1E-08	--	3E-08	None Reported	0.00002	--	0.00002	0.00004
			Cobalt	- -	--	- -	--	- -	Blood	0.005	--	0.0001	0.005
			Iron	- -	--	- -	--	- -	GS	0.005	--	0.0002	0.005
			Manganese	- -	--	- -	--	- -	CNS	0.005	--	0.004	0.010
			Thallium	- -	--	- -	--	- -	Skin	0.03	--	0.0010	0.03
			Vanadium	- -	--	- -	--	- -	Kidney	0.002	--	0.00005	0.002
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	3E-06	--	1E-06	--	4E-06		0.05	--	0.006	0.06
		Exposure Point Total						4E-06					0.06
	Exposure Medium Total							4E-06					0.06
	Air	REC #11	Benzo(a)pyrene Equivalents	--	1E-11	--	--	1E-11	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	--	6E-13	--	--	6E-13	NA	--	--	--	--
			Aroclor-1260	--	2E-12	--	--	2E-12	NA	--	--	--	--
			Arsenic	--	4E-11	--	--	4E-11	Skin, CVS	--	0.000003	--	0.000003
			Chromium VI	--	8E-11	--	--	8E-11	Respiratory	--	0.00000002	--	0.00000002
			Cobalt	--	9E-11	--	--	9E-11	Respiratory	--	0.000009	--	0.000009
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0001	--	0.0001
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-10	--	--	2E-10		- -	0.0001	- -	0.0001
		Exposure Point Total						2E-10					0.0001
	Exposure Medium Total							2E-10					0.0001
Medium Total								4E-06					0.06

TABLE 9.4.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	REC #11	Trichloroethene	9E-12	--	8E-13	--	1E-11	CVS, Fetotoxicity, Immu	0.000002	--	0.0000002	0.000003
			Benzo(a)pyrene Equivalents	3E-06	--	1E-06	--	4E-06	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.000007	--	0.000003	0.000009
			Aroclor-1260	1E-07	--	6E-08	--	2E-07	NA	--	--	--	--
			Arsenic	1E-06	--	1E-07	--	1E-06	Skin, CVS	0.01	--	0.001	0.02
			Chromium VI	1E-08	--	1E-08	--	2E-08	None Reported	0.00002	--	0.00002	0.00003
			Cobalt	- -	--	- -	--	- -	Blood	0.002	--	0.00007	0.002
			Iron	- -	--	- -	--	- -	GS	0.008	--	0.0002	0.008
			Manganese	- -	--	- -	--	- -	CNS	0.01	--	0.008	0.02
			Thallium	- -	--	- -	--	- -	Skin	0.02	--	0.0007	0.02
			Vanadium	- -	--	- -	--	- -	Kidney	0.005	--	0.0002	0.005
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	4E-06	--	1E-06	--	5E-06		0.06	--	0.01	0.07
		Exposure Point Total						5E-06					0.07
	Exposure Medium Total							5E-06					0.07
	Air	REC #11	Trichloroethene	--	4E-11	--	--	4E-11	CVS, Immune	--	0.00003	--	0.00003
			Benzo(a)pyrene Equivalents	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Naphthalene	--	2E-09	--	--	2E-09	Respiratory	--	0.00009	--	0.00009
			Aroclor-1260	--	2E-12	--	--	2E-12	NA	--	--	--	--
			Arsenic	--	1E-10	--	--	1E-10	Skin, CVS	--	0.00001	--	0.00001
			Chromium VI	--	7E-11	--	--	7E-11	Respiratory	--	0.00000002	--	0.00000002
			Cobalt	--	4E-11	--	--	4E-11	Respiratory	--	0.000005	--	0.000005
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0002	--	0.0002
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-09	--	--	2E-09		- -	0.0003	- -	0.0003
		Exposure Point Total						2E-09					0.0003
	Exposure Medium Total							2E-09					0.0003
Medium Total								5E-06					0.08
Receptor Total			Receptor Risk Total					9E-06	Receptor HI Total				0.1

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	0.007
Total Body Weight HI	0.000009
Total CNS HI	0.03
Total CVS HI	0.02
Total Fetotoxicity HI	0.000003
Total GS HI	0.01
Total Immune HI	0.00003
Total Kidney HI	0.007
Total Respiratory HI	0.0001
Total None Reported HI	0.00007
Total Skin HI	0.08

TABLE 9.4.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #9 and #10	Benzo(a)pyrene Equivalents	9E-06	--	4E-06	--	1E-05	NA	--	--	--	--
			Aroclor-1260	8E-09	--	3E-09	--	1E-08	NA	--	--	--	--
			Arsenic	3E-07	--	2E-08	--	3E-07	Skin, CVS	0.003	--	0.0003	0.004
			Chromium VI	1E-08	--	1E-08	--	2E-08	None Reported	0.00001	--	0.00002	0.00003
			Cobalt	- -	--	- -	--	- -	Blood	0.003	--	0.0001	0.004
			Iron	- -	--	- -	--	- -	GS	0.004	--	0.0001	0.004
			Manganese	- -	--	- -	--	- -	CNS	0.03	--	0.02	0.06
			Thallium	- -	--	- -	--	- -	Skin	0.03	--	0.0010	0.03
			Vanadium	- -	--	- -	--	- -	Kidney	0.002	--	0.00005	0.002
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	1E-05	--	4E-06	--	1E-05		0.08	--	0.03	0.1
		Exposure Point Total						1E-05					0.1
	Exposure Medium Total							1E-05					0.1
	Air	RECs #9 and #10	Benzo(a)pyrene Equivalents	--	6E-11	--	--	6E-11	NA	--	--	--	--
			Aroclor-1260	--	9E-14	--	--	9E-14	NA	--	--	--	--
			Arsenic	--	3E-11	--	--	3E-11	Skin, CVS	--	0.000003	--	0.000003
			Chromium VI	--	7E-11	--	--	7E-11	Respiratory	--	0.00000002	--	0.00000002
			Cobalt	--	7E-11	--	--	7E-11	Respiratory	--	0.000007	--	0.000007
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0006	--	0.0006
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-10	--	--	2E-10		- -	0.0007	- -	0.0007
		Exposure Point Total						2E-10					0.0007
	Exposure Medium Total							2E-10					0.0007
Medium Total								1E-05					0.1

TABLE 9.4.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Trespassers
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Naphthalene	- -	--	- -	--	- -	Body Weight	0.00008	--	0.00003	0.0001
			Trichloroethene	1E-09	--	9E-11	--	1E-09	VS, Fetotoxicity, Immu	0.0003	--	0.00002	0.0003
			Benzo(a)pyrene Equivalents	3E-06	--	1E-06	--	4E-06	NA	--	--	--	--
			Aroclor-1260	8E-08	--	3E-08	--	1E-07	NA	--	--	--	--
			Arsenic	3E-07	--	3E-08	--	4E-07	Skin, CVS	0.005	--	0.0004	0.005
			Chromium VI	1E-08	--	1E-08	--	3E-08	None Reported	0.00002	--	0.00002	0.00004
			Cobalt	- -	--	- -	--	- -	Blood	0.006	--	0.0002	0.006
			Iron	- -	--	- -	--	- -	GS	0.0005	--	0.00002	0.0005
			Manganese	- -	--	- -	--	- -	CNS	0.00003	--	0.00002	0.00005
			Thallium	- -	--	- -	--	- -	Skin	0.03	--	0.0009	0.03
			Vanadium	- -	--	- -	--	- -	Kidney	0.002	--	0.00006	0.002
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	3E-06	--	1E-06	--	4E-06		0.04	--	0.002	0.04
		Exposure Point Total						4E-06					0.04
	Exposure Medium Total							4E-06					0.04
	Air	RECs #9 and #10	Naphthalene	--	2E-08	--	--	2E-08	Respiratory	--	0.001	--	0.001
			Trichloroethene	--	4E-09	--	--	4E-09	CVS, Immune	--	0.003	--	0.003
			Benzo(a)pyrene Equivalents	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Aroclor-1260	--	9E-13	--	--	9E-13	NA	--	--	--	--
			Arsenic	--	4E-11	--	--	4E-11	Skin, CVS	--	0.000004	--	0.000004
			Chromium VI	--	8E-11	--	--	8E-11	Respiratory	--	0.00000002	--	0.00000002
			Cobalt	--	1E-10	--	--	1E-10	Respiratory	--	0.00001	--	0.00001
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0000006	--	0.0000006
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-08	--	--	2E-08		- -	0.004	- -	0.004
		Exposure Point Total						2E-08					0.004
	Exposure Medium Total							2E-08					0.004
Medium Total								4E-06					0.05
Receptor Total			Receptor Risk Total					2E-05	Receptor HI Total				0.2

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	0.010
Total Body Weight HI	0.0001
Total CNS HI	0.06
Total CVS HI	0.01
Total Fetotoxicity HI	0.0003
Total GS HI	0.005
Total Immune HI	0.003
Total Kidney HI	0.004
Total Respiratory HI	0.001
Total None Reported HI	0.00007
Total Skin HI	0.07

TABLE 9.5.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	REC #11	Benzo(a)pyrene Equivalents	2E-05	--	6E-06	--	2E-05	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	2E-07	--	5E-08	--	2E-07	NA	--	--	--	--
			Aroclor-1260	7E-07	--	3E-07	--	1E-06	NA	--	--	--	--
			Arsenic	1E-06	--	9E-08	--	1E-06	Skin, CVS	0.03	--	0.002	0.03
			Chromium VI	8E-08	--	9E-08	--	2E-07	None Reported	0.0001	--	0.0001	0.0003
			Cobalt	- -	--	- -	--	- -	Blood	0.03	--	0.0009	0.03
			Iron	- -	--	- -	--	- -	GS	0.04	--	0.001	0.04
			Manganese	- -	--	- -	--	- -	CNS	0.04	--	0.03	0.07
			Thallium	- -	--	- -	--	- -	Skin	0.2	--	0.007	0.2
			Vanadium	- -	--	- -	--	- -	Kidney	0.01	--	0.0004	0.01
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-05	--	6E-06	--	2E-05		0.4	--	0.04	0.4
		Exposure Point Total						2E-05					0.4
	Exposure Medium Total							2E-05					0.4
	Air	REC #11	Benzo(a)pyrene Equivalents	--	2E-11	--	--	2E-11	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	--	4E-13	--	--	4E-13	NA	--	--	--	--
			Aroclor-1260	--	2E-12	--	--	2E-12	NA	--	--	--	--
			Arsenic	--	2E-11	--	--	2E-11	Skin, CVS	--	0.000004	--	0.000004
			Chromium VI	--	1E-10	--	--	1E-10	Respiratory	--	0.00000003	--	0.00000003
			Cobalt	--	6E-11	--	--	6E-11	Respiratory	--	0.00001	--	0.00001
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0001	--	0.0001
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-10	--	--	2E-10		- -	0.0002	- -	0.0002
		Exposure Point Total						2E-10					0.0002
	Exposure Medium Total							2E-10					0.0002
Medium Total								2E-05					0.4

TABLE 9.5.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	REC #11	Trichloroethene	3E-11	--	3E-12	--	4E-11	VS, Fetotoxicity, Immu	0.00002	--	0.000001	0.00002
			Benzo(a)pyrene Equivalents	2E-05	--	7E-06	--	3E-05	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.00005	--	0.00002	0.00006
			Aroclor-1260	5E-07	--	2E-07	--	7E-07	NA	--	--	--	--
			Arsenic	4E-06	--	3E-07	--	4E-06	Skin, CVS	0.1	--	0.009	0.1
			Chromium VI	8E-08	--	9E-08	--	2E-07	None Reported	0.0001	--	0.0001	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.02	--	0.0005	0.02
			Iron	- -	--	- -	--	- -	GS	0.06	--	0.002	0.06
			Manganese	- -	--	- -	--	- -	CNS	0.08	--	0.05	0.1
			Thallium	- -	--	- -	--	- -	Skin	0.2	--	0.005	0.2
			Vanadium	- -	--	- -	--	- -	Kidney	0.04	--	0.001	0.04
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-05	--	8E-06	--	3E-05		0.5	--	0.07	0.5
		Exposure Point Total						3E-05					0.5
	Exposure Medium Total							3E-05					0.5
	Air	REC #11	Trichloroethene	--	2E-11	--	--	2E-11	CVS, Immune	--	0.00003	--	0.00003
			Benzo(a)pyrene Equivalents	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Naphthalene	--	1E-09	--	--	1E-09	Respiratory	--	0.0001	--	0.0001
			Aroclor-1260	--	1E-12	--	--	1E-12	NA	--	--	--	--
			Arsenic	--	9E-11	--	--	9E-11	Skin, CVS	--	0.00002	--	0.00002
			Chromium VI	--	1E-10	--	--	1E-10	Respiratory	--	0.00000003	--	0.00000003
			Cobalt	--	3E-11	--	--	3E-11	Respiratory	--	0.000006	--	0.000006
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0003	--	0.0003
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	1E-09	--	--	1E-09		- -	0.0005	- -	0.0005
		Exposure Point Total						1E-09					0.0005
	Exposure Medium Total							1E-09					0.0005
Medium Total								3E-05					0.5
Receptor Total							Receptor Risk Total	6E-05				Receptor HI Total	1.0

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	0.05
Total Body Weight HI	0.00006
Total CNS HI	0.2
Total CVS HI	0.1
Total Fetotoxicity HI	0.00002
Total GS HI	0.10
Total Immune HI	0.00005
Total Kidney HI	0.05
Total Respiratory HI	0.0001
Total None Reported HI	0.0005
Total Skin HI	0.6

TABLE 9.5.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #9 and #10	Benzo(a)pyrene Equivalents	7E-05	--	2E-05	--	9E-05	NA	--	--	--	--
			Aroclor-1260	3E-08	--	1E-08	--	4E-08	NA	--	--	--	--
			Arsenic	1E-06	--	8E-08	--	1E-06	Skin, CVS	0.02	--	0.002	0.03
			Chromium VI	7E-08	--	8E-08	--	1E-07	None Reported	0.0001	--	0.0001	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.02	--	0.0007	0.03
			Iron	- -	--	- -	--	- -	GS	0.03	--	0.0009	0.03
			Manganese	- -	--	- -	--	- -	CNS	0.2	--	0.2	0.4
			Thallium	- -	--	- -	--	- -	Skin	0.2	--	0.007	0.2
			Vanadium	- -	--	- -	--	- -	Kidney	0.01	--	0.0003	0.01
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	7E-05	--	2E-05	--	9E-05		0.6	--	0.2	0.7
		Exposure Point Total						9E-05					0.7
	Exposure Medium Total							9E-05					0.7
	Air	RECs #9 and #10	Benzo(a)pyrene Equivalents	--	8E-11	--	--	8E-11	NA	--	--	--	--
			Aroclor-1260	--	6E-14	--	--	6E-14	NA	--	--	--	--
			Arsenic	--	2E-11	--	--	2E-11	Skin, CVS	--	0.000004	--	0.000004
			Chromium VI	--	9E-11	--	--	9E-11	Respiratory	--	0.00000002	--	0.00000002
			Cobalt	--	4E-11	--	--	4E-11	Respiratory	--	0.000010	--	0.000010
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0009	--	0.0009
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-10	--	--	2E-10		- -	0.0009	- -	0.0009
		Exposure Point Total						2E-10					0.0009
	Exposure Medium Total							2E-10					0.0009
Medium Total								9E-05					0.7

TABLE 9.5.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Naphthalene	- -	--	- -	--	- -	Body Weight	0.0006	--	0.0002	0.0008
			Trichloroethene	4E-09	--	3E-10	--	4E-09	/S, Fetotoxicity, Immu	0.002	--	0.0002	0.002
			Benzo(a)pyrene Equivalents	2E-05	--	7E-06	--	3E-05	NA	--	--	--	--
			Aroclor-1260	3E-07	--	1E-07	--	4E-07	NA	--	--	--	--
			Arsenic	1E-06	--	1E-07	--	1E-06	Skin, CVS	0.03	--	0.003	0.04
			Chromium VI	9E-08	--	1E-07	--	2E-07	None Reported	0.0001	--	0.0001	0.0003
			Cobalt	- -	--	- -	--	- -	Blood	0.04	--	0.001	0.04
			Iron	- -	--	- -	--	- -	GS	0.004	--	0.0001	0.004
			Manganese	- -	--	- -	--	- -	CNS	0.0002	--	0.0001	0.0004
			Thallium	- -	--	- -	--	- -	Skin	0.2	--	0.006	0.2
			Vanadium	- -	--	- -	--	- -	Kidney	0.01	--	0.0004	0.01
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-05	--	7E-06	--	3E-05		0.3	--	0.01	0.3
		Exposure Point Total						3E-05					0.3
	Exposure Medium Total							3E-05					0.3
	Air	RECs #9 and #10	Naphthalene	--	1E-08	--	--	1E-08	Respiratory	--	0.002	--	0.002
			Trichloroethene	--	3E-09	--	--	3E-09	CVS, Immune	--	0.004	--	0.004
			Benzo(a)pyrene Equivalents	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Aroclor-1260	--	6E-13	--	--	6E-13	NA	--	--	--	--
			Arsenic	--	3E-11	--	--	3E-11	Skin, CVS	--	0.000005	--	0.000005
			Chromium VI	--	1E-10	--	--	1E-10	Respiratory	--	0.00000003	--	0.00000003
			Cobalt	--	8E-11	--	--	8E-11	Respiratory	--	0.00002	--	0.00002
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0000008	--	0.0000008
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-08	--	--	2E-08		- -	0.005	- -	0.005
		Exposure Point Total						2E-08					0.005
	Exposure Medium Total							2E-08					0.005
Medium Total								3E-05					0.3
Receptor Total			Receptor Risk Total					1E-04	Receptor HI Total				1

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	0.07
Total Body Weight HI	0.0008
Total CNS HI	0.4
Total CVS HI	0.07
Total Fetotoxicity HI	0.002
Total GS HI	0.04
Total Immune HI	0.006
Total Kidney HI	0.03
Total Respiratory HI	0.002
Total None Reported HI	0.0005
Total Skin HI	0.5

TABLE 9.6.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	REC #11	Benzo(a)pyrene Equivalents	3E-06	--	1E-06	--	4E-06	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	7E-08	--	2E-08	--	9E-08	NA	--	--	--	--
			Aroclor-1260	3E-07	--	1E-07	--	4E-07	NA	--	--	--	--
			Arsenic	4E-07	--	4E-08	--	4E-07	Skin, CVS	0.005	--	0.0005	0.006
			Chromium VI	2E-08	--	2E-08	--	3E-08	None Reported	0.00002	--	0.00003	0.00005
			Cobalt	- -	--	- -	--	- -	Blood	0.006	--	0.0002	0.006
			Iron	- -	--	- -	--	- -	GS	0.007	--	0.0002	0.007
			Manganese	- -	--	- -	--	- -	CNS	0.007	--	0.006	0.01
			Thallium	- -	--	- -	--	- -	Skin	0.04	--	0.001	0.05
			Vanadium	- -	--	- -	--	- -	Kidney	0.002	--	0.00007	0.002
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	4E-06	--	1E-06	--	5E-06		0.07	--	0.008	0.08
		Exposure Point Total						5E-06					0.08
	Exposure Medium Total							5E-06					0.08
	Air	REC #11	Benzo(a)pyrene Equivalents	--	2E-11	--	--	2E-11	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	--	8E-13	--	--	8E-13	NA	--	--	--	--
			Aroclor-1260	--	3E-12	--	--	3E-12	NA	--	--	--	--
			Arsenic	--	5E-11	--	--	5E-11	Skin, CVS	--	0.000004	--	0.000004
			Chromium VI	--	1E-10	--	--	1E-10	Respiratory	--	0.00000003	--	0.00000003
			Cobalt	--	1E-10	--	--	1E-10	Respiratory	--	0.00001	--	0.00001
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0001	--	0.0001
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	3E-10	--	--	3E-10		- -	0.0002	- -	0.0002
		Exposure Point Total						3E-10					0.0002
	Exposure Medium Total							3E-10					0.0002
Medium Total								5E-06					0.08

TABLE 9.6.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	REC #11	Trichloroethene	1E-11	--	1E-12	--	1E-11	CVS, Fetotoxicity, Immu	0.000003	--	0.0000003	0.000003
			Benzo(a)pyrene Equivalents	4E-06	--	1E-06	--	5E-06	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.000009	--	0.000003	0.00001
			Aroclor-1260	2E-07	--	8E-08	--	3E-07	NA	--	--	--	--
			Arsenic	1E-06	--	1E-07	--	2E-06	Skin, CVS	0.02	--	0.002	0.02
			Chromium VI	1E-08	--	2E-08	--	3E-08	None Reported	0.00002	--	0.00003	0.00005
			Cobalt	- -	--	- -	--	- -	Blood	0.003	--	0.00009	0.003
			Iron	- -	--	- -	--	- -	GS	0.01	--	0.0003	0.01
			Manganese	- -	--	- -	--	- -	CNS	0.01	--	0.01	0.03
			Thallium	- -	--	- -	--	- -	Skin	0.03	--	0.0010	0.03
			Vanadium	- -	--	- -	--	- -	Kidney	0.007	--	0.0002	0.007
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	5E-06	--	2E-06	--	7E-06		0.09	--	0.01	0.1
		Exposure Point Total						7E-06					0.1
	Exposure Medium Total							7E-06					0.1
	Air	REC #11	Trichloroethene	--	5E-11	--	--	5E-11	CVS, Immune	--	0.00003	--	0.00003
			Benzo(a)pyrene Equivalents	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Naphthalene	--	2E-09	--	--	2E-09	Respiratory	--	0.0001	--	0.0001
			Aroclor-1260	--	2E-12	--	--	2E-12	NA	--	--	--	--
			Arsenic	--	2E-10	--	--	2E-10	Skin, CVS	--	0.00002	--	0.00002
			Chromium VI	--	1E-10	--	--	1E-10	Respiratory	--	0.00000003	--	0.00000003
			Cobalt	--	6E-11	--	--	6E-11	Respiratory	--	0.000006	--	0.000006
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0003	--	0.0003
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	3E-09	--	--	3E-09		- -	0.0005	- -	0.0005
		Exposure Point Total						3E-09					0.0005
	Exposure Medium Total							3E-09					0.0005
Medium Total								7E-06					0.1
Receptor Total							Receptor Risk Total	1E-05				Receptor HI Total	0.2

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	0.009
Total Body Weight HI	0.00001
Total CNS HI	0.04
Total CVS HI	0.03
Total Fetotoxicity HI	0.000003
Total GS HI	0.02
Total Immune HI	0.00004
Total Kidney HI	0.010
Total Respiratory HI	0.0001
Total None Reported HI	0.00010
Total Skin HI	0.1

TABLE 9.6.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #9 and #10	Benzo(a)pyrene Equivalents	1E-05	--	5E-06	--	2E-05	NA	--	--	--	--
			Aroclor-1260	1E-08	--	4E-09	--	1E-08	NA	--	--	--	--
			Arsenic	4E-07	--	3E-08	--	4E-07	Skin, CVS	0.005	--	0.0004	0.005
			Chromium VI	1E-08	--	2E-08	--	3E-08	None Reported	0.00002	--	0.00002	0.00004
			Cobalt	- -	--	- -	--	- -	Blood	0.005	--	0.0001	0.005
			Iron	- -	--	- -	--	- -	GS	0.006	--	0.0002	0.006
			Manganese	- -	--	- -	--	- -	CNS	0.04	--	0.03	0.08
			Thallium	- -	--	- -	--	- -	Skin	0.04	--	0.001	0.04
			Vanadium	- -	--	- -	--	- -	Kidney	0.002	--	0.00007	0.002
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	1E-05	--	5E-06	--	2E-05		0.1	--	0.04	0.1
		Exposure Point Total						2E-05					0.1
	Exposure Medium Total							2E-05					0.1
	Air	RECs #9 and #10	Benzo(a)pyrene Equivalents	--	8E-11	--	--	8E-11	NA	--	--	--	--
			Aroclor-1260	--	1E-13	--	--	1E-13	NA	--	--	--	--
			Arsenic	--	4E-11	--	--	4E-11	Skin, CVS	--	0.000004	--	0.000004
			Chromium VI	--	9E-11	--	--	9E-11	Respiratory	--	0.00000002	--	0.00000002
			Cobalt	--	9E-11	--	--	9E-11	Respiratory	--	0.000010	--	0.000010
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0009	--	0.0009
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	3E-10	--	--	3E-10		- -	0.0009	- -	0.0009
		Exposure Point Total						3E-10					0.0009
	Exposure Medium Total							3E-10					0.0009
Medium Total								2E-05					0.1

TABLE 9.6.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Naphthalene	- -	--	- -	--	- -	Body Weight	0.0001	--	0.00004	0.0002
			Trichloroethene	1E-09	--	1E-10	--	1E-09	VS, Fetotoxicity, Immu	0.0003	--	0.00003	0.0004
			Benzo(a)pyrene Equivalents	4E-06	--	1E-06	--	5E-06	NA	--	--	--	--
			Aroclor-1260	1E-07	--	4E-08	--	1E-07	NA	--	--	--	--
			Arsenic	5E-07	--	4E-08	--	5E-07	Skin, CVS	0.006	--	0.0006	0.007
			Chromium VI	2E-08	--	2E-08	--	4E-08	None Reported	0.00002	--	0.00003	0.00005
			Cobalt	- -	--	- -	--	- -	Blood	0.008	--	0.0002	0.008
			Iron	- -	--	- -	--	- -	GS	0.0007	--	0.00002	0.0007
			Manganese	- -	--	- -	--	- -	CNS	0.00004	--	0.00003	0.00007
			Thallium	- -	--	- -	--	- -	Skin	0.04	--	0.001	0.04
			Vanadium	- -	--	- -	--	- -	Kidney	0.002	--	0.00008	0.003
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	4E-06	--	1E-06	--	6E-06		0.06	--	0.002	0.06
		Exposure Point Total						6E-06					0.06
	Exposure Medium Total							6E-06					0.06
	Air	RECs #9 and #10	Naphthalene	--	3E-08	--	--	3E-08	Respiratory	--	0.002	--	0.002
			Trichloroethene	--	5E-09	--	--	5E-09	CVS, Immune	--	0.004	--	0.004
			Benzo(a)pyrene Equivalents	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Aroclor-1260	--	1E-12	--	--	1E-12	NA	--	--	--	--
			Arsenic	--	6E-11	--	--	6E-11	Skin, CVS	--	0.000005	--	0.000005
			Chromium VI	--	1E-10	--	--	1E-10	Respiratory	--	0.00000003	--	0.00000003
			Cobalt	--	2E-10	--	--	2E-10	Respiratory	--	0.00002	--	0.00002
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0000008	--	0.0000008
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	3E-08	--	--	3E-08		- -	0.005	- -	0.005
		Exposure Point Total						3E-08					0.005
	Exposure Medium Total							3E-08					0.005
Medium Total								6E-06					0.06
Receptor Total			Receptor Risk Total					2E-05	Receptor HI Total				0.2

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	0.01
Total Body Weight HI	0.0002
Total CNS HI	0.08
Total CVS HI	0.02
Total Fetotoxicity HI	0.0004
Total GS HI	0.007
Total Immune HI	0.004
Total Kidney HI	0.005
Total Respiratory HI	0.002
Total None Reported HI	0.00010
Total Skin HI	0.10

TABLE 9.7.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	REC #11	Benzo(a)pyrene Equivalents	6E-07	--	3E-07	--	9E-07	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	4E-08	--	2E-08	--	6E-08	NA	--	--	--	--
			Aroclor-1260	2E-07	--	8E-08	--	2E-07	NA	--	--	--	--
			Arsenic	2E-07	--	3E-08	--	3E-07	Skin, CVS	0.003	--	0.0004	0.003
			Chromium VI	3E-09	--	5E-09	--	9E-09	None Reported	0.00001	--	0.00002	0.00003
			Cobalt	- -	--	- -	--	- -	Blood	0.003	--	0.0001	0.004
			Iron	- -	--	- -	--	- -	GS	0.004	--	0.0002	0.004
			Manganese	- -	--	- -	--	- -	CNS	0.004	--	0.004	0.008
			Thallium	- -	--	- -	--	- -	Skin	0.03	--	0.001	0.03
			Vanadium	- -	--	- -	--	- -	Kidney	0.001	--	0.00005	0.001
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	1E-06	--	5E-07	--	1E-06		0.04	--	0.006	0.05
		Exposure Point Total						1E-06					0.05
	Exposure Medium Total							1E-06					0.05
	Air	REC #11	Benzo(a)pyrene Equivalents	--	7E-12	--	--	7E-12	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	--	8E-13	--	--	8E-13	NA	--	--	--	--
			Aroclor-1260	--	3E-12	--	--	3E-12	NA	--	--	--	--
			Arsenic	--	5E-11	--	--	5E-11	Skin, CVS	--	0.000004	--	0.000004
			Chromium VI	--	4E-11	--	--	4E-11	Respiratory	--	0.00000003	--	0.00000003
			Cobalt	--	1E-10	--	--	1E-10	Respiratory	--	0.00001	--	0.00001
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0001	--	0.0001
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-10	--	--	2E-10		- -	0.0002	- -	0.0002
		Exposure Point Total						2E-10					0.0002
	Exposure Medium Total							2E-10					0.0002
Medium Total								1E-06					0.05

TABLE 9.7.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	REC #11	Trichloroethene	7E-12	--	9E-13	--	8E-12	CVS, Fetotoxicity, Immu	0.000002	--	0.0000002	0.000002
			Benzo(a)pyrene Equivalents	8E-07	--	4E-07	--	1E-06	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.000005	--	0.000003	0.000008
			Aroclor-1260	1E-07	--	6E-08	--	2E-07	NA	--	--	--	--
			Arsenic	8E-07	--	1E-07	--	9E-07	Skin, CVS	0.01	--	0.001	0.01
			Chromium VI	3E-09	--	5E-09	--	8E-09	None Reported	0.00001	--	0.00002	0.00003
			Cobalt	- -	--	- -	--	- -	Blood	0.002	--	0.00007	0.002
			Iron	- -	--	- -	--	- -	GS	0.006	--	0.0002	0.006
			Manganese	- -	--	- -	--	- -	CNS	0.008	--	0.008	0.02
			Thallium	- -	--	- -	--	- -	Skin	0.02	--	0.0007	0.02
			Vanadium	- -	--	- -	--	- -	Kidney	0.004	--	0.0002	0.004
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-06	--	6E-07	--	2E-06		0.05	--	0.01	0.06
		Exposure Point Total						2E-06					0.06
	Exposure Medium Total							2E-06					0.06
	Air	REC #11	Trichloroethene	--	5E-11	--	--	5E-11	CVS, Immune	--	0.00003	--	0.00003
			Benzo(a)pyrene Equivalents	--	9E-12	--	--	9E-12	NA	--	--	--	--
			Naphthalene	--	2E-09	--	--	2E-09	Respiratory	--	0.0001	--	0.0001
			Aroclor-1260	--	2E-12	--	--	2E-12	NA	--	--	--	--
			Arsenic	--	2E-10	--	--	2E-10	Skin, CVS	--	0.00002	--	0.00002
			Chromium VI	--	4E-11	--	--	4E-11	Respiratory	--	0.00000003	--	0.00000003
			Cobalt	--	6E-11	--	--	6E-11	Respiratory	--	0.000006	--	0.000006
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0003	--	0.0003
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-09	--	--	2E-09		- -	0.0005	- -	0.0005
		Exposure Point Total						2E-09					0.0005
	Exposure Medium Total							2E-09					0.0005
Medium Total								2E-06					0.06
Receptor Total							Receptor Risk Total	4E-06				Receptor HI Total	0.1

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	0.005
Total Body Weight HI	0.000008
Total CNS HI	0.03
Total CVS HI	0.02
Total Fetotoxicity HI	0.000002
Total GS HI	0.01
Total Immune HI	0.00004
Total Kidney HI	0.006
Total Respiratory HI	0.0001
Total None Reported HI	0.00006
Total Skin HI	0.06

TABLE 9.7.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #9 and #10	Benzo(a)pyrene Equivalents	3E-06	--	1E-06	--	4E-06	NA	--	--	--	--
			Aroclor-1260	6E-09	--	3E-09	--	9E-09	NA	--	--	--	--
			Arsenic	2E-07	--	2E-08	--	2E-07	Skin, CVS	0.003	--	0.0003	0.003
			Chromium VI	3E-09	--	4E-09	--	7E-09	None Reported	0.00001	--	0.00002	0.00003
			Cobalt	- -	--	- -	--	- -	Blood	0.003	--	0.0001	0.003
			Iron	- -	--	- -	--	- -	GS	0.003	--	0.0001	0.003
			Manganese	- -	--	- -	--	- -	CNS	0.03	--	0.03	0.05
			Thallium	- -	--	- -	--	- -	Skin	0.02	--	0.0010	0.03
			Vanadium	- -	--	- -	--	- -	Kidney	0.001	--	0.00005	0.001
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	3E-06	--	1E-06	--	4E-06		0.06	--	0.03	0.09
		Exposure Point Total						4E-06					0.09
	Exposure Medium Total							4E-06					0.09
	Air	RECs #9 and #10	Benzo(a)pyrene Equivalents	--	3E-11	--	--	3E-11	NA	--	--	--	--
			Aroclor-1260	--	1E-13	--	--	1E-13	NA	--	--	--	--
			Arsenic	--	4E-11	--	--	4E-11	Skin, CVS	--	0.000004	--	0.000004
			Chromium VI	--	3E-11	--	--	3E-11	Respiratory	--	0.00000002	--	0.00000002
			Cobalt	--	9E-11	--	--	9E-11	Respiratory	--	0.000010	--	0.000010
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0009	--	0.0009
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-10	--	--	2E-10		- -	0.0009	- -	0.0009
		Exposure Point Total						2E-10					0.0009
	Exposure Medium Total							2E-10					0.0009
Medium Total								4E-06					0.09

TABLE 9.7.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Naphthalene	- -	--	- -	--	- -	Body Weight	0.00006	--	0.00003	0.00009
			Trichloroethene	8E-10	--	9E-11	--	9E-10	/S, Fetotoxicity, Immu	0.0002	--	0.00002	0.0002
			Benzo(a)pyrene Equivalents	8E-07	--	4E-07	--	1E-06	NA	--	--	--	--
			Aroclor-1260	6E-08	--	3E-08	--	9E-08	NA	--	--	--	--
			Arsenic	3E-07	--	3E-08	--	3E-07	Skin, CVS	0.003	--	0.0004	0.004
			Chromium VI	4E-09	--	6E-09	--	9E-09	None Reported	0.00001	--	0.00002	0.00004
			Cobalt	- -	--	- -	--	- -	Blood	0.005	--	0.0002	0.005
			Iron	- -	--	- -	--	- -	GS	0.0004	--	0.00002	0.0004
			Manganese	- -	--	- -	--	- -	CNS	0.00002	--	0.00002	0.00005
			Thallium	- -	--	- -	--	- -	Skin	0.02	--	0.0009	0.02
			Vanadium	- -	--	- -	--	- -	Kidney	0.001	--	0.00006	0.001
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	1E-06	--	5E-07	--	2E-06		0.03	--	0.002	0.03
		Exposure Point Total						2E-06					0.03
	Exposure Medium Total							2E-06					0.03
	Air	RECs #9 and #10	Naphthalene	--	3E-08	--	--	3E-08	Respiratory	--	0.002	--	0.002
			Trichloroethene	--	5E-09	--	--	5E-09	CVS, Immune	--	0.004	--	0.004
			Benzo(a)pyrene Equivalents	--	8E-12	--	--	8E-12	NA	--	--	--	--
			Aroclor-1260	--	1E-12	--	--	1E-12	NA	--	--	--	--
			Arsenic	--	6E-11	--	--	6E-11	Skin, CVS	--	0.000005	--	0.000005
			Chromium VI	--	4E-11	--	--	4E-11	Respiratory	--	0.00000003	--	0.00000003
			Cobalt	--	2E-10	--	--	2E-10	Respiratory	--	0.00002	--	0.00002
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.0000008	--	0.0000008
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	3E-08	--	--	3E-08		- -	0.005	- -	0.005
		Exposure Point Total						3E-08					0.005
	Exposure Medium Total							3E-08					0.005
Medium Total								2E-06					0.04
Receptor Total							Receptor Risk Total	6E-06				Receptor HI Total	0.1

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	0.008
Total Body Weight HI	0.00009
Total CNS HI	0.05
Total CVS HI	0.01
Total Fetotoxicity HI	0.0002
Total GS HI	0.004
Total Immune HI	0.004
Total Kidney HI	0.003
Total Respiratory HI	0.002
Total None Reported HI	0.00006
Total Skin HI	0.06

TABLE 9.8.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Lifelong

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	REC #11	Benzo(a)pyrene Equivalents	2E-05	--	7E-06	--	3E-05					
			n-Nitroso-di-n-propylamine	3E-07	--	9E-08	--	4E-07					
			Aroclor-1260	1E-06	--	5E-07	--	2E-06					
			Arsenic	2E-06	--	2E-07	--	2E-06					
			Chromium VI	1E-07	--	1E-07	--	2E-07					
			Cobalt	- -	--	- -	--	- -					
			Iron	- -	--	- -	--	- -					
			Manganese	- -	--	- -	--	- -					
			Thallium	- -	--	- -	--	- -					
			Vanadium	- -	--	- -	--	- -					
			Diesel Range Organics	- -	--	- -	--	- -					
			Chemical Total	2E-05	--	8E-06	--	3E-05					
		Exposure Point Total						3E-05					
	Exposure Medium Total							3E-05					
	Air	REC #11	Benzo(a)pyrene Equivalents	--	4E-11	--	--	4E-11					
			n-Nitroso-di-n-propylamine	--	2E-12	--	--	2E-12					
			Aroclor-1260	--	8E-12	--	--	8E-12					
			Arsenic	--	1E-10	--	--	1E-10					
			Chromium VI	--	3E-10	--	--	3E-10					
			Cobalt	--	3E-10	--	--	3E-10					
			Iron	--	- -	--	--	- -					
			Manganese	--	- -	--	--	- -					
			Thallium	--	- -	--	--	- -					
			Vanadium	--	- -	--	--	- -					
			Diesel Range Organics	--	- -	--	--	- -					
			Chemical Total	--	7E-10	--	--	7E-10					
		Exposure Point Total						7E-10					
	Exposure Medium Total							7E-10					
Medium Total								3E-05					

TABLE 9.8.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Lifelong

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	REC #11	Trichloroethene	5E-11	--	5E-12	--	6E-11					
			Benzo(a)pyrene Equivalents	2E-05	--	9E-06	--	3E-05					
			Naphthalene	- -	--	- -	--	- -					
			Aroclor-1260	8E-07	--	4E-07	--	1E-06					
			Arsenic	6E-06	--	6E-07	--	7E-06					
			Chromium VI	9E-08	--	1E-07	--	2E-07					
			Cobalt	- -	--	- -	--	- -					
			Iron	- -	--	- -	--	- -					
			Manganese	- -	--	- -	--	- -					
			Thallium	- -	--	- -	--	- -					
			Vanadium	- -	--	- -	--	- -					
			Diesel Range Organics	- -	--	- -	--	- -					
			Chemical Total	3E-05	--	1E-05	--	4E-05					
		Exposure Point Total						4E-05					
	Exposure Medium Total							4E-05					
	Air	REC #11	Trichloroethene	--	1E-10	--	--	1E-10					
			Benzo(a)pyrene Equivalents	--	5E-11	--	--	5E-11					
			Naphthalene	--	5E-09	--	--	5E-09					
			Aroclor-1260	--	6E-12	--	--	6E-12					
			Arsenic	--	4E-10	--	--	4E-10					
			Chromium VI	--	2E-10	--	--	2E-10					
			Cobalt	--	1E-10	--	--	1E-10					
			Iron	--	- -	--	--	- -					
			Manganese	--	- -	--	--	- -					
			Thallium	--	- -	--	--	- -					
			Vanadium	--	- -	--	--	- -					
			Diesel Range Organics	--	- -	--	--	- -					
			Chemical Total	--	6E-09	--	--	6E-09					
		Exposure Point Total						6E-09					
	Exposure Medium Total							6E-09					
Medium Total								4E-05					
Receptor Total							Receptor Risk Total	7E-05					

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.8.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Lifelong

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #9 and #10	Benzo(a)pyrene Equivalents	8E-05	--	3E-05	--	1E-04					
			Aroclor-1260	4E-08	--	2E-08	--	6E-08					
			Arsenic	2E-06	--	1E-07	--	2E-06					
			Chromium VI	9E-08	--	1E-07	--	2E-07					
			Cobalt	- -	--	- -	--	- -					
			Iron	- -	--	- -	--	- -					
			Manganese	- -	--	- -	--	- -					
			Thallium	- -	--	- -	--	- -					
			Vanadium	- -	--	- -	--	- -					
			Diesel Range Organics	- -	--	- -	--	- -					
			Chemical Total	8E-05	--	3E-05	--	1E-04					
		Exposure Point Total						1E-04					
	Exposure Medium Total							1E-04					
	Air	RECs #9 and #10	Benzo(a)pyrene Equivalents	--	2E-10	--	--	2E-10					
			Aroclor-1260	--	3E-13	--	--	3E-13					
			Arsenic	--	1E-10	--	--	1E-10					
			Chromium VI	--	2E-10	--	--	2E-10					
			Cobalt	--	2E-10	--	--	2E-10					
			Iron	--	- -	--	--	- -					
			Manganese	--	- -	--	--	- -					
			Thallium	--	- -	--	--	- -					
			Vanadium	--	- -	--	--	- -					
			Diesel Range Organics	--	- -	--	--	- -					
			Chemical Total	--	7E-10	--	--	7E-10					
		Exposure Point Total						7E-10					
	Exposure Medium Total							7E-10					
Medium Total								1E-04					

TABLE 9.8.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Current/Future
Receptor Population: Recreational Users
Receptor Age: Lifelong

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Naphthalene	- -	--	- -	--	- -					
			Trichloroethene	6E-09	--	5E-10	--	6E-09					
			Benzo(a)pyrene Equivalents	2E-05	--	9E-06	--	3E-05					
			Aroclor-1260	4E-07	--	2E-07	--	6E-07					
			Arsenic	2E-06	--	2E-07	--	2E-06					
			Chromium VI	1E-07	--	1E-07	--	2E-07					
			Cobalt	- -	--	- -	--	- -					
			Iron	- -	--	- -	--	- -					
			Manganese	- -	--	- -	--	- -					
			Thallium	- -	--	- -	--	- -					
			Vanadium	- -	--	- -	--	- -					
			Diesel Range Organics	- -	--	- -	--	- -					
			Chemical Total	3E-05	--	9E-06	--	3E-05					
		Exposure Point Total						3E-05					
	Exposure Medium Total							3E-05					
	Air	RECs #9 and #10	Naphthalene	--	7E-08	--	--	7E-08					
			Trichloroethene	--	1E-08	--	--	1E-08					
			Benzo(a)pyrene Equivalents	--	5E-11	--	--	5E-11					
			Aroclor-1260	--	3E-12	--	--	3E-12					
			Arsenic	--	1E-10	--	--	1E-10					
			Chromium VI	--	3E-10	--	--	3E-10					
			Cobalt	--	4E-10	--	--	4E-10					
			Iron	--	- -	--	--	- -					
			Manganese	--	- -	--	--	- -					
			Thallium	--	- -	--	--	- -					
			Vanadium	--	- -	--	--	- -					
			Diesel Range Organics	--	- -	--	--	- -					
			Chemical Total	--	8E-08	--	--	8E-08					
		Exposure Point Total						8E-08					
	Exposure Medium Total							8E-08					
Medium Total								3E-05					
Receptor Total							Receptor Risk Total	1E-04					

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.9.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	REC #11	Benzo(a)pyrene Equivalents	8E-05	--	3E-05	--	1E-04	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	9E-07	--	3E-07	--	1E-06	NA	--	--	--	--
			Aroclor-1260	4E-06	--	1E-06	--	5E-06	NA	--	--	--	--
			Arsenic	5E-06	--	5E-07	--	6E-06	Skin, CVS	0.1	--	0.01	0.2
			Chromium VI	4E-07	--	5E-07	--	9E-07	None Reported	0.0006	--	0.0007	0.001
			Cobalt	- -	--	- -	--	- -	Blood	0.2	--	0.005	0.2
			Iron	- -	--	- -	--	- -	GS	0.2	--	0.005	0.2
			Manganese	- -	--	- -	--	- -	CNS	0.2	--	0.1	0.3
			Thallium	- -	--	- -	--	- -	Skin	1	--	0.03	1
			Vanadium	- -	--	- -	--	- -	Kidney	0.06	--	0.002	0.06
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	9E-05	--	3E-05	--	1E-04		2	--	0.2	2
		Exposure Point Total						1E-04					2
	Exposure Medium Total							1E-04					2
	Air	REC #11	Benzo(a)pyrene Equivalents	--	3E-10	--	--	3E-10	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	--	6E-12	--	--	6E-12	NA	--	--	--	--
			Aroclor-1260	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Arsenic	--	4E-10	--	--	4E-10	Skin, CVS	--	0.00007	--	0.00007
			Chromium VI	--	2E-09	--	--	2E-09	Respiratory	--	0.0000004	--	0.0000004
			Cobalt	--	9E-10	--	--	9E-10	Respiratory	--	0.0002	--	0.0002
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.002	--	0.002
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	3E-09	--	--	3E-09		- -	0.002	- -	0.002
		Exposure Point Total						3E-09					0.002
	Exposure Medium Total							3E-09					0.002
Medium Total								1E-04					2

TABLE 9.9.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	REC #11	Trichloroethene	2E-10	--	1E-11	--	2E-10	VS, Fetotoxicity, Immu	0.00008	--	0.000007	0.00009
			Benzo(a)pyrene Equivalents	1E-04	--	4E-05	--	1E-04	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.0002	--	0.00009	0.0003
			Aroclor-1260	3E-06	--	1E-06	--	4E-06	NA	--	--	--	--
			Arsenic	2E-05	--	2E-06	--	2E-05	Skin, CVS	0.5	--	0.04	0.5
			Chromium VI	4E-07	--	4E-07	--	8E-07	None Reported	0.0006	--	0.0006	0.001
			Cobalt	- -	--	- -	--	- -	Blood	0.08	--	0.002	0.08
			Iron	- -	--	- -	--	- -	GS	0.3	--	0.008	0.3
			Manganese	- -	--	- -	--	- -	CNS	0.4	--	0.3	0.6
			Thallium	- -	--	- -	--	- -	Skin	0.9	--	0.02	0.9
			Vanadium	- -	--	- -	--	- -	Kidney	0.2	--	0.005	0.2
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	1E-04	--	4E-05	--	2E-04		2	--	0.3	3
		Exposure Point Total						2E-04					3
	Exposure Medium Total							2E-04					3
	Air	REC #11	Trichloroethene	--	4E-10	--	--	4E-10	CVS, Immune	--	0.0005	--	0.0005
			Benzo(a)pyrene Equivalents	--	3E-10	--	--	3E-10	NA	--	--	--	--
			Naphthalene	--	2E-08	--	--	2E-08	Respiratory	--	0.002	--	0.002
			Aroclor-1260	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Arsenic	--	1E-09	--	--	1E-09	Skin, CVS	--	0.0002	--	0.0002
			Chromium VI	--	1E-09	--	--	1E-09	Respiratory	--	0.0000004	--	0.0000004
			Cobalt	--	4E-10	--	--	4E-10	Respiratory	--	0.00009	--	0.00009
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.004	--	0.004
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-08	--	--	2E-08		- -	0.007	- -	0.007
		Exposure Point Total						2E-08					0.007
	Exposure Medium Total							2E-08					0.007
Medium Total								2E-04					3
Groundwater	Groundwater	REC #11	Benzene	4E-08	--	6E-09	--	5E-08	Blood	0.002	--	0.0003	0.002
			Trichloroethene	6E-06	--	1E-06	--	7E-06	VS, Fetotoxicity, Immu	3	--	0.5	4
			Vinyl Chloride	3E-05	--	2E-06	--	4E-05	Liver	0.01	--	0.0008	0.01
			Arsenic	9E-05	--	6E-07	--	9E-05	Skin, CVS	2	--	0.02	2
			Chromium VI	1E-04	--	6E-05	--	2E-04	None Reported	0.2	--	0.08	0.2
			Cobalt	- -	--	- -	--	- -	Blood	45	--	0.1	45
			Iron	- -	--	- -	--	- -	GS	2	--	0.01	2
			Manganese	- -	--	- -	--	- -	CNS	0.6	--	0.09	0.7
			Nickel	- -	--	- -	--	- -	Body Weight	1	--	0.04	1
			Thallium	- -	--	- -	--	- -	Skin	7	--	0.05	7
			Vanadium	- -	--	- -	--	- -	Kidney	0.6	--	0.004	0.6
			Zinc	- -	--	- -	--	- -	Blood	0.3	--	0.001	0.3
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-04	--	6E-05	--	3E-04		62	--	0.9	63
		Exposure Point Total						3E-04					63
	Exposure Medium Total							3E-04					63
Medium Total								3E-04					63
Receptor Total							Receptor Risk Total	6E-04				Receptor HI Total	68

TABLE 9.9.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	45
Total Body Weight HI	1
Total CNS HI	2
Total CVS HI	7
Total Fetotoxicity HI	4
Total GS HI	2
Total Immune HI	4
Total Kidney HI	0.9
Total Liver HI	0.01
Total Respiratory HI	0.002
Total None Reported HI	0.2
Total Skin HI	12

TABLE 9.9.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #9 and #10	Benzo(a)pyrene Equivalents	3E-04	--	1E-04	--	5E-04	NA	--	--	--	--
			Aroclor-1260	1E-07	--	5E-08	--	2E-07	NA	--	--	--	--
			Arsenic	5E-06	--	4E-07	--	5E-06	Skin, CVS	0.1	--	0.01	0.1
			Chromium VI	4E-07	--	4E-07	--	7E-07	None Reported	0.0005	--	0.0006	0.001
			Cobalt	- -	--	- -	--	- -	Blood	0.1	--	0.003	0.1
			Iron	- -	--	- -	--	- -	GS	0.2	--	0.004	0.2
			Manganese	- -	--	- -	--	- -	CNS	1	--	0.8	2
			Thallium	- -	--	- -	--	- -	Skin	1	--	0.03	1
			Vanadium	- -	--	- -	--	- -	Kidney	0.06	--	0.002	0.06
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	3E-04	--	1E-04	--	5E-04		3	--	0.9	4
		Exposure Point Total						5E-04					4
	Exposure Medium Total							5E-04					4
	Air	RECs #9 and #10	Benzo(a)pyrene Equivalents	--	1E-09	--	--	1E-09	NA	--	--	--	--
			Aroclor-1260	--	9E-13	--	--	9E-13	NA	--	--	--	--
			Arsenic	--	3E-10	--	--	3E-10	Skin, CVS	--	0.00006	--	0.00006
			Chromium VI	--	1E-09	--	--	1E-09	Respiratory	--	0.0000004	--	0.0000004
			Cobalt	--	7E-10	--	--	7E-10	Respiratory	--	0.0001	--	0.0001
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.01	--	0.01
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	4E-09	--	--	4E-09		- -	0.01	- -	0.01
		Exposure Point Total						4E-09					0.01
	Exposure Medium Total							4E-09					0.01
Medium Total								5E-04					4
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Naphthalene	- -	--	- -	--	- -	Body Weight	0.003	--	0.001	0.004
			Trichloroethene	2E-08	--	2E-09	--	2E-08	/S, Fetotoxicity, Immu	0.009	--	0.0008	0.010
			Benzo(a)pyrene Equivalents	9E-05	--	3E-05	--	1E-04	NA	--	--	--	--
			Aroclor-1260	1E-06	--	5E-07	--	2E-06	NA	--	--	--	--
			Arsenic	6E-06	--	5E-07	--	7E-06	Skin, CVS	0.2	--	0.01	0.2
			Chromium VI	4E-07	--	5E-07	--	9E-07	None Reported	0.0006	--	0.0007	0.001
			Cobalt	- -	--	- -	--	- -	Blood	0.2	--	0.006	0.2
			Iron	- -	--	- -	--	- -	GS	0.02	--	0.0005	0.02
			Manganese	- -	--	- -	--	- -	CNS	0.001	--	0.0007	0.002
			Thallium	- -	--	- -	--	- -	Skin	1	--	0.03	1
			Vanadium	- -	--	- -	--	- -	Kidney	0.07	--	0.002	0.07
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	1E-04	--	4E-05	--	1E-04		2	--	0.05	2
		Exposure Point Total						1E-04					2
	Exposure Medium Total							1E-04					2

TABLE 9.9.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Air	RECs #9 and #10	Naphthalene	--	2E-07	--	--	2E-07	Respiratory	--	0.02	--	0.02
			Trichloroethene	--	4E-08	--	--	4E-08	CVS, Immune	--	0.06	--	0.06
			Benzo(a)pyrene Equivalents	--	3E-10	--	--	3E-10	NA	--	--	--	--
			Aroclor-1260	--	9E-12	--	--	9E-12	NA	--	--	--	--
			Arsenic	--	4E-10	--	--	4E-10	Skin, CVS	--	0.00008	--	0.00008
			Chromium VI	--	2E-09	--	--	2E-09	Respiratory	--	0.0000004	--	0.0000004
			Cobalt	--	1E-09	--	--	1E-09	Respiratory	--	0.0003	--	0.0003
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.00001	--	0.00001
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-07	--	--	2E-07		- -	0.08	- -	0.08
		Exposure Point Total						2E-07					0.08
	Exposure Medium Total							2E-07					0.08
Medium Total								1E-04					2
Groundwater	Groundwater	RECs #9 and #10	Benzene	9E-07	--	1E-07	--	1E-06	Blood	0.05	--	0.008	0.06
			Carbon Tetrachloride	1E-06	--	3E-07	--	1E-06	Liver	0.04	--	0.01	0.05
			Chloroform	2E-07	--	1E-08	--	2E-07	Liver	0.006	--	0.0005	0.006
			Trichloroethene	1E-04	--	2E-05	--	1E-04	VS, Fetotoxicity, Immu	58	--	9	67
			Arsenic	8E-05	--	5E-07	--	8E-05	Skin, CVS	2	--	0.01	2
			Chromium VI	1E-04	--	6E-05	--	2E-04	None Reported	0.2	--	0.09	0.3
			Cobalt	- -	--	- -	--	- -	Blood	16	--	0.04	16
			Iron	- -	--	- -	--	- -	GS	1	--	0.008	1
			Manganese	- -	--	- -	--	- -	CNS	2	--	0.3	2
			Nickel	- -	--	- -	--	- -	Body Weight	0.2	--	0.006	0.2
			Vanadium	- -	--	- -	--	- -	Kidney	0.3	--	0.002	0.3
			Zinc	- -	--	- -	--	- -	Blood	0.02	--	0.00007	0.02
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Gasoline Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	3E-04	--	8E-05	--	4E-04		80	--	10	90
		Exposure Point Total						4E-04					90
	Exposure Medium Total							4E-04					90
Medium Total								4E-04					90
Receptor Total							Receptor Risk Total	1E-03				Receptor HI Total	95

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	17
Total Body Weight HI	0.2
Total CNS HI	4
Total CVS HI	69
Total Fetotoxicity HI	67
Total GS HI	1
Total Immune HI	67
Total Kidney HI	0.4
Total Liver HI	0.06
Total Respiratory HI	0.02
Total None Reported HI	0.3
Total Skin HI	5

TABLE 9.10.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #11	Benzo(a)pyrene Equivalents	1E-05	--	6E-06	--	2E-05	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	3E-07	--	1E-07	--	4E-07	NA	--	--	--	--
			Aroclor-1260	1E-06	--	6E-07	--	2E-06	NA	--	--	--	--
			Arsenic	2E-06	--	2E-07	--	2E-06	Skin, CVS	0.03	--	0.002	0.03
			Chromium VI	8E-08	--	9E-08	--	2E-07	None Reported	0.0001	--	0.0001	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.03	--	0.0009	0.03
			Iron	- -	--	- -	--	- -	GS	0.03	--	0.001	0.04
			Manganese	- -	--	- -	--	- -	CNS	0.04	--	0.03	0.06
			Thallium	- -	--	- -	--	- -	Skin	0.2	--	0.007	0.2
			Vanadium	- -	--	- -	--	- -	Kidney	0.01	--	0.0004	0.01
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-05	--	7E-06	--	2E-05		0.4	--	0.04	0.4
		Exposure Point Total						2E-05					0.4
	Exposure Medium Total							2E-05					0.4
	Air	RECs #11	Benzo(a)pyrene Equivalents	--	3E-10	--	--	3E-10	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	--	1E-11	--	--	1E-11	NA	--	--	--	--
			Aroclor-1260	--	5E-11	--	--	5E-11	NA	--	--	--	--
			Arsenic	--	7E-10	--	--	7E-10	Skin, CVS	--	0.00007	--	0.00007
			Chromium VI	--	2E-09	--	--	2E-09	Respiratory	--	0.0000004	--	0.0000004
			Cobalt	--	2E-09	--	--	2E-09	Respiratory	--	0.0002	--	0.0002
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.002	--	0.002
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	4E-09	--	--	4E-09		- -	0.002	- -	0.002
		Exposure Point Total						4E-09					0.002
	Exposure Medium Total							4E-09					0.002
Medium Total								2E-05					0.4

TABLE 9.10.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	RECs #11	Trichloroethene	6E-11	--	6E-12	--	7E-11	/S, Fetotoxicity, Immu	0.00002	--	0.000001	0.00002
			Benzo(a)pyrene Equivalents	2E-05	--	7E-06	--	3E-05	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.00004	--	0.00002	0.00006
			Aroclor-1260	1E-06	--	4E-07	--	1E-06	NA	--	--	--	--
			Arsenic	7E-06	--	7E-07	--	8E-06	Skin, CVS	0.10	--	0.009	0.1
			Chromium VI	7E-08	--	9E-08	--	2E-07	None Reported	0.0001	--	0.0001	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.02	--	0.0005	0.02
			Iron	- -	--	- -	--	- -	GS	0.05	--	0.002	0.06
			Manganese	- -	--	- -	--	- -	CNS	0.07	--	0.05	0.1
			Thallium	- -	--	- -	--	- -	Skin	0.2	--	0.005	0.2
			Vanadium	- -	--	- -	--	- -	Kidney	0.03	--	0.001	0.04
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	3E-05	--	8E-06	--	4E-05		0.4	--	0.07	0.5
		Exposure Point Total						4E-05					0.5
	Exposure Medium Total							4E-05					0.5
	Air	RECs #11	Trichloroethene	--	7E-10	--	--	7E-10	CVS, Immune	--	0.0005	--	0.0005
			Benzo(a)pyrene Equivalents	--	3E-10	--	--	3E-10	NA	--	--	--	--
			Naphthalene	--	3E-08	--	--	3E-08	Respiratory	--	0.002	--	0.002
			Aroclor-1260	--	3E-11	--	--	3E-11	NA	--	--	--	--
			Arsenic	--	3E-09	--	--	3E-09	Skin, CVS	--	0.0002	--	0.0002
			Chromium VI	--	1E-09	--	--	1E-09	Respiratory	--	0.0000004	--	0.0000004
			Cobalt	--	9E-10	--	--	9E-10	Respiratory	--	0.00009	--	0.00009
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.004	--	0.004
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	4E-08	--	--	4E-08		- -	0.007	- -	0.007
		Exposure Point Total						4E-08					0.007
	Exposure Medium Total							4E-08					0.007
Medium Total								4E-05					0.5
Groundwater	Groundwater	RECs #11	Benzene	6E-08	--	7E-09	--	7E-08	Blood	0.002	--	0.0002	0.002
			Trichloroethene	9E-06	--	1E-06	--	1E-05	/S, Fetotoxicity, Immu	2	--	0.3	3
			Vinyl Chloride	4E-06	--	2E-07	--	4E-06	Liver	0.01	--	0.0004	0.01
			Arsenic	1E-04	--	5E-07	--	1E-04	Skin, CVS	2	--	0.007	2
			Chromium VI	8E-05	--	2E-05	--	1E-04	None Reported	0.1	--	0.04	0.2
			Cobalt	- -	--	- -	--	- -	Blood	34	--	0.05	34
			Iron	- -	--	- -	--	- -	GS	1	--	0.005	1
			Manganese	- -	--	- -	--	- -	CNS	0.4	--	0.04	0.5
			Nickel	- -	--	- -	--	- -	Body Weight	0.9	--	0.02	0.9
			Thallium	- -	--	- -	--	- -	Skin	5	--	0.02	5
			Vanadium	- -	--	- -	--	- -	Kidney	0.5	--	0.002	0.5
			Zinc	- -	--	- -	--	- -	Blood	0.2	--	0.0005	0.2
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-04	--	3E-05	--	3E-04		47	--	0.5	47
		Exposure Point Total						3E-04					47
	Exposure Medium Total							3E-04					47
Medium Total								3E-04					47
Receptor Total							Receptor Risk Total	3E-04				Receptor HI Total	48

TABLE 9.10.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	34
Total Body Weight HI	0.9
Total CNS HI	0.7
Total CVS HI	5
Total Fetotoxicity HI	3
Total GS HI	2
Total Immune HI	3
Total Kidney HI	0.5
Total Liver HI	0.01
Total Respiratory HI	0.002
Total None Reported HI	0.2
Total Skin HI	8

TABLE 9.10.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #9 and #10	Benzo(a)pyrene Equivalents	6E-05	--	2E-05	--	9E-05	NA	--	--	--	--
			Aroclor-1260	5E-08	--	2E-08	--	7E-08	NA	--	--	--	--
			Arsenic	2E-06	--	2E-07	--	2E-06	Skin, CVS	0.02	--	0.002	0.03
			Chromium VI	7E-08	--	8E-08	--	1E-07	None Reported	0.00010	--	0.0001	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.02	--	0.0007	0.02
			Iron	- -	--	- -	--	- -	GS	0.03	--	0.0009	0.03
			Manganese	- -	--	- -	--	- -	CNS	0.2	--	0.2	0.4
			Thallium	- -	--	- -	--	- -	Skin	0.2	--	0.007	0.2
			Vanadium	- -	--	- -	--	- -	Kidney	0.01	--	0.0003	0.01
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	6E-05	--	2E-05	--	9E-05		0.5	--	0.2	0.7
		Exposure Point Total						9E-05					0.7
	Exposure Medium Total							9E-05					0.7
	Air	RECs #9 and #10	Benzo(a)pyrene Equivalents	--	1E-09	--	--	1E-09	NA	--	--	--	--
			Aroclor-1260	--	2E-12	--	--	2E-12	NA	--	--	--	--
			Arsenic	--	6E-10	--	--	6E-10	Skin, CVS	--	0.00006	--	0.00006
			Chromium VI	--	1E-09	--	--	1E-09	Respiratory	--	0.0000004	--	0.0000004
			Cobalt	--	1E-09	--	--	1E-09	Respiratory	--	0.0001	--	0.0001
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.01	--	0.01
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	4E-09	--	--	4E-09		- -	0.01	- -	0.01
		Exposure Point Total						4E-09					0.01
	Exposure Medium Total							4E-09					0.01
Medium Total								9E-05					0.7
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Naphthalene	- -	--	- -	--	- -	Body Weight	0.0005	--	0.0002	0.0008
			Trichloroethene	7E-09	--	6E-10	--	7E-09	YS, Fetotoxicity, Immu	0.002	--	0.0002	0.002
			Benzo(a)pyrene Equivalents	2E-05	--	7E-06	--	2E-05	NA	--	--	--	--
			Aroclor-1260	5E-07	--	2E-07	--	7E-07	NA	--	--	--	--
			Arsenic	2E-06	--	2E-07	--	3E-06	Skin, CVS	0.03	--	0.003	0.03
			Chromium VI	8E-08	--	1E-07	--	2E-07	None Reported	0.0001	--	0.0001	0.0003
			Cobalt	- -	--	- -	--	- -	Blood	0.04	--	0.001	0.04
			Iron	- -	--	- -	--	- -	GS	0.003	--	0.0001	0.004
			Manganese	- -	--	- -	--	- -	CNS	0.0002	--	0.0002	0.0004
			Thallium	- -	--	- -	--	- -	Skin	0.2	--	0.006	0.2
			Vanadium	- -	--	- -	--	- -	Kidney	0.01	--	0.0004	0.01
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-05	--	7E-06	--	3E-05		0.3	--	0.01	0.3
		Exposure Point Total						3E-05					0.3
	Exposure Medium Total							3E-05					0.3

TABLE 9.10.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Air	RECs #9 and #10	Naphthalene	--	4E-07	--	--	4E-07	Respiratory	--	0.02	--	0.02
			Trichloroethene	--	8E-08	--	--	8E-08	CVS, Immune	--	0.06	--	0.06
			Benzo(a)pyrene Equivalents	--	3E-10	--	--	3E-10	NA	--	--	--	--
			Aroclor-1260	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Arsenic	--	8E-10	--	--	8E-10	Skin, CVS	--	0.00008	--	0.00008
			Chromium VI	--	2E-09	--	--	2E-09	Respiratory	--	0.0000004	--	0.0000004
			Cobalt	--	2E-09	--	--	2E-09	Respiratory	--	0.0003	--	0.0003
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.00001	--	0.00001
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	5E-07	--	--	5E-07		- -	0.08	- -	0.08
		Exposure Point Total						5E-07					0.08
	Exposure Medium Total							5E-07					0.08
Medium Total								3E-05					0.4
Groundwater	Groundwater	RECs #9 and #10	Benzene	1E-06	--	2E-07	--	2E-06	Blood	0.04	--	0.004	0.04
			Carbon Tetrachloride	1E-06	--	3E-07	--	2E-06	Liver	0.03	--	0.006	0.04
			Chloroform	2E-07	--	2E-08	--	2E-07	Liver	0.004	--	0.0003	0.005
			Trichloroethene	2E-04	--	2E-05	--	2E-04	/S, Fetotoxicity, Immu	43	--	5	48
			Arsenic	1E-04	--	5E-07	--	1E-04	Skin, CVS	2	--	0.006	2
			Chromium VI	9E-05	--	3E-05	--	1E-04	None Reported	0.1	--	0.04	0.2
			Cobalt	- -	--	- -	--	- -	Blood	12	--	0.02	12
			Iron	- -	--	- -	--	- -	GS	0.9	--	0.004	0.9
			Manganese	- -	--	- -	--	- -	CNS	2	--	0.1	2
			Nickel	- -	--	- -	--	- -	Body Weight	0.1	--	0.002	0.1
			Vanadium	- -	--	- -	--	- -	Kidney	0.2	--	0.0008	0.2
			Zinc	- -	--	- -	--	- -	Blood	0.01	--	0.00003	0.01
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Gasoline Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	4E-04	--	5E-05	--	4E-04		60	--	6	65
		Exposure Point Total						4E-04					65
	Exposure Medium Total							4E-04					65
Medium Total								4E-04					65
Receptor Total							Receptor Risk Total	5E-04				Receptor HI Total	66

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	12
Total Body Weight HI	0.1
Total CNS HI	2
Total CVS HI	50
Total Fetotoxicity HI	48
Total GS HI	1.0
Total Immune HI	48
Total Kidney HI	0.2
Total Liver HI	0.04
Total Respiratory HI	0.02
Total None Reported HI	0.2
Total Skin HI	2

TABLE 9.11.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	REC #11	Benzo(a)pyrene Equivalents	3E-06	--	2E-06	--	5E-06	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	2E-07	--	8E-08	--	3E-07	NA	--	--	--	--
			Aroclor-1260	8E-07	--	4E-07	--	1E-06	NA	--	--	--	--
			Arsenic	1E-06	--	1E-07	--	1E-06	Skin, CVS	0.02	--	0.002	0.02
			Chromium VI	2E-08	--	3E-08	--	4E-08	None Reported	0.00006	--	0.0001	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.02	--	0.0007	0.02
			Iron	- -	--	- -	--	- -	GS	0.02	--	0.0008	0.02
			Manganese	- -	--	- -	--	- -	CNS	0.02	--	0.02	0.04
			Thallium	- -	--	- -	--	- -	Skin	0.1	--	0.005	0.1
			Vanadium	- -	--	- -	--	- -	Kidney	0.007	--	0.0003	0.007
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	5E-06	--	2E-06	--	7E-06		0.2	--	0.03	0.2
		Exposure Point Total						7E-06					0.2
	Exposure Medium Total							7E-06					0.2
	Air	REC #11	Benzo(a)pyrene Equivalents	--	1E-10	--	--	1E-10	NA	--	--	--	--
			n-Nitroso-di-n-propylamine	--	1E-11	--	--	1E-11	NA	--	--	--	--
			Aroclor-1260	--	5E-11	--	--	5E-11	NA	--	--	--	--
			Arsenic	--	7E-10	--	--	7E-10	Skin, CVS	--	0.00007	--	0.00007
			Chromium VI	--	6E-10	--	--	6E-10	Respiratory	--	0.0000004	--	0.0000004
			Cobalt	--	2E-09	--	--	2E-09	Respiratory	--	0.0002	--	0.0002
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.002	--	0.002
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	3E-09	--	--	3E-09		- -	0.002	- -	0.002
		Exposure Point Total						3E-09					0.002
	Exposure Medium Total							3E-09					0.002
Medium Total								7E-06					0.2

TABLE 9.11.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	REC #11	Trichloroethene	4E-11	--	4E-12	--	4E-11	/S, Fetotoxicity, Immu	0.000009	--	0.000001	0.00001
			Benzo(a)pyrene Equivalents	4E-06	--	2E-06	--	6E-06	NA	--	--	--	--
			Naphthalene	- -	--	- -	--	- -	Body Weight	0.00003	--	0.00001	0.00004
			Aroclor-1260	6E-07	--	3E-07	--	9E-07	NA	--	--	--	--
			Arsenic	4E-06	--	5E-07	--	5E-06	Skin, CVS	0.05	--	0.007	0.06
			Chromium VI	2E-08	--	2E-08	--	4E-08	None Reported	0.00006	--	0.00009	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.009	--	0.0003	0.009
			Iron	- -	--	- -	--	- -	GS	0.03	--	0.001	0.03
			Manganese	- -	--	- -	--	- -	CNS	0.04	--	0.04	0.08
			Thallium	- -	--	- -	--	- -	Skin	0.09	--	0.004	0.10
			Vanadium	- -	--	- -	--	- -	Kidney	0.02	--	0.0008	0.02
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	9E-06	--	3E-06	--	1E-05		0.2	--	0.05	0.3
		Exposure Point Total						1E-05					0.3
	Exposure Medium Total							1E-05					0.3
	Air	REC #11	Trichloroethene	--	7E-10	--	--	7E-10	CVS, Immune	--	0.0005	--	0.0005
			Benzo(a)pyrene Equivalents	--	1E-10	--	--	1E-10	NA	--	--	--	--
			Naphthalene	--	3E-08	--	--	3E-08	Respiratory	--	0.002	--	0.002
			Aroclor-1260	--	3E-11	--	--	3E-11	NA	--	--	--	--
			Arsenic	--	3E-09	--	--	3E-09	Skin, CVS	--	0.0002	--	0.0002
			Chromium VI	--	6E-10	--	--	6E-10	Respiratory	--	0.0000004	--	0.0000004
			Cobalt	--	9E-10	--	--	9E-10	Respiratory	--	0.00009	--	0.00009
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.004	--	0.004
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	4E-08	--	--	4E-08		- -	0.007	- -	0.007
		Exposure Point Total						4E-08					0.007
	Exposure Medium Total							4E-08					0.007
Medium Total								1E-05					0.3

TABLE 9.11.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	Groundwater	REC #11	Benzene	3E-08	--	5E-09	--	4E-08	Blood	0.0009	--	0.0001	0.001
			Trichloroethene	5E-06	--	9E-07	--	6E-06	/S, Fetotoxicity, Immu	1	--	0.2	2
			Vinyl Chloride	2E-06	--	1E-07	--	2E-06	Liver	0.006	--	0.0003	0.006
			Arsenic	8E-05	--	4E-07	--	8E-05	Skin, CVS	1	--	0.005	1
			Chromium VI	2E-05	--	7E-06	--	2E-05	None Reported	0.07	--	0.03	0.10
			Cobalt	- -	--	- -	--	- -	Blood	19	--	0.04	19
			Iron	- -	--	- -	--	- -	GS	0.8	--	0.004	0.8
			Manganese	- -	--	- -	--	- -	CNS	0.2	--	0.03	0.3
			Nickel	- -	--	- -	--	- -	Body Weight	0.5	--	0.01	0.5
			Thallium	- -	--	- -	--	- -	Skin	3	--	0.02	3
			Vanadium	- -	--	- -	--	- -	Kidney	0.3	--	0.001	0.3
			Zinc	- -	--	- -	--	- -	Blood	0.1	--	0.0004	0.1
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	1E-04	--	9E-06	--	1E-04		27	--	0.4	27
		Exposure Point Total						1E-04					27
	Exposure Medium Total							1E-04					27
	Air	REC #11	Benzene	--	1E-08	--	--	1E-08	Blood	--	0.0003	--	0.0003
			Trichloroethene	--	1E-06	--	--	1E-06	CVS, Immune	--	0.8	--	0.8
			Vinyl Chloride	--	4E-08	--	--	4E-08	Liver	--	0.0006	--	0.0006
			Arsenic	--	- -	--	--	- -	Skin, CVS	--	--	--	--
			Chromium VI	--	- -	--	--	- -	Respiratory	--	--	--	--
			Cobalt	--	- -	--	--	- -	Respiratory	--	--	--	--
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	--	--	--
			Nickel	--	- -	--	--	- -	Respiratory	--	--	--	--
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Zinc	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	1E-06	--	--	1E-06		- -	0.8	- -	0.8
		Exposure Point Total						1E-06					0.8
	Exposure Medium Total							1E-06					0.8
Medium Total								1E-04					28
Receptor Total							Receptor Risk Total	1E-04				Receptor HI Total	28

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	19
Total Body Weight HI	0.5
Total CNS HI	0.4
Total CVS HI	3
Total Fetotoxicity HI	2
Total GS HI	0.9
Total Immune HI	2
Total Kidney HI	0.3
Total Liver HI	0.007
Total Respiratory HI	0.002
Total None Reported HI	0.10
Total Skin HI	4

TABLE 9.11.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #9 and #10	Benzo(a)pyrene Equivalents	1E-05	--	7E-06	--	2E-05	NA	--	--	--	--
			Aroclor-1260	3E-08	--	2E-08	--	5E-08	NA	--	--	--	--
			Arsenic	1E-06	--	1E-07	--	1E-06	Skin, CVS	0.01	--	0.002	0.01
			Chromium VI	1E-08	--	2E-08	--	4E-08	None Reported	0.00005	--	0.00009	0.0001
			Cobalt	- -	--	- -	--	- -	Blood	0.01	--	0.0005	0.01
			Iron	- -	--	- -	--	- -	GS	0.02	--	0.0007	0.02
			Manganese	- -	--	- -	--	- -	CNS	0.1	--	0.1	0.3
			Thallium	- -	--	- -	--	- -	Skin	0.1	--	0.005	0.1
			Vanadium	- -	--	- -	--	- -	Kidney	0.007	--	0.0003	0.007
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	1E-05	--	7E-06	--	2E-05		0.3	--	0.1	0.4
		Exposure Point Total						2E-05					0.4
	Exposure Medium Total							2E-05					0.4
	Air	RECs #9 and #10	Benzo(a)pyrene Equivalents	--	4E-10	--	--	4E-10	NA	--	--	--	--
			Aroclor-1260	--	2E-12	--	--	2E-12	NA	--	--	--	--
			Arsenic	--	6E-10	--	--	6E-10	Skin, CVS	--	0.00006	--	0.00006
			Chromium VI	--	5E-10	--	--	5E-10	Respiratory	--	0.0000004	--	0.0000004
			Cobalt	--	1E-09	--	--	1E-09	Respiratory	--	0.0001	--	0.0001
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.01	--	0.01
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	3E-09	--	--	3E-09		- -	0.01	- -	0.01
		Exposure Point Total						3E-09					0.01
	Exposure Medium Total							3E-09					0.01
Medium Total								2E-05					0.4

TABLE 9.11.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Naphthalene	- -	--	- -	--	- -	Body Weight	0.0003	--	0.0002	0.0005
			Trichloroethene	4E-09	--	5E-10	--	4E-09	/S, Fetotoxicity, Immu	0.0010	--	0.0001	0.001
			Benzo(a)pyrene Equivalents	4E-06	--	2E-06	--	6E-06	NA	--	--	--	--
			Aroclor-1260	3E-07	--	2E-07	--	5E-07	NA	--	--	--	--
			Arsenic	1E-06	--	2E-07	--	1E-06	Skin, CVS	0.02	--	0.002	0.02
			Chromium VI	2E-08	--	3E-08	--	5E-08	None Reported	0.00007	--	0.0001	0.0002
			Cobalt	- -	--	- -	--	- -	Blood	0.02	--	0.0009	0.02
			Iron	- -	--	- -	--	- -	GS	0.002	--	0.00008	0.002
			Manganese	- -	--	- -	--	- -	CNS	0.0001	--	0.0001	0.0002
			Thallium	- -	--	- -	--	- -	Skin	0.1	--	0.004	0.1
			Vanadium	- -	--	- -	--	- -	Kidney	0.007	--	0.0003	0.007
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	5E-06	--	2E-06	--	8E-06		0.2	--	0.008	0.2
		Exposure Point Total						8E-06					0.2
	Exposure Medium Total							8E-06					0.2
	Air	RECs #9 and #10	Naphthalene	--	4E-07	--	--	4E-07	Respiratory	--	0.02	--	0.02
			Trichloroethene	--	8E-08	--	--	8E-08	CVS, Immune	--	0.06	--	0.06
			Benzo(a)pyrene Equivalents	--	1E-10	--	--	1E-10	NA	--	--	--	--
			Aroclor-1260	--	2E-11	--	--	2E-11	NA	--	--	--	--
			Arsenic	--	8E-10	--	--	8E-10	Skin, CVS	--	0.00008	--	0.00008
			Chromium VI	--	6E-10	--	--	6E-10	Respiratory	--	0.0000004	--	0.0000004
			Cobalt	--	2E-09	--	--	2E-09	Respiratory	--	0.0003	--	0.0003
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	0.00001	--	0.00001
			Thallium	--	- -	--	--	- -	NA	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	5E-07	--	--	5E-07		- -	0.08	- -	0.08
		Exposure Point Total						5E-07					0.08
	Exposure Medium Total							5E-07					0.08
Medium Total								8E-06					0.3

TABLE 9.11.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	Groundwater	RECs #9 and #10	Benzene	8E-07	--	1E-07	--	9E-07	Blood	0.02	--	0.003	0.02
			Carbon Tetrachloride	9E-07	--	2E-07	--	1E-06	Liver	0.02	--	0.005	0.02
			Chloroform	1E-07	--	1E-08	--	1E-07	Liver	0.003	--	0.0002	0.003
			Trichloroethene	1E-04	--	2E-05	--	1E-04	/S, Fetotoxicity, Immu	25	--	4	29
			Arsenic	7E-05	--	4E-07	--	7E-05	Skin, CVS	0.9	--	0.005	0.9
			Chromium VI	2E-05	--	8E-06	--	3E-05	None Reported	0.07	--	0.03	0.1
			Cobalt	- -	--	- -	--	- -	Blood	7	--	0.01	7
			Iron	- -	--	- -	--	- -	GS	0.5	--	0.003	0.5
			Manganese	- -	--	- -	--	- -	CNS	0.9	--	0.1	1.0
			Nickel	- -	--	- -	--	- -	Body Weight	0.07	--	0.002	0.07
			Vanadium	- -	--	- -	--	- -	Kidney	0.1	--	0.0007	0.1
			Zinc	- -	--	- -	--	- -	Blood	0.007	--	0.00002	0.007
			Diesel Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Gasoline Range Organics	- -	--	- -	--	- -	NA	--	--	--	--
			Chemical Total	2E-04	--	3E-05	--	2E-04		34	--	4	39
		Exposure Point Total						2E-04					39
	Exposure Medium Total							2E-04					39
	Air	RECs #9 and #10	Benzene	--	3E-07	--	--	3E-07	Blood	--	0.008	--	0.008
			Carbon Tetrachloride	--	2E-07	--	--	2E-07	Liver	--	0.002	--	0.002
			Chloroform	--	2E-07	--	--	2E-07	Liver	--	0.0006	--	0.0006
			Trichloroethene	--	2E-05	--	--	2E-05	CVS, Immune	--	14	--	14
			Arsenic	--	- -	--	--	- -	Skin, CVS	--	--	--	--
			Chromium VI	--	- -	--	--	- -	Respiratory	--	--	--	--
			Cobalt	--	- -	--	--	- -	Respiratory	--	--	--	--
			Iron	--	- -	--	--	- -	NA	--	--	--	--
			Manganese	--	- -	--	--	- -	CNS	--	--	--	--
			Nickel	--	- -	--	--	- -	Respiratory	--	--	--	--
			Vanadium	--	- -	--	--	- -	NA	--	--	--	--
			Zinc	--	- -	--	--	- -	NA	--	--	--	--
			Diesel Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Gasoline Range Organics	--	- -	--	--	- -	NA	--	--	--	--
			Chemical Total	--	2E-05	--	--	2E-05		- -	14	- -	14
		Exposure Point Total						2E-05					14
	Exposure Medium Total							2E-05					14
Medium Total								2E-04					53
Receptor Total							Receptor Risk Total	3E-04				Receptor HI Total	53

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

Total Blood HI	7
Total Body Weight HI	0.07
Total CNS HI	1
Total CVS HI	44
Total Fetotoxicity HI	29
Total GS HI	0.6
Total Immune HI	43
Total Kidney HI	0.1
Total Liver HI	0.03
Total Respiratory HI	0.02
Total None Reported HI	0.1
Total Skin HI	1

TABLE 9.12.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Lifelong

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	REC #11	Benzo(a)pyrene Equivalents	9E-05	--	4E-05	--	1E-04					
			n-Nitroso-di-n-propylamine	1E-06	--	4E-07	--	2E-06					
			Aroclor-1260	6E-06	--	2E-06	--	8E-06					
			Arsenic	9E-06	--	8E-07	--	9E-06					
			Chromium VI	5E-07	--	6E-07	--	1E-06					
			Cobalt	- -	--	- -	--	- -					
			Iron	- -	--	- -	--	- -					
			Manganese	- -	--	- -	--	- -					
			Thallium	- -	--	- -	--	- -					
			Vanadium	- -	--	- -	--	- -					
			Diesel Range Organics	- -	--	- -	--	- -					
			Chemical Total	1E-04	--	4E-05	--	1E-04					
		Exposure Point Total						1E-04					
	Exposure Medium Total							1E-04					
	Air	REC #11	Benzo(a)pyrene Equivalents	--	6E-10	--	--	6E-10					
			n-Nitroso-di-n-propylamine	--	3E-11	--	--	3E-11					
			Aroclor-1260	--	1E-10	--	--	1E-10					
			Arsenic	--	2E-09	--	--	2E-09					
			Chromium VI	--	4E-09	--	--	4E-09					
			Cobalt	--	4E-09	--	--	4E-09					
			Iron	--	- -	--	--	- -					
			Manganese	--	- -	--	--	- -					
			Thallium	--	- -	--	--	- -					
			Vanadium	--	- -	--	--	- -					
			Diesel Range Organics	--	- -	--	--	- -					
			Chemical Total	--	1E-08	--	--	1E-08					
		Exposure Point Total						1E-08					
	Exposure Medium Total							1E-08					
Medium Total								1E-04					

TABLE 9.12.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Lifelong

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	REC #11	Trichloroethene	3E-10	--	2E-11	--	3E-10					
			Benzo(a)pyrene Equivalents	1E-04	--	4E-05	--	2E-04					
			Naphthalene	- -	--	- -	--	- -					
			Aroclor-1260	4E-06	--	2E-06	--	6E-06					
			Arsenic	3E-05	--	3E-06	--	3E-05					
			Chromium VI	5E-07	--	5E-07	--	1E-06					
			Cobalt	- -	--	- -	--	- -					
			Iron	- -	--	- -	--	- -					
			Manganese	- -	--	- -	--	- -					
			Thallium	- -	--	- -	--	- -					
			Vanadium	- -	--	- -	--	- -					
			Diesel Range Organics	- -	--	- -	--	- -					
			Chemical Total	2E-04	--	5E-05	--	2E-04					
		Exposure Point Total						2E-04					
	Exposure Medium Total							2E-04					
	Air	REC #11	Trichloroethene	--	2E-09	--	--	2E-09					
			Benzo(a)pyrene Equivalents	--	8E-10	--	--	8E-10					
			Naphthalene	--	8E-08	--	--	8E-08					
			Aroclor-1260	--	9E-11	--	--	9E-11					
			Arsenic	--	7E-09	--	--	7E-09					
			Chromium VI	--	4E-09	--	--	4E-09					
			Cobalt	--	2E-09	--	--	2E-09					
			Iron	--	- -	--	--	- -					
			Manganese	--	- -	--	--	- -					
			Thallium	--	- -	--	--	- -					
			Vanadium	--	- -	--	--	- -					
			Diesel Range Organics	--	- -	--	--	- -					
			Chemical Total	--	1E-07	--	--	1E-07					
		Exposure Point Total						1E-07					
	Exposure Medium Total							1E-07					
Medium Total								2E-04					

TABLE 9.12.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Lifelong

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	Groundwater	REC #11	Benzene	1E-07	--	2E-08	--	1E-07					
			Trichloroethene	2E-05	--	3E-06	--	2E-05					
			Vinyl Chloride	4E-05	--	2E-06	--	4E-05					
			Arsenic	3E-04	--	2E-06	--	3E-04					
			Chromium VI	2E-04	--	9E-05	--	3E-04					
			Cobalt	- -	--	- -	--	- -					
			Iron	- -	--	- -	--	- -					
			Manganese	- -	--	- -	--	- -					
			Nickel	- -	--	- -	--	- -					
			Thallium	- -	--	- -	--	- -					
			Vanadium	- -	--	- -	--	- -					
			Zinc	- -	--	- -	--	- -					
			Diesel Range Organics	- -	--	- -	--	- -					
			Chemical Total	6E-04	--	1E-04	--	7E-04					
		Exposure Point Total						7E-04					
	Exposure Medium Total							7E-04					
	Air	REC #11	Benzene	--	1E-08	--	--	1E-08					
			Trichloroethene	--	1E-06	--	--	1E-06					
			Vinyl Chloride	--	4E-08	--	--	4E-08					
			Arsenic	--	- -	--	--	- -					
			Chromium VI	--	- -	--	--	- -					
			Cobalt	--	- -	--	--	- -					
			Iron	--	- -	--	--	- -					
			Manganese	--	- -	--	--	- -					
			Nickel	--	- -	--	--	- -					
			Thallium	--	- -	--	--	- -					
			Vanadium	--	- -	--	--	- -					
			Zinc	--	- -	--	--	- -					
			Diesel Range Organics	--	- -	--	--	- -					
			Chemical Total	--	1E-06	--	--	1E-06					
		Exposure Point Total						1E-06					
	Exposure Medium Total							1E-06					
Medium Total								7E-04					
Receptor Total							Receptor Risk Total	1E-03					

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

TABLE 9.12.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Lifelong

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Soil	Surface Soil	RECs #9 and #10	Benzo(a)pyrene Equivalents	4E-04	--	2E-04	--	6E-04					
			Aroclor-1260	2E-07	--	9E-08	--	3E-07					
			Arsenic	8E-06	--	7E-07	--	8E-06					
			Chromium VI	4E-07	--	5E-07	--	9E-07					
			Cobalt	- -	--	- -	--	- -					
			Iron	- -	--	- -	--	- -					
			Manganese	- -	--	- -	--	- -					
			Thallium	- -	--	- -	--	- -					
			Vanadium	- -	--	- -	--	- -					
			Diesel Range Organics	- -	--	- -	--	- -					
			Chemical Total	4E-04	--	2E-04	--	6E-04					
		Exposure Point Total						6E-04					
	Exposure Medium Total							6E-04					
	Air	RECs #9 and #10	Benzo(a)pyrene Equivalents	--	3E-09	--	--	3E-09					
			Aroclor-1260	--	5E-12	--	--	5E-12					
			Arsenic	--	2E-09	--	--	2E-09					
			Chromium VI	--	3E-09	--	--	3E-09					
			Cobalt	--	3E-09	--	--	3E-09					
			Iron	--	- -	--	--	- -					
			Manganese	--	- -	--	--	- -					
			Thallium	--	- -	--	--	- -					
			Vanadium	--	- -	--	--	- -					
			Diesel Range Organics	--	- -	--	--	- -					
			Chemical Total	--	1E-08	--	--	1E-08					
		Exposure Point Total						1E-08					
	Exposure Medium Total							1E-08					
Medium Total								6E-04					

TABLE 9.12.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Lifelong

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Subsurface Soil	Subsurface Soil	RECs #9 and #10	Naphthalene	- -	--	- -	--	- -					
			Trichloroethene	3E-08	--	3E-09	--	3E-08					
			Benzo(a)pyrene Equivalents	1E-04	--	4E-05	--	2E-04					
			Aroclor-1260	2E-06	--	9E-07	--	3E-06					
			Arsenic	1E-05	--	9E-07	--	1E-05					
			Chromium VI	5E-07	--	6E-07	--	1E-06					
			Cobalt	- -	--	- -	--	- -					
			Iron	- -	--	- -	--	- -					
			Manganese	- -	--	- -	--	- -					
			Thallium	- -	--	- -	--	- -					
			Vanadium	- -	--	- -	--	- -					
			Diesel Range Organics	- -	--	- -	--	- -					
			Chemical Total	1E-04	--	5E-05	--	2E-04					
		Exposure Point Total						2E-04					
	Exposure Medium Total							2E-04					
	Air	RECs #9 and #10	Naphthalene	--	1E-06	--	--	1E-06					
			Trichloroethene	--	2E-07	--	--	2E-07					
			Benzo(a)pyrene Equivalents	--	8E-10	--	--	8E-10					
			Aroclor-1260	--	5E-11	--	--	5E-11					
			Arsenic	--	2E-09	--	--	2E-09					
			Chromium VI	--	4E-09	--	--	4E-09					
			Cobalt	--	6E-09	--	--	6E-09					
			Iron	--	- -	--	--	- -					
			Manganese	--	- -	--	--	- -					
			Thallium	--	- -	--	--	- -					
			Vanadium	--	- -	--	--	- -					
			Diesel Range Organics	--	- -	--	--	- -					
			Chemical Total	--	1E-06	--	--	1E-06					
		Exposure Point Total						1E-06					
	Exposure Medium Total							1E-06					
Medium Total								2E-04					

TABLE 9.12.RME
SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs
REASONABLE MAXIMUM EXPOSURES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT

Scenario Timeframe: Hypothetical
Receptor Population: Residents
Receptor Age: Lifelong

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	External (Radiation)	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Groundwater	Groundwater	RECs #9 and #10	Benzene	3E-06	--	4E-07	--	4E-06					
			Carbon Tetrachloride	3E-06	--	8E-07	--	4E-06					
			Chloroform	5E-07	--	4E-08	--	6E-07					
			Trichloroethene	4E-04	--	6E-05	--	4E-04					
			Arsenic	3E-04	--	1E-06	--	3E-04					
			Chromium VI	2E-04	--	1E-04	--	3E-04					
			Cobalt	- -	--	- -	--	- -					
			Iron	- -	--	- -	--	- -					
			Manganese	- -	--	- -	--	- -					
			Nickel	- -	--	- -	--	- -					
			Vanadium	- -	--	- -	--	- -					
			Zinc	- -	--	- -	--	- -					
			Diesel Range Organics	- -	--	- -	--	- -					
			Gasoline Range Organics	- -	--	- -	--	- -					
			Chemical Total	9E-04	--	2E-04	--	1E-03					
		Exposure Point Total						1E-03					
	Exposure Medium Total							1E-03					
	Air	RECs #9 and #10	Benzene	--	3E-07	--	--	3E-07					
			Carbon Tetrachloride	--	2E-07	--	--	2E-07					
			Chloroform	--	2E-07	--	--	2E-07					
			Trichloroethene	--	2E-05	--	--	2E-05					
			Arsenic	--	- -	--	--	- -					
			Chromium VI	--	- -	--	--	- -					
			Cobalt	--	- -	--	--	- -					
			Iron	--	- -	--	--	- -					
			Manganese	--	- -	--	--	- -					
			Nickel	--	- -	--	--	- -					
			Vanadium	--	- -	--	--	- -					
			Zinc	--	- -	--	--	- -					
			Diesel Range Organics	--	- -	--	--	- -					
			Gasoline Range Organics	--	- -	--	--	- -					
			Chemical Total	--	2E-05	--	--	2E-05					
		Exposure Point Total						2E-05					
	Exposure Medium Total							2E-05					
Medium Total								1E-03					
Receptor Total							Receptor Risk Total	2E-03					

Notes:
1 - Mutagenic chemicals were evaluated in accordance with USEPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens (2005).

APPENDIX J-3

PROUCL OUTPUT

Surface Soil

1				**General UCL Statistics for Full Data Sets**								
2		**User Selected Options**										
3		From File		WorkSheet.wst								
4		Full Precision		OFF								
5		Confidence Coefficient		95%								
6		Number of Bootstrap Operations		2000								
7												
8												
9	**Arsenic**											
10												
11						**General Statistics**							
12				Number of Valid Observations	33			Number of Distinct Observations	23			
13				Number of Missing Values	1							
14												
15				**Raw Statistics**				**Log-transformed Statistics**				
16				Minimum	0.71			Minimum of Log Data	-0.342			
17				Maximum	5.6			Maximum of Log Data	1.723			
18				Mean	2.537			Mean of log Data	0.84			
19				Median	2.2			SD of log Data	0.439			
20				SD	1.126							
21				Std. Error of Mean	0.196							
22				Coefficient of Variation	0.444							
23				Skewness	1.128							
24												
25				**Relevant UCL Statistics**								
26				**Normal Distribution Test**				**Lognormal Distribution Test**				
27				Shapiro Wilk Test Statistic	0.91			Shapiro Wilk Test Statistic	0.977			
28				Shapiro Wilk Critical Value	0.931			Shapiro Wilk Critical Value	0.931			
29				**Data not Normal at 5% Significance Level**				**Data appear Lognormal at 5% Significance Level**				
30												
31				**Assuming Normal Distribution**				**Assuming Lognormal Distribution**				
32				95% Student's-t UCL	2.869			95% H-UCL	2.952			
33				**95% UCLs (Adjusted for Skewness)**				95% Chebyshev (MVUE) UCL	3.417			
34				95% Adjusted-CLT UCL (Chen-1995)	2.9			97.5% Chebyshev (MVUE) UCL	3.796			
35				95% Modified-t UCL (Johnson-1978)	2.875			99% Chebyshev (MVUE) UCL	4.54			
36												
37				**Gamma Distribution Test**				**Data Distribution**				
38				k star (bias corrected)	5.155			**Data appear Gamma Distributed at 5% Significance Level**				
39				Theta Star	0.492							
40				MLE of Mean	2.537							
41				MLE of Standard Deviation	1.117							
42				nu star	340.2							
43				Approximate Chi Square Value (.05)	298.5			**Nonparametric Statistics**				
44				Adjusted Level of Significance	0.0419			95% CLT UCL	2.859			
45				Adjusted Chi Square Value	296.5			95% Jackknife UCL	2.869			
46								95% Standard Bootstrap UCL	2.85			
47				Anderson-Darling Test Statistic	0.377			95% Bootstrap-t UCL	2.904			
48				Anderson-Darling 5% Critical Value	0.748			95% Hall's Bootstrap UCL	2.917			
49				Kolmogorov-Smirnov Test Statistic	0.11			95% Percentile Bootstrap UCL	2.861			
50				Kolmogorov-Smirnov 5% Critical Value	0.153			95% BCA Bootstrap UCL	2.916			

51	**Data appear Gamma Distributed at 5% Significance Level**										95% Chebyshev(Mean, Sd) UCL	3.391
52											97.5% Chebyshev(Mean, Sd) UCL	3.76
53	**Assuming Gamma Distribution**										99% Chebyshev(Mean, Sd) UCL	4.486
54					95% Approximate Gamma UCL	2.891						
55					95% Adjusted Gamma UCL	2.911						
56												
57	**Potential UCL to Use**										Use 95% Approximate Gamma UCL	2.891
58												
59	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
60	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
61	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
62												
63												
64	**Chromium**											
65												
66	**General Statistics**											
67					Number of Valid Observations	33					Number of Distinct Observations	25
68					Number of Missing Values	1						
69												
70	**Raw Statistics**										**Log-transformed Statistics**	
71					Minimum	2.1					Minimum of Log Data	0.742
72					Maximum	24					Maximum of Log Data	3.178
73					Mean	10.28					Mean of log Data	2.192
74					Median	9					SD of log Data	0.562
75					SD	5.265						
76					Std. Error of Mean	0.917						
77					Coefficient of Variation	0.512						
78					Skewness	0.859						
79												
80	**Relevant UCL Statistics**											
81	**Normal Distribution Test**										**Lognormal Distribution Test**	
82					Shapiro Wilk Test Statistic	0.936					Shapiro Wilk Test Statistic	0.958
83					Shapiro Wilk Critical Value	0.931					Shapiro Wilk Critical Value	0.931
84	**Data appear Normal at 5% Significance Level**										**Data appear Lognormal at 5% Significance Level**	
85												
86	**Assuming Normal Distribution**										**Assuming Lognormal Distribution**	
87					95% Student's-t UCL	11.83					95% H-UCL	12.77
88	**95% UCLs (Adjusted for Skewness)**										95% Chebyshev (MVUE) UCL	15.13
89					95% Adjusted-CLT UCL (Chen-1995)	11.93					97.5% Chebyshev (MVUE) UCL	17.16
90					95% Modified-t UCL (Johnson-1978)	11.85					99% Chebyshev (MVUE) UCL	21.16
91												
92	**Gamma Distribution Test**										**Data Distribution**	
93					k star (bias corrected)	3.454					**Data appear Normal at 5% Significance Level**	
94					Theta Star	2.975						
95					MLE of Mean	10.28						
96					MLE of Standard Deviation	5.529						
97					nu star	228						
98					Approximate Chi Square Value (.05)	194					**Nonparametric Statistics**	
99					Adjusted Level of Significance	0.0419					95% CLT UCL	11.78
100					Adjusted Chi Square Value	192.4					95% Jackknife UCL	11.83

101											95% Standard Bootstrap UCL	11.77
102					Anderson-Darling Test Statistic	0.298					95% Bootstrap-t UCL	12.03
103					Anderson-Darling 5% Critical Value	0.752					95% Hall's Bootstrap UCL	12.03
104					Kolmogorov-Smirnov Test Statistic	0.127					95% Percentile Bootstrap UCL	11.73
105					Kolmogorov-Smirnov 5% Critical Value	0.154					95% BCA Bootstrap UCL	11.94
106					**Data appear Gamma Distributed at 5% Significance Level**						95% Chebyshev(Mean, Sd) UCL	14.27
107											97.5% Chebyshev(Mean, Sd) UCL	16
108					**Assuming Gamma Distribution**						99% Chebyshev(Mean, Sd) UCL	19.4
109					95% Approximate Gamma UCL	12.07						
110					95% Adjusted Gamma UCL	12.17						
111												
112					**Potential UCL to Use**						Use 95% Student's-t UCL	11.83
113												
114	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
115	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
116	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
117												
118												
119	**Cobalt**											
120												
121	**General Statistics**											
122					Number of Valid Observations	33					Number of Distinct Observations	24
123					Number of Missing Values	1						
124												
125	**Raw Statistics**						**Log-transformed Statistics**					
126					Minimum	0.26					Minimum of Log Data	-1.347
127					Maximum	7.1					Maximum of Log Data	1.96
128					Mean	2.383					Mean of log Data	0.655
129					Median	1.9					SD of log Data	0.699
130					SD	1.58						
131					Std. Error of Mean	0.275						
132					Coefficient of Variation	0.663						
133					Skewness	1.346						
134												
135	**Relevant UCL Statistics**											
136	**Normal Distribution Test**						**Lognormal Distribution Test**					
137					Shapiro Wilk Test Statistic	0.879					Shapiro Wilk Test Statistic	0.968
138					Shapiro Wilk Critical Value	0.931					Shapiro Wilk Critical Value	0.931
139	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
140												
141	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
142					95% Student's-t UCL	2.849					95% H-UCL	3.19
143	**95% UCLs (Adjusted for Skewness)**										95% Chebyshev (MVUE) UCL	3.836
144					95% Adjusted-CLT UCL (Chen-1995)	2.904					97.5% Chebyshev (MVUE) UCL	4.442
145					95% Modified-t UCL (Johnson-1978)	2.86					99% Chebyshev (MVUE) UCL	5.631
146												
147	**Gamma Distribution Test**						**Data Distribution**					
148					k star (bias corrected)	2.295	**Data appear Gamma Distributed at 5% Significance Level**					
149					Theta Star	1.038						
150					MLE of Mean	2.383						

151					MLE of Standard Deviation	1.573						
152					nu star	151.5						
153					Approximate Chi Square Value (.05)	124	**Nonparametric Statistics**					
154					Adjusted Level of Significance	0.0419				95% CLT UCL	2.835	
155					Adjusted Chi Square Value	122.8				95% Jackknife UCL	2.849	
156										95% Standard Bootstrap UCL	2.831	
157					Anderson-Darling Test Statistic	0.349				95% Bootstrap-t UCL	2.954	
158					Anderson-Darling 5% Critical Value	0.756				95% Hall's Bootstrap UCL	2.94	
159					Kolmogorov-Smirnov Test Statistic	0.128				95% Percentile Bootstrap UCL	2.829	
160					Kolmogorov-Smirnov 5% Critical Value	0.155				95% BCA Bootstrap UCL	2.897	
161					**Data appear Gamma Distributed at 5% Significance Level**					95% Chebyshev(Mean, Sd) UCL	3.582	
162										97.5% Chebyshev(Mean, Sd) UCL	4.101	
163					**Assuming Gamma Distribution**					99% Chebyshev(Mean, Sd) UCL	5.12	
164					95% Approximate Gamma UCL	2.91						
165					95% Adjusted Gamma UCL	2.94						
166												
167					**Potential UCL to Use**					Use 95% Approximate Gamma UCL	2.91	
168												
169	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
170	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
171	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
172												
173												
174	**Iron**											
175												
176	**General Statistics**											
177					Number of Valid Observations	15				Number of Distinct Observations	14	
178					Number of Missing Values	1						
179												
180	**Raw Statistics**						**Log-transformed Statistics**					
181					Minimum	1860				Minimum of Log Data	7.528	
182					Maximum	12900				Maximum of Log Data	9.465	
183					Mean	6933				Mean of log Data	8.732	
184					Median	5750				SD of log Data	0.512	
185					SD	3263						
186					Std. Error of Mean	842.5						
187					Coefficient of Variation	0.471						
188					Skewness	0.663						
189												
190	**Relevant UCL Statistics**											
191	**Normal Distribution Test**						**Lognormal Distribution Test**					
192					Shapiro Wilk Test Statistic	0.924				Shapiro Wilk Test Statistic	0.948	
193					Shapiro Wilk Critical Value	0.881				Shapiro Wilk Critical Value	0.881	
194	**Data appear Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
195												
196	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
197					95% Student's-t UCL	8417				95% H-UCL	9396	
198	**95% UCLs (Adjusted for Skewness)**									95% Chebyshev (MVUE) UCL	11159	
199					95% Adjusted-CLT UCL (Chen-1995)	8473				97.5% Chebyshev (MVUE) UCL	12960	
200					95% Modified-t UCL (Johnson-1978)	8441				99% Chebyshev (MVUE) UCL	16496	

201												
202	**Gamma Distribution Test**						**Data Distribution**					
203					k star (bias corrected)	3.741	**Data appear Normal at 5% Significance Level**					
204					Theta Star	1853						
205					MLE of Mean	6933						
206					MLE of Standard Deviation	3584						
207					nu star	112.2						
208					Approximate Chi Square Value (.05)	88.78	**Nonparametric Statistics**					
209					Adjusted Level of Significance	0.0324					95% CLT UCL	8319
210					Adjusted Chi Square Value	86.21					95% Jackknife UCL	8417
211											95% Standard Bootstrap UCL	8270
212					Anderson-Darling Test Statistic	0.282					95% Bootstrap-t UCL	8674
213					Anderson-Darling 5% Critical Value	0.739					95% Hall's Bootstrap UCL	8495
214					Kolmogorov-Smirnov Test Statistic	0.125					95% Percentile Bootstrap UCL	8343
215					Kolmogorov-Smirnov 5% Critical Value	0.222					95% BCA Bootstrap UCL	8459
216	**Data appear Gamma Distributed at 5% Significance Level**										95% Chebyshev(Mean, Sd) UCL	10605
217											97.5% Chebyshev(Mean, Sd) UCL	12194
218	**Assuming Gamma Distribution**										99% Chebyshev(Mean, Sd) UCL	15316
219					95% Approximate Gamma UCL	8764						
220					95% Adjusted Gamma UCL	9025						
221												
222	**Potential UCL to Use**										Use 95% Student's-t UCL	8417
223												
224	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
225	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
226	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
227												
228												
229	**Manganese**											
230												
231	**General Statistics**											
232					Number of Valid Observations	15					Number of Distinct Observations	15
233					Number of Missing Values	1						
234												
235	**Raw Statistics**						**Log-transformed Statistics**					
236					Minimum	4.6					Minimum of Log Data	1.526
237					Maximum	2390					Maximum of Log Data	7.779
238					Mean	397.7					Mean of log Data	4.593
239					Median	77					SD of log Data	1.787
240					SD	700.4						
241					Std. Error of Mean	180.8						
242					Coefficient of Variation	1.761						
243					Skewness	2.223						
244												
245	**Relevant UCL Statistics**											
246	**Normal Distribution Test**						**Lognormal Distribution Test**					
247					Shapiro Wilk Test Statistic	0.62					Shapiro Wilk Test Statistic	0.968
248					Shapiro Wilk Critical Value	0.881					Shapiro Wilk Critical Value	0.881
249	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
250												

251	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
252					95% Student's-t UCL	716.2					95% H-UCL	3544
253	**95% UCLs (Adjusted for Skewness)**										95% Chebyshev (MVUE) UCL	1297
254					95% Adjusted-CLT UCL (Chen-1995)	806					97.5% Chebyshev (MVUE) UCL	1689
255					95% Modified-t UCL (Johnson-1978)	733.5					99% Chebyshev (MVUE) UCL	2458
256												
257	**Gamma Distribution Test**						**Data Distribution**					
258					k star (bias corrected)	0.414	**Data appear Lognormal at 5% Significance Level**					
259					Theta Star	960.6						
260					MLE of Mean	397.7						
261					MLE of Standard Deviation	618.1						
262					nu star	12.42						
263					Approximate Chi Square Value (.05)	5.505	**Nonparametric Statistics**					
264					Adjusted Level of Significance	0.0324					95% CLT UCL	695.1
265					Adjusted Chi Square Value	4.948					95% Jackknife UCL	716.2
266											95% Standard Bootstrap UCL	682.9
267					Anderson-Darling Test Statistic	0.817					95% Bootstrap-t UCL	1216
268					Anderson-Darling 5% Critical Value	0.801					95% Hall's Bootstrap UCL	1062
269					Kolmogorov-Smirnov Test Statistic	0.238					95% Percentile Bootstrap UCL	715.2
270					Kolmogorov-Smirnov 5% Critical Value	0.235					95% BCA Bootstrap UCL	786.3
271	**Data not Gamma Distributed at 5% Significance Level**										95% Chebyshev(Mean, Sd) UCL	1186
272											97.5% Chebyshev(Mean, Sd) UCL	1527
273	**Assuming Gamma Distribution**										99% Chebyshev(Mean, Sd) UCL	2197
274					95% Approximate Gamma UCL	897.2						
275					95% Adjusted Gamma UCL	998.1						
276												
277	**Potential UCL to Use**										Use 99% Chebyshev (Mean, Sd) UCL	2197
278												
279	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
280	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
281	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
282												
283												
284	**Vanadium**											
285												
286	**General Statistics**											
287					Number of Valid Observations	33					Number of Distinct Observations	26
288					Number of Missing Values	1						
289												
290	**Raw Statistics**						**Log-transformed Statistics**					
291					Minimum	3.5					Minimum of Log Data	1.253
292					Maximum	65					Maximum of Log Data	4.174
293					Mean	19.16					Mean of log Data	2.761
294					Median	15.1					SD of log Data	0.621
295					SD	13.73						
296					Std. Error of Mean	2.39						
297					Coefficient of Variation	0.717						
298					Skewness	2.165						
299												
300	**Relevant UCL Statistics**											

	A	B	C	D	E	F	G	H	I	J	K	L
301	**Normal Distribution Test**						**Lognormal Distribution Test**					
302					Shapiro Wilk Test Statistic	0.746					Shapiro Wilk Test Statistic	0.947
303					Shapiro Wilk Critical Value	0.931					Shapiro Wilk Critical Value	0.931
304	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
305												
306	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
307					95% Student's-t UCL	23.21					95% H-UCL	24
308	**95% UCLs (Adjusted for Skewness)**										95% Chebyshev (MVUE) UCL	28.65
309					95% Adjusted-CLT UCL (Chen-1995)	24.06					97.5% Chebyshev (MVUE) UCL	32.8
310					95% Modified-t UCL (Johnson-1978)	23.36					99% Chebyshev (MVUE) UCL	40.96
311												
312	**Gamma Distribution Test**						**Data Distribution**					
313					k star (bias corrected)	2.531	**Data appear Lognormal at 5% Significance Level**					
314					Theta Star	7.57						
315					MLE of Mean	19.16						
316					MLE of Standard Deviation	12.04						
317					nu star	167.1						
318					Approximate Chi Square Value (.05)	138.2	**Nonparametric Statistics**					
319					Adjusted Level of Significance	0.0419					95% CLT UCL	23.1
320					Adjusted Chi Square Value	136.8					95% Jackknife UCL	23.21
321											95% Standard Bootstrap UCL	23
322					Anderson-Darling Test Statistic	1.13					95% Bootstrap-t UCL	25.17
323					Anderson-Darling 5% Critical Value	0.755					95% Hall's Bootstrap UCL	27.07
324					Kolmogorov-Smirnov Test Statistic	0.175					95% Percentile Bootstrap UCL	23.48
325					Kolmogorov-Smirnov 5% Critical Value	0.154					95% BCA Bootstrap UCL	24.26
326	**Data not Gamma Distributed at 5% Significance Level**										95% Chebyshev(Mean, Sd) UCL	29.58
327											97.5% Chebyshev(Mean, Sd) UCL	34.09
328	**Assuming Gamma Distribution**										99% Chebyshev(Mean, Sd) UCL	42.95
329					95% Approximate Gamma UCL	23.17						
330					95% Adjusted Gamma UCL	23.4						
331												
332	**Potential UCL to Use**										Use 95% H-UCL	24
333												
334	**ProUCL computes and outputs H-statistic based UCLs for historical reasons only.**											
335	**H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.**											
336	**It is therefore recommended to avoid the use of H-statistic based 95% UCLs.**											
337	**Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.**											
338												
339	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
340	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
341	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
342												

1				**General UCL Statistics for Data Sets with Non-Detects**							
2			**User Selected Options**								
3			From File	WorkSheet.wst							
4			Full Precision	OFF							
5			Confidence Coefficient	95%							
6			Number of Bootstrap Operations	2000							
7											
8											
9	**BaP Equivalents**										
10											
11						**General Statistics**					
12						Number of Valid Data	33		Number of Detected Data	28	
13						Number of Distinct Detected Data	28		Number of Non-Detect Data	5	
14						Number of Missing Values	1		Percent Non-Detects	15.15%	
15											
16						**Raw Statistics**			**Log-transformed Statistics**		
17						Minimum Detected	15.68		Minimum Detected	2.752	
18						Maximum Detected	19285		Maximum Detected	9.867	
19						Mean of Detected	1558		Mean of Detected	5.22	
20						SD of Detected	4005		SD of Detected	2.019	
21						Minimum Non-Detect	3.6		Minimum Non-Detect	1.281	
22						Maximum Non-Detect	3.8		Maximum Non-Detect	1.335	
23											
24	Note: Data have multiple DLs - Use of KM Method is recommended								Number treated as Non-Detect	5	
25	For all methods (except KM, DL/2, and ROS Methods),								Number treated as Detected	28	
26	Observations < Largest ND are treated as NDs								Single DL Non-Detect Percentage	15.15%	
27											
28						**UCL Statistics**					
29						**Normal Distribution Test with Detected Values Only**			**Lognormal Distribution Test with Detected Values Only**		
30						Shapiro Wilk Test Statistic	0.445		Shapiro Wilk Test Statistic	0.907	
31						5% Shapiro Wilk Critical Value	0.924		5% Shapiro Wilk Critical Value	0.924	
32						**Data not Normal at 5% Significance Level**			**Data not Lognormal at 5% Significance Level**		
33											
34						**Assuming Normal Distribution**			**Assuming Lognormal Distribution**		
35						DL/2 Substitution Method			DL/2 Substitution Method		
36						Mean	1322		Mean	4.52	
37						SD	3723		SD	2.503	
38						95% DL/2 (t) UCL	2420		95% H-Stat (DL/2) UCL	16434	
39											
40						Maximum Likelihood Estimate(MLE) Method			Log ROS Method		
41						Mean	875.9		Mean in Log Scale	4.526	
42						SD	4066		SD in Log Scale	2.501	
43						95% MLE (t) UCL	2075		Mean in Original Scale	1322	
44						95% MLE (Tiku) UCL	2011		SD in Original Scale	3722	
45									95% t UCL	2420	
46									95% Percentile Bootstrap UCL	2454	
47									95% BCA Bootstrap UCL	3053	
48									95% H UCL	16418	
49											
50						**Gamma Distribution Test with Detected Values Only**			**Data Distribution Test with Detected Values Only**		

51				k star (bias corrected)	0.31	**Data do not follow a Discernable Distribution (0.05)**						
52				Theta Star	5031							
53				nu star	17.34							
54												
55				A-D Test Statistic	2.479	**Nonparametric Statistics**						
56				5% A-D Critical Value	0.85					Kaplan-Meier (KM) Method		
57				K-S Test Statistic	0.85					Mean		1324
58				5% K-S Critical Value	0.179					SD		3665
59	**Data not Gamma Distributed at 5% Significance Level**									SE of Mean		649.7
60										95% KM (t) UCL		2425
61	**Assuming Gamma Distribution**									95% KM (z) UCL		2393
62				Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL		2421
63				Minimum	0.000001					95% KM (bootstrap t) UCL		4832
64				Maximum	19285					95% KM (BCA) UCL		2618
65				Mean	1322					95% KM (Percentile Bootstrap) UCL		2487
66				Median	62.65					95% KM (Chebyshev) UCL		4156
67				SD	3723					97.5% KM (Chebyshev) UCL		5382
68				k star	0.163					99% KM (Chebyshev) UCL		7789
69				Theta star	8098							
70				Nu star	10.77	**Potential UCLs to Use**						
71				AppChi2	4.431					99% KM (Chebyshev) UCL		7789
72				95% Gamma Approximate UCL	3214							
73				95% Adjusted Gamma UCL	3373							
74	**Note: DL/2 is not a recommended method.**											
75												
76	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
77	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
78	**For additional insight, the user may want to consult a statistician.**											
79												
80												
81	**Diesel Range Organics**											
82												
83	**General Statistics**											
84				Number of Valid Data	33	Number of Detected Data	24					
85				Number of Distinct Detected Data	22	Number of Non-Detect Data	9					
86				Number of Missing Values	1	Percent Non-Detects	27.27%					
87												
88	**Raw Statistics**					**Log-transformed Statistics**						
89				Minimum Detected	3.6	Minimum Detected	1.281					
90				Maximum Detected	1200	Maximum Detected	7.09					
91				Mean of Detected	204.6	Mean of Detected	4.457					
92				SD of Detected	296.6	SD of Detected	1.41					
93				Minimum Non-Detect	3	Minimum Non-Detect	1.099					
94				Maximum Non-Detect	72	Maximum Non-Detect	4.277					
95												
96	Note: Data have multiple DLs - Use of KM Method is recommended					Number treated as Non-Detect	22					
97	For all methods (except KM, DL/2, and ROS Methods),					Number treated as Detected	11					
98	Observations < Largest ND are treated as NDs					Single DL Non-Detect Percentage	66.67%					
99												
100	**UCL Statistics**											

101	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
102					Shapiro Wilk Test Statistic	0.667					Shapiro Wilk Test Statistic	0.976
103					5% Shapiro Wilk Critical Value	0.916					5% Shapiro Wilk Critical Value	0.916
104	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
105												
106	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
107					DL/2 Substitution Method						DL/2 Substitution Method	
108					Mean	152.1					Mean	3.816
109					SD	266.1					SD	1.671
110					95% DL/2 (t) UCL	230.6					95% H-Stat (DL/2) UCL	494
111												
112					Maximum Likelihood Estimate(MLE) Method	N/A					Log ROS Method	
113	**MLE yields a negative mean**										Mean in Log Scale	3.726
114											SD in Log Scale	1.74
115											Mean in Original Scale	150.8
116											SD in Original Scale	266.8
117											95% t UCL	229.5
118											95% Percentile Bootstrap UCL	238.2
119											95% BCA Bootstrap UCL	246.8
120											95% H-UCL	545.9
121												
122	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
123					k star (bias corrected)	0.64	**Data Follow Appr. Gamma Distribution at 5% Significance Level**					
124					Theta Star	319.6						
125					nu star	30.73						
126												
127					A-D Test Statistic	0.742	**Nonparametric Statistics**					
128					5% A-D Critical Value	0.787					Kaplan-Meier (KM) Method	
129					K-S Test Statistic	0.787					Mean	151.2
130					5% K-S Critical Value	0.186					SD	262.6
131	**Data follow Appr. Gamma Distribution at 5% Significance Level**										SE of Mean	46.7
132											95% KM (t) UCL	230.3
133	**Assuming Gamma Distribution**										95% KM (z) UCL	228
134					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	228.6
135					Minimum	0.000001					95% KM (bootstrap t) UCL	289.2
136					Maximum	1200					95% KM (BCA) UCL	231.1
137					Mean	148.8					95% KM (Percentile Bootstrap) UCL	234.1
138					Median	45					95% KM (Chebyshev) UCL	354.7
139					SD	267.9					97.5% KM (Chebyshev) UCL	442.8
140					k star	0.148					99% KM (Chebyshev) UCL	615.8
141					Theta star	1007						
142					Nu star	9.755	**Potential UCLs to Use**					
143					AppChi2	3.789					95% KM (Chebyshev) UCL	354.7
144					95% Gamma Approximate UCL	383						
145					95% Adjusted Gamma UCL	403.2						
146	**Note: DL/2 is not a recommended method.**											
147												
148	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
149	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
150	**For additional insight, the user may want to consult a statistician.**											

	A	B	C	D	E	F	G	H	I	J	K	L
151												

1				**General UCL Statistics for Data Sets with Non-Detects**							
2			**User Selected Options**								
3			From File	REC 9 and 10 Surface Soil							
4			Full Precision	OFF							
5			Confidence Coefficient	95%							
6			Number of Bootstrap Operations	2000							
7											
8											
9	**Thallium**										
10											
11					**General Statistics**						
12					Number of Valid Data	33			Number of Detected Data	3	
13					Number of Distinct Detected Data	3			Number of Non-Detect Data	30	
14					Number of Missing Values	1			Percent Non-Detects	90.91%	
15											
16					**Raw Statistics**				**Log-transformed Statistics**		
17					Minimum Detected	0.7			Minimum Detected	-0.357	
18					Maximum Detected	2.3			Maximum Detected	0.833	
19					Mean of Detected	1.667			Mean of Detected	0.39	
20					SD of Detected	0.85			SD of Detected	0.65	
21					Minimum Non-Detect	0.014			Minimum Non-Detect	-4.269	
22					Maximum Non-Detect	0.62			Maximum Non-Detect	-0.478	
23											
24					Note: Data have multiple DLs - Use of KM Method is recommended				Number treated as Non-Detect	30	
25					For all methods (except KM, DL/2, and ROS Methods),				Number treated as Detected	3	
26					Observations < Largest ND are treated as NDs				Single DL Non-Detect Percentage	90.91%	
27											
28					**Warning: There are only 3 Distinct Detected Values in this data set**						
29					**The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.**						
30					**Those methods will return a 'N/A' value on your output display!**						
31											
32					**It is necessary to have 4 or more Distinct Values for bootstrap methods.**						
33					**However, results obtained using 4 to 9 distinct values may not be reliable.**						
34					**It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.**						
35											
36											
37					**UCL Statistics**						
38					**Normal Distribution Test with Detected Values Only**				**Lognormal Distribution Test with Detected Values Only**		
39					Shapiro Wilk Test Statistic	0.885			Shapiro Wilk Test Statistic	0.837	
40					5% Shapiro Wilk Critical Value	0.767			5% Shapiro Wilk Critical Value	0.767	
41					**Data appear Normal at 5% Significance Level**				**Data appear Lognormal at 5% Significance Level**		
42											
43					**Assuming Normal Distribution**				**Assuming Lognormal Distribution**		
44					DL/2 Substitution Method				DL/2 Substitution Method		
45					Mean	0.293			Mean	-2.166	
46					SD	0.504			SD	1.444	
47					95% DL/2 (t) UCL	0.442			95% H-Stat (DL/2) UCL	0.704	
48											
49					Maximum Likelihood Estimate(MLE) Method	N/A			Log ROS Method		
50					**MLE yields a negative mean**				Mean in Log Scale	-3.247	

51											SD in Log Scale	1.279
52											Mean in Original Scale	0.18
53											SD in Original Scale	0.523
54											95% t UCL	0.334
55											95% Percentile Bootstrap UCL	0.355
56											95% BCA Bootstrap UCL	0.409
57											95% H-UCL	0.166
58												
59	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
60					k star (bias corrected)	N/A	**Data appear Normal at 5% Significance Level**					
61					Theta Star	N/A						
62					nu star	N/A						
63												
64					A-D Test Statistic	N/A	**Nonparametric Statistics**					
65					5% A-D Critical Value	N/A					Kaplan-Meier (KM) Method	
66					K-S Test Statistic	N/A					Mean	0.788
67					5% K-S Critical Value	N/A					SD	0.348
68	**Data not Gamma Distributed at 5% Significance Level**										SE of Mean	0.0742
69											95% KM (t) UCL	0.914
70	**Assuming Gamma Distribution**										95% KM (z) UCL	0.91
71					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	1.615
72					Minimum	N/A					95% KM (bootstrap t) UCL	0.841
73					Maximum	N/A					95% KM (BCA) UCL	2.3
74					Mean	N/A					95% KM (Percentile Bootstrap) UCL	2.3
75					Median	N/A					95% KM (Chebyshev) UCL	1.111
76					SD	N/A					97.5% KM (Chebyshev) UCL	1.251
77					k star	N/A					99% KM (Chebyshev) UCL	1.526
78					Theta star	N/A						
79					Nu star	N/A	**Potential UCLs to Use**					
80					AppChi2	N/A					95% KM (t) UCL	0.914
81					95% Gamma Approximate UCL	N/A					95% KM (Percentile Bootstrap) UCL	2.3
82					95% Adjusted Gamma UCL	N/A						
83	**Note: DL/2 is not a recommended method.**											
84												
85	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
86	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
87	**For additional insight, the user may want to consult a statistician.**											
88												

1				**General UCL Statistics for Full Data Sets**							
2			**User Selected Options**								
3			From File	WorkSheet.wst							
4			Full Precision	OFF							
5			Confidence Coefficient	95%							
6			Number of Bootstrap Operations	2000							
7											
8											
9	**BaP Equivalents**										
10											
11					**General Statistics**						
12				Number of Valid Observations	33			Number of Distinct Observations	33		
13				Number of Missing Values	1						
14											
15				**Raw Statistics**				**Log-transformed Statistics**			
16				Minimum	5.729			Minimum of Log Data	1.746		
17				Maximum	7404			Maximum of Log Data	8.91		
18				Mean	1241			Mean of log Data	6.42		
19				Median	740			SD of log Data	1.442		
20				SD	1556						
21				Std. Error of Mean	270.9						
22				Coefficient of Variation	1.254						
23				Skewness	2.79						
24											
25					**Relevant UCL Statistics**						
26				**Normal Distribution Test**				**Lognormal Distribution Test**			
27				Shapiro Wilk Test Statistic	0.677			Shapiro Wilk Test Statistic	0.927		
28				Shapiro Wilk Critical Value	0.931			Shapiro Wilk Critical Value	0.931		
29				**Data not Normal at 5% Significance Level**				**Data not Lognormal at 5% Significance Level**			
30											
31				**Assuming Normal Distribution**				**Assuming Lognormal Distribution**			
32				95% Student's-t UCL	1700			95% H-UCL	3746		
33				**95% UCLs (Adjusted for Skewness)**				95% Chebyshev (MVUE) UCL	3892		
34				95% Adjusted-CLT UCL (Chen-1995)	1827			97.5% Chebyshev (MVUE) UCL	4869		
35				95% Modified-t UCL (Johnson-1978)	1722			99% Chebyshev (MVUE) UCL	6788		
36											
37				**Gamma Distribution Test**				**Data Distribution**			
38				k star (bias corrected)	0.782			**Data appear Gamma Distributed at 5% Significance Level**			
39				Theta Star	1588						
40				MLE of Mean	1241						
41				MLE of Standard Deviation	1404						
42				nu star	51.59						
43				Approximate Chi Square Value (.05)	36.09			**Nonparametric Statistics**			
44				Adjusted Level of Significance	0.0419			95% CLT UCL	1687		
45				Adjusted Chi Square Value	35.42			95% Jackknife UCL	1700		
46								95% Standard Bootstrap UCL	1674		
47				Anderson-Darling Test Statistic	0.317			95% Bootstrap-t UCL	2131		
48				Anderson-Darling 5% Critical Value	0.783			95% Hall's Bootstrap UCL	4063		
49				Kolmogorov-Smirnov Test Statistic	0.0924			95% Percentile Bootstrap UCL	1711		
50				Kolmogorov-Smirnov 5% Critical Value	0.159			95% BCA Bootstrap UCL	1822		

51	**Data appear Gamma Distributed at 5% Significance Level**										95% Chebyshev(Mean, Sd) UCL	2422
52											97.5% Chebyshev(Mean, Sd) UCL	2933
53	**Assuming Gamma Distribution**										99% Chebyshev(Mean, Sd) UCL	3936
54	95% Approximate Gamma UCL	1774										
55	95% Adjusted Gamma UCL	1808										
56												
57	**Potential UCL to Use**										Use 95% Approximate Gamma UCL	1774
58												
59	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
60	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
61	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
62												
63												
64	**Arsenic**											
65												
66	**General Statistics**											
67	Number of Valid Observations	33									Number of Distinct Observations	21
68	Number of Missing Values	1										
69												
70	**Raw Statistics**										**Log-transformed Statistics**	
71	Minimum	0.98									Minimum of Log Data	-0.0202
72	Maximum	4.5									Maximum of Log Data	1.504
73	Mean	3.102									Mean of log Data	1.089
74	Median	3.2									SD of log Data	0.321
75	SD	0.821										
76	Std. Error of Mean	0.143										
77	Coefficient of Variation	0.265										
78	Skewness	-0.533										
79												
80	**Relevant UCL Statistics**											
81	**Normal Distribution Test**										**Lognormal Distribution Test**	
82	Shapiro Wilk Test Statistic	0.969									Shapiro Wilk Test Statistic	0.878
83	Shapiro Wilk Critical Value	0.931									Shapiro Wilk Critical Value	0.931
84	**Data appear Normal at 5% Significance Level**										**Data not Lognormal at 5% Significance Level**	
85												
86	**Assuming Normal Distribution**										**Assuming Lognormal Distribution**	
87	95% Student's-t UCL	3.345									95% H-UCL	3.467
88	**95% UCLs (Adjusted for Skewness)**										95% Chebyshev (MVUE) UCL	3.898
89	95% Adjusted-CLT UCL (Chen-1995)	3.323									97.5% Chebyshev (MVUE) UCL	4.234
90	95% Modified-t UCL (Johnson-1978)	3.342									99% Chebyshev (MVUE) UCL	4.892
91												
92	**Gamma Distribution Test**										**Data Distribution**	
93	k star (bias corrected)	10.74									**Data appear Normal at 5% Significance Level**	
94	Theta Star	0.289										
95	MLE of Mean	3.102										
96	MLE of Standard Deviation	0.947										
97	nu star	708.8										
98	Approximate Chi Square Value (.05)	648.1									**Nonparametric Statistics**	
99	Adjusted Level of Significance	0.0419									95% CLT UCL	3.338
100	Adjusted Chi Square Value	645.1									95% Jackknife UCL	3.345

101											95% Standard Bootstrap UCL	3.336
102					Anderson-Darling Test Statistic	0.699					95% Bootstrap-t UCL	3.327
103					Anderson-Darling 5% Critical Value	0.747					95% Hall's Bootstrap UCL	3.324
104					Kolmogorov-Smirnov Test Statistic	0.126					95% Percentile Bootstrap UCL	3.324
105					Kolmogorov-Smirnov 5% Critical Value	0.153					95% BCA Bootstrap UCL	3.33
106					**Data appear Gamma Distributed at 5% Significance Level**						95% Chebyshev(Mean, Sd) UCL	3.725
107											97.5% Chebyshev(Mean, Sd) UCL	3.995
108					**Assuming Gamma Distribution**						99% Chebyshev(Mean, Sd) UCL	4.525
109					95% Approximate Gamma UCL	3.393						
110					95% Adjusted Gamma UCL	3.409						
111												
112					**Potential UCL to Use**						Use 95% Student's-t UCL	3.345
113												
114	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
115	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
116	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
117												
118	**Note: For highly negative-skewed data, confidence limits**											
119	**(e.g., Chen, Johnson, Lognormal, and Gamma) may not be**											
120	**reliable. Chen's and Johnson's methods provide**											
121	**adjustments for positvely skewed data sets.**											
122												
123												
124	**Chromium**											
125												
126	**General Statistics**											
127					Number of Valid Observations	33					Number of Distinct Observations	22
128					Number of Missing Values	1						
129												
130					**Raw Statistics**						**Log-transformed Statistics**	
131					Minimum	3.4					Minimum of Log Data	1.224
132					Maximum	24.1					Maximum of Log Data	3.182
133					Mean	13.16					Mean of log Data	2.511
134					Median	13					SD of log Data	0.401
135					SD	4.321						
136					Std. Error of Mean	0.752						
137					Coefficient of Variation	0.328						
138					Skewness	0.00819						
139												
140	**Relevant UCL Statistics**											
141					**Normal Distribution Test**						**Lognormal Distribution Test**	
142					Shapiro Wilk Test Statistic	0.98					Shapiro Wilk Test Statistic	0.883
143					Shapiro Wilk Critical Value	0.931					Shapiro Wilk Critical Value	0.931
144					**Data appear Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**	
145												
146					**Assuming Normal Distribution**						**Assuming Lognormal Distribution**	
147					95% Student's-t UCL	14.43					95% H-UCL	15.24
148					**95% UCLs (Adjusted for Skewness)**						95% Chebyshev (MVUE) UCL	17.49
149					95% Adjusted-CLT UCL (Chen-1995)	14.4					97.5% Chebyshev (MVUE) UCL	19.3
150					95% Modified-t UCL (Johnson-1978)	14.43					99% Chebyshev (MVUE) UCL	22.85

151												
152	**Gamma Distribution Test**						**Data Distribution**					
153					k star (bias corrected)	7.061	**Data appear Normal at 5% Significance Level**					
154					Theta Star	1.864						
155					MLE of Mean	13.16						
156					MLE of Standard Deviation	4.952						
157					nu star	466						
158					Approximate Chi Square Value (.05)	416.9	**Nonparametric Statistics**					
159					Adjusted Level of Significance	0.0419					95% CLT UCL	14.39
160					Adjusted Chi Square Value	414.6					95% Jackknife UCL	14.43
161											95% Standard Bootstrap UCL	14.37
162					Anderson-Darling Test Statistic	0.692					95% Bootstrap-t UCL	14.51
163					Anderson-Darling 5% Critical Value	0.748					95% Hall's Bootstrap UCL	14.43
164					Kolmogorov-Smirnov Test Statistic	0.132					95% Percentile Bootstrap UCL	14.39
165					Kolmogorov-Smirnov 5% Critical Value	0.153					95% BCA Bootstrap UCL	14.39
166	**Data appear Gamma Distributed at 5% Significance Level**										95% Chebyshev(Mean, Sd) UCL	16.44
167											97.5% Chebyshev(Mean, Sd) UCL	17.85
168	**Assuming Gamma Distribution**										99% Chebyshev(Mean, Sd) UCL	20.64
169					95% Approximate Gamma UCL	14.71						
170					95% Adjusted Gamma UCL	14.79						
171												
172	**Potential UCL to Use**										Use 95% Student's-t UCL	14.43
173												
174	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
175	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
176	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
177												
178												
179	**Cobalt**											
180												
181	**General Statistics**											
182					Number of Valid Observations	33					Number of Distinct Observations	27
183					Number of Missing Values	1						
184												
185	**Raw Statistics**						**Log-transformed Statistics**					
186					Minimum	0.22					Minimum of Log Data	-1.514
187					Maximum	10.8					Maximum of Log Data	2.38
188					Mean	3.034					Mean of log Data	0.866
189					Median	2.7					SD of log Data	0.806
190					SD	1.993						
191					Std. Error of Mean	0.347						
192					Coefficient of Variation	0.657						
193					Skewness	1.778						
194												
195	**Relevant UCL Statistics**											
196	**Normal Distribution Test**						**Lognormal Distribution Test**					
197					Shapiro Wilk Test Statistic	0.873					Shapiro Wilk Test Statistic	0.908
198					Shapiro Wilk Critical Value	0.931					Shapiro Wilk Critical Value	0.931
199	**Data not Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**					
200												

201	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
202					95% Student's-t UCL	3.621					95% H-UCL	4.512
203	**95% UCLs (Adjusted for Skewness)**										95% Chebyshev (MVUE) UCL	5.447
204					95% Adjusted-CLT UCL (Chen-1995)	3.719					97.5% Chebyshev (MVUE) UCL	6.399
205					95% Modified-t UCL (Johnson-1978)	3.639					99% Chebyshev (MVUE) UCL	8.269
206												
207	**Gamma Distribution Test**						**Data Distribution**					
208					k star (bias corrected)	2.024	**Data appear Gamma Distributed at 5% Significance Level**					
209					Theta Star	1.499						
210					MLE of Mean	3.034						
211					MLE of Standard Deviation	2.132						
212					nu star	133.6						
213					Approximate Chi Square Value (.05)	107.9	**Nonparametric Statistics**					
214					Adjusted Level of Significance	0.0419					95% CLT UCL	3.604
215					Adjusted Chi Square Value	106.7					95% Jackknife UCL	3.621
216											95% Standard Bootstrap UCL	3.591
217					Anderson-Darling Test Statistic	0.567					95% Bootstrap-t UCL	3.811
218					Anderson-Darling 5% Critical Value	0.758					95% Hall's Bootstrap UCL	4.067
219					Kolmogorov-Smirnov Test Statistic	0.133					95% Percentile Bootstrap UCL	3.62
220					Kolmogorov-Smirnov 5% Critical Value	0.155					95% BCA Bootstrap UCL	3.738
221	**Data appear Gamma Distributed at 5% Significance Level**										95% Chebyshev(Mean, Sd) UCL	4.546
222											97.5% Chebyshev(Mean, Sd) UCL	5.201
223	**Assuming Gamma Distribution**										99% Chebyshev(Mean, Sd) UCL	6.486
224					95% Approximate Gamma UCL	3.756						
225					95% Adjusted Gamma UCL	3.798						
226												
227	**Potential UCL to Use**										Use 95% Approximate Gamma UCL	3.756
228												
229	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
230	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
231	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
232												
233												
234	**Iron**											
235												
236	**General Statistics**											
237					Number of Valid Observations	13					Number of Distinct Observations	13
238					Number of Missing Values	1						
239												
240	**Raw Statistics**						**Log-transformed Statistics**					
241					Minimum	866					Minimum of Log Data	6.764
242					Maximum	15000					Maximum of Log Data	9.616
243					Mean	8240					Mean of log Data	8.769
244					Median	9590					SD of log Data	0.879
245					SD	4472						
246					Std. Error of Mean	1240						
247					Coefficient of Variation	0.543						
248					Skewness	-0.28						
249												
250	**Relevant UCL Statistics**											

	A	B	C	D	E	F	G	H	I	J	K	L
251	**Normal Distribution Test**						**Lognormal Distribution Test**					
252					Shapiro Wilk Test Statistic	0.944					Shapiro Wilk Test Statistic	0.812
253					Shapiro Wilk Critical Value	0.866					Shapiro Wilk Critical Value	0.866
254	**Data appear Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**					
255												
256	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
257					95% Student's-t UCL	10450					95% H-UCL	18504
258	**95% UCLs (Adjusted for Skewness)**										95% Chebyshev (MVUE) UCL	19416
259					95% Adjusted-CLT UCL (Chen-1995)	10177					97.5% Chebyshev (MVUE) UCL	23876
260					95% Modified-t UCL (Johnson-1978)	10434					99% Chebyshev (MVUE) UCL	32638
261												
262	**Gamma Distribution Test**						**Data Distribution**					
263					k star (bias corrected)	1.722	**Data appear Normal at 5% Significance Level**					
264					Theta Star	4784						
265					MLE of Mean	8240						
266					MLE of Standard Deviation	6279						
267					nu star	44.78						
268					Approximate Chi Square Value (.05)	30.43	**Nonparametric Statistics**					
269					Adjusted Level of Significance	0.0301					95% CLT UCL	10280
270					Adjusted Chi Square Value	28.75					95% Jackknife UCL	10450
271											95% Standard Bootstrap UCL	10182
272					Anderson-Darling Test Statistic	0.764					95% Bootstrap-t UCL	10363
273					Anderson-Darling 5% Critical Value	0.742					95% Hall's Bootstrap UCL	10114
274					Kolmogorov-Smirnov Test Statistic	0.268					95% Percentile Bootstrap UCL	10168
275					Kolmogorov-Smirnov 5% Critical Value	0.239					95% BCA Bootstrap UCL	10125
276	**Data not Gamma Distributed at 5% Significance Level**										95% Chebyshev(Mean, Sd) UCL	13646
277											97.5% Chebyshev(Mean, Sd) UCL	15986
278	**Assuming Gamma Distribution**										99% Chebyshev(Mean, Sd) UCL	20581
279					95% Approximate Gamma UCL	12125						
280					95% Adjusted Gamma UCL	12833						
281												
282	**Potential UCL to Use**										Use 95% Student's-t UCL	10450
283												
284	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
285	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
286	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
287												
288	**Note: For highly negative-skewed data, confidence limits**											
289	**(e.g., Chen, Johnson, Lognormal, and Gamma) may not be**											
290	**reliable. Chen's and Johnson's methods provide**											
291	**adjustments for positvely skewed data sets.**											
292												
293												
294	**Manganese**											
295												
296	**General Statistics**											
297					Number of Valid Observations	13					Number of Distinct Observations	13
298					Number of Missing Values	1						
299												
300	**Raw Statistics**						**Log-transformed Statistics**					

301					Minimum	2.5				Minimum of Log Data		0.916
302					Maximum	1050				Maximum of Log Data		6.957
303					Mean	174.9				Mean of log Data		4.212
304					Median	101				SD of log Data		1.677
305					SD	277.4						
306					Std. Error of Mean	76.93						
307					Coefficient of Variation	1.586						
308					Skewness	3.02						
309												
310					**Relevant UCL Statistics**							
311					**Normal Distribution Test**					**Lognormal Distribution Test**		
312					Shapiro Wilk Test Statistic	0.589				Shapiro Wilk Test Statistic		0.918
313					Shapiro Wilk Critical Value	0.866				Shapiro Wilk Critical Value		0.866
314					**Data not Normal at 5% Significance Level**					**Data appear Lognormal at 5% Significance Level**		
315												
316					**Assuming Normal Distribution**					**Assuming Lognormal Distribution**		
317					95% Student's-t UCL	312				95% H-UCL		2010
318					**95% UCLs (Adjusted for Skewness)**					95% Chebyshev (MVUE) UCL		729.7
319					95% Adjusted-CLT UCL (Chen-1995)	370.3				97.5% Chebyshev (MVUE) UCL		948.7
320					95% Modified-t UCL (Johnson-1978)	322.7				99% Chebyshev (MVUE) UCL		1379
321												
322					**Gamma Distribution Test**					**Data Distribution**		
323					k star (bias corrected)	0.545				**Data appear Gamma Distributed at 5% Significance Level**		
324					Theta Star	320.6						
325					MLE of Mean	174.9						
326					MLE of Standard Deviation	236.8						
327					nu star	14.18						
328					Approximate Chi Square Value (.05)	6.696				**Nonparametric Statistics**		
329					Adjusted Level of Significance	0.0301				95% CLT UCL		301.4
330					Adjusted Chi Square Value	5.978				95% Jackknife UCL		312
331										95% Standard Bootstrap UCL		293.5
332					Anderson-Darling Test Statistic	0.376				95% Bootstrap-t UCL		627.8
333					Anderson-Darling 5% Critical Value	0.779				95% Hall's Bootstrap UCL		823.1
334					Kolmogorov-Smirnov Test Statistic	0.151				95% Percentile Bootstrap UCL		318.4
335					Kolmogorov-Smirnov 5% Critical Value	0.248				95% BCA Bootstrap UCL		389.4
336					**Data appear Gamma Distributed at 5% Significance Level**					95% Chebyshev(Mean, Sd) UCL		510.2
337										97.5% Chebyshev(Mean, Sd) UCL		655.3
338					**Assuming Gamma Distribution**					99% Chebyshev(Mean, Sd) UCL		940.3
339					95% Approximate Gamma UCL	370.4						
340					95% Adjusted Gamma UCL	414.9						
341												
342					**Potential UCL to Use**					Use 95% Approximate Gamma UCL		370.4
343												
344	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
345	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
346	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
347												
348												
349	**Vanadium**											
350												

351	**General Statistics**											
352					Number of Valid Observations	33				Number of Distinct Observations	25	
353					Number of Missing Values	1						
354												
355	**Raw Statistics**						**Log-transformed Statistics**					
356					Minimum	5.6				Minimum of Log Data	1.723	
357					Maximum	54.2				Maximum of Log Data	3.993	
358					Mean	22.16				Mean of log Data	3.035	
359					Median	22				SD of log Data	0.374	
360					SD	8.104						
361					Std. Error of Mean	1.411						
362					Coefficient of Variation	0.366						
363					Skewness	1.741						
364												
365	**Relevant UCL Statistics**											
366	**Normal Distribution Test**						**Lognormal Distribution Test**					
367					Shapiro Wilk Test Statistic	0.872				Shapiro Wilk Test Statistic	0.916	
368					Shapiro Wilk Critical Value	0.931				Shapiro Wilk Critical Value	0.931	
369	**Data not Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**					
370												
371	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
372					95% Student's-t UCL	24.55				95% H-UCL	25.21	
373	**95% UCLs (Adjusted for Skewness)**									95% Chebyshev (MVUE) UCL	28.74	
374					95% Adjusted-CLT UCL (Chen-1995)	24.93				97.5% Chebyshev (MVUE) UCL	31.55	
375					95% Modified-t UCL (Johnson-1978)	24.62				99% Chebyshev (MVUE) UCL	37.05	
376												
377	**Gamma Distribution Test**						**Data Distribution**					
378					k star (bias corrected)	7.409	**Data appear Gamma Distributed at 5% Significance Level**					
379					Theta Star	2.991						
380					MLE of Mean	22.16						
381					MLE of Standard Deviation	8.14						
382					nu star	489						
383					Approximate Chi Square Value (.05)	438.7	**Nonparametric Statistics**					
384					Adjusted Level of Significance	0.0419				95% CLT UCL	24.48	
385					Adjusted Chi Square Value	436.3				95% Jackknife UCL	24.55	
386										95% Standard Bootstrap UCL	24.49	
387					Anderson-Darling Test Statistic	0.703				95% Bootstrap-t UCL	25.17	
388					Anderson-Darling 5% Critical Value	0.748				95% Hall's Bootstrap UCL	26.79	
389					Kolmogorov-Smirnov Test Statistic	0.114				95% Percentile Bootstrap UCL	24.5	
390					Kolmogorov-Smirnov 5% Critical Value	0.153				95% BCA Bootstrap UCL	24.87	
391	**Data appear Gamma Distributed at 5% Significance Level**									95% Chebyshev(Mean, Sd) UCL	28.31	
392										97.5% Chebyshev(Mean, Sd) UCL	30.97	
393	**Assuming Gamma Distribution**									99% Chebyshev(Mean, Sd) UCL	36.19	
394					95% Approximate Gamma UCL	24.7						
395					95% Adjusted Gamma UCL	24.84						
396												
397	**Potential UCL to Use**									Use 95% Approximate Gamma UCL	24.7	
398												
399	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
400	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											

	A	B	C	D	E	F	G	H	I	J	K	L
401	and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.											
402												

1				General UCL Statistics for Data Sets with Non-Detects							
2			User Selected Options								
3			From File	WorkSheet.wst							
4			Full Precision	OFF							
5			Confidence Coefficient	95%							
6			Number of Bootstrap Operations	2000							
7											
8											
9	Aroclor-1260										
10											
11						General Statistics					
12						Number of Valid Data	33			Number of Detected Data	19
13						Number of Distinct Detected Data	17			Number of Non-Detect Data	14
14						Number of Missing Values	1			Percent Non-Detects	42.42%
15											
16				Raw Statistics						Log-transformed Statistics	
17						Minimum Detected	24			Minimum Detected	3.178
18						Maximum Detected	12000			Maximum Detected	9.393
19						Mean of Detected	1592			Mean of Detected	5.992
20						SD of Detected	2803			SD of Detected	1.877
21						Minimum Non-Detect	19			Minimum Non-Detect	2.944
22						Maximum Non-Detect	22			Maximum Non-Detect	3.091
23											
24	Note: Data have multiple DLs - Use of KM Method is recommended									Number treated as Non-Detect	14
25	For all methods (except KM, DL/2, and ROS Methods),									Number treated as Detected	19
26	Observations < Largest ND are treated as NDs									Single DL Non-Detect Percentage	42.42%
27											
28						UCL Statistics					
29				Normal Distribution Test with Detected Values Only						Lognormal Distribution Test with Detected Values Only	
30						Shapiro Wilk Test Statistic	0.589			Shapiro Wilk Test Statistic	0.939
31						5% Shapiro Wilk Critical Value	0.901			5% Shapiro Wilk Critical Value	0.901
32				Data not Normal at 5% Significance Level						Data appear Lognormal at 5% Significance Level	
33											
34				Assuming Normal Distribution						Assuming Lognormal Distribution	
35						DL/2 Substitution Method				DL/2 Substitution Method	
36						Mean	920.9			Mean	4.422
37						SD	2247			SD	2.331
38						95% DL/2 (t) UCL	1583			95% H-Stat (DL/2) UCL	7631
39											
40						Maximum Likelihood Estimate(MLE) Method	N/A			Log ROS Method	
41				MLE yields a negative mean						Mean in Log Scale	3.951
42										SD in Log Scale	2.903
43										Mean in Original Scale	919
44										SD in Original Scale	2248
45										95% t UCL	1582
46										95% Percentile Bootstrap UCL	1638
47										95% BCA Bootstrap UCL	1993
48										95% H-UCL	53094
49											
50				Gamma Distribution Test with Detected Values Only						Data Distribution Test with Detected Values Only	

51				k star (bias corrected)	0.427	**Data appear Gamma Distributed at 5% Significance Level**						
52				Theta Star	3729							
53				nu star	16.22							
54												
55				A-D Test Statistic	0.679	**Nonparametric Statistics**						
56				5% A-D Critical Value	0.81					Kaplan-Meier (KM) Method		
57				K-S Test Statistic	0.81					Mean		926.8
58				5% K-S Critical Value	0.211					SD		2210
59				**Data appear Gamma Distributed at 5% Significance Level**						SE of Mean		395.3
60										95% KM (t) UCL		1596
61				**Assuming Gamma Distribution**						95% KM (z) UCL		1577
62				Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL		1586
63				Minimum	0.000001					95% KM (bootstrap t) UCL		2412
64				Maximum	12000					95% KM (BCA) UCL		1646
65				Mean	916.7					95% KM (Percentile Bootstrap) UCL		1640
66				Median	56					95% KM (Chebyshev) UCL		2650
67				SD	2249					97.5% KM (Chebyshev) UCL		3395
68				k star	0.101					99% KM (Chebyshev) UCL		4860
69				Theta star	9049							
70				Nu star	6.686	**Potential UCLs to Use**						
71				AppChi2	2					95% KM (BCA) UCL		1646
72				95% Gamma Approximate UCL	3065							
73				95% Adjusted Gamma UCL	3276							
74	**Note: DL/2 is not a recommended method.**											
75												
76	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
77	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
78	**For additional insight, the user may want to consult a statistician.**											
79												
80												
81	**Diesel Range Organics**											
82												
83	**General Statistics**											
84				Number of Valid Data	33					Number of Detected Data		27
85				Number of Distinct Detected Data	23					Number of Non-Detect Data		6
86				Number of Missing Values	1					Percent Non-Detects		18.18%
87												
88	**Raw Statistics**					**Log-transformed Statistics**						
89				Minimum Detected	3.6					Minimum Detected		1.281
90				Maximum Detected	1800					Maximum Detected		7.496
91				Mean of Detected	274.2					Mean of Detected		4.726
92				SD of Detected	426.9					SD of Detected		1.406
93				Minimum Non-Detect	3.4					Minimum Non-Detect		1.224
94				Maximum Non-Detect	22					Maximum Non-Detect		3.091
95												
96	Note: Data have multiple DLs - Use of KM Method is recommended									Number treated as Non-Detect		8
97	For all methods (except KM, DL/2, and ROS Methods),									Number treated as Detected		25
98	Observations < Largest ND are treated as NDs									Single DL Non-Detect Percentage		24.24%
99												
100	**UCL Statistics**											

101	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
102					Shapiro Wilk Test Statistic	0.624					Shapiro Wilk Test Statistic	0.983
103					5% Shapiro Wilk Critical Value	0.923					5% Shapiro Wilk Critical Value	0.923
104	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
105												
106	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
107					DL/2 Substitution Method						DL/2 Substitution Method	
108					Mean	225.3					Mean	4.156
109					SD	398.9					SD	1.78
110					95% DL/2 (t) UCL	343					95% H-Stat (DL/2) UCL	941.9
111												
112					Maximum Likelihood Estimate(MLE) Method						Log ROS Method	
113					Mean	147.9					Mean in Log Scale	4.174
114					SD	473.1					SD in Log Scale	1.749
115					95% MLE (t) UCL	287.4					Mean in Original Scale	225.4
116					95% MLE (Tiku) UCL	288					SD in Original Scale	398.9
117											95% t UCL	343
118											95% Percentile Bootstrap UCL	345.8
119											95% BCA Bootstrap UCL	390.2
120											95% H UCL	875.3
121												
122	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
123					k star (bias corrected)	0.632	**Data appear Lognormal at 5% Significance Level**					
124					Theta Star	433.7						
125					nu star	34.14						
126												
127					A-D Test Statistic	0.916	**Nonparametric Statistics**					
128					5% A-D Critical Value	0.79					Kaplan-Meier (KM) Method	
129					K-S Test Statistic	0.79					Mean	225
130					5% K-S Critical Value	0.176					SD	393
131	**Data not Gamma Distributed at 5% Significance Level**										SE of Mean	69.72
132											95% KM (t) UCL	343.1
133	**Assuming Gamma Distribution**										95% KM (z) UCL	339.7
134					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	341.4
135					Minimum	0.000001					95% KM (bootstrap t) UCL	441.1
136					Maximum	1800					95% KM (BCA) UCL	362.2
137					Mean	224.3					95% KM (Percentile Bootstrap) UCL	350.6
138					Median	91					95% KM (Chebyshev) UCL	528.9
139					SD	399.5					97.5% KM (Chebyshev) UCL	660.4
140					k star	0.187					99% KM (Chebyshev) UCL	918.7
141					Theta star	1198						
142					Nu star	12.36	**Potential UCLs to Use**					
143					AppChi2	5.464					97.5% KM (Chebyshev) UCL	660.4
144					95% Gamma Approximate UCL	507.4						
145					95% Adjusted Gamma UCL	530.2						
146	**Note: DL/2 is not a recommended method.**											
147												
148	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
149	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
150	**For additional insight, the user may want to consult a statistician.**											

	A	B	C	D	E	F	G	H	I	J	K	L
151												

Subsurface Soil

1				**General UCL Statistics for Full Data Sets**							
2			**User Selected Options**								
3			From File	WorkSheet.wst							
4			Full Precision	OFF							
5			Confidence Coefficient	95%							
6			Number of Bootstrap Operations	2000							
7											
8											
9	**Chromium**										
10											
11					**General Statistics**						
12					Number of Valid Observations	31			Number of Distinct Observations	29	
13					Number of Missing Values	1					
14											
15					**Raw Statistics**				**Log-transformed Statistics**		
16					Minimum	1.4			Minimum of Log Data	0.336	
17					Maximum	39			Maximum of Log Data	3.664	
18					Mean	11.46			Mean of log Data	2.1	
19					Median	6.9			SD of log Data	0.856	
20					SD	9.734					
21					Std. Error of Mean	1.748					
22					Coefficient of Variation	0.849					
23					Skewness	1.315					
24											
25					**Relevant UCL Statistics**						
26					**Normal Distribution Test**				**Lognormal Distribution Test**		
27					Shapiro Wilk Test Statistic	0.842			Shapiro Wilk Test Statistic	0.975	
28					Shapiro Wilk Critical Value	0.929			Shapiro Wilk Critical Value	0.929	
29					**Data not Normal at 5% Significance Level**				**Data appear Lognormal at 5% Significance Level**		
30											
31					**Assuming Normal Distribution**				**Assuming Lognormal Distribution**		
32					95% Student's-t UCL	14.43			95% H-UCL	16.77	
33					**95% UCLs (Adjusted for Skewness)**				95% Chebyshev (MVUE) UCL	20.27	
34					95% Adjusted-CLT UCL (Chen-1995)	14.78			97.5% Chebyshev (MVUE) UCL	24.03	
35					95% Modified-t UCL (Johnson-1978)	14.5			99% Chebyshev (MVUE) UCL	31.41	
36											
37					**Gamma Distribution Test**				**Data Distribution**		
38					k star (bias corrected)	1.485			**Data appear Gamma Distributed at 5% Significance Level**		
39					Theta Star	7.721					
40					MLE of Mean	11.46					
41					MLE of Standard Deviation	9.408					
42					nu star	92.06					
43					Approximate Chi Square Value (.05)	70.94			**Nonparametric Statistics**		
44					Adjusted Level of Significance	0.0413			95% CLT UCL	14.34	
45					Adjusted Chi Square Value	69.91			95% Jackknife UCL	14.43	
46									95% Standard Bootstrap UCL	14.36	
47					Anderson-Darling Test Statistic	0.555			95% Bootstrap-t UCL	14.97	
48					Anderson-Darling 5% Critical Value	0.763			95% Hall's Bootstrap UCL	14.68	
49					Kolmogorov-Smirnov Test Statistic	0.157			95% Percentile Bootstrap UCL	14.32	
50					Kolmogorov-Smirnov 5% Critical Value	0.16			95% BCA Bootstrap UCL	14.72	

51	**Data appear Gamma Distributed at 5% Significance Level**										95% Chebyshev(Mean, Sd) UCL	19.08
52											97.5% Chebyshev(Mean, Sd) UCL	22.38
53	**Assuming Gamma Distribution**										99% Chebyshev(Mean, Sd) UCL	28.86
54					95% Approximate Gamma UCL	14.88						
55					95% Adjusted Gamma UCL	15.1						
56												
57	**Potential UCL to Use**										Use 95% Approximate Gamma UCL	14.88
58												
59	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
60	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
61	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
62												
63												
64	**Vanadium**											
65												
66	**General Statistics**											
67					Number of Valid Observations	31					Number of Distinct Observations	28
68					Number of Missing Values	1						
69												
70	**Raw Statistics**										**Log-transformed Statistics**	
71					Minimum	1.3					Minimum of Log Data	0.262
72					Maximum	93					Maximum of Log Data	4.533
73					Mean	19.43					Mean of log Data	2.554
74					Median	11					SD of log Data	0.948
75					SD	19.47						
76					Std. Error of Mean	3.497						
77					Coefficient of Variation	1.002						
78					Skewness	2.216						
79												
80	**Relevant UCL Statistics**											
81	**Normal Distribution Test**										**Lognormal Distribution Test**	
82					Shapiro Wilk Test Statistic	0.768					Shapiro Wilk Test Statistic	0.986
83					Shapiro Wilk Critical Value	0.929					Shapiro Wilk Critical Value	0.929
84	**Data not Normal at 5% Significance Level**										**Data appear Lognormal at 5% Significance Level**	
85												
86	**Assuming Normal Distribution**										**Assuming Lognormal Distribution**	
87					95% Student's-t UCL	25.36					95% H-UCL	30.33
88	**95% UCLs (Adjusted for Skewness)**										95% Chebyshev (MVUE) UCL	36.43
89					95% Adjusted-CLT UCL (Chen-1995)	26.67					97.5% Chebyshev (MVUE) UCL	43.65
90					95% Modified-t UCL (Johnson-1978)	25.59					99% Chebyshev (MVUE) UCL	57.83
91												
92	**Gamma Distribution Test**										**Data Distribution**	
93					k star (bias corrected)	1.244					**Data appear Gamma Distributed at 5% Significance Level**	
94					Theta Star	15.62						
95					MLE of Mean	19.43						
96					MLE of Standard Deviation	17.42						
97					nu star	77.13						
98					Approximate Chi Square Value (.05)	57.9					**Nonparametric Statistics**	
99					Adjusted Level of Significance	0.0413					95% CLT UCL	25.18
100					Adjusted Chi Square Value	56.97					95% Jackknife UCL	25.36

101											95% Standard Bootstrap UCL	25.06
102					Anderson-Darling Test Statistic	0.478					95% Bootstrap-t UCL	28.45
103					Anderson-Darling 5% Critical Value	0.767					95% Hall's Bootstrap UCL	29.6
104					Kolmogorov-Smirnov Test Statistic	0.137					95% Percentile Bootstrap UCL	25.32
105					Kolmogorov-Smirnov 5% Critical Value	0.161					95% BCA Bootstrap UCL	26.17
106					**Data appear Gamma Distributed at 5% Significance Level**						95% Chebyshev(Mean, Sd) UCL	34.67
107											97.5% Chebyshev(Mean, Sd) UCL	41.27
108					**Assuming Gamma Distribution**						99% Chebyshev(Mean, Sd) UCL	54.22
109					95% Approximate Gamma UCL	25.88						
110					95% Adjusted Gamma UCL	26.3						
111												
112					**Potential UCL to Use**						Use 95% Approximate Gamma UCL	25.88
113												
114	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
115	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
116	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
117												

	General UCL Statistics for Data Sets with Non-Detects										
	User Selected Options										
	From File	WorkSheet.wst									
	Full Precision	OFF									
	Confidence Coefficient	95%									
	Number of Bootstrap Operations	2000									
	Naphthalene (VOC)										
	General Statistics										
	Number of Valid Data	31			Number of Detected Data	3					
	Number of Distinct Detected Data	3			Number of Non-Detect Data	28					
	Number of Missing Values	1			Percent Non-Detects	90.32%					
	Raw Statistics				**Log-transformed Statistics**						
	Minimum Detected	21			Minimum Detected	3.045					
	Maximum Detected	42000			Maximum Detected	10.65					
	Mean of Detected	16874			Mean of Detected	7.583					
	SD of Detected	22179			SD of Detected	4.01					
	Minimum Non-Detect	0.11			Minimum Non-Detect	-2.207					
	Maximum Non-Detect	25			Maximum Non-Detect	3.219					
	Note: Data have multiple DLs - Use of KM Method is recommended				Number treated as Non-Detect	29					
	For all methods (except KM, DL/2, and ROS Methods),				Number treated as Detected	2					
	Observations < Largest ND are treated as NDs				Single DL Non-Detect Percentage	93.55%					
	Warning: There are only 3 Distinct Detected Values in this data set										
	The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.										
	Those methods will return a 'N/A' value on your output display!										
	It is necessary to have 4 or more Distinct Values for bootstrap methods.										
	However, results obtained using 4 to 9 distinct values may not be reliable.										
	It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.										
	UCL Statistics										
	Normal Distribution Test with Detected Values Only				**Lognormal Distribution Test with Detected Values Only**						
	Shapiro Wilk Test Statistic	0.896			Shapiro Wilk Test Statistic	0.898					
	5% Shapiro Wilk Critical Value	0.767			5% Shapiro Wilk Critical Value	0.767					
	Data appear Normal at 5% Significance Level				**Data appear Lognormal at 5% Significance Level**						
	Assuming Normal Distribution				**Assuming Lognormal Distribution**						
	DL/2 Substitution Method				DL/2 Substitution Method						
	Mean	1633			Mean	-1.166					
	SD	7649			SD	3.24					
	95% DL/2 (t) UCL	3965			95% H-Stat (DL/2) UCL	1808					
	Maximum Likelihood Estimate(MLE) Method	N/A			Log ROS Method						
	MLE method failed to converge properly				Mean in Log Scale	-12.75					

51											SD in Log Scale	8.679
52											Mean in Original Scale	1633
53											SD in Original Scale	7649
54											95% t UCL	3965
55											95% Percentile Bootstrap UCL	4342
56											95% BCA Bootstrap UCL	5975
57											95% H-UCL	1.163E+21
58												
59	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
60					k star (bias corrected)	N/A	**Data appear Normal at 5% Significance Level**					
61					Theta Star	N/A						
62					nu star	N/A						
63												
64					A-D Test Statistic	N/A	**Nonparametric Statistics**					
65					5% A-D Critical Value	N/A					Kaplan-Meier (KM) Method	
66					K-S Test Statistic	N/A					Mean	1652
67					5% K-S Critical Value	N/A					SD	7521
68	**Data not Gamma Distributed at 5% Significance Level**										SE of Mean	1654
69											95% KM (t) UCL	4460
70	**Assuming Gamma Distribution**										95% KM (z) UCL	4373
71					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	7350
72					Minimum	N/A					95% KM (bootstrap t) UCL	8778
73					Maximum	N/A					95% KM (BCA) UCL	42000
74					Mean	N/A					95% KM (Percentile Bootstrap) UCL	42000
75					Median	N/A					95% KM (Chebyshev) UCL	8863
76					SD	N/A					97.5% KM (Chebyshev) UCL	11983
77					k star	N/A					99% KM (Chebyshev) UCL	18112
78					Theta star	N/A						
79					Nu star	N/A	**Potential UCLs to Use**					
80					AppChi2	N/A					95% KM (t) UCL	4460
81					95% Gamma Approximate UCL	N/A					95% KM (Percentile Bootstrap) UCL	42000
82					95% Adjusted Gamma UCL	N/A						
83	**Note: DL/2 is not a recommended method.**											
84												
85	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
86	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
87	**For additional insight, the user may want to consult a statistician.**											
88												
89												
90	**BaP Equivalents**											
91												
92	**General Statistics**											
93					Number of Valid Data	31					Number of Detected Data	10
94					Number of Distinct Detected Data	10					Number of Non-Detect Data	21
95					Number of Missing Values	1					Percent Non-Detects	67.74%
96												
97	**Raw Statistics**						**Log-transformed Statistics**					
98					Minimum Detected	4.941					Minimum Detected	1.597
99					Maximum Detected	20027					Maximum Detected	9.905
100					Mean of Detected	3180					Mean of Detected	6.132

101					SD of Detected	6049					SD of Detected	2.781
102					Minimum Non-Detect	3.6					Minimum Non-Detect	1.281
103					Maximum Non-Detect	4.2					Maximum Non-Detect	1.435
104												
105	Note: Data have multiple DLs - Use of KM Method is recommended										Number treated as Non-Detect	21
106	For all methods (except KM, DL/2, and ROS Methods),										Number treated as Detected	10
107	Observations < Largest ND are treated as NDs										Single DL Non-Detect Percentage	67.74%
108												
109	**UCL Statistics**											
110	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
111					Shapiro Wilk Test Statistic	0.549					Shapiro Wilk Test Statistic	0.895
112					5% Shapiro Wilk Critical Value	0.842					5% Shapiro Wilk Critical Value	0.842
113	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
114												
115	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
116					DL/2 Substitution Method						DL/2 Substitution Method	
117					Mean	1027					Mean	2.426
118					SD	3641					SD	3.014
119					95% DL/2 (t) UCL	2137					95% H-Stat (DL/2) UCL	20820
120												
121					Maximum Likelihood Estimate(MLE) Method	N/A					Log ROS Method	
122	**MLE yields a negative mean**										Mean in Log Scale	0.173
123											SD in Log Scale	4.895
124											Mean in Original Scale	1026
125											SD in Original Scale	3641
126											95% t UCL	2136
127											95% Percentile Bootstrap UCL	2248
128											95% BCA Bootstrap UCL	2943
129											95% H-UCL	382700000
130												
131	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
132					k star (bias corrected)	0.31	**Data appear Gamma Distributed at 5% Significance Level**					
133					Theta Star	10244						
134					nu star	6.209						
135												
136					A-D Test Statistic	0.369	**Nonparametric Statistics**					
137					5% A-D Critical Value	0.805					Kaplan-Meier (KM) Method	
138					K-S Test Statistic	0.805					Mean	1029
139					5% K-S Critical Value	0.286					SD	3581
140	**Data appear Gamma Distributed at 5% Significance Level**										SE of Mean	678
141											95% KM (t) UCL	2180
142	**Assuming Gamma Distribution**										95% KM (z) UCL	2144
143					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	2136
144					Minimum	0.000001					95% KM (bootstrap t) UCL	5243
145					Maximum	20027					95% KM (BCA) UCL	2440
146					Mean	1026					95% KM (Percentile Bootstrap) UCL	2239
147					Median	0.000001					95% KM (Chebyshev) UCL	3985
148					SD	3641					97.5% KM (Chebyshev) UCL	5263
149					k star	0.0758					99% KM (Chebyshev) UCL	7775
150					Theta star	13539						

151					Nu star	4.698	**Potential UCLs to Use**					
152					AppChi2	1.015					95% KM (t) UCL	2180
153					95% Gamma Approximate UCL	4747						
154					95% Adjusted Gamma UCL	5206						
155	**Note: DL/2 is not a recommended method.**											
156												
157	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
158	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
159	**For additional insight, the user may want to consult a statistician.**											
160												
161												
162	**Naphthalene (SVOC)**											
163												
164	**General Statistics**											
165					Number of Valid Data	31					Number of Detected Data	6
166					Number of Distinct Detected Data	6					Number of Non-Detect Data	25
167					Number of Missing Values	1					Percent Non-Detects	80.65%
168												
169	**Raw Statistics**						**Log-transformed Statistics**					
170					Minimum Detected	57					Minimum Detected	4.043
171					Maximum Detected	17000					Maximum Detected	9.741
172					Mean of Detected	3704					Mean of Detected	6.654
173					SD of Detected	6608					SD of Detected	2.188
174					Minimum Non-Detect	3.6					Minimum Non-Detect	1.281
175					Maximum Non-Detect	36					Maximum Non-Detect	3.584
176												
177	Note: Data have multiple DLs - Use of KM Method is recommended										Number treated as Non-Detect	25
178	For all methods (except KM, DL/2, and ROS Methods),										Number treated as Detected	6
179	Observations < Largest ND are treated as NDs										Single DL Non-Detect Percentage	80.65%
180												
181	**Warning: There are only 6 Detected Values in this data**											
182	**Note: It should be noted that even though bootstrap may be performed on this data set**											
183	**the resulting calculations may not be reliable enough to draw conclusions**											
184												
185	**It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.**											
186												
187												
188	**UCL Statistics**											
189	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
190					Shapiro Wilk Test Statistic	0.634					Shapiro Wilk Test Statistic	0.935
191					5% Shapiro Wilk Critical Value	0.788					5% Shapiro Wilk Critical Value	0.788
192	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
193												
194	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
195					DL/2 Substitution Method						DL/2 Substitution Method	
196					Mean	718.9					Mean	1.892
197					SD	3080					SD	2.565
198					95% DL/2 (t) UCL	1658					95% H-Stat (DL/2) UCL	1602
199												
200					Maximum Likelihood Estimate(MLE) Method	N/A					Log ROS Method	

201	**MLE yields a negative mean**									Mean in Log Scale		-1.351
202										SD in Log Scale		4.892
203										Mean in Original Scale		717.2
204										SD in Original Scale		3080
205										95% t UCL		1656
206										95% Percentile Bootstrap UCL		1787
207										95% BCA Bootstrap UCL		2537
208										95% H-UCL		81517342
209												
210	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
211				k star (bias corrected)	0.32		**Data appear Gamma Distributed at 5% Significance Level**					
212				Theta Star	11571							
213				nu star	3.841							
214												
215				A-D Test Statistic	0.35		**Nonparametric Statistics**					
216				5% A-D Critical Value	0.749					Kaplan-Meier (KM) Method		
217				K-S Test Statistic	0.749					Mean		762.8
218				5% K-S Critical Value	0.352					SD		3020
219	**Data appear Gamma Distributed at 5% Significance Level**									SE of Mean		594.1
220										95% KM (t) UCL		1771
221	**Assuming Gamma Distribution**									95% KM (z) UCL		1740
222				Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL		1686
223				Minimum	0.000001					95% KM (bootstrap t) UCL		7313
224				Maximum	17000					95% KM (BCA) UCL		2915
225				Mean	716.8					95% KM (Percentile Bootstrap) UCL		1949
226				Median	0.000001					95% KM (Chebyshev) UCL		3352
227				SD	3081					97.5% KM (Chebyshev) UCL		4473
228				k star	0.0694					99% KM (Chebyshev) UCL		6674
229				Theta star	10334							
230				Nu star	4.301		**Potential UCLs to Use**					
231				AppChi2	0.844					95% KM (t) UCL		1771
232				95% Gamma Approximate UCL	3653							
233				95% Adjusted Gamma UCL	4029							
234	**Note: DL/2 is not a recommended method.**											
235												
236	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
237	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
238	**For additional insight, the user may want to consult a statistician.**											
239												
240												
241	**Arsenic**											
242												
243	**General Statistics**											
244				Number of Valid Data	31					Number of Detected Data		30
245				Number of Distinct Detected Data	22					Number of Non-Detect Data		1
246				Number of Missing Values	1					Percent Non-Detects		3.23%
247												
248	**Raw Statistics**						**Log-transformed Statistics**					
249				Minimum Detected	0.4					Minimum Detected		-0.916
250				Maximum Detected	6.8					Maximum Detected		1.917

251					Mean of Detected	2.508					Mean of Detected	0.671
252					SD of Detected	1.733					SD of Detected	0.756
253					Minimum Non-Detect	0.34					Minimum Non-Detect	-1.079
254					Maximum Non-Detect	0.34					Maximum Non-Detect	-1.079
255												
256												
257	**UCL Statistics**											
258	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
259					Shapiro Wilk Test Statistic	0.899					Shapiro Wilk Test Statistic	0.967
260					5% Shapiro Wilk Critical Value	0.927					5% Shapiro Wilk Critical Value	0.927
261	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
262												
263	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
264					DL/2 Substitution Method						DL/2 Substitution Method	
265					Mean	2.433					Mean	0.592
266					SD	1.755					SD	0.864
267					95% DL/2 (t) UCL	2.968					95% H-Stat (DL/2) UCL	3.753
268												
269					Maximum Likelihood Estimate(MLE) Method						Log ROS Method	
270					Mean	2.41					Mean in Log Scale	0.609
271					SD	1.765					SD in Log Scale	0.818
272					95% MLE (t) UCL	2.948					Mean in Original Scale	2.437
273					95% MLE (Tiku) UCL	2.93					SD in Original Scale	1.75
274											95% t UCL	2.97
275											95% Percentile Bootstrap UCL	2.972
276											95% BCA Bootstrap UCL	3.002
277											95% H UCL	3.583
278												
279	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
280					k star (bias corrected)	1.967	**Data appear Gamma Distributed at 5% Significance Level**					
281					Theta Star	1.275						
282					nu star	118						
283												
284					A-D Test Statistic	0.19	**Nonparametric Statistics**					
285					5% A-D Critical Value	0.757					Kaplan-Meier (KM) Method	
286					K-S Test Statistic	0.757					Mean	2.44
287					5% K-S Critical Value	0.162					SD	1.717
288	**Data appear Gamma Distributed at 5% Significance Level**										SE of Mean	0.314
289											95% KM (t) UCL	2.973
290	**Assuming Gamma Distribution**										95% KM (z) UCL	2.956
291					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	2.97
292					Minimum	0.000001					95% KM (bootstrap t) UCL	3.078
293					Maximum	6.8					95% KM (BCA) UCL	2.952
294					Mean	2.427					95% KM (Percentile Bootstrap) UCL	2.975
295					Median	1.9					95% KM (Chebyshev) UCL	3.808
296					SD	1.763					97.5% KM (Chebyshev) UCL	4.399
297					k star	0.799					99% KM (Chebyshev) UCL	5.562
298					Theta star	3.04						
299					Nu star	49.51	**Potential UCLs to Use**					
300					AppChi2	34.36					95% KM (Chebyshev) UCL	3.808

301					95% Gamma Approximate UCL	3.498						
302					95% Adjusted Gamma UCL	3.571						
303	**Note: DL/2 is not a recommended method.**											
304												
305	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
306	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
307	**For additional insight, the user may want to consult a statistician.**											
308												
309												
310	**Cobalt**											
311												
312	**General Statistics**											
313					Number of Valid Data	31			Number of Detected Data	27		
314					Number of Distinct Detected Data	27			Number of Non-Detect Data	4		
315					Number of Missing Values	1			Percent Non-Detects	12.90%		
316												
317	**Raw Statistics**							**Log-transformed Statistics**				
318					Minimum Detected	0.11			Minimum Detected	-2.207		
319					Maximum Detected	8.8			Maximum Detected	2.175		
320					Mean of Detected	2.37			Mean of Detected	0.0758		
321					SD of Detected	2.761			SD of Detected	1.37		
322					Minimum Non-Detect	0.15			Minimum Non-Detect	-1.897		
323					Maximum Non-Detect	0.2			Maximum Non-Detect	-1.609		
324												
325	Note: Data have multiple DLs - Use of KM Method is recommended								Number treated as Non-Detect	7		
326	For all methods (except KM, DL/2, and ROS Methods),								Number treated as Detected	24		
327	Observations < Largest ND are treated as NDs								Single DL Non-Detect Percentage	22.58%		
328												
329	**UCL Statistics**											
330	**Normal Distribution Test with Detected Values Only**							**Lognormal Distribution Test with Detected Values Only**				
331					Shapiro Wilk Test Statistic	0.774			Shapiro Wilk Test Statistic	0.933		
332					5% Shapiro Wilk Critical Value	0.923			5% Shapiro Wilk Critical Value	0.923		
333	**Data not Normal at 5% Significance Level**							**Data appear Lognormal at 5% Significance Level**				
334												
335	**Assuming Normal Distribution**							**Assuming Lognormal Distribution**				
336					DL/2 Substitution Method				DL/2 Substitution Method			
337					Mean	2.075			Mean	-0.247		
338					SD	2.685			SD	1.535		
339					95% DL/2 (t) UCL	2.894			95% H-Stat (DL/2) UCL	6.088		
340												
341					Maximum Likelihood Estimate(MLE) Method				Log ROS Method			
342					Mean	1.625			Mean in Log Scale	-0.262		
343					SD	3.173			SD in Log Scale	1.558		
344					95% MLE (t) UCL	2.592			Mean in Original Scale	2.074		
345					95% MLE (Tiku) UCL	2.599			SD in Original Scale	2.686		
346									95% t UCL	2.893		
347									95% Percentile Bootstrap UCL	2.856		
348									95% BCA Bootstrap UCL	3.001		
349									95% H UCL	6.362		
350												

351	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
352					k star (bias corrected)	0.7	**Data appear Lognormal at 5% Significance Level**					
353					Theta Star	3.386						
354					nu star	37.79						
355												
356					A-D Test Statistic	0.872	**Nonparametric Statistics**					
357					5% A-D Critical Value	0.784				Kaplan-Meier (KM) Method		
358					K-S Test Statistic	0.784				Mean		2.079
359					5% K-S Critical Value	0.175				SD		2.639
360	**Data not Gamma Distributed at 5% Significance Level**									SE of Mean		0.483
361										95% KM (t) UCL		2.899
362	**Assuming Gamma Distribution**									95% KM (z) UCL		2.874
363				Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL		2.892
364					Minimum	0.000001				95% KM (bootstrap t) UCL		3.17
365					Maximum	8.8				95% KM (BCA) UCL		2.883
366					Mean	2.064				95% KM (Percentile Bootstrap) UCL		2.878
367					Median	0.78				95% KM (Chebyshev) UCL		4.184
368					SD	2.694				97.5% KM (Chebyshev) UCL		5.095
369					k star	0.279				99% KM (Chebyshev) UCL		6.885
370					Theta star	7.403						
371					Nu star	17.29	**Potential UCLs to Use**					
372					AppChi2	8.877				97.5% KM (Chebyshev) UCL		5.095
373				95% Gamma Approximate UCL		4.019						
374				95% Adjusted Gamma UCL		4.177						
375	**Note: DL/2 is not a recommended method.**											
376												
377	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
378	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
379	**For additional insight, the user may want to consult a statistician.**											
380												
381												
382	**Thallium**											
383												
384	**General Statistics**											
385					Number of Valid Data	31				Number of Detected Data		6
386					Number of Distinct Detected Data	6				Number of Non-Detect Data		25
387					Number of Missing Values	1				Percent Non-Detects		80.65%
388												
389	**Raw Statistics**						**Log-transformed Statistics**					
390					Minimum Detected	0.67				Minimum Detected		-0.4
391					Maximum Detected	1.5				Maximum Detected		0.405
392					Mean of Detected	1.03				Mean of Detected		-0.0153
393					SD of Detected	0.333				SD of Detected		0.33
394					Minimum Non-Detect	0.016				Minimum Non-Detect		-4.135
395					Maximum Non-Detect	0.69				Maximum Non-Detect		-0.371
396												
397	Note: Data have multiple DLs - Use of KM Method is recommended									Number treated as Non-Detect		26
398	For all methods (except KM, DL/2, and ROS Methods),									Number treated as Detected		5
399	Observations < Largest ND are treated as NDs									Single DL Non-Detect Percentage		83.87%
400												

401	**Warning: There are only 6 Detected Values in this data**											
402	**Note: It should be noted that even though bootstrap may be performed on this data set**											
403	**the resulting calculations may not be reliable enough to draw conclusions**											
404												
405	**It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.**											
406												
407												
408	**UCL Statistics**											
409	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
410	Shapiro Wilk Test Statistic					0.934	Shapiro Wilk Test Statistic					0.928
411	5% Shapiro Wilk Critical Value					0.788	5% Shapiro Wilk Critical Value					0.788
412	**Data appear Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
413												
414	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
415	DL/2 Substitution Method						DL/2 Substitution Method					
416	Mean					0.43	Mean					-1.099
417	SD					0.333	SD					0.856
418	95% DL/2 (t) UCL					0.532	95% H-Stat (DL/2) UCL					0.685
419												
420	Maximum Likelihood Estimate(MLE) Method					N/A	Log ROS Method					
421	**MLE yields a negative mean**						Mean in Log Scale					-1.174
422							SD in Log Scale					0.653
423							Mean in Original Scale					0.397
424							SD in Original Scale					0.35
425							95% t UCL					0.503
426							95% Percentile Bootstrap UCL					0.497
427							95% BCA Bootstrap UCL					0.531
428							95% H-UCL					0.489
429												
430	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
431	k star (bias corrected)					5.767	**Data appear Normal at 5% Significance Level**					
432	Theta Star					0.179						
433	nu star					69.2						
434												
435	A-D Test Statistic					0.281	**Nonparametric Statistics**					
436	5% A-D Critical Value					0.698	Kaplan-Meier (KM) Method					
437	K-S Test Statistic					0.698	Mean					0.74
438	5% K-S Critical Value					0.332	SD					0.195
439	**Data appear Gamma Distributed at 5% Significance Level**						SE of Mean					0.0384
440							95% KM (t) UCL					0.805
441	**Assuming Gamma Distribution**						95% KM (z) UCL					0.803
442	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL					0.792
443	Minimum					0.000001	95% KM (bootstrap t) UCL					0.813
444	Maximum					1.5	95% KM (BCA) UCL					1.3
445	Mean					0.199	95% KM (Percentile Bootstrap) UCL					0.988
446	Median					0.000001	95% KM (Chebyshev) UCL					0.907
447	SD					0.435	97.5% KM (Chebyshev) UCL					0.98
448	k star					0.0998	99% KM (Chebyshev) UCL					1.122
449	Theta star					1.997						
450	Nu star					6.188	**Potential UCLs to Use**					

451					AppChi2	1.737					95% KM (t) UCL	0.805
452					95% Gamma Approximate UCL	0.71					95% KM (Percentile Bootstrap) UCL	0.988
453					95% Adjusted Gamma UCL	0.766						
454	**Note: DL/2 is not a recommended method.**											
455												
456	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
457	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
458	**For additional insight, the user may want to consult a statistician.**											
459												
460												
461	**Diesel Range Organics**											
462												
463	**General Statistics**											
464					Number of Valid Data	31					Number of Detected Data	10
465					Number of Distinct Detected Data	10					Number of Non-Detect Data	21
466					Number of Missing Values	1					Percent Non-Detects	67.74%
467												
468	**Raw Statistics**						**Log-transformed Statistics**					
469					Minimum Detected	14					Minimum Detected	2.639
470					Maximum Detected	1100					Maximum Detected	7.003
471					Mean of Detected	347.7					Mean of Detected	5.041
472					SD of Detected	347.4					SD of Detected	1.664
473					Minimum Non-Detect	3.3					Minimum Non-Detect	1.194
474					Maximum Non-Detect	27					Maximum Non-Detect	3.296
475												
476	Note: Data have multiple DLs - Use of KM Method is recommended										Number treated as Non-Detect	24
477	For all methods (except KM, DL/2, and ROS Methods),										Number treated as Detected	7
478	Observations < Largest ND are treated as NDs										Single DL Non-Detect Percentage	77.42%
479												
480	**UCL Statistics**											
481	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
482					Shapiro Wilk Test Statistic	0.884					Shapiro Wilk Test Statistic	0.841
483					5% Shapiro Wilk Critical Value	0.842					5% Shapiro Wilk Critical Value	0.842
484	**Data appear Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**					
485												
486	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
487					DL/2 Substitution Method						DL/2 Substitution Method	
488					Mean	116.3					Mean	2.814
489					SD	250.1					SD	1.836
490					95% DL/2 (t) UCL	192.6					95% H-Stat (DL/2) UCL	297.1
491												
492					Maximum Likelihood Estimate(MLE) Method						Log ROS Method	
493					Mean	538.3					Mean in Log Scale	1.6
494					SD	296.1					SD in Log Scale	2.851
495					95% MLE (t) UCL	628.6					Mean in Original Scale	113.6
496					95% MLE (Tiku) UCL	724.7					SD in Original Scale	251.4
497											95% t UCL	190.2
498											95% Percentile Bootstrap UCL	187.8
499											95% BCA Bootstrap UCL	212
500											95% H UCL	4202

501												
502	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
503					k star (bias corrected)	0.585	**Data appear Normal at 5% Significance Level**					
504					Theta Star	594.5						
505					nu star	11.7						
506												
507					A-D Test Statistic	0.469	**Nonparametric Statistics**					
508					5% A-D Critical Value	0.758				Kaplan-Meier (KM) Method		
509					K-S Test Statistic	0.758				Mean		121.7
510					5% K-S Critical Value	0.276				SD		243.7
511	**Data appear Gamma Distributed at 5% Significance Level**									SE of Mean		46.13
512										95% KM (t) UCL		200
513	**Assuming Gamma Distribution**									95% KM (z) UCL		197.5
514					Gamma ROS Statistics using Extrapolated Data					95% KM (jackknife) UCL		196
515					Minimum	0.000001				95% KM (bootstrap t) UCL		241.9
516					Maximum	1100				95% KM (BCA) UCL		275.8
517					Mean	112.2				95% KM (Percentile Bootstrap) UCL		219.8
518					Median	0.000001				95% KM (Chebyshev) UCL		322.7
519					SD	252				97.5% KM (Chebyshev) UCL		409.7
520					k star	0.0831				99% KM (Chebyshev) UCL		580.6
521					Theta star	1350						
522					Nu star	5.151	**Potential UCLs to Use**					
523					AppChi2	1.223				95% KM (t) UCL		200
524					95% Gamma Approximate UCL	472.5				95% KM (Percentile Bootstrap) UCL		219.8
525					95% Adjusted Gamma UCL	515.3						
526	**Note: DL/2 is not a recommended method.**											
527												
528	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
529	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
530	**For additional insight, the user may want to consult a statistician.**											
531												

1				**General UCL Statistics for Full Data Sets**							
2			**User Selected Options**								
3			From File	WorkSheet.wst							
4			Full Precision	OFF							
5			Confidence Coefficient	95%							
6			Number of Bootstrap Operations	2000							
7											
8											
9	**Chromium**										
10											
11					**General Statistics**						
12				Number of Valid Observations	27			Number of Distinct Observations	25		
13				Number of Missing Values	2						
14											
15				**Raw Statistics**				**Log-transformed Statistics**			
16				Minimum	1.4			Minimum of Log Data	0.336		
17				Maximum	27			Maximum of Log Data	3.296		
18				Mean	10.04			Mean of log Data	1.987		
19				Median	7.3			SD of log Data	0.856		
20				SD	7.659						
21				Std. Error of Mean	1.474						
22				Coefficient of Variation	0.763						
23				Skewness	0.783						
24											
25					**Relevant UCL Statistics**						
26				**Normal Distribution Test**				**Lognormal Distribution Test**			
27				Shapiro Wilk Test Statistic	0.884			Shapiro Wilk Test Statistic	0.954		
28				Shapiro Wilk Critical Value	0.923			Shapiro Wilk Critical Value	0.923		
29				**Data not Normal at 5% Significance Level**				**Data appear Lognormal at 5% Significance Level**			
30											
31				**Assuming Normal Distribution**				**Assuming Lognormal Distribution**			
32				95% Student's-t UCL	12.55			95% H-UCL	15.58		
33				**95% UCLs (Adjusted for Skewness)**				95% Chebyshev (MVUE) UCL	18.57		
34				95% Adjusted-CLT UCL (Chen-1995)	12.7			97.5% Chebyshev (MVUE) UCL	22.13		
35				95% Modified-t UCL (Johnson-1978)	12.59			99% Chebyshev (MVUE) UCL	29.13		
36											
37				**Gamma Distribution Test**				**Data Distribution**			
38				k star (bias corrected)	1.548			**Data appear Gamma Distributed at 5% Significance Level**			
39				Theta Star	6.487						
40				MLE of Mean	10.04						
41				MLE of Standard Deviation	8.071						
42				nu star	83.58						
43				Approximate Chi Square Value (.05)	63.51			**Nonparametric Statistics**			
44				Adjusted Level of Significance	0.0401			95% CLT UCL	12.47		
45				Adjusted Chi Square Value	62.39			95% Jackknife UCL	12.55		
46								95% Standard Bootstrap UCL	12.41		
47				Anderson-Darling Test Statistic	0.502			95% Bootstrap-t UCL	12.64		
48				Anderson-Darling 5% Critical Value	0.76			95% Hall's Bootstrap UCL	12.72		
49				Kolmogorov-Smirnov Test Statistic	0.134			95% Percentile Bootstrap UCL	12.43		
50				Kolmogorov-Smirnov 5% Critical Value	0.171			95% BCA Bootstrap UCL	12.5		

	A	B	C	D	E	F	G	H	I	J	K	L
51	**Data appear Gamma Distributed at 5% Significance Level**						95% Chebyshev(Mean, Sd) UCL					16.47
52							97.5% Chebyshev(Mean, Sd) UCL					19.25
53	**Assuming Gamma Distribution**						99% Chebyshev(Mean, Sd) UCL					24.71
54	95% Approximate Gamma UCL					13.21						
55	95% Adjusted Gamma UCL					13.45						
56												
57	**Potential UCL to Use**						Use 95% Approximate Gamma UCL					13.21
58												
59	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
60	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
61	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
62												

1				General UCL Statistics for Full Data Sets							
2		User Selected Options									
3		From File		WorkSheet.wst							
4		Full Precision		OFF							
5		Confidence Coefficient		95%							
6		Number of Bootstrap Operations		2000							
7											
8											
9	Iron										
10											
11					General Statistics						
12				Number of Valid Observations	7			Number of Distinct Observations	7		
13				Number of Missing Values	2						
14											
15				Raw Statistics				Log-transformed Statistics			
16				Minimum	183			Minimum of Log Data	5.209		
17				Maximum	15600			Maximum of Log Data	9.655		
18				Mean	6637			Mean of log Data	7.814		
19				Median	3630			SD of log Data	1.829		
20				SD	6905						
21				Std. Error of Mean	2610						
22				Coefficient of Variation	1.04						
23				Skewness	0.365						
24											
25											
26				Warning: A sample size of 'n' = 7 may not adequate enough to compute meaningful and reliable test statistics and estimates!							
27											
28				It is suggested to collect at least 8 to 10 observations using these statistical methods!							
29				If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.							
30											
31											
32				Warning: There are only 7 Values in this data							
33				Note: It should be noted that even though bootstrap methods may be performed on this data set,							
34				the resulting calculations may not be reliable enough to draw conclusions							
35											
36				The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.							
37											
38					Relevant UCL Statistics						
39				Normal Distribution Test				Lognormal Distribution Test			
40				Shapiro Wilk Test Statistic	0.813			Shapiro Wilk Test Statistic	0.864		
41				Shapiro Wilk Critical Value	0.803			Shapiro Wilk Critical Value	0.803		
42				Data appear Normal at 5% Significance Level				Data appear Lognormal at 5% Significance Level			
43											
44				Assuming Normal Distribution				Assuming Lognormal Distribution			
45				95% Student's-t UCL	11709			95% H-UCL	1355880		
46				95% UCLs (Adjusted for Skewness)				95% Chebyshev (MVUE) UCL	32964		
47				95% Adjusted-CLT UCL (Chen-1995)	11315			97.5% Chebyshev (MVUE) UCL	43513		
48				95% Modified-t UCL (Johnson-1978)	11769			99% Chebyshev (MVUE) UCL	64233		
49											
50				Gamma Distribution Test				Data Distribution			

51				k star (bias corrected)	0.451	**Data appear Normal at 5% Significance Level**						
52				Theta Star	14711							
53				MLE of Mean	6637							
54				MLE of Standard Deviation	9881							
55				nu star	6.316							
56				Approximate Chi Square Value (.05)	1.804	**Nonparametric Statistics**						
57				Adjusted Level of Significance	0.0158					95% CLT UCL	10930	
58				Adjusted Chi Square Value	1.17					95% Jackknife UCL	11709	
59										95% Standard Bootstrap UCL	10576	
60				Anderson-Darling Test Statistic	0.541					95% Bootstrap-t UCL	12432	
61				Anderson-Darling 5% Critical Value	0.744					95% Hall's Bootstrap UCL	9420	
62				Kolmogorov-Smirnov Test Statistic	0.252					95% Percentile Bootstrap UCL	10743	
63				Kolmogorov-Smirnov 5% Critical Value	0.325					95% BCA Bootstrap UCL	10578	
64				**Data appear Gamma Distributed at 5% Significance Level**						95% Chebyshev(Mean, Sd) UCL	18013	
65										97.5% Chebyshev(Mean, Sd) UCL	22936	
66				**Assuming Gamma Distribution**						99% Chebyshev(Mean, Sd) UCL	32605	
67				95% Approximate Gamma UCL	23244							
68				95% Adjusted Gamma UCL	35841							
69												
70				**Potential UCL to Use**						Use 95% Student's-t UCL	11709	
71												
72	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
73	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
74	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
75												
76												
77	**Manganese**											
78												
79	**General Statistics**											
80				Number of Valid Observations	7	Number of Distinct Observations	7					
81				Number of Missing Values	2							
82												
83				**Raw Statistics**		**Log-transformed Statistics**						
84				Minimum	0.98					Minimum of Log Data	-0.0202	
85				Maximum	713					Maximum of Log Data	6.569	
86				Mean	131.2					Mean of log Data	2.922	
87				Median	33.2					SD of log Data	2.388	
88				SD	260.5							
89				Std. Error of Mean	98.48							
90				Coefficient of Variation	1.986							
91				Skewness	2.488							
92												
93												
94	**Warning: A sample size of 'n' = 7 may not adequate enough to compute meaningful and reliable test statistics and estimates!**											
95												
96	**It is suggested to collect at least 8 to 10 observations using these statistical methods!**											
97	**If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
98												
99												
100	**Warning: There are only 7 Values in this data**											

101	**Note: It should be noted that even though bootstrap methods may be performed on this data set,**											
102	**the resulting calculations may not be reliable enough to draw conclusions**											
103												
104	**The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.**											
105												
106	**Relevant UCL Statistics**											
107	**Normal Distribution Test**						**Lognormal Distribution Test**					
108	Shapiro Wilk Test Statistic					0.583	Shapiro Wilk Test Statistic					0.95
109	Shapiro Wilk Critical Value					0.803	Shapiro Wilk Critical Value					0.803
110	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
111												
112	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
113	95% Student's-t UCL					322.6	95% H-UCL					770199
114	**95% UCLs (Adjusted for Skewness)**						95% Chebyshev (MVUE) UCL					589.1
115	95% Adjusted-CLT UCL (Chen-1995)					392.2	97.5% Chebyshev (MVUE) UCL					786.2
116	95% Modified-t UCL (Johnson-1978)					338	99% Chebyshev (MVUE) UCL					1173
117												
118	**Gamma Distribution Test**						**Data Distribution**					
119	k star (bias corrected)					0.292	**Data appear Gamma Distributed at 5% Significance Level**					
120	Theta Star					449						
121	MLE of Mean					131.2						
122	MLE of Standard Deviation					242.7						
123	nu star					4.091						
124	Approximate Chi Square Value (.05)					0.758	**Nonparametric Statistics**					
125	Adjusted Level of Significance					0.0158	95% CLT UCL					293.2
126	Adjusted Chi Square Value					0.423	95% Jackknife UCL					322.6
127							95% Standard Bootstrap UCL					276.9
128	Anderson-Darling Test Statistic					0.42	95% Bootstrap-t UCL					1936
129	Anderson-Darling 5% Critical Value					0.777	95% Hall's Bootstrap UCL					1327
130	Kolmogorov-Smirnov Test Statistic					0.234	95% Percentile Bootstrap UCL					311.5
131	Kolmogorov-Smirnov 5% Critical Value					0.333	95% BCA Bootstrap UCL					348.1
132	**Data appear Gamma Distributed at 5% Significance Level**						95% Chebyshev(Mean, Sd) UCL					560.5
133							97.5% Chebyshev(Mean, Sd) UCL					746.2
134	**Assuming Gamma Distribution**						99% Chebyshev(Mean, Sd) UCL					1111
135	95% Approximate Gamma UCL					708.2						
136	95% Adjusted Gamma UCL					1270						
137												
138	**Potential UCL to Use**						Use 95% Adjusted Gamma UCL					1270
139	**Recommended UCL exceeds the maximum observation**											
140												
141	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
142	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
143	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
144												

1				General UCL Statistics for Full Data Sets							
2		User Selected Options									
3		From File		WorkSheet.wst							
4		Full Precision		OFF							
5		Confidence Coefficient		95%							
6		Number of Bootstrap Operations		2000							
7											
8											
9	Iron										
10											
11					General Statistics						
12				Number of Valid Observations	7			Number of Distinct Observations	7		
13				Number of Missing Values	2						
14											
15				Raw Statistics				Log-transformed Statistics			
16				Minimum	183			Minimum of Log Data	5.209		
17				Maximum	15600			Maximum of Log Data	9.655		
18				Mean	6637			Mean of log Data	7.814		
19				Median	3630			SD of log Data	1.829		
20				SD	6905						
21				Std. Error of Mean	2610						
22				Coefficient of Variation	1.04						
23				Skewness	0.365						
24											
25											
26				Warning: A sample size of 'n' = 7 may not adequate enough to compute meaningful and reliable test statistics and estimates!							
27											
28				It is suggested to collect at least 8 to 10 observations using these statistical methods!							
29				If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.							
30											
31											
32				Warning: There are only 7 Values in this data							
33				Note: It should be noted that even though bootstrap methods may be performed on this data set,							
34				the resulting calculations may not be reliable enough to draw conclusions							
35											
36				The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.							
37											
38					Relevant UCL Statistics						
39				Normal Distribution Test				Lognormal Distribution Test			
40				Shapiro Wilk Test Statistic	0.813			Shapiro Wilk Test Statistic	0.864		
41				Shapiro Wilk Critical Value	0.803			Shapiro Wilk Critical Value	0.803		
42				Data appear Normal at 5% Significance Level				Data appear Lognormal at 5% Significance Level			
43											
44				Assuming Normal Distribution				Assuming Lognormal Distribution			
45				95% Student's-t UCL	11709			95% H-UCL	1355880		
46				95% UCLs (Adjusted for Skewness)				95% Chebyshev (MVUE) UCL	32964		
47				95% Adjusted-CLT UCL (Chen-1995)	11315			97.5% Chebyshev (MVUE) UCL	43513		
48				95% Modified-t UCL (Johnson-1978)	11769			99% Chebyshev (MVUE) UCL	64233		
49											
50				Gamma Distribution Test				Data Distribution			

51				k star (bias corrected)	0.451	**Data appear Normal at 5% Significance Level**						
52				Theta Star	14711							
53				MLE of Mean	6637							
54				MLE of Standard Deviation	9881							
55				nu star	6.316							
56				Approximate Chi Square Value (.05)	1.804	**Nonparametric Statistics**						
57				Adjusted Level of Significance	0.0158					95% CLT UCL	10930	
58				Adjusted Chi Square Value	1.17					95% Jackknife UCL	11709	
59										95% Standard Bootstrap UCL	10576	
60				Anderson-Darling Test Statistic	0.541					95% Bootstrap-t UCL	12432	
61				Anderson-Darling 5% Critical Value	0.744					95% Hall's Bootstrap UCL	9420	
62				Kolmogorov-Smirnov Test Statistic	0.252					95% Percentile Bootstrap UCL	10743	
63				Kolmogorov-Smirnov 5% Critical Value	0.325					95% BCA Bootstrap UCL	10578	
64				**Data appear Gamma Distributed at 5% Significance Level**						95% Chebyshev(Mean, Sd) UCL	18013	
65										97.5% Chebyshev(Mean, Sd) UCL	22936	
66				**Assuming Gamma Distribution**						99% Chebyshev(Mean, Sd) UCL	32605	
67				95% Approximate Gamma UCL	23244							
68				95% Adjusted Gamma UCL	35841							
69												
70				**Potential UCL to Use**						Use 95% Student's-t UCL	11709	
71												
72	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
73	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
74	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
75												
76												
77	**Manganese**											
78												
79	**General Statistics**											
80				Number of Valid Observations	7	Number of Distinct Observations	7					
81				Number of Missing Values	2							
82												
83				**Raw Statistics**		**Log-transformed Statistics**						
84				Minimum	0.98					Minimum of Log Data	-0.0202	
85				Maximum	713					Maximum of Log Data	6.569	
86				Mean	131.2					Mean of log Data	2.922	
87				Median	33.2					SD of log Data	2.388	
88				SD	260.5							
89				Std. Error of Mean	98.48							
90				Coefficient of Variation	1.986							
91				Skewness	2.488							
92												
93												
94	**Warning: A sample size of 'n' = 7 may not adequate enough to compute meaningful and reliable test statistics and estimates!**											
95												
96	**It is suggested to collect at least 8 to 10 observations using these statistical methods!**											
97	**If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
98												
99												
100	**Warning: There are only 7 Values in this data**											

101	**Note: It should be noted that even though bootstrap methods may be performed on this data set,**											
102	**the resulting calculations may not be reliable enough to draw conclusions**											
103												
104	**The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.**											
105												
106	**Relevant UCL Statistics**											
107	**Normal Distribution Test**						**Lognormal Distribution Test**					
108	Shapiro Wilk Test Statistic					0.583	Shapiro Wilk Test Statistic					0.95
109	Shapiro Wilk Critical Value					0.803	Shapiro Wilk Critical Value					0.803
110	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
111												
112	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
113	95% Student's-t UCL					322.6	95% H-UCL					770199
114	**95% UCLs (Adjusted for Skewness)**						95% Chebyshev (MVUE) UCL					589.1
115	95% Adjusted-CLT UCL (Chen-1995)					392.2	97.5% Chebyshev (MVUE) UCL					786.2
116	95% Modified-t UCL (Johnson-1978)					338	99% Chebyshev (MVUE) UCL					1173
117												
118	**Gamma Distribution Test**						**Data Distribution**					
119	k star (bias corrected)					0.292	**Data appear Gamma Distributed at 5% Significance Level**					
120	Theta Star					449						
121	MLE of Mean					131.2						
122	MLE of Standard Deviation					242.7						
123	nu star					4.091						
124	Approximate Chi Square Value (.05)					0.758	**Nonparametric Statistics**					
125	Adjusted Level of Significance					0.0158	95% CLT UCL					293.2
126	Adjusted Chi Square Value					0.423	95% Jackknife UCL					322.6
127							95% Standard Bootstrap UCL					276.9
128	Anderson-Darling Test Statistic					0.42	95% Bootstrap-t UCL					1936
129	Anderson-Darling 5% Critical Value					0.777	95% Hall's Bootstrap UCL					1327
130	Kolmogorov-Smirnov Test Statistic					0.234	95% Percentile Bootstrap UCL					311.5
131	Kolmogorov-Smirnov 5% Critical Value					0.333	95% BCA Bootstrap UCL					348.1
132	**Data appear Gamma Distributed at 5% Significance Level**						95% Chebyshev(Mean, Sd) UCL					560.5
133							97.5% Chebyshev(Mean, Sd) UCL					746.2
134	**Assuming Gamma Distribution**						99% Chebyshev(Mean, Sd) UCL					1111
135	95% Approximate Gamma UCL					708.2						
136	95% Adjusted Gamma UCL					1270						
137												
138	**Potential UCL to Use**						Use 95% Adjusted Gamma UCL					1270
139	**Recommended UCL exceeds the maximum observation**											
140												
141	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
142	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
143	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
144												

1				**General UCL Statistics for Data Sets with Non-Detects**							
2			**User Selected Options**								
3			From File	WorkSheet.wst							
4			Full Precision	OFF							
5			Confidence Coefficient	95%							
6			Number of Bootstrap Operations	2000							
7											
8											
9	**Naphthalene (VOC)**										
10											
11						**General Statistics**					
12						Number of Valid Data	27			Number of Detected Data	5
13						Number of Distinct Detected Data	5			Number of Non-Detect Data	22
14						Number of Missing Values	2			Percent Non-Detects	81.48%
15											
16						**Raw Statistics**				**Log-transformed Statistics**	
17						Minimum Detected	3.4			Minimum Detected	1.224
18						Maximum Detected	1700			Maximum Detected	7.438
19						Mean of Detected	822.7			Mean of Detected	5.491
20						SD of Detected	736.2			SD of Detected	2.621
21						Minimum Non-Detect	0.13			Minimum Non-Detect	-2.04
22						Maximum Non-Detect	3			Maximum Non-Detect	1.099
23											
24						Note: Data have multiple DLs - Use of KM Method is recommended				Number treated as Non-Detect	22
25						For all methods (except KM, DL/2, and ROS Methods),				Number treated as Detected	5
26						Observations < Largest ND are treated as NDs				Single DL Non-Detect Percentage	81.48%
27											
28						**Warning: There are only 5 Detected Values in this data**					
29						**Note: It should be noted that even though bootstrap may be performed on this data set**					
30						**the resulting calculations may not be reliable enough to draw conclusions**					
31											
32						**It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.**					
33											
34											
35						**UCL Statistics**					
36						**Normal Distribution Test with Detected Values Only**				**Lognormal Distribution Test with Detected Values Only**	
37						Shapiro Wilk Test Statistic	0.892			Shapiro Wilk Test Statistic	0.806
38						5% Shapiro Wilk Critical Value	0.762			5% Shapiro Wilk Critical Value	0.762
39						**Data appear Normal at 5% Significance Level**				**Data appear Lognormal at 5% Significance Level**	
40											
41						**Assuming Normal Distribution**				**Assuming Lognormal Distribution**	
42						DL/2 Substitution Method				DL/2 Substitution Method	
43						Mean	152.5			Mean	-0.856
44						SD	435.2			SD	3.298
45						95% DL/2 (t) UCL	295.3			95% H-Stat (DL/2) UCL	5647
46											
47						Maximum Likelihood Estimate(MLE) Method	N/A			Log ROS Method	
48						**MLE yields a negative mean**				Mean in Log Scale	-2.984
49										SD in Log Scale	4.842
50										Mean in Original Scale	152.4

51											SD in Original Scale	435.2
52											95% t UCL	295.3
53											95% Percentile Bootstrap UCL	296.7
54											95% BCA Bootstrap UCL	344.6
55											95% H-UCL	32610270
56												
57			**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**			
58					k star (bias corrected)	0.34			**Data appear Normal at 5% Significance Level**			
59					Theta Star	2418						
60					nu star	3.403						
61												
62					A-D Test Statistic	0.521			**Nonparametric Statistics**			
63					5% A-D Critical Value	0.71			Kaplan-Meier (KM) Method			
64					K-S Test Statistic	0.71			Mean			155.1
65					5% K-S Critical Value	0.371			SD			426.1
66			**Data appear Gamma Distributed at 5% Significance Level**						SE of Mean			91.69
67									95% KM (t) UCL			311.5
68			**Assuming Gamma Distribution**						95% KM (z) UCL			305.9
69					Gamma ROS Statistics using Extrapolated Data				95% KM (jackknife) UCL			280.9
70					Minimum	0.000001			95% KM (bootstrap t) UCL			268.1
71					Maximum	1700			95% KM (BCA) UCL			1237
72					Mean	152.3			95% KM (Percentile Bootstrap) UCL			1148
73					Median	0.000001			95% KM (Chebyshev) UCL			554.8
74					SD	435.2			97.5% KM (Chebyshev) UCL			727.7
75					k star	0.0751			99% KM (Chebyshev) UCL			1067
76					Theta star	2030						
77					Nu star	4.053			**Potential UCLs to Use**			
78					AppChi2	0.743			95% KM (t) UCL			311.5
79					95% Gamma Approximate UCL	831.3			95% KM (Percentile Bootstrap) UCL			1148
80					95% Adjusted Gamma UCL	935.1						
81	**Note: DL/2 is not a recommended method.**											
82												
83	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
84	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
85	**For additional insight, the user may want to consult a statistician.**											
86												
87												
88	**Trichloroethene**											
89												
90					**General Statistics**							
91					Number of Valid Data	27			Number of Detected Data			4
92					Number of Distinct Detected Data	4			Number of Non-Detect Data			23
93					Number of Missing Values	2			Percent Non-Detects			85.19%
94												
95					**Raw Statistics**				**Log-transformed Statistics**			
96					Minimum Detected	0.81			Minimum Detected			-0.211
97					Maximum Detected	19			Maximum Detected			2.944
98					Mean of Detected	8.053			Mean of Detected			1.555
99					SD of Detected	7.973			SD of Detected			1.348
100					Minimum Non-Detect	0.28			Minimum Non-Detect			-1.273

101					Maximum Non-Detect	11					Maximum Non-Detect	2.398
102												
103	Note: Data have multiple DLs - Use of KM Method is recommended										Number treated as Non-Detect	26
104	For all methods (except KM, DL/2, and ROS Methods),										Number treated as Detected	1
105	Observations < Largest ND are treated as NDs										Single DL Non-Detect Percentage	96.30%
106												
107	**Warning: There are only 4 Distinct Detected Values in this data**											
108	**Note: It should be noted that even though bootstrap may be performed on this data set**											
109	**the resulting calculations may not be reliable enough to draw conclusions**											
110												
111	**It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.**											
112												
113												
114	**UCL Statistics**											
115	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
116	Shapiro Wilk Test Statistic					0.928	Shapiro Wilk Test Statistic					0.975
117	5% Shapiro Wilk Critical Value					0.748	5% Shapiro Wilk Critical Value					0.748
118	**Data appear Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
119												
120	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
121	DL/2 Substitution Method						DL/2 Substitution Method					
122	Mean					1.83	Mean					-0.826
123	SD					4.026	SD					1.494
124	95% DL/2 (t) UCL					3.152	95% H-Stat (DL/2) UCL					3.44
125												
126	Maximum Likelihood Estimate(MLE) Method					N/A	Log ROS Method					
127	**MLE method failed to converge properly**						Mean in Log Scale					-2.586
128							SD in Log Scale					1.996
129							Mean in Original Scale					1.237
130							SD in Original Scale					3.965
131							95% t UCL					2.539
132							95% Percentile Bootstrap UCL					2.646
133							95% BCA Bootstrap UCL					3.515
134							95% H-UCL					2.679
135												
136	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
137	k star (bias corrected)					0.436	**Data appear Normal at 5% Significance Level**					
138	Theta Star					18.46						
139	nu star					3.489						
140												
141	A-D Test Statistic					0.191	**Nonparametric Statistics**					
142	5% A-D Critical Value					0.666	Kaplan-Meier (KM) Method					
143	K-S Test Statistic					0.666	Mean					1.922
144	5% K-S Critical Value					0.402	SD					3.719
145	**Data appear Gamma Distributed at 5% Significance Level**						SE of Mean					0.833
146							95% KM (t) UCL					3.343
147	**Assuming Gamma Distribution**						95% KM (z) UCL					3.292
148	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL					3.953
149	Minimum					0.000001	95% KM (bootstrap t) UCL					3.542
150	Maximum					19	95% KM (BCA) UCL					19

151					Mean	1.193				95% KM (Percentile Bootstrap) UCL		9.37
152					Median	0.000001				95% KM (Chebyshev) UCL		5.554
153					SD	3.979				97.5% KM (Chebyshev) UCL		7.126
154					k star	0.0887				99% KM (Chebyshev) UCL		10.21
155					Theta star	13.45						
156					Nu star	4.791				**Potential UCLs to Use**		
157					AppChi2	1.057				95% KM (t) UCL		3.343
158				95% Gamma Approximate UCL		5.407				95% KM (Percentile Bootstrap) UCL		9.37
159				95% Adjusted Gamma UCL		N/A						
160	**Note: DL/2 is not a recommended method.**											
161												
162	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
163	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
164	**For additional insight, the user may want to consult a statistician.**											
165												
166												
167	**BaP Equivalents**											
168												
169	**General Statistics**											
170					Number of Valid Data	27				Number of Detected Data		13
171					Number of Distinct Detected Data	13				Number of Non-Detect Data		14
172					Number of Missing Values	2				Percent Non-Detects		51.85%
173												
174	**Raw Statistics**						**Log-transformed Statistics**					
175					Minimum Detected	4.889				Minimum Detected		1.587
176					Maximum Detected	13917				Maximum Detected		9.541
177					Mean of Detected	2498				Mean of Detected		5.456
178					SD of Detected	4446				SD of Detected		2.797
179					Minimum Non-Detect	3.7				Minimum Non-Detect		1.308
180					Maximum Non-Detect	9.3				Maximum Non-Detect		2.23
181												
182	Note: Data have multiple DLs - Use of KM Method is recommended									Number treated as Non-Detect		16
183	For all methods (except KM, DL/2, and ROS Methods),									Number treated as Detected		11
184	Observations < Largest ND are treated as NDs									Single DL Non-Detect Percentage		59.26%
185												
186	**UCL Statistics**											
187	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
188					Shapiro Wilk Test Statistic	0.639				Shapiro Wilk Test Statistic		0.933
189					5% Shapiro Wilk Critical Value	0.866				5% Shapiro Wilk Critical Value		0.866
190	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
191												
192	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
193					DL/2 Substitution Method					DL/2 Substitution Method		
194					Mean	1204				Mean		3.013
195					SD	3277				SD		3.064
196					95% DL/2 (t) UCL	2279				95% H-Stat (DL/2) UCL		75213
197												
198					Maximum Likelihood Estimate(MLE) Method	N/A				Log ROS Method		
199	**MLE yields a negative mean**									Mean in Log Scale		1.475
200										SD in Log Scale		4.512

201											Mean in Original Scale	1203
202											SD in Original Scale	3277
203											95% t UCL	2278
204											95% Percentile Bootstrap UCL	2345
205											95% BCA Bootstrap UCL	2770
206											95% H-UCL	199300000
207												
208	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
209				k star (bias corrected)	0.276		**Data appear Gamma Distributed at 5% Significance Level**					
210				Theta Star	9040							
211				nu star	7.183							
212												
213				A-D Test Statistic	0.493		**Nonparametric Statistics**					
214				5% A-D Critical Value	0.833						Kaplan-Meier (KM) Method	
215				K-S Test Statistic	0.833						Mean	1205
216				5% K-S Critical Value	0.257						SD	3215
217	**Data appear Gamma Distributed at 5% Significance Level**										SE of Mean	644
218											95% KM (t) UCL	2303
219				**Assuming Gamma Distribution**							95% KM (z) UCL	2264
220				Gamma ROS Statistics using Extrapolated Data							95% KM (jackknife) UCL	2280
221				Minimum	0.000001						95% KM (bootstrap t) UCL	3909
222				Maximum	13917						95% KM (BCA) UCL	2398
223				Mean	1203						95% KM (Percentile Bootstrap) UCL	2303
224				Median	0.000001						95% KM (Chebyshev) UCL	4012
225				SD	3277						97.5% KM (Chebyshev) UCL	5227
226				k star	0.0892						99% KM (Chebyshev) UCL	7613
227				Theta star	13488							
228				Nu star	4.814		**Potential UCLs to Use**					
229				AppChi2	1.067						95% KM (t) UCL	2303
230				95% Gamma Approximate UCL	5424							
231				95% Adjusted Gamma UCL	6022							
232	**Note: DL/2 is not a recommended method.**											
233												
234	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
235	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
236	**For additional insight, the user may want to consult a statistician.**											
237												
238												
239	**Naphthalene (SVOC)**											
240												
241	**General Statistics**											
242				Number of Valid Data	27						Number of Detected Data	7
243				Number of Distinct Detected Data	7						Number of Non-Detect Data	20
244				Number of Missing Values	2						Percent Non-Detects	74.07%
245												
246	**Raw Statistics**						**Log-transformed Statistics**					
247				Minimum Detected	23						Minimum Detected	3.135
248				Maximum Detected	2900						Maximum Detected	7.972
249				Mean of Detected	615.9						Mean of Detected	5.421
250				SD of Detected	1031						SD of Detected	1.538

251				Minimum Non-Detect	3.7					Minimum Non-Detect	1.308	
252				Maximum Non-Detect	47					Maximum Non-Detect	3.85	
253												
254	Note: Data have multiple DLs - Use of KM Method is recommended									Number treated as Non-Detect	21	
255	For all methods (except KM, DL/2, and ROS Methods),									Number treated as Detected	6	
256	Observations < Largest ND are treated as NDs									Single DL Non-Detect Percentage	77.78%	
257												
258	**Warning: There are only 7 Detected Values in this data**											
259	**Note: It should be noted that even though bootstrap may be performed on this data set**											
260	**the resulting calculations may not be reliable enough to draw conclusions**											
261												
262	**It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.**											
263												
264												
265	**UCL Statistics**											
266	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
267	Shapiro Wilk Test Statistic				0.624		Shapiro Wilk Test Statistic				0.983	
268	5% Shapiro Wilk Critical Value				0.803		5% Shapiro Wilk Critical Value				0.803	
269	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
270												
271	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
272	DL/2 Substitution Method						DL/2 Substitution Method					
273	Mean				162		Mean				2.031	
274	SD				565.7		SD				2.229	
275	95% DL/2 (t) UCL				347.7		95% H-Stat (DL/2) UCL				629.9	
276												
277	Maximum Likelihood Estimate(MLE) Method				N/A		Log ROS Method					
278	**MLE yields a negative mean**						Mean in Log Scale				0.994	
279							SD in Log Scale				3.117	
280							Mean in Original Scale				160.9	
281							SD in Original Scale				566	
282							95% t UCL				346.6	
283							95% Percentile Bootstrap UCL				363.7	
284							95% BCA Bootstrap UCL				501.4	
285							95% H-UCL				13254	
286												
287	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
288	k star (bias corrected)				0.446		**Data appear Gamma Distributed at 5% Significance Level**					
289	Theta Star				1380							
290	nu star				6.247							
291												
292	A-D Test Statistic				0.44		**Nonparametric Statistics**					
293	5% A-D Critical Value				0.745		Kaplan-Meier (KM) Method					
294	K-S Test Statistic				0.745		Mean				176.7	
295	5% K-S Critical Value				0.325		SD				550.9	
296	**Data appear Gamma Distributed at 5% Significance Level**						SE of Mean				114.5	
297							95% KM (t) UCL				372	
298	**Assuming Gamma Distribution**						95% KM (z) UCL				365.1	
299	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL				334.4	
300	Minimum				0.000001		95% KM (bootstrap t) UCL				1190	

301					Maximum	2900				95% KM (BCA) UCL		494
302					Mean	159.7				95% KM (Percentile Bootstrap) UCL		425.1
303					Median	0.000001				95% KM (Chebyshev) UCL		675.9
304					SD	566.3				97.5% KM (Chebyshev) UCL		891.9
305					k star	0.0795				99% KM (Chebyshev) UCL		1316
306					Theta star	2007						
307					Nu star	4.295				**Potential UCLs to Use**		
308					AppChi2	0.842				95% KM (t) UCL		372
309				95% Gamma Approximate UCL		814.8						
310				95% Adjusted Gamma UCL		912.5						
311	**Note: DL/2 is not a recommended method.**											
312												
313	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
314	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
315	**For additional insight, the user may want to consult a statistician.**											
316												
317												
318	**Aroclor-1260**											
319												
320	**General Statistics**											
321					Number of Valid Data	27				Number of Detected Data		4
322					Number of Distinct Detected Data	4				Number of Non-Detect Data		23
323					Number of Missing Values	2				Percent Non-Detects		85.19%
324												
325	**Raw Statistics**						**Log-transformed Statistics**					
326					Minimum Detected	19				Minimum Detected		2.944
327					Maximum Detected	2700				Maximum Detected		7.901
328					Mean of Detected	700.8				Mean of Detected		4.577
329					SD of Detected	1333				SD of Detected		2.249
330					Minimum Non-Detect	19				Minimum Non-Detect		2.944
331					Maximum Non-Detect	22				Maximum Non-Detect		3.091
332												
333	Note: Data have multiple DLs - Use of KM Method is recommended									Number treated as Non-Detect		24
334	For all methods (except KM, DL/2, and ROS Methods),									Number treated as Detected		3
335	Observations < Largest ND are treated as NDs									Single DL Non-Detect Percentage		88.89%
336												
337	**Warning: There are only 4 Distinct Detected Values in this data**											
338	**Note: It should be noted that even though bootstrap may be performed on this data set**											
339	**the resulting calculations may not be reliable enough to draw conclusions**											
340												
341	**It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.**											
342												
343												
344	**UCL Statistics**											
345	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
346					Shapiro Wilk Test Statistic	0.638				Shapiro Wilk Test Statistic		0.783
347					5% Shapiro Wilk Critical Value	0.748				5% Shapiro Wilk Critical Value		0.748
348	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
349												
350	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					

351				DL/2 Substitution Method						DL/2 Substitution Method		
352				Mean	112.4					Mean	2.644	
353				SD	517.2					SD	1.122	
354				95% DL/2 (t) UCL	282.2					95% H-Stat (DL/2) UCL	47.7	
355												
356				Maximum Likelihood Estimate(MLE) Method	N/A					Log ROS Method		
357				**MLE yields a negative mean**						Mean in Log Scale	-2.062	
358										SD in Log Scale	3.983	
359										Mean in Original Scale	104.3	
360										SD in Original Scale	518.9	
361										95% t UCL	274.6	
362										95% Percentile Bootstrap UCL	303.1	
363										95% BCA Bootstrap UCL	407.2	
364										95% H-UCL	121815	
365												
366				**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**		
367				k star (bias corrected)	0.252					**Data appear Lognormal at 5% Significance Level**		
368				Theta Star	2780							
369				nu star	2.017							
370												
371				A-D Test Statistic	0.738					**Nonparametric Statistics**		
372				5% A-D Critical Value	0.699					Kaplan-Meier (KM) Method		
373				K-S Test Statistic	0.699					Mean	120	
374				5% K-S Critical Value	0.416					SD	506	
375				**Data not Gamma Distributed at 5% Significance Level**						SE of Mean	112.4	
376										95% KM (t) UCL	311.8	
377				**Assuming Gamma Distribution**						95% KM (z) UCL	305	
378				Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	276.9	
379				Minimum	0.000001					95% KM (bootstrap t) UCL	12112	
380				Maximum	2700					95% KM (BCA) UCL	2700	
381				Mean	103.8					95% KM (Percentile Bootstrap) UCL	416.2	
382				Median	0.000001					95% KM (Chebyshev) UCL	610.2	
383				SD	519					97.5% KM (Chebyshev) UCL	822.2	
384				k star	0.0737					99% KM (Chebyshev) UCL	1239	
385				Theta star	1409							
386				Nu star	3.979					**Potential UCLs to Use**		
387				AppChi2	0.713					99% KM (Chebyshev) UCL	1239	
388				95% Gamma Approximate UCL	579							
389				95% Adjusted Gamma UCL	N/A							
390	**Note: DL/2 is not a recommended method.**											
391												
392	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
393	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
394	**For additional insight, the user may want to consult a statistician.**											
395												
396												
397	**Arsenic**											
398												
399				**General Statistics**								
400				Number of Valid Data	27					Number of Detected Data	26	

401					Number of Distinct Detected Data	22					Number of Non-Detect Data	1
402					Number of Missing Values	2					Percent Non-Detects	3.70%
403												
404					**Raw Statistics**						**Log-transformed Statistics**	
405					Minimum Detected	0.46					Minimum Detected	-0.777
406					Maximum Detected	52					Maximum Detected	3.951
407					Mean of Detected	3.813					Mean of Detected	0.584
408					SD of Detected	9.904					SD of Detected	0.915
409					Minimum Non-Detect	0.33					Minimum Non-Detect	-1.109
410					Maximum Non-Detect	0.33					Maximum Non-Detect	-1.109
411												
412												
413					**UCL Statistics**							
414					**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**	
415					Shapiro Wilk Test Statistic	0.296					Shapiro Wilk Test Statistic	0.846
416					5% Shapiro Wilk Critical Value	0.92					5% Shapiro Wilk Critical Value	0.92
417					**Data not Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**	
418												
419					**Assuming Normal Distribution**						**Assuming Lognormal Distribution**	
420					DL/2 Substitution Method						DL/2 Substitution Method	
421					Mean	3.678					Mean	0.496
422					SD	9.737					SD	1.008
423					95% DL/2 (t) UCL	6.874					95% H-Stat (DL/2) UCL	4.503
424												
425					Maximum Likelihood Estimate(MLE) Method						Log ROS Method	
426					Mean	3.433					Mean in Log Scale	0.507
427					SD	9.78					SD in Log Scale	0.984
428					95% MLE (t) UCL	6.643					Mean in Original Scale	3.68
429					95% MLE (Tiku) UCL	6.302					SD in Original Scale	9.736
430											95% t UCL	6.876
431											95% Percentile Bootstrap UCL	7.419
432											95% BCA Bootstrap UCL	9.621
433											95% H UCL	4.366
434												
435					**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**	
436					k star (bias corrected)	0.723					**Data do not follow a Discernable Distribution (0.05)**	
437					Theta Star	5.272						
438					nu star	37.61						
439												
440					A-D Test Statistic	3.378					**Nonparametric Statistics**	
441					5% A-D Critical Value	0.783					Kaplan-Meier (KM) Method	
442					K-S Test Statistic	0.783					Mean	3.689
443					5% K-S Critical Value	0.178					SD	9.551
444					**Data not Gamma Distributed at 5% Significance Level**						SE of Mean	1.875
445											95% KM (t) UCL	6.886
446					**Assuming Gamma Distribution**						95% KM (z) UCL	6.772
447					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	6.88
448					Minimum	0.000001					95% KM (bootstrap t) UCL	25.31
449					Maximum	52					95% KM (BCA) UCL	7.546
450					Mean	3.671					95% KM (Percentile Bootstrap) UCL	7.361

451					Median	1.5				95% KM (Chebyshev) UCL		11.86
452					SD	9.739				97.5% KM (Chebyshev) UCL		15.4
453					k star	0.476				99% KM (Chebyshev) UCL		22.34
454					Theta star	7.721						
455					Nu star	25.68				**Potential UCLs to Use**		
456					AppChi2	15.13				95% KM (Chebyshev) UCL		11.86
457					95% Gamma Approximate UCL	6.23						
458					95% Adjusted Gamma UCL	6.451						
459	**Note: DL/2 is not a recommended method.**											
460												
461	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
462	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
463	**For additional insight, the user may want to consult a statistician.**											
464												
465												
466	**Cobalt**											
467												
468	**General Statistics**											
469					Number of Valid Data	27				Number of Detected Data		24
470					Number of Distinct Detected Data	23				Number of Non-Detect Data		3
471					Number of Missing Values	2				Percent Non-Detects		11.11%
472												
473	**Raw Statistics**						**Log-transformed Statistics**					
474					Minimum Detected	0.12				Minimum Detected		-2.12
475					Maximum Detected	6				Maximum Detected		1.792
476					Mean of Detected	1.565				Mean of Detected		-0.059
477					SD of Detected	1.557				SD of Detected		1.087
478					Minimum Non-Detect	0.17				Minimum Non-Detect		-1.772
479					Maximum Non-Detect	0.19				Maximum Non-Detect		-1.661
480												
481	Note: Data have multiple DLs - Use of KM Method is recommended									Number treated as Non-Detect		4
482	For all methods (except KM, DL/2, and ROS Methods),									Number treated as Detected		23
483	Observations < Largest ND are treated as NDs									Single DL Non-Detect Percentage		14.81%
484												
485	**UCL Statistics**											
486	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
487					Shapiro Wilk Test Statistic	0.822				Shapiro Wilk Test Statistic		0.966
488					5% Shapiro Wilk Critical Value	0.916				5% Shapiro Wilk Critical Value		0.916
489	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
490												
491	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
492					DL/2 Substitution Method					DL/2 Substitution Method		
493					Mean	1.401				Mean		-0.318
494					SD	1.539				SD		1.266
495					95% DL/2 (t) UCL	1.906				95% H-Stat (DL/2) UCL		3.32
496												
497					Maximum Likelihood Estimate(MLE) Method					Log ROS Method		
498					Mean	1.263				Mean in Log Scale		-0.303
499					SD	1.69				SD in Log Scale		1.243
500					95% MLE (t) UCL	1.818				Mean in Original Scale		1.403

501				95% MLE (Tiku) UCL	1.805				SD in Original Scale	1.537		
502									95% t UCL	1.908		
503									95% Percentile Bootstrap UCL	1.907		
504									95% BCA Bootstrap UCL	1.973		
505									95% H UCL	3.203		
506												
507			Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only				
508				k star (bias corrected)	1.011			Data appear Gamma Distributed at 5% Significance Level				
509				Theta Star	1.548							
510				nu star	48.53							
511												
512				A-D Test Statistic	0.459			Nonparametric Statistics				
513				5% A-D Critical Value	0.769			Kaplan-Meier (KM) Method				
514				K-S Test Statistic	0.769			Mean	1.404			
515				5% K-S Critical Value	0.183			SD	1.507			
516			Data appear Gamma Distributed at 5% Significance Level					SE of Mean	0.296			
517								95% KM (t) UCL	1.91			
518			Assuming Gamma Distribution					95% KM (z) UCL	1.892			
519				Gamma ROS Statistics using Extrapolated Data				95% KM (jackknife) UCL	1.903			
520				Minimum	0.000001			95% KM (bootstrap t) UCL	2.07			
521				Maximum	6			95% KM (BCA) UCL	1.934			
522				Mean	1.391			95% KM (Percentile Bootstrap) UCL	1.887			
523				Median	0.77			95% KM (Chebyshev) UCL	2.696			
524				SD	1.548			97.5% KM (Chebyshev) UCL	3.255			
525				k star	0.336			99% KM (Chebyshev) UCL	4.353			
526				Theta star	4.136							
527				Nu star	18.16			Potential UCLs to Use				
528				AppChi2	9.507			95% KM (BCA) UCL	1.934			
529				95% Gamma Approximate UCL	2.657							
530				95% Adjusted Gamma UCL	2.774							
531	Note: DL/2 is not a recommended method.											
532												
533	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
534	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
535	For additional insight, the user may want to consult a statistician.											
536												
537												
538	Thallium											
539												
540	General Statistics											
541				Number of Valid Data	27			Number of Detected Data	3			
542				Number of Distinct Detected Data	3			Number of Non-Detect Data	24			
543				Number of Missing Values	2			Percent Non-Detects	88.89%			
544												
545			Raw Statistics					Log-transformed Statistics				
546				Minimum Detected	0.64			Minimum Detected	-0.446			
547				Maximum Detected	0.94			Maximum Detected	-0.0619			
548				Mean of Detected	0.75			Mean of Detected	-0.303			
549				SD of Detected	0.165			SD of Detected	0.21			
550				Minimum Non-Detect	0.021			Minimum Non-Detect	-3.863			

551					Maximum Non-Detect	0.67					Maximum Non-Detect	-0.4
552												
553	Note: Data have multiple DLs - Use of KM Method is recommended										Number treated as Non-Detect	25
554	For all methods (except KM, DL/2, and ROS Methods),										Number treated as Detected	2
555	Observations < Largest ND are treated as NDs										Single DL Non-Detect Percentage	92.59%
556												
557	**Warning: There are only 3 Distinct Detected Values in this data set**											
558	**The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.**											
559	**Those methods will return a 'N/A' value on your output display!**											
560												
561	**It is necessary to have 4 or more Distinct Values for bootstrap methods.**											
562	**However, results obtained using 4 to 9 distinct values may not be reliable.**											
563	**It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.**											
564												
565												
566	**UCL Statistics**											
567	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
568					Shapiro Wilk Test Statistic	0.824					Shapiro Wilk Test Statistic	0.838
569					5% Shapiro Wilk Critical Value	0.767					5% Shapiro Wilk Critical Value	0.767
570	**Data appear Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
571												
572	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
573					DL/2 Substitution Method						DL/2 Substitution Method	
574					Mean	0.28					Mean	-1.765
575					SD	0.213					SD	1.268
576					95% DL/2 (t) UCL	0.35					95% H-Stat (DL/2) UCL	0.785
577												
578					Maximum Likelihood Estimate(MLE) Method	N/A					Log ROS Method	
579	**MLE method failed to converge properly**										Mean in Log Scale	-1.213
580											SD in Log Scale	0.369
581											Mean in Original Scale	0.322
582											SD in Original Scale	0.166
583											95% t UCL	0.377
584											95% Percentile Bootstrap UCL	0.378
585											95% BCA Bootstrap UCL	0.395
586											95% H-UCL	0.364
587												
588	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
589					k star (bias corrected)	N/A	**Data appear Normal at 5% Significance Level**					
590					Theta Star	N/A						
591					nu star	N/A						
592												
593					A-D Test Statistic	N/A	**Nonparametric Statistics**					
594					5% A-D Critical Value	N/A					Kaplan-Meier (KM) Method	
595					K-S Test Statistic	N/A					Mean	0.652
596					5% K-S Critical Value	N/A					SD	0.0567
597	**Data not Gamma Distributed at 5% Significance Level**										SE of Mean	0.0134
598											95% KM (t) UCL	0.675
599	**Assuming Gamma Distribution**										95% KM (z) UCL	0.674
600					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	0.676

601					Minimum	N/A				95% KM (bootstrap t) UCL		0.731
602					Maximum	N/A				95% KM (BCA) UCL		0.94
603					Mean	N/A				95% KM (Percentile Bootstrap) UCL		0.94
604					Median	N/A				95% KM (Chebyshev) UCL		0.71
605					SD	N/A				97.5% KM (Chebyshev) UCL		0.736
606					k star	N/A				99% KM (Chebyshev) UCL		0.785
607					Theta star	N/A						
608					Nu star	N/A				**Potential UCLs to Use**		
609					AppChi2	N/A				95% KM (t) UCL		0.675
610				95% Gamma Approximate UCL		N/A				95% KM (Percentile Bootstrap) UCL		0.94
611				95% Adjusted Gamma UCL		N/A						
612	**Note: DL/2 is not a recommended method.**											
613												
614	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
615	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
616	**For additional insight, the user may want to consult a statistician.**											
617												
618												
619	**Vanadium**											
620												
621	**General Statistics**											
622					Number of Valid Data	27				Number of Detected Data		26
623					Number of Distinct Detected Data	21				Number of Non-Detect Data		1
624					Number of Missing Values	2				Percent Non-Detects		3.70%
625												
626	**Raw Statistics**						**Log-transformed Statistics**					
627					Minimum Detected	4.2				Minimum Detected		1.435
628					Maximum Detected	300				Maximum Detected		5.704
629					Mean of Detected	26.11				Mean of Detected		2.676
630					SD of Detected	56.59				SD of Detected		0.84
631					Minimum Non-Detect	3.7				Minimum Non-Detect		1.308
632					Maximum Non-Detect	3.7				Maximum Non-Detect		1.308
633												
634												
635	**UCL Statistics**											
636	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
637					Shapiro Wilk Test Statistic	0.328				Shapiro Wilk Test Statistic		0.855
638					5% Shapiro Wilk Critical Value	0.92				5% Shapiro Wilk Critical Value		0.92
639	**Data not Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**					
640												
641	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
642					DL/2 Substitution Method					DL/2 Substitution Method		
643					Mean	25.21				Mean		2.599
644					SD	55.68				SD		0.914
645					95% DL/2 (t) UCL	43.49				95% H-Stat (DL/2) UCL		31.49
646												
647					Maximum Likelihood Estimate(MLE) Method					Log ROS Method		
648					Mean	23.87				Mean in Log Scale		2.603
649					SD	55.94				SD in Log Scale		0.905
650					95% MLE (t) UCL	42.23				Mean in Original Scale		25.22

651				95% MLE (Tiku) UCL	40.34				SD in Original Scale	55.68
652									95% t UCL	43.5
653									95% Percentile Bootstrap UCL	46.1
654									95% BCA Bootstrap UCL	57.71
655									95% H UCL	31.16
656										
657			Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only		
658				k star (bias corrected)	0.897			Data do not follow a Discernable Distribution (0.05)		
659				Theta Star	29.1					
660				nu star	46.66					
661										
662				A-D Test Statistic	2.823			Nonparametric Statistics		
663				5% A-D Critical Value	0.774			Kaplan-Meier (KM) Method		
664				K-S Test Statistic	0.774			Mean	25.3	
665				5% K-S Critical Value	0.176			SD	54.61	
666			Data not Gamma Distributed at 5% Significance Level					SE of Mean	10.72	
667								95% KM (t) UCL	43.58	
668			Assuming Gamma Distribution					95% KM (z) UCL	42.93	
669				Gamma ROS Statistics using Extrapolated Data				95% KM (jackknife) UCL	43.53	
670				Minimum	0.000001			95% KM (bootstrap t) UCL	114.4	
671				Maximum	300			95% KM (BCA) UCL	47.17	
672				Mean	25.14			95% KM (Percentile Bootstrap) UCL	46.02	
673				Median	11			95% KM (Chebyshev) UCL	72.02	
674				SD	55.71			97.5% KM (Chebyshev) UCL	92.23	
675				k star	0.506			99% KM (Chebyshev) UCL	131.9	
676				Theta star	49.73					
677				Nu star	27.3			Potential UCLs to Use		
678				AppChi2	16.39			95% KM (Chebyshev) UCL	72.02	
679				95% Gamma Approximate UCL	41.9					
680				95% Adjusted Gamma UCL	43.33					
681	Note: DL/2 is not a recommended method.									
682										
683			Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
684			These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).							
685			For additional insight, the user may want to consult a statistician.							
686										
687										
688	Diesel Range Organics									
689										
690					General Statistics					
691				Number of Valid Data	27			Number of Detected Data	13	
692				Number of Distinct Detected Data	12			Number of Non-Detect Data	14	
693				Number of Missing Values	2			Percent Non-Detects	51.85%	
694										
695			Raw Statistics					Log-transformed Statistics		
696				Minimum Detected	3.7			Minimum Detected	1.308	
697				Maximum Detected	5200			Maximum Detected	8.556	
698				Mean of Detected	464			Mean of Detected	3.867	
699				SD of Detected	1426			SD of Detected	1.872	
700				Minimum Non-Detect	3.3			Minimum Non-Detect	1.194	

701					Maximum Non-Detect	15					Maximum Non-Detect	2.708
702												
703	Note: Data have multiple DLs - Use of KM Method is recommended										Number treated as Non-Detect	18
704	For all methods (except KM, DL/2, and ROS Methods),										Number treated as Detected	9
705	Observations < Largest ND are treated as NDs										Single DL Non-Detect Percentage	66.67%
706												
707	**UCL Statistics**											
708	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
709					Shapiro Wilk Test Statistic	0.357					Shapiro Wilk Test Statistic	0.905
710					5% Shapiro Wilk Critical Value	0.866					5% Shapiro Wilk Critical Value	0.866
711	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
712												
713	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
714					DL/2 Substitution Method						DL/2 Substitution Method	
715					Mean	225.9					Mean	2.625
716					SD	996.7					SD	1.8
717					95% DL/2 (t) UCL	553.1					95% H-Stat (DL/2) UCL	258.8
718												
719					Maximum Likelihood Estimate(MLE) Method	N/A					Log ROS Method	
720	**MLE yields a negative mean**										Mean in Log Scale	1.392
721											SD in Log Scale	2.877
722											Mean in Original Scale	223.8
723											SD in Original Scale	997.2
724											95% t UCL	551.1
725											95% Percentile Bootstrap UCL	606
726											95% BCA Bootstrap UCL	811.3
727											95% H-UCL	5727
728												
729	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
730					k star (bias corrected)	0.284	**Data appear Lognormal at 5% Significance Level**					
731					Theta Star	1632						
732					nu star	7.391						
733												
734					A-D Test Statistic	1.854	**Nonparametric Statistics**					
735					5% A-D Critical Value	0.829					Kaplan-Meier (KM) Method	
736					K-S Test Statistic	0.829					Mean	225.4
737					5% K-S Critical Value	0.256					SD	978.2
738	**Data not Gamma Distributed at 5% Significance Level**										SE of Mean	195.9
739											95% KM (t) UCL	559.6
740	**Assuming Gamma Distribution**										95% KM (z) UCL	547.7
741					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	549.3
742					Minimum	0.000001					95% KM (bootstrap t) UCL	6069
743					Maximum	5200					95% KM (BCA) UCL	618.4
744					Mean	223.4					95% KM (Percentile Bootstrap) UCL	605.4
745					Median	0.000001					95% KM (Chebyshev) UCL	1079
746					SD	997.3					97.5% KM (Chebyshev) UCL	1449
747					k star	0.0941					99% KM (Chebyshev) UCL	2175
748					Theta star	2374						
749					Nu star	5.082	**Potential UCLs to Use**					
750					AppChi2	1.19					97.5% KM (Chebyshev) UCL	1449

	A	B	C	D	E	F	G	H	I	J	K	L
751				95% Gamma Approximate UCL		953.9						
752				95% Adjusted Gamma UCL		1055						
753	**Note: DL/2 is not a recommended method.**											
754												
755	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
756	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
757	**For additional insight, the user may want to consult a statistician.**											
758												

Groundwater

1				**General UCL Statistics for Full Data Sets**							
2			**User Selected Options**								
3			From File	WorkSheet.wst							
4			Full Precision	OFF							
5			Confidence Coefficient	95%							
6			Number of Bootstrap Operations	2000							
7											
8											
9	**Cobalt**										
10											
11					**General Statistics**						
12					Number of Valid Observations	7			Number of Distinct Observations	7	
13					Number of Missing Values	1					
14											
15					**Raw Statistics**				**Log-transformed Statistics**		
16					Minimum	1.5			Minimum of Log Data	0.405	
17					Maximum	76			Maximum of Log Data	4.331	
18					Mean	20.37			Mean of log Data	2.27	
19					Median	11			SD of log Data	1.37	
20					SD	26.64					
21					Std. Error of Mean	10.07					
22					Coefficient of Variation	1.308					
23					Skewness	1.933					
24											
25											
26					**Warning: A sample size of 'n' = 7 may not adequate enough to compute meaningful and reliable test statistics and estimates!**						
27											
28					**It is suggested to collect at least 8 to 10 observations using these statistical methods!**						
29					**If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**						
30											
31											
32					**Warning: There are only 7 Values in this data**						
33					**Note: It should be noted that even though bootstrap methods may be performed on this data set,**						
34					**the resulting calculations may not be reliable enough to draw conclusions**						
35											
36					**The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.**						
37											
38					**Relevant UCL Statistics**						
39					**Normal Distribution Test**				**Lognormal Distribution Test**		
40					Shapiro Wilk Test Statistic	0.752			Shapiro Wilk Test Statistic	0.972	
41					Shapiro Wilk Critical Value	0.803			Shapiro Wilk Critical Value	0.803	
42					**Data not Normal at 5% Significance Level**				**Data appear Lognormal at 5% Significance Level**		
43											
44					**Assuming Normal Distribution**				**Assuming Lognormal Distribution**		
45					95% Student's-t UCL	39.94			95% H-UCL	359	
46					**95% UCLs (Adjusted for Skewness)**				95% Chebyshev (MVUE) UCL	65.24	
47					95% Adjusted-CLT UCL (Chen-1995)	44.79			97.5% Chebyshev (MVUE) UCL	84.71	
48					95% Modified-t UCL (Johnson-1978)	41.16			99% Chebyshev (MVUE) UCL	123	
49											
50					**Gamma Distribution Test**				**Data Distribution**		

51	k star (bias corrected)	0.551				**Data appear Gamma Distributed at 5% Significance Level**						
52	Theta Star	36.96										
53	MLE of Mean	20.37										
54	MLE of Standard Deviation	27.44										
55	nu star	7.715										
56	Approximate Chi Square Value (.05)	2.571				**Nonparametric Statistics**						
57	Adjusted Level of Significance	0.0158				95% CLT UCL	36.93					
58	Adjusted Chi Square Value	1.766				95% Jackknife UCL	39.94					
59						95% Standard Bootstrap UCL	35.79					
60	Anderson-Darling Test Statistic	0.292				95% Bootstrap-t UCL	86.84					
61	Anderson-Darling 5% Critical Value	0.734				95% Hall's Bootstrap UCL	114.7					
62	Kolmogorov-Smirnov Test Statistic	0.208				95% Percentile Bootstrap UCL	37					
63	Kolmogorov-Smirnov 5% Critical Value	0.322				95% BCA Bootstrap UCL	44.34					
64	**Data appear Gamma Distributed at 5% Significance Level**					95% Chebyshev(Mean, Sd) UCL	64.26					
65						97.5% Chebyshev(Mean, Sd) UCL	83.25					
66	**Assuming Gamma Distribution**					99% Chebyshev(Mean, Sd) UCL	120.5					
67	95% Approximate Gamma UCL	61.13										
68	95% Adjusted Gamma UCL	88.99										
69												
70	**Potential UCL to Use**					Use 95% Approximate Gamma UCL	61.13					
71												
72	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
73	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
74	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
75												
76												
77	**Iron**											
78												
79	**General Statistics**											
80	Number of Valid Observations	3				Number of Distinct Observations	3					
81	Number of Missing Values	5										
82												
83												
84	**Warning: This data set only has 3 observations!**											
85	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
86	**The data set for variable Iron was not processed!**											
87												
88	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
89	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
90												
91												
92												
93	**Manganese**											
94												
95	**General Statistics**											
96	Number of Valid Observations	3				Number of Distinct Observations	3					
97	Number of Missing Values	5										
98												
99												
100	**Warning: This data set only has 3 observations!**											

101	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
102	**The data set for variable Manganese was not processed!**											
103												
104	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
105	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
106												
107												
108												
109	**Vanadium**											
110												
111	**General Statistics**											
112					Number of Valid Observations	7			Number of Distinct Observations	7		
113					Number of Missing Values	1						
114												
115	**Raw Statistics**						**Log-transformed Statistics**					
116					Minimum	0.55			Minimum of Log Data	-0.598		
117					Maximum	23			Maximum of Log Data	3.135		
118					Mean	6.407			Mean of log Data	1.172		
119					Median	3.7			SD of log Data	1.296		
120					SD	8.119						
121					Std. Error of Mean	3.069						
122					Coefficient of Variation	1.267						
123					Skewness	1.818						
124												
125												
126	**Warning: A sample size of 'n' = 7 may not adequate enough to compute meaningful and reliable test statistics and estimates!**											
127												
128	**It is suggested to collect at least 8 to 10 observations using these statistical methods!**											
129	**If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
130												
131												
132	**Warning: There are only 7 Values in this data**											
133	**Note: It should be noted that even though bootstrap methods may be performed on this data set,**											
134	**the resulting calculations may not be reliable enough to draw conclusions**											
135												
136	**The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.**											
137												
138	**Relevant UCL Statistics**											
139	**Normal Distribution Test**						**Lognormal Distribution Test**					
140					Shapiro Wilk Test Statistic	0.755			Shapiro Wilk Test Statistic	0.965		
141					Shapiro Wilk Critical Value	0.803			Shapiro Wilk Critical Value	0.803		
142	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
143												
144	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
145					95% Student's-t UCL	12.37			95% H-UCL	83.42		
146	**95% UCLs (Adjusted for Skewness)**								95% Chebyshev (MVUE) UCL	19.55		
147					95% Adjusted-CLT UCL (Chen-1995)	13.71			97.5% Chebyshev (MVUE) UCL	25.3		
148					95% Modified-t UCL (Johnson-1978)	12.72			99% Chebyshev (MVUE) UCL	36.58		
149												
150	**Gamma Distribution Test**						**Data Distribution**					

151				k star (bias corrected)	0.586	**Data appear Gamma Distributed at 5% Significance Level**						
152				Theta Star	10.94							
153				MLE of Mean	6.407							
154				MLE of Standard Deviation	8.373							
155				nu star	8.197							
156				Approximate Chi Square Value (.05)	2.85	**Nonparametric Statistics**						
157				Adjusted Level of Significance	0.0158					95% CLT UCL	11.45	
158				Adjusted Chi Square Value	1.989					95% Jackknife UCL	12.37	
159										95% Standard Bootstrap UCL	11.19	
160				Anderson-Darling Test Statistic	0.349					95% Bootstrap-t UCL	30.74	
161				Anderson-Darling 5% Critical Value	0.732					95% Hall's Bootstrap UCL	39.45	
162				Kolmogorov-Smirnov Test Statistic	0.234					95% Percentile Bootstrap UCL	11.66	
163				Kolmogorov-Smirnov 5% Critical Value	0.321					95% BCA Bootstrap UCL	12.62	
164	**Data appear Gamma Distributed at 5% Significance Level**									95% Chebyshev(Mean, Sd) UCL	19.78	
165										97.5% Chebyshev(Mean, Sd) UCL	25.57	
166	**Assuming Gamma Distribution**									99% Chebyshev(Mean, Sd) UCL	36.94	
167				95% Approximate Gamma UCL	18.43							
168				95% Adjusted Gamma UCL	26.41							
169												
170	**Potential UCL to Use**									Use 95% Approximate Gamma UCL	18.43	
171												
172	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
173	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
174	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
175												
176												
177	**Zinc**											
178												
179	**General Statistics**											
180				Number of Valid Observations	7					Number of Distinct Observations	7	
181				Number of Missing Values	1							
182												
183	**Raw Statistics**					**Log-transformed Statistics**						
184				Minimum	6					Minimum of Log Data	1.792	
185				Maximum	79					Maximum of Log Data	4.369	
186				Mean	29.71					Mean of log Data	3.115	
187				Median	26					SD of log Data	0.829	
188				SD	24.18							
189				Std. Error of Mean	9.141							
190				Coefficient of Variation	0.814							
191				Skewness	1.642							
192												
193												
194	**Warning: A sample size of 'n' = 7 may not adequate enough to compute meaningful and reliable test statistics and estimates!**											
195												
196	**It is suggested to collect at least 8 to 10 observations using these statistical methods!**											
197	**If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
198												
199												
200	**Warning: There are only 7 Values in this data**											

201	**Note: It should be noted that even though bootstrap methods may be performed on this data set,**											
202	**the resulting calculations may not be reliable enough to draw conclusions**											
203												
204	**The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.**											
205												
206	**Relevant UCL Statistics**											
207	**Normal Distribution Test**						**Lognormal Distribution Test**					
208	Shapiro Wilk Test Statistic					0.854	Shapiro Wilk Test Statistic					0.99
209	Shapiro Wilk Critical Value					0.803	Shapiro Wilk Critical Value					0.803
210	**Data appear Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
211												
212	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
213	95% Student's-t UCL					47.48	95% H-UCL					94.75
214	**95% UCLs (Adjusted for Skewness)**						95% Chebyshev (MVUE) UCL					71.11
215	95% Adjusted-CLT UCL (Chen-1995)					50.81	97.5% Chebyshev (MVUE) UCL					88.91
216	95% Modified-t UCL (Johnson-1978)					48.42	99% Chebyshev (MVUE) UCL					123.9
217												
218	**Gamma Distribution Test**						**Data Distribution**					
219	k star (bias corrected)					1.215	**Data appear Normal at 5% Significance Level**					
220	Theta Star					24.46						
221	MLE of Mean					29.71						
222	MLE of Standard Deviation					26.96						
223	nu star					17.01						
224	Approximate Chi Square Value (.05)					8.678	**Nonparametric Statistics**					
225	Adjusted Level of Significance					0.0158	95% CLT UCL					44.75
226	Adjusted Chi Square Value					6.958	95% Jackknife UCL					47.48
227							95% Standard Bootstrap UCL					43.83
228	Anderson-Darling Test Statistic					0.181	95% Bootstrap-t UCL					61.11
229	Anderson-Darling 5% Critical Value					0.715	95% Hall's Bootstrap UCL					116.1
230	Kolmogorov-Smirnov Test Statistic					0.147	95% Percentile Bootstrap UCL					44.71
231	Kolmogorov-Smirnov 5% Critical Value					0.315	95% BCA Bootstrap UCL					48.86
232	**Data appear Gamma Distributed at 5% Significance Level**						95% Chebyshev(Mean, Sd) UCL					69.56
233							97.5% Chebyshev(Mean, Sd) UCL					86.8
234	**Assuming Gamma Distribution**						99% Chebyshev(Mean, Sd) UCL					120.7
235	95% Approximate Gamma UCL					58.24						
236	95% Adjusted Gamma UCL					72.63						
237												
238	**Potential UCL to Use**						Use 95% Student's-t UCL					47.48
239												
240	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
241	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
242	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
243												

	General UCL Statistics for Data Sets with Non-Detects										
	User Selected Options										
	From File	WorkSheet.wst									
	Full Precision	OFF									
	Confidence Coefficient	95%									
	Number of Bootstrap Operations	2000									
	Arsenic										
	General Statistics										
	Number of Valid Data	7			Number of Detected Data	6					
	Number of Distinct Detected Data	6			Number of Non-Detect Data	1					
	Number of Missing Values	1			Percent Non-Detects	14.29%					
	Raw Statistics				**Log-transformed Statistics**						
	Minimum Detected	0.42			Minimum Detected	-0.868					
	Maximum Detected	9.7			Maximum Detected	2.272					
	Mean of Detected	3.293			Mean of Detected	0.474					
	SD of Detected	4.044			SD of Detected	1.307					
	Minimum Non-Detect	0.48			Minimum Non-Detect	-0.734					
	Maximum Non-Detect	0.48			Maximum Non-Detect	-0.734					
	Warning: There are only 6 Detected Values in this data										
	Note: It should be noted that even though bootstrap may be performed on this data set										
	the resulting calculations may not be reliable enough to draw conclusions										
	It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.										
	UCL Statistics										
	Normal Distribution Test with Detected Values Only				**Lognormal Distribution Test with Detected Values Only**						
	Shapiro Wilk Test Statistic	0.737			Shapiro Wilk Test Statistic	0.833					
	5% Shapiro Wilk Critical Value	0.788			5% Shapiro Wilk Critical Value	0.788					
	Data not Normal at 5% Significance Level				**Data appear Lognormal at 5% Significance Level**						
	Assuming Normal Distribution				**Assuming Lognormal Distribution**						
	DL/2 Substitution Method				DL/2 Substitution Method						
	Mean	2.857			Mean	0.202					
	SD	3.868			SD	1.393					
	95% DL/2 (t) UCL	5.698			95% H-Stat (DL/2) UCL	51.09					
	Maximum Likelihood Estimate(MLE) Method				Log ROS Method						
	Mean	2.007			Mean in Log Scale	0.211					
	SD	4.548			SD in Log Scale	1.382					
	95% MLE (t) UCL	5.347			Mean in Original Scale	2.859					
	95% MLE (Tiku) UCL	5.478			SD in Original Scale	3.866					
					95% t UCL	5.699					
					95% Percentile Bootstrap UCL	5.136					

51											95% BCA Bootstrap UCL	5.887
52											95% H UCL	48.71
53												
54	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
55					k star (bias corrected)	0.523	**Data appear Lognormal at 5% Significance Level**					
56					Theta Star	6.298						
57					nu star	6.275						
58												
59					A-D Test Statistic	0.74	**Nonparametric Statistics**					
60					5% A-D Critical Value	0.719					Kaplan-Meier (KM) Method	
61					K-S Test Statistic	0.719					Mean	2.883
62					5% K-S Critical Value	0.343					SD	3.563
63	**Data not Gamma Distributed at 5% Significance Level**										SE of Mean	1.475
64											95% KM (t) UCL	5.749
65	**Assuming Gamma Distribution**										95% KM (z) UCL	5.309
66					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	5.692
67					Minimum	0.000001					95% KM (bootstrap t) UCL	42.13
68					Maximum	9.7					95% KM (BCA) UCL	5.557
69					Mean	2.823					95% KM (Percentile Bootstrap) UCL	5.19
70					Median	0.9					95% KM (Chebyshev) UCL	9.313
71					SD	3.896					97.5% KM (Chebyshev) UCL	12.1
72					k star	0.249					99% KM (Chebyshev) UCL	17.56
73					Theta star	11.33						
74					Nu star	3.488	**Potential UCLs to Use**					
75					AppChi2	0.531					97.5% KM (Chebyshev) UCL	12.1
76					95% Gamma Approximate UCL	18.55						
77					95% Adjusted Gamma UCL	35.05						
78	**Warning: Recommended UCL exceeds the maximum observation**											
79	**Note: DL/2 is not a recommended method.**											
80												
81	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
82	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
83	**For additional insight, the user may want to consult a statistician.**											
84												
85												
86	**Chromium**											
87												
88	**General Statistics**											
89					Number of Valid Data	7					Number of Detected Data	6
90					Number of Distinct Detected Data	6					Number of Non-Detect Data	1
91					Number of Missing Values	1					Percent Non-Detects	14.29%
92												
93	**Raw Statistics**						**Log-transformed Statistics**					
94					Minimum Detected	0.79					Minimum Detected	-0.236
95					Maximum Detected	8.2					Maximum Detected	2.104
96					Mean of Detected	4.665					Mean of Detected	1.259
97					SD of Detected	2.973					SD of Detected	0.936
98					Minimum Non-Detect	0.67					Minimum Non-Detect	-0.4
99					Maximum Non-Detect	0.67					Maximum Non-Detect	-0.4
100												

101											
102	**Warning: There are only 6 Detected Values in this data**										
103	**Note: It should be noted that even though bootstrap may be performed on this data set**										
104	**the resulting calculations may not be reliable enough to draw conclusions**										
105											
106	**It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.**										
107											
108											
109	**UCL Statistics**										
110	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**				
111	Shapiro Wilk Test Statistic				0.921		Shapiro Wilk Test Statistic				0.86
112	5% Shapiro Wilk Critical Value				0.788		5% Shapiro Wilk Critical Value				0.788
113	**Data appear Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**				
114											
115	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**				
116	DL/2 Substitution Method						DL/2 Substitution Method				
117	Mean				4.046		Mean				0.923
118	SD				3.169		SD				1.233
119	95% DL/2 (t) UCL				6.374		95% H-Stat (DL/2) UCL				48.76
120											
121	Maximum Likelihood Estimate(MLE) Method						Log ROS Method				
122	Mean				3.847		Mean in Log Scale				0.944
123	SD				3.261		SD in Log Scale				1.193
124	95% MLE (t) UCL				6.242		Mean in Original Scale				4.054
125	95% MLE (Tiku) UCL				6.263		SD in Original Scale				3.159
126							95% t UCL				6.374
127							95% Percentile Bootstrap UCL				5.929
128							95% BCA Bootstrap UCL				5.886
129							95% H UCL				41.7
130											
131	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**				
132	k star (bias corrected)				1.076		**Data appear Normal at 5% Significance Level**				
133	Theta Star				4.334						
134	nu star				12.92						
135											
136	A-D Test Statistic				0.444		**Nonparametric Statistics**				
137	5% A-D Critical Value				0.705		Kaplan-Meier (KM) Method				
138	K-S Test Statistic				0.705		Mean				4.111
139	5% K-S Critical Value				0.336		SD				2.855
140	**Data appear Gamma Distributed at 5% Significance Level**						SE of Mean				1.182
141							95% KM (t) UCL				6.409
142	**Assuming Gamma Distribution**						95% KM (z) UCL				6.056
143	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL				6.376
144	Minimum				0.000001		95% KM (bootstrap t) UCL				6.433
145	Maximum				8.2		95% KM (BCA) UCL				6.156
146	Mean				3.999		95% KM (Percentile Bootstrap) UCL				6.113
147	Median				4.3		95% KM (Chebyshev) UCL				9.264
148	SD				3.236		97.5% KM (Chebyshev) UCL				11.49
149	k star				0.268		99% KM (Chebyshev) UCL				15.87
150	Theta star				14.93						

151					Nu star	3.75	**Potential UCLs to Use**					
152					AppChi2	0.625					95% KM (t) UCL	6.409
153					95% Gamma Approximate UCL	23.97					95% KM (Percentile Bootstrap) UCL	6.113
154					95% Adjusted Gamma UCL	44.3						
155	**Note: DL/2 is not a recommended method.**											
156												
157	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
158	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
159	**For additional insight, the user may want to consult a statistician.**											
160												
161												
162	**Nickel**											
163												
164	**General Statistics**											
165					Number of Valid Data	7					Number of Detected Data	6
166					Number of Distinct Detected Data	5					Number of Non-Detect Data	1
167					Number of Missing Values	1					Percent Non-Detects	14.29%
168												
169	**Raw Statistics**						**Log-transformed Statistics**					
170					Minimum Detected	4					Minimum Detected	1.386
171					Maximum Detected	53					Maximum Detected	3.97
172					Mean of Detected	17.72					Mean of Detected	2.496
173					SD of Detected	18.47					SD of Detected	0.917
174					Minimum Non-Detect	0.63					Minimum Non-Detect	-0.462
175					Maximum Non-Detect	0.63					Maximum Non-Detect	-0.462
176												
177												
178	**Warning: There are only 6 Detected Values in this data**											
179	**Note: It should be noted that even though bootstrap may be performed on this data set**											
180	**the resulting calculations may not be reliable enough to draw conclusions**											
181												
182	**It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.**											
183												
184												
185	**UCL Statistics**											
186	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
187					Shapiro Wilk Test Statistic	0.759					Shapiro Wilk Test Statistic	0.939
188					5% Shapiro Wilk Critical Value	0.788					5% Shapiro Wilk Critical Value	0.788
189	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
190												
191	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
192					DL/2 Substitution Method						DL/2 Substitution Method	
193					Mean	15.23					Mean	1.975
194					SD	18.1					SD	1.614
195					95% DL/2 (t) UCL	28.52					95% H-Stat (DL/2) UCL	1017
196												
197					Maximum Likelihood Estimate(MLE) Method						Log ROS Method	
198					Mean	13.69					Mean in Log Scale	2.168
199					SD	18.79					SD in Log Scale	1.206
200					95% MLE (t) UCL	27.49					Mean in Original Scale	15.36

201				95% MLE (Tiku) UCL	27.23				SD in Original Scale	17.98
202									95% t UCL	28.56
203									95% Percentile Bootstrap UCL	27.26
204									95% BCA Bootstrap UCL	29.76
205									95% H UCL	149.8
206										
207			Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only		
208				k star (bias corrected)	0.844			Data appear Gamma Distributed at 5% Significance Level		
209				Theta Star	20.99					
210				nu star	10.13					
211										
212				A-D Test Statistic	0.446			Nonparametric Statistics		
213				5% A-D Critical Value	0.708			Kaplan-Meier (KM) Method		
214				K-S Test Statistic	0.708				Mean	15.76
215				5% K-S Critical Value	0.338				SD	16.33
216			Data appear Gamma Distributed at 5% Significance Level						SE of Mean	6.762
217									95% KM (t) UCL	28.9
218			Assuming Gamma Distribution						95% KM (z) UCL	26.88
219				Gamma ROS Statistics using Extrapolated Data					95% KM (jackknife) UCL	28.51
220				Minimum	0.000001				95% KM (bootstrap t) UCL	80.14
221				Maximum	53				95% KM (BCA) UCL	27.79
222				Mean	15.19				95% KM (Percentile Bootstrap) UCL	27.6
223				Median	7.9				95% KM (Chebyshev) UCL	45.23
224				SD	18.14				97.5% KM (Chebyshev) UCL	57.99
225				k star	0.252				99% KM (Chebyshev) UCL	83.04
226				Theta star	60.31					
227				Nu star	3.525			Potential UCLs to Use		
228				AppChi2	0.544				95% KM (Chebyshev) UCL	45.23
229				95% Gamma Approximate UCL	98.47					
230				95% Adjusted Gamma UCL	185.5					
231	Note: DL/2 is not a recommended method.									
232										
233			Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
234			These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).							
235			For additional insight, the user may want to consult a statistician.							
236										
237										
238	Diesel Range Organics									
239										
240					General Statistics					
241				Number of Valid Data	7			Number of Detected Data		3
242				Number of Distinct Detected Data	3			Number of Non-Detect Data		4
243				Number of Missing Values	1			Percent Non-Detects		57.14%
244										
245			Raw Statistics					Log-transformed Statistics		
246				Minimum Detected	450			Minimum Detected		6.109
247				Maximum Detected	1600			Maximum Detected		7.378
248				Mean of Detected	1150			Mean of Detected		6.91
249				SD of Detected	614.4			SD of Detected		0.697
250				Minimum Non-Detect	230			Minimum Non-Detect		5.438

251					Maximum Non-Detect	380					Maximum Non-Detect	5.94
252												
253	Note: Data have multiple DLs - Use of KM Method is recommended										Number treated as Non-Detect	4
254	For all methods (except KM, DL/2, and ROS Methods),										Number treated as Detected	3
255	Observations < Largest ND are treated as NDs										Single DL Non-Detect Percentage	57.14%
256												
257	**Warning: There are only 3 Distinct Detected Values in this data set**											
258	**The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.**											
259	**Those methods will return a 'N/A' value on your output display!**											
260												
261	**It is necessary to have 4 or more Distinct Values for bootstrap methods.**											
262	**However, results obtained using 4 to 9 distinct values may not be reliable.**											
263	**It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.**											
264												
265												
266	**UCL Statistics**											
267	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
268					Shapiro Wilk Test Statistic	0.876					Shapiro Wilk Test Statistic	0.828
269					5% Shapiro Wilk Critical Value	0.767					5% Shapiro Wilk Critical Value	0.767
270	**Data appear Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
271												
272	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
273					DL/2 Substitution Method						DL/2 Substitution Method	
274					Mean	576.4					Mean	5.798
275					SD	643.7					SD	1.128
276					95% DL/2 (t) UCL	1049					95% H-Stat (DL/2) UCL	4056
277												
278					Maximum Likelihood Estimate(MLE) Method						Log ROS Method	
279					Mean	231.1					Mean in Log Scale	5.672
280					SD	979.4					SD in Log Scale	1.226
281					95% MLE (t) UCL	950.4					Mean in Original Scale	558.4
282					95% MLE (Tiku) UCL	1198					SD in Original Scale	657.3
283											95% t UCL	1041
284											95% Percentile Bootstrap UCL	954.2
285											95% BCA Bootstrap UCL	973.5
286											95% H UCL	5457
287												
288	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
289					k star (bias corrected)	N/A	**Data appear Normal at 5% Significance Level**					
290					Theta Star	N/A						
291					nu star	N/A						
292												
293					A-D Test Statistic	N/A	**Nonparametric Statistics**					
294					5% A-D Critical Value	N/A					Kaplan-Meier (KM) Method	
295					K-S Test Statistic	N/A					Mean	750
296					5% K-S Critical Value	N/A					SD	477.3
297	**Data not Gamma Distributed at 5% Significance Level**										SE of Mean	221
298											95% KM (t) UCL	1179
299	**Assuming Gamma Distribution**										95% KM (z) UCL	1113
300					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	1416

301					Minimum	N/A				95% KM (bootstrap t) UCL		926.3
302					Maximum	N/A				95% KM (BCA) UCL		1600
303					Mean	N/A				95% KM (Percentile Bootstrap) UCL		1600
304					Median	N/A				95% KM (Chebyshev) UCL		1713
305					SD	N/A				97.5% KM (Chebyshev) UCL		2130
306					k star	N/A				99% KM (Chebyshev) UCL		2949
307					Theta star	N/A						
308					Nu star	N/A				**Potential UCLs to Use**		
309					AppChi2	N/A				95% KM (t) UCL		1179
310				95% Gamma Approximate UCL		N/A				95% KM (Percentile Bootstrap) UCL		1600
311				95% Adjusted Gamma UCL		N/A						
312	**Note: DL/2 is not a recommended method.**											
313												
314	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
315	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
316	**For additional insight, the user may want to consult a statistician.**											
317												
318												
319	**Gasoline Range Organics**											
320												
321	**General Statistics**											
322					Number of Valid Data	7				Number of Detected Data		3
323					Number of Distinct Detected Data	3				Number of Non-Detect Data		4
324					Number of Missing Values	1				Percent Non-Detects		57.14%
325												
326	**Raw Statistics**						**Log-transformed Statistics**					
327					Minimum Detected	27				Minimum Detected		3.296
328					Maximum Detected	300				Maximum Detected		5.704
329					Mean of Detected	118.3				Mean of Detected		4.111
330					SD of Detected	157.3				SD of Detected		1.38
331					Minimum Non-Detect	32				Minimum Non-Detect		3.466
332					Maximum Non-Detect	39				Maximum Non-Detect		3.664
333												
334	Note: Data have multiple DLs - Use of KM Method is recommended									Number treated as Non-Detect		6
335	For all methods (except KM, DL/2, and ROS Methods),									Number treated as Detected		1
336	Observations < Largest ND are treated as NDs									Single DL Non-Detect Percentage		85.71%
337												
338	**Warning: There are only 3 Distinct Detected Values in this data set**											
339	**The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.**											
340	**Those methods will return a 'N/A' value on your output display!**											
341												
342	**It is necessary to have 4 or more Distinct Values for bootstrap methods.**											
343	**However, results obtained using 4 to 9 distinct values may not be reliable.**											
344	**It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.**											
345												
346												
347	**UCL Statistics**											
348	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
349					Shapiro Wilk Test Statistic	0.753				Shapiro Wilk Test Statistic		0.761
350					5% Shapiro Wilk Critical Value	0.767				5% Shapiro Wilk Critical Value		0.767

351	**Data not Normal at 5% Significance Level**						**Data not Lognormal at 5% Significance Level**					
352												
353	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
354	DL/2 Substitution Method						DL/2 Substitution Method					
355	Mean					60.71	Mean					3.395
356	SD					105.6	SD					1.043
357	95% DL/2 (t) UCL					138.3	95% H-Stat (DL/2) UCL					261.2
358												
359	Maximum Likelihood Estimate(MLE) Method					N/A	Log ROS Method					
360	**MLE method failed to converge properly**						Mean in Log Scale					3.718
361							SD in Log Scale					0.918
362							Mean in Original Scale					69.22
363							SD in Original Scale					102.2
364							95% t UCL					144.2
365							95% Percentile Bootstrap UCL					144.1
366							95% BCA Bootstrap UCL					182.6
367							95% H-UCL					230.4
368												
369	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
370	k star (bias corrected)					N/A	**Data do not follow a Discernable Distribution (0.05)**					
371	Theta Star					N/A						
372	nu star					N/A						
373												
374	A-D Test Statistic					N/A	**Nonparametric Statistics**					
375	5% A-D Critical Value					N/A	Kaplan-Meier (KM) Method					
376	K-S Test Statistic					N/A	Mean					66.43
377	5% K-S Critical Value					N/A	SD					95.36
378	**Data not Gamma Distributed at 5% Significance Level**						SE of Mean					44.14
379							95% KM (t) UCL					152.2
380	**Assuming Gamma Distribution**						95% KM (z) UCL					139
381	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL					142.1
382	Minimum					N/A	95% KM (bootstrap t) UCL					7064
383	Maximum					N/A	95% KM (BCA) UCL					300
384	Mean					N/A	95% KM (Percentile Bootstrap) UCL					N/A
385	Median					N/A	95% KM (Chebyshev) UCL					258.8
386	SD					N/A	97.5% KM (Chebyshev) UCL					342.1
387	k star					N/A	99% KM (Chebyshev) UCL					505.6
388	Theta star					N/A						
389	Nu star					N/A	**Potential UCLs to Use**					
390	AppChi2					N/A	95% KM (BCA) UCL					300
391	95% Gamma Approximate UCL					N/A						
392	95% Adjusted Gamma UCL					N/A						
393	**Note: DL/2 is not a recommended method.**											
394												
395	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
396	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
397	**For additional insight, the user may want to consult a statistician.**											
398												

1				General UCL Statistics for Full Data Sets							
2			User Selected Options								
3			From File	WorkSheet.wst							
4			Full Precision	OFF							
5			Confidence Coefficient	95%							
6			Number of Bootstrap Operations	2000							
7											
8											
9	Arsenic										
10											
11					General Statistics						
12				Number of Valid Observations	7			Number of Distinct Observations	6		
13				Number of Missing Values	1						
14											
15				Raw Statistics				Log-transformed Statistics			
16				Minimum	0.55			Minimum of Log Data	-0.598		
17				Maximum	11			Maximum of Log Data	2.398		
18				Mean	5.957			Mean of log Data	1.349		
19				Median	4.9			SD of log Data	1.203		
20				SD	4.361						
21				Std. Error of Mean	1.648						
22				Coefficient of Variation	0.732						
23				Skewness	-0.0378						
24											
25											
26				Warning: A sample size of 'n' = 7 may not adequate enough to compute meaningful and reliable test statistics and estimates!							
27											
28				It is suggested to collect at least 8 to 10 observations using these statistical methods!							
29				If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.							
30											
31											
32				Warning: There are only 7 Values in this data							
33				Note: It should be noted that even though bootstrap methods may be performed on this data set,							
34				the resulting calculations may not be reliable enough to draw conclusions							
35											
36				The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.							
37											
38					Relevant UCL Statistics						
39				Normal Distribution Test				Lognormal Distribution Test			
40				Shapiro Wilk Test Statistic	0.89			Shapiro Wilk Test Statistic	0.833		
41				Shapiro Wilk Critical Value	0.803			Shapiro Wilk Critical Value	0.803		
42				Data appear Normal at 5% Significance Level				Data appear Lognormal at 5% Significance Level			
43											
44				Assuming Normal Distribution				Assuming Lognormal Distribution			
45				95% Student's-t UCL	9.16			95% H-UCL	65.2		
46				95% UCLs (Adjusted for Skewness)				95% Chebyshev (MVUE) UCL	20.45		
47				95% Adjusted-CLT UCL (Chen-1995)	8.643			97.5% Chebyshev (MVUE) UCL	26.33		
48				95% Modified-t UCL (Johnson-1978)	9.156			99% Chebyshev (MVUE) UCL	37.87		
49											
50				Gamma Distribution Test				Data Distribution			

k star (bias corrected)	0.832	**Data appear Normal at 5% Significance Level**
Theta Star	7.158	
MLE of Mean	5.957	
MLE of Standard Deviation	6.53	
nu star	11.65	
Approximate Chi Square Value (.05)	4.998	**Nonparametric Statistics**
Adjusted Level of Significance	0.0158	95% CLT UCL 8.668
Adjusted Chi Square Value	3.767	95% Jackknife UCL 9.16
		95% Standard Bootstrap UCL 8.481
Anderson-Darling Test Statistic	0.501	95% Bootstrap-t UCL 9.36
Anderson-Darling 5% Critical Value	0.724	95% Hall's Bootstrap UCL 8.752
Kolmogorov-Smirnov Test Statistic	0.24	95% Percentile Bootstrap UCL 8.493
Kolmogorov-Smirnov 5% Critical Value	0.318	95% BCA Bootstrap UCL 8.357
Data appear Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 13.14
		97.5% Chebyshev(Mean, Sd) UCL 16.25
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 22.36
95% Approximate Gamma UCL	13.89	
95% Adjusted Gamma UCL	18.43	
Potential UCL to Use		Use 95% Student's-t UCL 9.16

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Note: For highly negative-skewed data, confidence limits
(e.g., Chen, Johnson, Lognormal, and Gamma) may not be
reliable. Chen's and Johnson's methods provide
adjustments for positvely skewed data sets.

Chromium

General Statistics

Number of Valid Observations	7	Number of Distinct Observations	7
Number of Missing Values	1		

Raw Statistics		**Log-transformed Statistics**	
Minimum	0.36	Minimum of Log Data	-1.022
Maximum	7.5	Maximum of Log Data	2.015
Mean	4.241	Mean of log Data	1.043
Median	5.1	SD of log Data	1.198
SD	2.706		
Std. Error of Mean	1.023		
Coefficient of Variation	0.638		
Skewness	-0.685		

Warning: A sample size of 'n' = 7 may not adequate enough to compute meaningful and reliable test statistics and estimates!

	A	B	C	D	E	F	G	H	I	J	K	L
101	It is suggested to collect at least 8 to 10 observations using these statistical methods!											
102	If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.											
103												
104												
105	Warning: There are only 7 Values in this data											
106	Note: It should be noted that even though bootstrap methods may be performed on this data set,											
107	the resulting calculations may not be reliable enough to draw conclusions											
108												
109	The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.											
110												
111	Relevant UCL Statistics											
112	Normal Distribution Test						Lognormal Distribution Test					
113					Shapiro Wilk Test Statistic	0.883				Shapiro Wilk Test Statistic	0.766	
114					Shapiro Wilk Critical Value	0.803				Shapiro Wilk Critical Value	0.803	
115	Data appear Normal at 5% Significance Level						Data not Lognormal at 5% Significance Level					
116												
117	Assuming Normal Distribution						Assuming Lognormal Distribution					
118					95% Student's-t UCL	6.229				95% H-UCL	46.99	
119	95% UCLs (Adjusted for Skewness)									95% Chebyshev (MVUE) UCL	14.95	
120					95% Adjusted-CLT UCL (Chen-1995)	5.641				97.5% Chebyshev (MVUE) UCL	19.24	
121					95% Modified-t UCL (Johnson-1978)	6.185				99% Chebyshev (MVUE) UCL	27.67	
122												
123	Gamma Distribution Test						Data Distribution					
124					k star (bias corrected)	0.887	Data appear Normal at 5% Significance Level					
125					Theta Star	4.779						
126					MLE of Mean	4.241						
127					MLE of Standard Deviation	4.502						
128					nu star	12.42						
129					Approximate Chi Square Value (.05)	5.508	Nonparametric Statistics					
130					Adjusted Level of Significance	0.0158				95% CLT UCL	5.924	
131					Adjusted Chi Square Value	4.201				95% Jackknife UCL	6.229	
132										95% Standard Bootstrap UCL	5.79	
133					Anderson-Darling Test Statistic	0.81				95% Bootstrap-t UCL	5.868	
134					Anderson-Darling 5% Critical Value	0.723				95% Hall's Bootstrap UCL	5.561	
135					Kolmogorov-Smirnov Test Statistic	0.333				95% Percentile Bootstrap UCL	5.657	
136					Kolmogorov-Smirnov 5% Critical Value	0.318				95% BCA Bootstrap UCL	5.604	
137	Data not Gamma Distributed at 5% Significance Level									95% Chebyshev(Mean, Sd) UCL	8.7	
138										97.5% Chebyshev(Mean, Sd) UCL	10.63	
139	Assuming Gamma Distribution									99% Chebyshev(Mean, Sd) UCL	14.42	
140					95% Approximate Gamma UCL	9.568						
141					95% Adjusted Gamma UCL	12.54						
142												
143	Potential UCL to Use									Use 95% Student's-t UCL	6.229	
144												
145	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
146	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
147	and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.											
148												
149	Note: For highly negative-skewed data, confidence limits											
150	(e.g., Chen, Johnson, Lognormal, and Gamma) may not be											

reliable. Chen's and Johnson's methods provide

adjustments for positvely skewed data sets.

Cobalt

General Statistics

Number of Valid Observations	7	Number of Distinct Observations	6
Number of Missing Values	1		

Raw Statistics		Log-transformed Statistics	
Minimum	11	Minimum of Log Data	2.398
Maximum	210	Maximum of Log Data	5.347
Mean	55.2	Mean of log Data	3.483
Median	38	SD of log Data	1.059
SD	70.43		
Std. Error of Mean	26.62		
Coefficient of Variation	1.276		
Skewness	2.319		

Warning: A sample size of 'n' = 7 may not adequate enough to compute meaningful and reliable test statistics and estimates!

It is suggested to collect at least 8 to 10 observations using these statistical methods!

If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Warning: There are only 7 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set,

the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.668	Shapiro Wilk Test Statistic	0.902
Shapiro Wilk Critical Value	0.803	Shapiro Wilk Critical Value	0.803
Data not Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	106.9	95% H-UCL	304
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	141.2
95% Adjusted-CLT UCL (Chen-1995)	123.9	97.5% Chebyshev (MVUE) UCL	180.1
95% Modified-t UCL (Johnson-1978)	110.8	99% Chebyshev (MVUE) UCL	256.4
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.715	**Data appear Gamma Distributed at 5% Significance Level**	
Theta Star	77.24		
MLE of Mean	55.2		
MLE of Standard Deviation	65.29		

201					nu star	10.01						
202					Approximate Chi Square Value (.05)	3.945	**Nonparametric Statistics**					
203					Adjusted Level of Significance	0.0158				95% CLT UCL	98.98	
204					Adjusted Chi Square Value	2.884				95% Jackknife UCL	106.9	
205										95% Standard Bootstrap UCL	95.06	
206					Anderson-Darling Test Statistic	0.525				95% Bootstrap-t UCL	199.2	
207					Anderson-Darling 5% Critical Value	0.726				95% Hall's Bootstrap UCL	277.8	
208					Kolmogorov-Smirnov Test Statistic	0.253				95% Percentile Bootstrap UCL	102.1	
209					Kolmogorov-Smirnov 5% Critical Value	0.319				95% BCA Bootstrap UCL	115.2	
210					**Data appear Gamma Distributed at 5% Significance Level**					95% Chebyshev(Mean, Sd) UCL	171.2	
211										97.5% Chebyshev(Mean, Sd) UCL	221.4	
212					**Assuming Gamma Distribution**					99% Chebyshev(Mean, Sd) UCL	320.1	
213					95% Approximate Gamma UCL	140						
214					95% Adjusted Gamma UCL	191.5						
215												
216					**Potential UCL to Use**					Use 95% Approximate Gamma UCL	140	
217												
218	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
219	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
220	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
221												
222												
223	**Iron**											
224												
225	**General Statistics**											
226					Number of Valid Observations	3				Number of Distinct Observations	3	
227					Number of Missing Values	5						
228												
229												
230	**Warning: This data set only has 3 observations!**											
231	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
232	**The data set for variable Iron was not processed!**											
233												
234	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											
235	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
236												
237												
238												
239	**Manganese**											
240												
241	**General Statistics**											
242					Number of Valid Observations	3				Number of Distinct Observations	3	
243					Number of Missing Values	5						
244												
245												
246	**Warning: This data set only has 3 observations!**											
247	**Data set is too small to compute reliable and meaningful statistics and estimates!**											
248	**The data set for variable Manganese was not processed!**											
249												
250	**It is suggested to collect at least 8 to 10 observations before using these statistical methods!**											

251	**If possible, compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
252												
253												
254												
255	**Nickel**											
256												
257	**General Statistics**											
258					Number of Valid Observations	7				Number of Distinct Observations	7	
259					Number of Missing Values	1						
260												
261	**Raw Statistics**						**Log-transformed Statistics**					
262					Minimum	0.69				Minimum of Log Data	-0.371	
263					Maximum	380				Maximum of Log Data	5.94	
264					Mean	85.91				Mean of log Data	3.318	
265					Median	47				SD of log Data	1.989	
266					SD	132.9						
267					Std. Error of Mean	50.24						
268					Coefficient of Variation	1.547						
269					Skewness	2.385						
270												
271												
272	**Warning: A sample size of 'n' = 7 may not adequate enough to compute meaningful and reliable test statistics and estimates!**											
273												
274	**It is suggested to collect at least 8 to 10 observations using these statistical methods!**											
275	**If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
276												
277												
278	**Warning: There are only 7 Values in this data**											
279	**Note: It should be noted that even though bootstrap methods may be performed on this data set,**											
280	**the resulting calculations may not be reliable enough to draw conclusions**											
281												
282	**The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.**											
283												
284	**Relevant UCL Statistics**											
285	**Normal Distribution Test**						**Lognormal Distribution Test**					
286					Shapiro Wilk Test Statistic	0.656				Shapiro Wilk Test Statistic	0.938	
287					Shapiro Wilk Critical Value	0.803				Shapiro Wilk Critical Value	0.803	
288	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
289												
290	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
291					95% Student's-t UCL	183.5				95% H-UCL	46398	
292	**95% UCLs (Adjusted for Skewness)**									95% Chebyshev (MVUE) UCL	469.4	
293					95% Adjusted-CLT UCL (Chen-1995)	216.9				97.5% Chebyshev (MVUE) UCL	622	
294					95% Modified-t UCL (Johnson-1978)	191.1				99% Chebyshev (MVUE) UCL	921.8	
295												
296	**Gamma Distribution Test**						**Data Distribution**					
297					k star (bias corrected)	0.41	**Data appear Gamma Distributed at 5% Significance Level**					
298					Theta Star	209.5						
299					MLE of Mean	85.91						
300					MLE of Standard Deviation	134.2						

301					nu star	5.742						
302					Approximate Chi Square Value (.05)	1.509	**Nonparametric Statistics**					
303					Adjusted Level of Significance	0.0158				95% CLT UCL	168.5	
304					Adjusted Chi Square Value	0.949				95% Jackknife UCL	183.5	
305										95% Standard Bootstrap UCL	162.9	
306					Anderson-Darling Test Statistic	0.255				95% Bootstrap-t UCL	408.9	
307					Anderson-Darling 5% Critical Value	0.748				95% Hall's Bootstrap UCL	516.3	
308					Kolmogorov-Smirnov Test Statistic	0.21				95% Percentile Bootstrap UCL	178	
309					Kolmogorov-Smirnov 5% Critical Value	0.326				95% BCA Bootstrap UCL	235	
310					**Data appear Gamma Distributed at 5% Significance Level**					95% Chebyshev(Mean, Sd) UCL	304.9	
311										97.5% Chebyshev(Mean, Sd) UCL	399.6	
312					**Assuming Gamma Distribution**					99% Chebyshev(Mean, Sd) UCL	585.8	
313					95% Approximate Gamma UCL	326.8						
314					95% Adjusted Gamma UCL	519.6						
315												
316					**Potential UCL to Use**					Use 95% Approximate Gamma UCL	326.8	
317												
318	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
319	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**											
320	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**											
321												
322												
323	**Zinc**											
324												
325	**General Statistics**											
326					Number of Valid Observations	7				Number of Distinct Observations	7	
327					Number of Missing Values	1						
328												
329					**Raw Statistics**		**Log-transformed Statistics**					
330					Minimum	3.5				Minimum of Log Data	1.253	
331					Maximum	1500				Maximum of Log Data	7.313	
332					Mean	285.6				Mean of log Data	4.344	
333					Median	100				SD of log Data	1.863	
334					SD	539.8						
335					Std. Error of Mean	204						
336					Coefficient of Variation	1.89						
337					Skewness	2.559						
338												
339												
340	**Warning: A sample size of 'n' = 7 may not adequate enough to compute meaningful and reliable test statistics and estimates!**											
341												
342	**It is suggested to collect at least 8 to 10 observations using these statistical methods!**											
343	**If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.**											
344												
345												
346	**Warning: There are only 7 Values in this data**											
347	**Note: It should be noted that even though bootstrap methods may be performed on this data set,**											
348	**the resulting calculations may not be reliable enough to draw conclusions**											
349												
350	**The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.**											

351											
352	**Relevant UCL Statistics**										
353	**Normal Distribution Test**						**Lognormal Distribution Test**				
354					Shapiro Wilk Test Statistic	0.569				Shapiro Wilk Test Statistic	0.974
355					Shapiro Wilk Critical Value	0.803				Shapiro Wilk Critical Value	0.803
356	**Data not Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**				
357											
358	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**				
359					95% Student's-t UCL	682.1				95% H-UCL	53302
360	**95% UCLs (Adjusted for Skewness)**									95% Chebyshev (MVUE) UCL	1081
361					95% Adjusted-CLT UCL (Chen-1995)	832.1				97.5% Chebyshev (MVUE) UCL	1429
362					95% Modified-t UCL (Johnson-1978)	715				99% Chebyshev (MVUE) UCL	2111
363											
364	**Gamma Distribution Test**						**Data Distribution**				
365					k star (bias corrected)	0.373	**Data appear Gamma Distributed at 5% Significance Level**				
366					Theta Star	765					
367					MLE of Mean	285.6					
368					MLE of Standard Deviation	467.5					
369					nu star	5.227					
370					Approximate Chi Square Value (.05)	1.259	**Nonparametric Statistics**				
371					Adjusted Level of Significance	0.0158				95% CLT UCL	621.2
372					Adjusted Chi Square Value	0.767				95% Jackknife UCL	682.1
373										95% Standard Bootstrap UCL	594.1
374					Anderson-Darling Test Statistic	0.455				95% Bootstrap-t UCL	3253
375					Anderson-Darling 5% Critical Value	0.754				95% Hall's Bootstrap UCL	2404
376					Kolmogorov-Smirnov Test Statistic	0.245				95% Percentile Bootstrap UCL	678.4
377					Kolmogorov-Smirnov 5% Critical Value	0.328				95% BCA Bootstrap UCL	879.7
378	**Data appear Gamma Distributed at 5% Significance Level**									95% Chebyshev(Mean, Sd) UCL	1175
379										97.5% Chebyshev(Mean, Sd) UCL	1560
380	**Assuming Gamma Distribution**									99% Chebyshev(Mean, Sd) UCL	2316
381					95% Approximate Gamma UCL	1186					
382					95% Adjusted Gamma UCL	1947					
383											
384	**Potential UCL to Use**									Use 95% Adjusted Gamma UCL	1947
385	**Recommended UCL exceeds the maximum observation**										
386											
387	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**										
388	**These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)**										
389	**and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.**										
390											

				General UCL Statistics for Data Sets with Non-Detects							
			User Selected Options								
			From File	WorkSheet.wst							
			Full Precision	OFF							
			Confidence Coefficient	95%							
			Number of Bootstrap Operations	2000							
Trichloroethene											
						General Statistics					
					Number of Valid Data	7			Number of Detected Data	5	
					Number of Distinct Detected Data	5			Number of Non-Detect Data	2	
					Number of Missing Values	1			Percent Non-Detects	28.57%	
					Raw Statistics				**Log-transformed Statistics**		
					Minimum Detected	2.7			Minimum Detected	0.993	
					Maximum Detected	25			Maximum Detected	3.219	
					Mean of Detected	10.14			Mean of Detected	2.02	
					SD of Detected	8.989			SD of Detected	0.856	
					Minimum Non-Detect	0.17			Minimum Non-Detect	-1.772	
					Maximum Non-Detect	0.17			Maximum Non-Detect	-1.772	
					Warning: There are only 5 Detected Values in this data						
					Note: It should be noted that even though bootstrap may be performed on this data set						
					the resulting calculations may not be reliable enough to draw conclusions						
					It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.						
						UCL Statistics					
					Normal Distribution Test with Detected Values Only				**Lognormal Distribution Test with Detected Values Only**		
					Shapiro Wilk Test Statistic	0.843			Shapiro Wilk Test Statistic	0.976	
					5% Shapiro Wilk Critical Value	0.762			5% Shapiro Wilk Critical Value	0.762	
					Data appear Normal at 5% Significance Level				**Data appear Lognormal at 5% Significance Level**		
					Assuming Normal Distribution				**Assuming Lognormal Distribution**		
					DL/2 Substitution Method				DL/2 Substitution Method		
					Mean	7.267			Mean	0.738	
					SD	8.828			SD	2.297	
					95% DL/2 (t) UCL	13.75			95% H-Stat (DL/2) UCL	39681	
					Maximum Likelihood Estimate(MLE) Method				Log ROS Method		
					Mean	5.338			Mean in Log Scale	1.36	
					SD	10.61			SD in Log Scale	1.339	
					95% MLE (t) UCL	13.13			Mean in Original Scale	7.469	
					95% MLE (Tiku) UCL	13.54			SD in Original Scale	8.643	
									95% t UCL	13.82	
									95% Percentile Bootstrap UCL	13.01	

51											95% BCA Bootstrap UCL	14.39
52											95% H UCL	124.1
53												
54	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
55					k star (bias corrected)	0.867	**Data appear Normal at 5% Significance Level**					
56					Theta Star	11.7						
57					nu star	8.667						
58												
59					A-D Test Statistic	0.282	**Nonparametric Statistics**					
60					5% A-D Critical Value	0.685					Kaplan-Meier (KM) Method	
61					K-S Test Statistic	0.685					Mean	8.014
62					5% K-S Critical Value	0.361					SD	7.581
63	**Data appear Gamma Distributed at 5% Significance Level**										SE of Mean	3.203
64											95% KM (t) UCL	14.24
65	**Assuming Gamma Distribution**										95% KM (z) UCL	13.28
66					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	13.85
67					Minimum	0.000001					95% KM (bootstrap t) UCL	28.02
68					Maximum	25					95% KM (BCA) UCL	14.06
69					Mean	7.243					95% KM (Percentile Bootstrap) UCL	13.86
70					Median	5					95% KM (Chebyshev) UCL	21.98
71					SD	8.851					97.5% KM (Chebyshev) UCL	28.02
72					k star	0.192					99% KM (Chebyshev) UCL	39.89
73					Theta star	37.82						
74					Nu star	2.681	**Potential UCLs to Use**					
75					AppChi2	0.285					95% KM (t) UCL	14.24
76					95% Gamma Approximate UCL	68.24					95% KM (Percentile Bootstrap) UCL	13.86
77					95% Adjusted Gamma UCL	131.5						
78	**Note: DL/2 is not a recommended method.**											
79												
80	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
81	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
82	**For additional insight, the user may want to consult a statistician.**											
83												
84												
85	**Vanadium**											
86												
87	**General Statistics**											
88					Number of Valid Data	7					Number of Detected Data	6
89					Number of Distinct Detected Data	6					Number of Non-Detect Data	1
90					Number of Missing Values	1					Percent Non-Detects	14.29%
91												
92	**Raw Statistics**						**Log-transformed Statistics**					
93					Minimum Detected	0.37					Minimum Detected	-0.994
94					Maximum Detected	48					Maximum Detected	3.871
95					Mean of Detected	13.8					Mean of Detected	1.424
96					SD of Detected	18.48					SD of Detected	2.025
97					Minimum Non-Detect	0.3					Minimum Non-Detect	-1.204
98					Maximum Non-Detect	0.3					Maximum Non-Detect	-1.204
99												
100												

101	**Warning: There are only 6 Detected Values in this data**											
102	**Note: It should be noted that even though bootstrap may be performed on this data set**											
103	**the resulting calculations may not be reliable enough to draw conclusions**											
104												
105	**It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.**											
106												
107												
108	**UCL Statistics**											
109	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
110	Shapiro Wilk Test Statistic				0.799		Shapiro Wilk Test Statistic				0.909	
111	5% Shapiro Wilk Critical Value				0.788		5% Shapiro Wilk Critical Value				0.788	
112	**Data appear Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
113												
114	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
115	DL/2 Substitution Method						DL/2 Substitution Method					
116	Mean				11.85		Mean				0.95	
117	SD				17.64		SD				2.235	
118	95% DL/2 (t) UCL				24.8		95% H-Stat (DL/2) UCL				29201	
119												
120	Maximum Likelihood Estimate(MLE) Method						Log ROS Method					
121	Mean				10.23		Mean in Log Scale				0.702	
122	SD				18.24		SD in Log Scale				2.659	
123	95% MLE (t) UCL				23.62		Mean in Original Scale				11.83	
124	95% MLE (Tiku) UCL				23.17		SD in Original Scale				17.65	
125							95% t UCL				24.79	
126							95% Percentile Bootstrap UCL				22.53	
127							95% BCA Bootstrap UCL				26.3	
128							95% H UCL				1025790	
129												
130	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
131	k star (bias corrected)				0.374		**Data appear Normal at 5% Significance Level**					
132	Theta Star				36.92							
133	nu star				4.485							
134												
135	A-D Test Statistic				0.261		**Nonparametric Statistics**					
136	5% A-D Critical Value				0.734		Kaplan-Meier (KM) Method					
137	K-S Test Statistic				0.734		Mean				11.88	
138	5% K-S Critical Value				0.348		SD				16.31	
139	**Data appear Gamma Distributed at 5% Significance Level**						SE of Mean				6.752	
140							95% KM (t) UCL				25	
141	**Assuming Gamma Distribution**						95% KM (z) UCL				22.98	
142	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL				24.81	
143	Minimum				0.000001		95% KM (bootstrap t) UCL				60.01	
144	Maximum				48		95% KM (BCA) UCL				23.79	
145	Mean				11.83		95% KM (Percentile Bootstrap) UCL				23.74	
146	Median				3.6		95% KM (Chebyshev) UCL				41.31	
147	SD				17.65		97.5% KM (Chebyshev) UCL				54.04	
148	k star				0.223		99% KM (Chebyshev) UCL				79.06	
149	Theta star				52.94							
150	Nu star				3.127		**Potential UCLs to Use**					

151					AppChi2	0.411					95% KM (t) UCL	25
152					95% Gamma Approximate UCL	89.96					95% KM (Percentile Bootstrap) UCL	23.74
153					95% Adjusted Gamma UCL	174						
154	**Note: DL/2 is not a recommended method.**											
155												
156	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
157	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
158	**For additional insight, the user may want to consult a statistician.**											
159												
160												
161	**Diesel Range Organics**											
162												
163	**General Statistics**											
164					Number of Valid Data	7					Number of Detected Data	6
165					Number of Distinct Detected Data	6					Number of Non-Detect Data	1
166					Number of Missing Values	1					Percent Non-Detects	14.29%
167												
168	**Raw Statistics**						**Log-transformed Statistics**					
169					Minimum Detected	42					Minimum Detected	3.738
170					Maximum Detected	360					Maximum Detected	5.886
171					Mean of Detected	211.2					Mean of Detected	5.062
172					SD of Detected	136.3					SD of Detected	0.945
173					Minimum Non-Detect	230					Minimum Non-Detect	5.438
174					Maximum Non-Detect	230					Maximum Non-Detect	5.438
175												
176												
177	**Warning: There are only 6 Detected Values in this data**											
178	**Note: It should be noted that even though bootstrap may be performed on this data set**											
179	**the resulting calculations may not be reliable enough to draw conclusions**											
180												
181	**It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.**											
182												
183												
184	**UCL Statistics**											
185	**Normal Distribution Test with Detected Values Only**						**Lognormal Distribution Test with Detected Values Only**					
186					Shapiro Wilk Test Statistic	0.873					Shapiro Wilk Test Statistic	0.81
187					5% Shapiro Wilk Critical Value	0.788					5% Shapiro Wilk Critical Value	0.788
188	**Data appear Normal at 5% Significance Level**						**Data appear Lognormal at 5% Significance Level**					
189												
190	**Assuming Normal Distribution**						**Assuming Lognormal Distribution**					
191					DL/2 Substitution Method						DL/2 Substitution Method	
192					Mean	197.4					Mean	5.016
193					SD	129.7					SD	0.871
194					95% DL/2 (t) UCL	292.7					95% H-Stat (DL/2) UCL	723.9
195												
196					Maximum Likelihood Estimate(MLE) Method						Log ROS Method	
197					Mean	222.7					Mean in Log Scale	4.964
198					SD	100.4					SD in Log Scale	0.901
199					95% MLE (t) UCL	296.4					Mean in Original Scale	192.4
200					95% MLE (Tiku) UCL	321.1					SD in Original Scale	134

201											95% t UCL	290.8
202											95% Percentile Bootstrap UCL	267.4
203											95% BCA Bootstrap UCL	265.7
204											95% H UCL	756.2
205												
206	**Gamma Distribution Test with Detected Values Only**						**Data Distribution Test with Detected Values Only**					
207					k star (bias corrected)	1.045	**Data appear Normal at 5% Significance Level**					
208					Theta Star	202.1						
209					nu star	12.54						
210												
211					A-D Test Statistic	0.597	**Nonparametric Statistics**					
212					5% A-D Critical Value	0.705					Kaplan-Meier (KM) Method	
213					K-S Test Statistic	0.705					Mean	195.1
214					5% K-S Critical Value	0.336					SD	124.7
215	**Data appear Gamma Distributed at 5% Significance Level**										SE of Mean	53.23
216											95% KM (t) UCL	298.6
217	**Assuming Gamma Distribution**										95% KM (z) UCL	282.7
218					Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	300.3
219					Minimum	42					95% KM (bootstrap t) UCL	286.1
220					Maximum	360					95% KM (BCA) UCL	278.9
221					Mean	195.1					95% KM (Percentile Bootstrap) UCL	276.4
222					Median	200					95% KM (Chebyshev) UCL	427.2
223					SD	131.5					97.5% KM (Chebyshev) UCL	527.6
224					k star	1.206					99% KM (Chebyshev) UCL	724.8
225					Theta star	161.8						
226					Nu star	16.88	**Potential UCLs to Use**					
227					AppChi2	8.585					95% KM (t) UCL	298.6
228					95% Gamma Approximate UCL	383.6					95% KM (Percentile Bootstrap) UCL	276.4
229					95% Adjusted Gamma UCL	478.9						
230	**Note: DL/2 is not a recommended method.**											
231												
232	**Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.**											
233	**These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).**											
234	**For additional insight, the user may want to consult a statistician.**											
235												

APPENDIX J-4

SAMPLE CALCULATIONS

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INCIDENTAL INGESTION OF SOIL CONSTRUCTION WORKERS		
BASED ON: USEPA, DECEMBER 1989		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from incidental ingestion of surface soil at REC 11.

EQUATION:

$$IEX = \frac{CS \times IR \times EF \times ED \times FI \times CF}{BW \times AT}$$

Where:

IEX	=	estimated exposure intake (mg/kg/day)
Cs	=	exposure point concentration in soil (mg/kg)
IR	=	incidental ingestion rate (mg/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
FI	=	fraction ingested from contaminated source (unitless)
CF	=	conversion factor (1.0E-6 kg/mg)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFo	=	oral carcinogenic slope factor ($(mg/kg/day)^{-1}$)
RfDo	=	oral noncarcinogenic reference dose (mg/kg/day)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFo (mg/kg/day)-1
HQ (Noncarcinogens) = Intake (mg/kg/day) / RFDo (mg/kg/day)

ASSUMPTIONS:

Cs	=	3.3	mg/kg	Chemical: Arsenic
IR	=	480	mg/day	
EF	=	250	days/year	
ED	=	1	years	
FI	=	1		
CF	=	1.0E-06	kg/mg	
BW	=	70	kg	
ATc	=	25550	days	
ATnc	=	365	days	
CSFo	=	1.5E+00	$(mg/kg/day)^{-1}$	
RfDo	=	3.0E-04	(mg/kg/day)	

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INCIDENTAL INGESTION OF SOIL CONSTRUCTION WORKERS		
BASED ON: USEPA, DECEMBER 1989		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{3.3\ mg/kg \times 480\ mg/day \times 250\ days/year \times 1\ years \times 1 \times 1.0E\text{-}06\ kg/mg}{70\ kg \times 25550\ days}$$

IEXc = 2.21E-07 mg/kg/day

ILCR = 2.21E-07 mg/kg/day x 1.50E+00 (mg/kg/day)-1 = Incremental Lifetime Cancer Risk

ILCR = 3.3E-07

EXAMPLE NONCARCINOGENIC CALCULATION

$$IEXnc = \frac{3.3\ mg/kg \times 480\ mg/day \times 250\ days/year \times 1\ years \times 1 \times 1.0E\text{-}06\ kg/mg}{70\ kg \times 365\ days}$$

IEXnc = 1.55E-05 mg/kg/day

HQ = 1.55E-05 mg/kg/day / 3.00E-04 (mg/kg/day) = Hazard Quotient

HQ = 5.2E-02

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		JOB NUMBER: 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH SOIL CONSTRUCTION WORKERS		
BASED ON: USEPA, JULY 2004		
BY: L.GANSER	CHECKED BY:	DATE: 10/18/2011

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from dermal contact with surface soil at REC 11.

EQUATION:

$$DEX = \frac{Cs \times CF \times SA \times AF \times ABS \times EF \times ED}{BW \times AT}$$

Where:

DEX	=	estimated exposure intake (mg/kg/day)
Cs	=	exposure point concentration in soil (mg/kg)
CF	=	conversion factor (1.0E-6 kg/mg)
SA	=	skin surface available for contact (cm^2/day)
ABS	=	absorption factor (unitless)
AF	=	adherence factor (mg/cm^2)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFd	=	dermal carcinogenic slope factor ($(mg/kg/day)^{-1}$)
RfDd	=	dermal noncarcinogenic reference dose (mg/kg/day)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFd (mg/kg/day)-1
HQ (Noncarcinogens) = Intake (mg/kg/day) / RFDd (mg/kg/day)

ASSUMPTIONS:

Cs	=	3.3	mg/kg	Chemical: Arsenic
CF	=	1.0E-06	kg/mg	
SA	=	3280	cm^2/day	
AF	=	0.3	mg/cm^2	
ABS	=	0.03		
EF	=	250	days/year	
ED	=	1	years	
BW	=	70	kg	
ATc	=	25550	days	
ATnc	=	365	days	
CSFd	=	1.5E+00	$(mg/kg/day)^{-1}$	
RfDd	=	3.0E-04	(mg/kg/day)	

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH SOIL CONSTRUCTION WORKERS		
BASED ON: USEPA, JULY 2004		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$DEXc = \frac{3.3\ mg/kg \times 1.0E\text{-}06\ kg/mg \times 3280\ cm2/day \times 0.3\ mg/cm2 \times 0.03 \times 250\ days/year \times 1\ years}{70\ kg \times 25550\ days}$$

DEXc = 1.36E-08 mg/kg/day

ILCR = 1.36E-08 mg/kg/day x 1.50E+00 (mg/kg/day)-1 = Incremental Lifetime Cancer Risk

ILCR = 2.0E-08

EXAMPLE NONCARCINOGENIC CALCULATION

$$DEXnc = \frac{3.3\ mg/kg \times 1.0E\text{-}06\ kg/mg \times 3280\ cm2/day \times 0.3\ mg/cm2 \times 0.03 \times 250\ days/year \times 1\ years}{70\ kg \times 365\ days}$$

DEXnc = 9.53E-07 mg/kg/day

HQ = 9.53E-07 mg/kg/day / 3.00E-04 (mg/kg/day) = Hazard Quotient

HQ = 3.2E-03

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF FUGATIVE DUST EMISSIONS CONSTRUCTION WORKERS		
BASED ON: USEPA, JANUARY 2009		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from inhalation of surface soil at REC 11.

EQUATION:

$$EC = \frac{Ca \times ET \times EF \times ED}{AT \times 24\ hours/day}$$

Where:

EC	=	exposure concentration (mg/m3)
Ca	=	exposure point concentration in air (mg/m3)
	=	Cs x 1/PEF
Cs	=	exposure point concentration in soil (mg/kg)
PEF	=	particulate emission factor (m3/kg)
ET	=	exposure time (hrs/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
IURi	=	inhalation unit risk $((ug/m3)^{-1})$
RfCi	=	inhalation reference concentration (mg/m3)

RISKS:

ILCR (Carcinogens) = Exposure Concentratin (mg/m3) x IURi (ug/m3)-1 x 1000 ug/mg
HQ (Noncarcinogens) = Exposure Concentration (mg/m3) / RFCi (mg/m3)

ASSUMPTIONS:

Cs	=	3.3	mg/kg	Chemical: Arsenic
PEF	=	1430000	m3/kg	
Ca	=	2.31E-06	mg/m3	
ET	=	8	hours	
EF	=	250	days/year	
ED	=	1	years	
ATc	=	25550	days	
ATnc	=	365	days	
IURi	=	4.3E-03	$(ug/m3)^{-1}$	
RfCi	=	1.5E-05	(mg/m3)	

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF FUGATIVE DUST EMISSIONS CONSTRUCTION WORKERS		
BASED ON: USEPA, JANUARY 2009		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{2.31E\text{-}06 \text{ mg/m3} \times 8 \text{ hours} \times 250 \text{ days/year} \times 1 \text{ years}}{25550 \text{ days} \times 24 \text{ hours/day}}$$

IEXc = 7.53E-09 mg/m3

ILCR = 7.53E-09 mg/m3 x 4.30E-03 (ug/m3)-1 x 1000 ug/mg = Incremental Lifetime Cancer Risk

ILCR = 3.2E-08

EXAMPLE NONCARCINOGENIC CALCULATION

$$IEXnc = \frac{2.31E\text{-}06 \text{ mg/m3} \times 8 \text{ hours} \times 250 \text{ days/year} \times 1 \text{ years}}{365 \text{ days} \times 24 \text{ hours/day}}$$

IEXnc = 5.27E-07 mg/m3

HQ = 5.27E-07 mg/m3 / 1.50E-05 (mg/m3) = Hazard Quotient

HQ **3.5E-02**

CLIENT:	JOB NUMBER:
LOCKHEED MARTIN, GREATER STRAWBERRY POINT	112IC03279
SUBJECT: CALCULATION OF PARTICUALATE EMISSION FACTOR FOR CONSTRUCTION WORKERS	
BASED ON: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (USEPA, December 2002)	

BY:	CHECKED BY:	DATE:
L.GANSER		10/18/2011

Equation 5-5
Derivation of the Particulate Emission Factor
Construction Scenario - Construction Worker

$$PEF_{sc} = Q/C_{sr} \times \frac{1}{F_D} \times \left[\frac{T \times A_R}{556 \times (W/3)^{0.4} \times \frac{(365d/yr - p)}{365d/yr} \times \Sigma VKT} \right]$$

Parameter/Definition (units)	Default
PEF_{sc}/subchronic road particulate emission factor (m^3/kg)	site-specific
Q/C_{sr}/ inverse of the ratio of the 1-h geometric mean air concentration to the emission flux along a straight road segment bisecting a square site (g/m^2-s per kg/m^2)	23.02[a] (Equation 5-6)
F_D/dispersion correction factor (unitless)	0.185 (Appendix E)
T/total time over which construction occurs (s)	site-specific
A_R/surface area of contaminated road segment (m^2) L_R/length of road segment (ft) W_R/width of road segment (ft)	274.213 ($A_R = L_R \times W_R \times 0.092903 m^2/ft^2$)
W/mean vehicle weight (tons)	site-specific
p/number of days with at least 0.01 inches of precipitation (days/year)	site-specific (Exhibit 5-2)
ΣVKT/sum of fleet vehicle kilometers traveled during the exposure duration (km)	site-specific

[a] Assumes a 0.5 acre site

Calculation of PEF for Construction Workers

Q/C	23.02	(g/m2-s per kg/m3)	
Fd	0.185	dispersion correction factor (unitless)	
T	7.20E+06	sec	3600 sec/hr x 8 hr/day x 250 days/yr
A_R	274.213	m^2	
W	8	tons	
p	140	day/year	
VKT	337.5	km	30 vehicles x 0.045 km/day x 250 days

PEF = 1.43E+06 m^3/kg

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF THE PARTICULATE EMISSION FACTOR (PEF) FOR RESIDENTIAL, RECREATIONAL, TRESPASSER, AND COMMERCIAL/INDUSTRIAL EXPOSURES		
BASED ON: SUPPLEMENTAL GUIDANCE FOR DEVELOPING SOIL SCREENING LEVELS FOR SUPERFUND SITES (USEPA, DECEMBER, 2002)		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To calculate the particulate emission factor for residential and commercial/industrial exposure scenarios.

EQUATIONS:

$$PEF = Q/C_{wind} \times \frac{3600 \text{ sec/hr}}{0.036 \times (1 - V) \times (U_m/U_t)^3 \times F(x)}$$

$$Q/C_{wind} = A \times \exp\left[\frac{(\ln A_{site} - B)^2}{C}\right]$$

Where:

PEF	=	particulate emission factor (m^3/kg)
Q/C_{wind}	=	Inverse of mean conc. at center of source (g/m^2-s per kg/m^3).
V	=	fraction of vegetative cover (unitless)
U_m	=	mean annual windspeed (m/sec)
U_t	=	equivalent threshold value of windspeed at 7m (m/sec)
F(x)	=	function dependent on Um/Ut derived using Cowherd et al. (1985) (unitless)
A,B,C	=	constants based on air dispersion modeling for specific climate zones
A_{site}	=	areal extent of the site or contamination (acres)

ASSUMPTIONS:

V	=	0.5	unitless	
U_m	=	4.29	m/sec	Values are for Philadelphia, Pennsylvania.
U_t	=	11.32	m/sec	
F(x)	=	0.0993	unitless	
A	=	14.0111	unitless	
B	=	19.6154	unitless	
C	=	225.3397	unitless	
A_{site}	=	0.5	acres	

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF THE PARTICULATE EMISSION FACTOR (PEF) FOR RESIDENTIAL, RECREATIONAL, TRESPASSER, AND COMMERCIAL/INDUSTRIAL EXPOSURES		
BASED ON: SUPPLEMENTAL GUIDANCE FOR DEVELOPING SOIL SCREENING LEVELS FOR SUPERFUND SITES (USEPA, DECEMBER, 2002)		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CALCULATION FOR Q/C_{wind}

Q/C_{wind} = 14.0111 x exp[(ln(0.5) - 19.6154)^2 / 225.3397]

Q/C_{wind} = 87.36898 g/m2-s per kg/m3

EXAMPLE CALCULATION FOR PEF

$$PEF = 87.36898 \times \frac{3600}{0.036 \times (1 - 0.5) \times (4.29/11.32)^3 \times 0.0993}$$

PEF = 3.23E+09 m^3/kg

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: ESTIMATION OF AMBIENT AIR CONCENTRATIONS IN A TRENCH RESULTING FROM VOLATILE EMISSIONS FROM GROUNDWATER.		
BASED ON: VDEQ, 2004		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To calculate ambient air concentrations resulting from volatilization of Vinyl Chloride from groundwater at REC 11.

Ctrench = CGW x VF

Where:

Ctrench = concentration of contaminant in the trench µg/m^3
CGW = concentration of contaminant in groundwater µg/L
VF = volatilization factor L/m^3

1. Calculate kiG (gas-phase mass transfer coefficient of component i)

$kiG = (MWH2O/MWi)^{0.335} \times (T/298)^{1.005} \times kG, H2O$

Where:

kiG = gas-phase mass transfer coefficient of component i cm/s
MW_{H2O} = molecular weight of water = 18 g/mol
MW_{VC} = molecular weight of Vinyl Chloride = 62.5 g/mol
kG,H_2O = gas-phase mass transfer coefficient of water vapor at 25°C cm/s = 0.833 cm/s
T = average system absolute temperature = 298
The value of kG, H_2O is 0.833 cm/s (Superfund Exposure Assessment Manual, U. S. EPA, April 1988)

$kiG = (18/62.5)^{0.335} \times (298/298)^{1.005} \times 0.833$ cm/s = 5.49E-01 cm/s

2. Calculate kiL (liquid-phase mass transfer coefficient of component i)

$kiL = (MWO_2/MWi)^{0.5} \times (T/298) \times kL, O_2$

Where:
kiL = liquid-phase mass transfer coefficient of component i cm/s
MW_{O2} = molecular weight of O_2 = 32 g/mol
MW_{VC} = molecular weight of Vinyl Chloride = 62.5 g/mol
T = average system absolute temperature = 298
kL, O_2 = liquid-phase mass transfer coefficient of oxygen at 25°C cm/s = 0.002 cm/s

$kiL = (32/62.5)^{0.5} \times (298/298) \times 0.002$ cm/s = 1.43E-03 cm/s

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: ESTIMATION OF AMBIENT AIR CONCENTRATIONS IN A TRENCH RESULTING FROM VOLATILE EMISSIONS FROM GROUNDWATER.		
BASED ON: VDEQ, 2004		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

3. Calculate Ki (overall mass transfer coefficient of contaminant)

$Ki = 1 / \{(1/kiL) + [(RT) / (Hi \times kiG)]\}$

Where:

kiL = liquid-phase mass transfer coefficient of i cm/s =	1.43E-03
R = ideal gas constant atm-m^3/mole-°K =	8.20E-05
T = average system absolute temperature =	298
Hi = Henry's Law constant of VC (atm-m^3/mol) =	2.71E-02
KiG = gas-phase mass transfer coefficient of i cm/s	5.49E-01

$Ki = 1 / \{(1/1.43E\text{-}3) + [(298 \times 8.2E\text{-}5) / (2.71E\text{-}2 \times 0.549]\}$ = 1.43E-03 cm/s

4. Calculation of VF (Volatilization Factor)

$VF = (Ki \times A \times F \times 10^{-3} \times 10^{4} \times 3{,}600) / (ACH \times V)$

Where:

VF = volatilization factor (L/m^3)		
Ki = overall mass transfer coefficient of contaminant =		1.43E-03 cm/s
A = area of the trench =		8.18 m^2
F = fraction of floor through which contaminant can enter (unitless) =		1
ACH = air changes per hour =		360 h^{-1}
V = volume of trench =		24.92 m^3
10^{-3} = conversion factor L/cm^3	0.001	
10^{4} = conversion factor cm^2/m^2	10000	
3,600 = conversion factor seconds/hr	3600	

$VF = (1.43E\text{-}3 \times 8.18 \times 1 \times 10^{-3} \times 10^{4} \times 3{,}600) / (360 \times 24.92)$ = 4.68E-02 L/m^3

5. Calculation of C_{trench} (concentration of contaminant in the trench)

$C_{trench} = C_{GW} \times VF$

Where:

C_{trench} = concentration of contaminant in the trench ($\mu g/m^3$)	
C_{GW} = concentration of Vinyl Chloride in groundwater =	0.66 µg/L
VF = volatilization factor =	4.68E-02 L/m^3

C_{trench} = 0.66 µg/L x 4.68E-02 L/m3 = **3.09E-02 $\mu g/m^3$**
3.09E-05 mg/m^3

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF VOLATILES FROM GROUNDWATER - CONSTRUCTION WORKERS		
BASED ON: USEPA, JANUARY 2009		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from inhalation of volatiles from groundwater at REC 11.

EQUATION:

$$EC = \frac{Ca \times ET \times EF \times ED}{AT \times 24\ hours/day}$$

Where:

EC	=	exposure concentration (mg/m3)
Ca	=	exposure point concentration in air (mg/m3)
ET	=	exposure time (hrs/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
AT	=	averaging time (days)
IURi	=	inhalation unit risk ($(ug/m3)^{-1}$)
RfCi	=	inhalation reference concentration (mg/m3)

RISKS:

ILCR (Carcinogens) = Exposure Concentratin (mg/m3) x IURi (ug/m3)-1 x 1000 ug/mg
HQ (Noncarcinogens) = Exposure Concentration (mg/m3) / RFCi (mg/m3)

ASSUMPTIONS:

Ca	=	3.09E-05	mg/m3	Chemical: Vinyl Chloride
ET	=	4	hr/day	
EF	=	90	days/year	
ED	=	1	years	
ATc	=	25550	days	
ATnc	=	365	days	
IURi	=	4.4E-06	$(ug/m^3)^{-1}$	
RfCi	=	7.7E-02	mg/m^3	

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF VOLATILES FROM GROUNDWATER - CONSTRUCTION WORKERS		
BASED ON: USEPA, JANUARY 2009		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{3.09E\text{-}05 \text{ mg/m3} \times 4 \text{ hr/day} \times 90 \text{ days/year} \times 1 \text{ years}}{25550 \text{ days} \times 24 \text{ hours/day}}$$

IEXc = 1.81E-08 mg/m3

ILCR = 1.81E-08 mg/m3 x 4.40E-06 (ug/m3)-1 x 1000 ug/mg = Incremental Lifetime Cancer Risk

ILCR = 8.0E-11

EXAMPLE NONCARCINOGENIC CALCULATION

$$IEXnc = \frac{3.09E\text{-}05 \text{ mg/m3} \times 4 \text{ hr/day} \times 90 \text{ days/year} \times 1 \text{ years}}{365 \text{ days} \times 24 \text{ hours/day}}$$

IEXnc = 1.27E-06 mg/m3

HQ = 1.27E-06 mg/m3 / 7.67E-02 mg/m3 = Hazard Quotient

HQ **1.7E-05**

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INCIDENTAL INGESTION OF SOIL FOR MUTAGENIC CHEMICALS - HYPOTHETICAL CHILD RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake and cancer risks for mutagenic chemicals from incidental ingestion of subsurface soil at REC 11.

EQUATION:

$$IEX = \frac{CS \times IR \times EF \times ED \times FI \times CF}{BW \times AT} \times ADAF$$

Where:

IEX	=	estimated exposure intake (mg/kg/day)
Cs	=	exposure point concentration in soil (mg/kg)
IR	=	incidental ingestion rate (mg/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
FI	=	fraction ingested from contaminated source (unitless)
CF	=	conversion factor (1.0E-6 kg/mg)
BW	=	body weight (kg)
AT	=	averaging time (days)
ADAF	=	age-dependent adjustment factor
CSFo	=	oral carcinogenic slope factor ($(mg/kg/day)^{-1}$)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFo (mg/kg/day)-1

ASSUMPTIONS:

Cs	=	2.3	mg/kg	Chemical: Benzo(a)pyrene Equivalents
IR	=	200	mg/day	
EF	=	350	days/year	
ED_1	=	2	years	
ED_2	=	4	years	
FI	=	1		
CF	=	1.0E-06	kg/mg	
BW	=	15	kg	
AT	=	25550	days	
CSFo	=	7.3E+00	$(mg/kg/day)^{-1}$	
$ADAF_1$	=	10		
$ADAF_2$	=	3		

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INCIDENTAL INGESTION OF SOIL FOR MUTAGENIC CHEMICALS - HYPOTHETICAL CHILD RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$IEX_1 = \frac{2.3\ mg/kg \times 200\ mg/day \times 350\ days/year \times 2\ years \times 1 \times 1.0E\text{-}06\ kg/mg}{15\ kg \times 25550\ days} \times 10$$

IEX_1 = 8.40E-06 mg/kg/day

$$IEX_2 = \frac{2.3\ mg/kg \times 200\ mg/day \times 350\ days/year \times 4\ years \times 1 \times 1.0E\text{-}06\ kg/mg}{15\ kg \times 25550\ days} \times 3$$

IEX_2 = 5.04E-06 mg/kg/day

ILCR = (8.40E-06 mg/kg/day + 5.04E-06 mg/kg/day) x 7.30E+00 (mg/kg/day)-1

ILCR = 9.8E-05

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH SOIL FOR MUTAGENIC CHEMICALS HYPOTHETICAL CHILD RESIDENTS		
BASED ON: USEPA, JULY 2004, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake and cancer risks for mutagenic chemicals from dermal contact with subsurface soil at REC 11.

EQUATION:

$$DEX = \frac{Cs \times CF \times SA \times AF \times ABS \times EF \times ED}{BW \times AT} \times ADAF$$

Where:

DEX	=	estimated exposure intake (mg/kg/day)
Cs	=	exposure point concentration in soil (mg/kg)
CF	=	conversion factor (1.0E-6 kg/mg)
SA	=	skin surface available for contact (cm^2/day)
ABS	=	absorption factor (unitless)
AF	=	adherence factor (mg/cm^2)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
ADAF	=	age-dependent adjustment factor
CSFd	=	dermal carcinogenic slope factor ($(mg/kg/day)^{-1}$)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFd (mg/kg/day)-1

ASSUMPTIONS:

Cs	=	2.3	mg/kg	Chemical: Benzo(a)pyrene Equivalents
CF	=	1.0E-06	kg/mg	
SA	=	2800	cm^2/day	
AF	=	0.2	mg/cm^2	
ABS	=	0.13		
EF	=	350	days/year	
ED_1	=	2	years	
ED_2	=	4	years	
BW	=	15	kg	
AT	=	25550	days	
CSFd	=	7.3E+00	$(mg/kg/day)^{-1}$	
$ADAF_1$	=	10		
$ADAF_2$	=	3		

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH SOIL FOR MUTAGENIC CHEMICALS HYPOTHETICAL CHILD RESIDENTS		
BASED ON: USEPA, JULY 2004, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$DEXc = \frac{2.3\ mg/kg \times 1.0E\text{-}06\ kg/mg \times 2800\ cm2/day \times 0.2\ mg/cm2 \times 0.13 \times 350\ days/year \times 2\ years}{15\ kg \times 25550\ days} \times 10$$

DEXc = 3.06E-06 mg/kg/day

$$DEXc = \frac{2.3\ mg/kg \times 1.0E\text{-}06\ kg/mg \times 2800\ cm2/day \times 0.2\ mg/cm2 \times 0.13 \times 350\ days/year \times 4\ years}{15\ kg \times 25550\ days} \times 3$$

DEXc = 1.83E-06 mg/kg/day

ILCR = (3.06E-06 mg/kg/day + 1.83E-06 mg/kg/day) x 7.30E+00 (mg/kg/day)-1

ILCR = 3.6E-05

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF FUGATIVE DUST EMISSIONS FOR MUTAGENIC CHEMICALS - HYPOTHETICAL CHILD RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake, carcinogenic risks for mutagenic chemicals from inhalation of subsurface soil at REC 11.

EQUATION:

$$EC = \frac{Ca \times ET \times EF \times ED}{AT \times 24\ hours/day} \times ADAF$$

Where:

EC	=	exposure concentration (mg/m3)
Ca	=	exposure point concentration in air (mg/m3)
	=	Cs x 1/PEF
Cs	=	exposure point concentration in soil (mg/kg)
PEF	=	particulate emission factor (m3/kg)
ET	=	exposure time (hrs/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
AT	=	averaging time (days)
ADAF	=	age-dependent adjustment factor
IURi	=	inhalation unit risk($(ug/mg)^{-1}$)

RISKS:

ILCR = Exposure concentration (mg/m3) x IURi (ug/m3)-1 x 1000 ug/mg

ASSUMPTIONS:

Cs	=	2.3	mg/kg	Chemical: Benzo(a)pyrene Equivalents
PEF	=	3.23E+09	m3/kg	
Ca	=	7.12E-10	mg/m3	
ET	=	24	hr/day	
EF	=	350	days/year	
ED_1	=	2	years	
ED_2	=	4	years	
ATc	=	25550	days	
IURi	=	1.1E-03	$(ug/m3)^{-1}$	
$ADAF_1$	=	10		
$ADAF_2$	=	3		

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		JOB NUMBER: 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF FUGATIVE DUST EMISSIONS FOR MUTAGENIC CHEMICALS - HYPOTHETICAL CHILD RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: L.GANSER	CHECKED BY:	DATE: 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$EC = \frac{7.12E\text{-}10\ mg/m3 \times 24\ hr/day \times 350\ days/year \times 2\ years}{25550\ days \times 24\ hours/day} \times 10$$

EC = 1.95E-10 mg/m3

$$EC = \frac{7.12E\text{-}10\ mg/m3 \times 24\ hr/day \times 350\ days/year \times 4\ years}{25550\ days \times 24\ hours/day} \times 3$$

EC = 1.17E-10 mg/m3

ILCR = (1.95E-10 mg/m3 + 1.17E-10 mg/m3) x 1.10E-03 (ug/m3)-1 x 1000 ug/mg

ILCR = 3.4E-10

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INCIDENTAL INGESTION OF SOIL FOR MUTAGENIC CHEMICALS - HYPOTHETICAL ADOLESCENT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake and cancer risks for mutagenic chemicals from incidental ingestion of subsurface soil at REC 11.

EQUATION:

$$IEX = \frac{CS \times IR \times EF \times ED \times FI \times CF}{BW \times AT} \times ADAF$$

Where:

IEX	=	estimated exposure intake (mg/kg/day)
Cs	=	exposure point concentration in soil (mg/kg)
IR	=	incidental ingestion rate (mg/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
FI	=	fraction ingested from contaminated source (unitless)
CF	=	conversion factor (1.0E-6 kg/mg)
BW	=	body weight (kg)
AT	=	averaging time (days)
ADAF	=	age-dependent adjustment factor
CSFo	=	oral carcinogenic slope factor ($(mg/kg/day)^{-1}$)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFo (mg/kg/day)-1

ASSUMPTIONS:

Cs	=	2.3	mg/kg	Chemical: Benzo(a)pyrene Equivalents
IR	=	100	mg/day	
EF	=	350	days/year	
ED_1	=	10	years	
ED_2	=	2	years	
FI	=	1		
CF	=	1.0E-06	kg/mg	
BW	=	40	kg	
AT	=	25550	days	
CSFo	=	7.3E+00	$(mg/kg/day)^{-1}$	
$ADAF_1$	=	3		
$ADAF_2$	=	1		

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		JOB NUMBER: 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INCIDENTAL INGESTION OF SOIL FOR MUTAGENIC CHEMICALS - HYPOTHETICAL ADOLESCENT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: L.GANSER	CHECKED BY:	DATE: 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$IEX_1 = \frac{2.3\ mg/kg \times 100\ mg/day \times 350\ days/year \times 10\ years \times 1 \times 1.0E\text{-}06\ kg/mg}{40\ kg \times 25550\ days} \times 3$$

IEX_1 = 2.36E-06 mg/kg/day

$$IEX_2 = \frac{2.3\ mg/kg \times 100\ mg/day \times 350\ days/year \times 2\ years \times 1 \times 1.0E\text{-}06\ kg/mg}{40\ kg \times 25550\ days} \times 1$$

IEX_2 = 1.58E-07 mg/kg/day

ILCR = (2.36E-06 mg/kg/day + 1.58E-07 mg/kg/day) x 7.30E+00 (mg/kg/day)-1

ILCR = 1.8E-05

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH SOIL FOR MUTAGENIC CHEMICALS HYPOTHETICAL ADOLESCENT RESIDENTS		
BASED ON: USEPA, JULY 2004, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake and cancer risks for mutagenic chemicals from dermal contact with subsurface soil at REC 11.

EQUATION:

$$DEX = \frac{Cs \times CF \times SA \times AF \times ABS \times EF \times ED}{BW \times AT} \times ADAF$$

Where:

DEX	=	estimated exposure intake (mg/kg/day)
Cs	=	exposure point concentration in soil (mg/kg)
CF	=	conversion factor (1.0E-6 kg/mg)
SA	=	skin surface available for contact (cm^2/day)
ABS	=	absorption factor (unitless)
AF	=	adherence factor (mg/cm^2)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
ADAF	=	age-dependent adjustment factor
CSFd	=	dermal carcinogenic slope factor ($(mg/kg/day)^{-1}$)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFd (mg/kg/day)-1

ASSUMPTIONS:

Cs	=	2.3	mg/kg	Chemical: Benzo(a)pyrene Equivalents
CF	=	1.0E-06	kg/mg	
SA	=	4320	cm^2/day	
AF	=	0.07	mg/cm^2	
ABS	=	0.13		
EF	=	350	days/year	
ED_1	=	10	years	
ED_2	=	2	years	
BW	=	40	kg	
AT	=	25550	days	
CSFd	=	7.3E+00	$(mg/kg/day)^{-1}$	
$ADAF_1$	=	3		
$ADAF_2$	=	1		

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH SOIL FOR MUTAGENIC CHEMICALS HYPOTHETICAL ADOLESCENT RESIDENTS		
BASED ON: USEPA, JULY 2004, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$DEXc = \frac{2.3\ mg/kg \times 1.0E\text{-}06\ kg/mg \times 4320\ cm2/day \times 0.07\ mg/cm2 \times 0.13 \times 350\ days/year \times 10\ years}{40\ kg \times 25550\ days} \times 3$$

DEXc = 9.29E-07 mg/kg/day

$$DEXc = \frac{2.3\ mg/kg \times 1.0E\text{-}06\ kg/mg \times 4320\ cm2/day \times 0.07\ mg/cm2 \times 0.13 \times 350\ days/year \times 2\ years}{40\ kg \times 25550\ days} \times 1$$

DEXc = 6.19E-08 mg/kg/day

ILCR = (9.29E-07 mg/kg/day + 6.19E-08 mg/kg/day) x 7.30E+00 (mg/kg/day)-1

ILCR = 7.2E-06

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF FUGATIVE DUST EMISSIONS FOR MUTAGENIC CHEMICALS - HYPOTHETICAL CHILD RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake, carcinogenic risks for mutagenic chemicals from inhalation of subsurface soil at REC 11.

EQUATION:

$$EC = \frac{Ca \times ET \times EF \times ED}{AT \times 24\ hours/day} \times ADAF$$

Where:

EC	=	exposure concentration (mg/m3)
Ca	=	exposure point concentration in air (mg/m3)
	=	Cs x 1/PEF
Cs	=	exposure point concentration in soil (mg/kg)
PEF	=	particulate emission factor (m3/kg)
ET	=	exposure time (hrs/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
AT	=	averaging time (days)
ADAF	=	age-dependent adjustment factor
IURi	=	inhalation unit risk$((ug/mg)^{-1})$

RISKS:

ILCR = Exposure concentration (mg/m3) x IURi (ug/m3)-1 x 1000 ug/mg

ASSUMPTIONS:

Cs	=	2.3	mg/kg	Chemical: Benzo(a)pyrene Equivalents
PEF	=	3.23E+09	m3/kg	
Ca	=	7.12E-10	mg/m3	
ET	=	24	hr/day	
EF	=	350	days/year	
ED_1	=	10	years	
ED_2	=	2	years	
ATc	=	25550	days	
IURi	=	1.1E-03	$(ug/m3)^{-1}$	
$ADAF_1$	=	3		
$ADAF_2$	=	1		

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF FUGATIVE DUST EMISSIONS FOR MUTAGENIC CHEMICALS - HYPOTHETICAL CHILD RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$EC = \frac{7.12E\text{-}10\ mg/m3 \times 24\ hr/day \times 350\ days/year \times 10\ years}{25550\ days \times 24\ hours/day} \times 3$$

EC = 2.93E-10 mg/m3

$$EC = \frac{7.12E\text{-}10\ mg/m3 \times 24\ hr/day \times 350\ days/year \times 2\ years}{25550\ days \times 24\ hours/day} \times 1$$

EC = 1.95E-11 mg/m3

ILCR = (2.93E-10 mg/m3 + 1.95E-11 mg/m3) x 1.10E-03 (ug/m3)-1 x 1000 ug/mg

ILCR = 3.4E-10

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INCIDENTAL INGESTION OF SOIL FOR MUTAGENIC CHEMICALS - HYPOTHETICAL ADULT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake and cancer risks for mutagenic chemicals from incidental ingestion of subsurface soil at REC 11.

EQUATION:

$$IEX = \frac{CS \times IR \times EF \times ED \times FI \times CF}{BW \times AT} \times ADAF$$

Where:

IEX	=	estimated exposure intake (mg/kg/day)
Cs	=	exposure point concentration in soil (mg/kg)
IR	=	incidental ingestion rate (mg/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
FI	=	fraction ingested from contaminated source (unitless)
CF	=	conversion factor (1.0E-6 kg/mg)
BW	=	body weight (kg)
AT	=	averaging time (days)
ADAF	=	age-dependent adjustment factor
CSFo	=	oral carcinogenic slope factor ($(mg/kg/day)^{-1}$)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFo (mg/kg/day)-1

ASSUMPTIONS:

Cs	=	2.3	mg/kg	Chemical: Benzo(a)pyrene Equivalents
IR	=	100	mg/day	
EF	=	350	days/year	
ED	=	12	years	
FI	=	1		
CF	=	1.0E-06	kg/mg	
BW	=	70	kg	
AT	=	25550	days	
CSFo	=	7.3E+00	$(mg/kg/day)^{-1}$	
ADAF	=	1		

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INCIDENTAL INGESTION OF SOIL FOR MUTAGENIC CHEMICALS - HYPOTHETICAL ADULT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$IEX_1 = \frac{2.3\ mg/kg \times 100\ mg/day \times 350\ days/year \times 12\ years \times 1 \times 1.0E\text{-}06\ kg/mg}{70\ kg \times 25550\ days} \times 1$$

IEX_1 = 5.40E-07 mg/kg/day

ILCR = 5.40E-07 mg/kg/day x 7.30E+00 (mg/kg/day)-1

ILCR = 3.9E-06

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH SOIL FOR MUTAGENIC CHEMICALS HYPOTHETICAL ADULT RESIDENTS		
BASED ON: USEPA, JULY 2004, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake and cancer risks for mutagenic chemicals from dermal contact with subsurface soil at REC 11.

EQUATION:

$$DEX = \frac{Cs \times CF \times SA \times AF \times ABS \times EF \times ED}{BW \times AT} \times ADAF$$

Where:

DEX	=	estimated exposure intake (mg/kg/day)
Cs	=	exposure point concentration in soil (mg/kg)
CF	=	conversion factor (1.0E-6 kg/mg)
SA	=	skin surface available for contact (cm^2/day)
ABS	=	absorption factor (unitless)
AF	=	adherence factor (mg/cm^2)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
ADAF	=	age-dependent adjustment factor
CSFd	=	dermal carcinogenic slope factor ($(mg/kg/day)^{-1}$)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFd (mg/kg/day)-1

ASSUMPTIONS:

Cs	=	2.3	mg/kg	Chemical: Benzo(a)pyrene Equivalents
CF	=	1.0E-06	kg/mg	
SA	=	5700	cm^2/day	
AF	=	0.07	mg/cm^2	
ABS	=	0.13		
EF	=	350	days/year	
ED	=	12	years	
BW	=	70	kg	
AT	=	25550	days	
CSFd	=	7.3E+00	$(mg/kg/day)^{-1}$	
ADAF	=	1		

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH SOIL FOR MUTAGENIC CHEMICALS HYPOTHETICAL ADULT RESIDENTS		
BASED ON: USEPA, JULY 2004, MARCH 2005		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$DEXc = \frac{2.3\ mg/kg \times 1.0E\text{-}06\ kg/mg \times 5700\ cm2/day \times 0.07\ mg/cm2 \times 0.13 \times 350\ days/year \times 12\ years}{70\ kg \times 25550\ days} \times 1$$

DEXc = 2.80E-07 mg/kg/day

ILCR = 2.80E-07 mg/kg/day x 7.30E+00 (mg/kg/day)-1

ILCR = 2.0E-06

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF FUGATIVE DUST EMISSIONS FOR MUTAGENIC CHEMICALS - HYPOTHETICAL ADULT RESIDENTS		
BASED ON: USEPA, MARCH 2005, JANUARY 2009		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake, carcinogenic risks for mutagenic chemicals from inhalation of subsurface soil at REC 11.

EQUATION:

$$EC = \frac{Ca \times ET \times EF \times ED}{AT \times 24\ hours/day} \times ADAF$$

Where:

EC	=	exposure concentration (mg/m3)
Ca	=	exposure point concentration in air (mg/m3)
	=	Cs x 1/PEF
Cs	=	exposure point concentration in soil (mg/kg)
PEF	=	particulate emission factor (m3/kg)
IR	=	inhlation rate (m3/hr)
ET	=	exposure time (hrs/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
ADAF	=	age-dependent adjustment factor
IURi	=	inhalation unit risk($(ug/mg)^{-1}$)

RISKS:

ILCR = Exposure concentration (mg/m3) x IURi (ug/m3)-1 x 1000 ug/mg

ASSUMPTIONS:

Cs	=	2.3	mg/kg	Chemical: Benzo(a)pyrene Equivalents
PEF	=	3.23E+09	m3/kg	
Ca	=	7.12E-10	mg/m3	
ET	=	24	hr/day	
EF	=	350	days/year	
ED	=	12	years	
ATc	=	25550	days	
IURi	=	1.1E-03	$(ug/m3)^{-1}$	
ADAF	=	1		

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF FUGATIVE DUST EMISSIONS FOR MUTAGENIC CHEMICALS - HYPOTHETICAL ADULT RESIDENTS		
BASED ON: USEPA, MARCH 2005, JANUARY 2009		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$EC = \frac{7.12E\text{-}10\ mg/m3 \times 24\ hr/day \times 350\ days/year \times 12\ years}{25550\ days \times 24\ hours/day} \times 1$$

EC = 1.17E-10 mg/m3

ILCR = 1.17E-10 mg/m3 x 1.10E-03 (ug/m3)-1 x 1000 ug/mg

ILCR = 1.3E-10

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INGESTION OF GROUNDWATER HYPOTHETICAL ADULT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from ingestion of groundwater at REC 11.

EQUATION:

$$IEX = \frac{Cgw \times CF \times IF \times EF \times ED}{BW \times AT}$$

Where:

IEX	=	estimated exposure intake (mg/kg/day)
Cgw	=	exposure point concentration in groundwater (ug/L)
CF	=	conversion factor (1.0E-3 mg/ug)
IR	=	ingestion rate (L/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFo	=	oral carcinogenic slope factor ($(mg/kg/day)^{-1}$)
RfDo	=	oral noncarcinogenic reference dose (mg/kg/day)

RISKS:

ILCR (Carcinogens) = Intake (mg/kg/day) x CSFo (mg/kg/day)-1
HQ (Noncarcinogens) = Intake (mg/kg/day) / RFDo (mg/kg/day)

ASSUMPTIONS:

Cgw	=	25	ug/L	Chemical: Trichloroethene
IR	=	2	L/day	
CF	=	1.0E-03	mg/ug	
EF	=	350	days/year	
ED	=	12	years	
BW	=	70	kg	
ATc	=	25550	days	
ATnc	=	4380	days	
CSFo	=	4.6E-02	$(mg/kg/day)^{-1}$	
RfDo	=	5.0E-04	(mg/kg/day)	

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INGESTION OF GROUNDWATER HYPOTHETICAL ADULT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$IEXc = \frac{25\ ug/L \times 0.001\ mg/ug \times 2\ L/day \times 350\ days/year \times 12\ years}{70\ kg \times 25550\ days}$$

IEXc = 1.17E-04 mg/kg/day

ILCR = 1.17E-04 mg/kg/day x 4.60E-02 (mg/kg/day)-1 = Incremental Lifetime Cancer Risk

ILCR = 5.4E-06

EXAMPLE NONCARCINOGENIC CALCULATION

$$IEXnc = \frac{25\ ug/L \times 0.001\ mg/ug \times 2\ L/day \times 350\ days/year \times 12\ years}{70\ kg \times 4380\ days}$$

IEXnc = 6.85E-04 mg/kg/day

$$HQ = \frac{6.85E\text{-}04\ mg/kg/day}{5.00E\text{-}04\ (mg/kg/day)} = \text{Hazard Quotient}$$

HQ = 1.4E+00

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH GROUNDWATER HYPOTHETICAL ADULT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, JULY 2004		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from dermal contact with groundwater at REC 11.

EQUATION:

$$DAD = \frac{DAevent \times EV \times ED \times EF \times A}{BW \times AT}$$

Where:

DAD	=	dermally absorbed dose (mg/kg/day)
DAevent	=	absorbed dose per event (mg/cm^2/event)
EV	=	event frequency (events/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
A	=	skin surface available for contact (cm^2)
BW	=	body weight (kg)
AT	=	averaging time (days)
CSFd	=	dermal carcinogenic slope factor ((mg/kg/day)$^{-1}$)
RfDd	=	dermal noncarcinogenic reference dose (mg/kg/day)

RISKS:

ILCR (Carcinogens) = DAD (mg/kg/day) x CSFd (mg/kg/day)-1
HQ (Noncarcinogens) = DAD (mg/kg/day) / RFDd (mg/kg/day)

EQUATIONS for DAevent:

For Inorganics:

DAevent = Kp x Cw x CF x tevent

For Organics:

$$\text{If } tevent \le t^*, \text{ then: } DAevent = 2 \times FA \times Kp \times Cw \times CF \times \sqrt{\frac{6 \times tau \times tevent}{\pi}}$$

$$\text{If } tevent > t^*, \text{ then: } DAevent = FA \times Kp \times Cw \times CF \times \left[\frac{tevent}{1+B} + 2 \times tau \times \left(\frac{1+3B+3B^2}{(1+B)^2}\right)\right]$$

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH GROUNDWATER HYPOTHETICAL ADULT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, JULY 2004		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

Where:

Kp	=	permeability coefficient from water (cm/hr)
Cgw	=	concentration of chemical in groundwater (mg/L)
tevent	=	duration of event (hr/event)
CF	=	conversion factor (0.001 L/cm^3)
t*	=	time it takes to reach steady-state (hr/event)
τ	=	lag time (hr/event)
B	=	Bunge Model Constant (dimensionless)

EXAMPLE CALCULATION OF DAevent

ASSUMPTIONS:

Cgw	=	0.025	mg/L	Chemical: Trichloroethene
Kp	=	1.16E-02	cm/hr	
FA	=	1	unitless	
tevent	=	0.58	hr/event	
CF	=	0.001	L/cm^3	
t*	=	1.39	hr/event	
τ	=	0.58	hr/event	
B	=	0.078		

tevent < t*, therefore,

DAevent = (2 x 0.01164 cm/hr) (1) (0.025 mg/L) (0.001 L/cm3) x $\sqrt{\frac{6 \times 0.581 \text{ hr/event} \times 0.58 \text{ hr/event}}{\pi}}$

DAevent = 4.67E-07 mg/cm^2-event

RISK CALCULATIONS

ASSUMPTIONS:

A	=	18000	cm^2/day
EV	=	1	event/day
ED	=	12	years
EF	=	350	days/year
BW	=	70	kg
ATc	=	25550	days
ATnc	=	4380	days
CSFd	=	4.6E-02	$(mg/kg/day)^{-1}$
RfDd	=	5.0E-04	(mg/kg/day)

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM DERMAL CONTACT WITH GROUNDWATER HYPOTHETICAL ADULT RESIDENTS		
BASED ON: USEPA, DECEMBER 1989, JULY 2004		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

EXAMPLE CARCINOGENIC CALCULATION

$$DADc = \frac{4.67E\text{-}07 \text{ mg/cm2-event} \times 1 \text{ event/day} \times 12 \text{ years} \times 350 \text{ days/year} \times 18000 \text{ cm2/day}}{70 \text{ kg} \times 25550 \text{ days}}$$

DADc = 1.97E-05 mg/kg/day

DADc = 1.97E-05 mg/kg/day x 4.60E-02 (mg/kg/day)-1 = Incremental Lifetime Cancer Risk

ILCR = 9.1E-07

EXAMPLE NONCARCINOGENIC CALCULATION

$$DADnc = \frac{4.67E\text{-}07 \text{ mg/cm2-event} \times 1 \text{ event/day} \times 12 \text{ years} \times 350 \text{ days/year} \times 18000 \text{ cm2/day}}{70 \text{ kg} \times 4380 \text{ days}}$$

DADnc = 1.15E-04 mg/kg/day

HQ = 1.15E-04 mg/kg/day / 5.00E-04 (mg/kg/day) = Hazard Quotient

HQ = 2.3E-01

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		JOB NUMBER: 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF VOLATILES WHILE SHOWERING BY AN ADULT RESIDENT		
BASED ON: EPA, 1989 AND FOSTER AND CHROSTOWSKI, 1987		
BY: L.GANSER	CHECKED BY:	DATE: 10/18/2011

PURPOSE: To estimate intake, carcinogenic and noncarcinogenic risks from inhalation of volatiles while showering by an adult resident at REC 11.

EQUATIONS:

$$EC = \frac{S \times K \times EF \times ED}{AT \times Ra \times CF}$$

Where:

$$K = Ds + \frac{\exp(-Ra \times Dt) - \exp[Ra \times (Ds - Dt)]}{Ra}$$

$S = Cwd \times FR/SV$ $\quad Cwd = Cw \times [1-\exp(-Kal \times ts/60d)]$

$Kal = Kl \times [(T1 \times Us)/(Ts \times U1)^{-0.5}$ $\quad Kl = 1/[1/k1 + RT/(H \times kg)]$

$k1 = 20\ cm/hr \times (44/MW)^{0.5}$ $\quad kg = 3000\ cm/hr \times (18/MW)^{0.5}$

RISKS:

ILCR (Carcinogens) = Exposure Concentration (mg/m3) x IURi (ug/m3)-1 x 1000 ug/mg
HQ (Noncarcinogens) = Exposure Concentration (mg/m3) / RFCi (mg/m3)

Where:

EC	=	exposure concentration (mg/m3)
S	=	volatile chemical generation rate (mg/m3-min - shower)
EF	=	exposure frequency (showers/year)
ED	=	exposure duration (years)
AT	=	averaging time (days)
Ra	=	air exchange rate (1/min)
Ds	=	shower duration (min)
Dt	=	total time in bathroom (min)
FR	=	shower water flow rate (L/min)
SV	=	shower room air volume (m3)
CW	=	chemical concentration in groundwater (mg/L)
ts	=	shower droplet drop time (sec)
d	=	shower droplet diameter (mm)
MW	=	molecular weight of compound (g/mole)
H	=	Henry's Law constant (atm-m3/mole)
RT	=	Ideal gas constant x absolute temperature (2.4E-02 atm-m3/mole)
T1	=	calibration water temperature (K)
Ts	=	shower water temperature (K)
U1	=	water viscosity at T1 (cp)
Us	=	water viscosity at Ts (cp)
IURi	=	inhalation unit risk ($(ug/m3)^{-1}$)
RfCi	=	inhalation reference concentration (mg/m3)

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		**JOB NUMBER:** 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF VOLATILES WHILE SHOWERING BY AN ADULT RESIDENT		
BASED ON: EPA, 1989 AND FOSTER AND CHROSTOWSKI, 1987		
BY: L.GANSER	**CHECKED BY:**	**DATE:** 10/18/2011

ASSUMPTIONS: Chemical: Trichloroethene

EF	=	350	showers/year
ED	=	12	years
ATc	=	25550	days
ATn	=	4380	days
Ra	=	0.0167	1/min
CF	=	1440	min/day
Ds	=	30	min
Dt	=	60	min
FR	=	10	L/min
SV	=	12	m3
Cw	=	0.025	mg/L
ts	=	0.5	sec
d	=	1	mm
MW	=	131.39	g/mole
H	=	9.85E-03	atm-m3/mole
RT	=	2.40E-02	atm-m3/mole
T1	=	293	K
Ts	=	320	K
U1	=	1.002	centipoise
Us	=	0.596	centipoise
CSFi	=	4.00E-06	(ug/m3)-1
RfDi	=	2.00E-03	(mg/m3)

EXAMPLE CALCULATION:

k1 = 20 cm/hr x (44 g/mole / 131.39 g/mole)^0.5

k1 = **11.57 cm/hr**

kg = 3000 cm/hr x (18 g/mole / 131.39 g/mole)^0.5

kg = **1110.39 cm/hr**

Kl = 1/[1/11.6 cm/hr + 2.40E-02 atm-m3/mole/(9.85E-03 atm-m3/mole x 1110.4 cm/hr)]

Kl = **1.13E+01 cm/hr**

CALCULATION WORKSHEET

CLIENT: LOCKHEED MARTIN, GREATER STRAWBERRY POINT		JOB NUMBER: 112IC03279
SUBJECT: CALCULATION OF INTAKE/RISK FROM INHALATION OF VOLATILES WHILE SHOWERING BY AN ADULT RESIDENT		
BASED ON: EPA, 1989 AND FOSTER AND CHROSTOWSKI, 1987		
BY: L.GANSER	CHECKED BY:	DATE: 10/18/2011

Kal = 1.13E+01 cm/hr x [(293 K x 0.596 centipoise)/(320 K x 1.002 centipoise)]^-0.5

Kal = **15.3 cm/hr**

Cwd = 0.025 mg/L x [1 - exp((-15.3 cm/hr x 0.5 sec)/(60 x 1 mm))]

Cwd = **2.99E-03 mg/L**

S = 2.99E-03 mg/L x 10 L/min / 12 m3

S = **2.49E-03 mg/m3-min-shower**

$$K = 30 \text{ min} + \frac{\exp(-0.0167 \text{ 1/min} \times 60 \text{ min}) - \exp[0.0167 \text{ 1/min} \times (30 \text{ min} - 60 \text{ min})]}{0.0167 \text{ 1/min}}$$

K = **15.70 min**

CARCINOGENIC INTAKE:

$$EC = \frac{2.49E\text{-}03 \text{ mg/m3-min-shower} \times 15.70 \text{ min} \times 350 \text{ showers/year} \times 12 \text{ years}}{25550 \text{ days} \times 0.0167 \text{ 1/min} \times 1440 \text{ min/day}}$$

EC = **2.68E-04 mg/m3**

Risk = 2.68E-04 mg/m3 x 4.00E-06 (ug/m3)-1 x 1000 ug/mg

Risk = **1.07E-06**

NONCARCINOGENIC INTAKE:

$$EC = \frac{2.49E\text{-}03 \text{ mg/m3-min-shower} \times 15.70 \text{ min} \times 350 \text{ showers/year} \times 12 \text{ years}}{4380 \text{ days} \times 0.0167 \text{ 1/min} \times 1440 \text{ min/day}}$$

EC = **1.56E-03 mg/m3**

HQ = 1.56E-03 mg/m3 / 2.00E-03 (mg/m3)

HQ = **7.80E-01**

APPENDIX J-5

LOCATION-SPECIFIC RISK ESTIMATES

Table J-5.1

Location-Specific Cancer Risks - Surface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-057	GSP-SB-058	GSP-SB-059	GSP-SB-060	GSP-SB-061	GSP-SB-062
SAMPLE ID	GSP-SB-57-0-2	GSP-SB-58-0-2	GSP-SB-59-0-2	GSP-SB-60-0-2	GSP-SB-61-0-2	GSP-SB-62-0-2
REC #	REC 9	REC 9	REC 9	REC 9	REC 9	REC 9/10
SAMPLE DATE	20100510	20100510	20100510	20100511	20100426	20100426
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	133.42	3.6 U	3.6 U	18.6535	33.9865	3718.3
AROCLOR-1260	19 U	18 U	19 U	19 U	20 U	22
ARSENIC	1.2	0.71	1.6	2.3	2	2.5
CHROMIUM[(1)]	0.036	0.021	0.057	0.085	0.072	0.137
COBALT	0.69	0.26	1.2	2.3	1.6	4
IRON	3660	1860	4540	7570	5740	7670
MANGANESE	17.2	4.6	15.1	29.3	74.3	864
THALLIUM	0.036 B	0.014 U	0.027 B	0.079 B	0.06 B	0.06 B
VANADIUM	6.1	3.5	9	13.6	12.8	32.3

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	6.23E-10	8.3E-08	1.1E-09	1.1E-09	1.2E-08	2.1E-08	2.3E-06
AROCLOR-1260	1.74E-10	1.7E-09	1.6E-09	1.7E-09	1.7E-09	1.7E-09	3.8E-09
ARSENIC	1.17E-07	1.4E-07	8.3E-08	1.9E-07	2.7E-07	2.3E-07	2.9E-07
CHROMIUM	2.53E-07	9.1E-09	5.3E-09	1.4E-08	2.1E-08	1.8E-08	3.5E-08
COBALT	2.05E-08	1.4E-08	5.3E-09	2.5E-08	4.7E-08	3.3E-08	8.2E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.5E-07	9.6E-08	2.3E-07	3.5E-07	3.1E-07	2.7E-06

Industrial

BAP EQUIVALENT-HALFND	3.46E-09	4.6E-07	6.2E-09	6.2E-09	6.5E-08	1.2E-07	1.3E-05
AROCLOR-1260	9.95E-10	9.5E-09	9.0E-09	9.5E-09	9.5E-09	1.0E-08	2.2E-08
ARSENIC	3.66E-07	4.4E-07	2.6E-07	5.9E-07	8.4E-07	7.3E-07	9.1E-07
CHROMIUM	5.51E-07	2.0E-08	1.2E-08	3.1E-08	4.7E-08	4.0E-08	7.5E-08
COBALT	2.27E-10	1.6E-10	5.9E-11	2.7E-10	5.2E-10	3.6E-10	9.1E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		9.3E-07	2.9E-07	6.3E-07	9.6E-07	9.0E-07	1.4E-05

Residential

BAP EQUIVALENT-HALFND	7.19E-08	9.6E-06	1.3E-07	1.3E-07	1.3E-06	2.4E-06	2.7E-04
AROCLOR-1260	4.95E-09	4.7E-08	4.5E-08	4.7E-08	4.7E-08	5.0E-08	1.1E-07
ARSENIC	2.85E-06	3.4E-06	2.0E-06	4.6E-06	6.6E-06	5.7E-06	7.1E-06
CHROMIUM	7.74E-06	2.8E-07	1.6E-07	4.4E-07	6.6E-07	5.6E-07	1.1E-06
COBALT	1.15E-09	7.9E-10	3.0E-10	1.4E-09	2.6E-09	1.8E-09	4.6E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.3E-05	2.4E-06	5.2E-06	8.6E-06	8.8E-06	2.8E-04

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.1

Location-Specific Cancer Risks - Surface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-063	GSP-SB-064	GSP-SB-065	GSP-SB-066	GSP-SB-067	GSP-SB-068
SAMPLE ID	GSP-SB-63-0-2	GSP-SB-64-0-2	GSP-SB-65-0-2	GSP-SB-66-0-2	GSP-SB-67-0-2	GSP-SB-68-0-2
REC #	REC 10	REC 10	REC 10	REC 10	REC 9	REC 10
SAMPLE DATE	20100426	20100416	20100426	20100415	20100416	20100416
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	28.9982	89.463	37.152	394.81	2280.7	19285
AROCLOR-1260	20 U	22 U	20 U	20 U	18 U	21 U
ARSENIC	3.1	3.8	3.6	2.2	1.5	3.4
CHROMIUM[1]	0.157	0.136	0.142	0.11	0.09	0.117
COBALT	3.3	3.6	3.1	2	1.5	1.9
IRON	12900	11400	12700	5750	3870	7000
MANGANESE	1590	77	116	34	417	202
THALLIUM	0.092 B	0.1 B	0.12 B	0.11 B	0.033 B	0.076 B
VANADIUM	24.2	22.2	22.1	19.6	19.3	15.1

Construction Workers

	Unit Risk						
BAP EQUIVALENT-HALFND	6.23E-10	1.8E-08	5.6E-08	2.3E-08	2.5E-07	1.4E-06	1.2E-05
AROCLOR-1260	1.74E-10	1.7E-09	1.9E-09	1.7E-09	1.7E-09	1.6E-09	1.8E-09
ARSENIC	1.17E-07	3.6E-07	4.4E-07	4.2E-07	2.6E-07	1.7E-07	4.0E-07
CHROMIUM	2.53E-07	4.0E-08	3.4E-08	3.6E-08	2.8E-08	2.3E-08	3.0E-08
COBALT	2.05E-08	6.8E-08	7.4E-08	6.4E-08	4.1E-08	3.1E-08	3.9E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		4.9E-07	6.1E-07	5.4E-07	5.7E-07	1.7E-06	1.2E-05

Industrial

BAP EQUIVALENT-HALFND	3.46E-09	1.0E-07	3.1E-07	1.3E-07	1.4E-06	7.9E-06	6.7E-05
AROCLOR-1260	9.95E-10	1.0E-08	1.1E-08	1.0E-08	1.0E-08	9.0E-09	1.0E-08
ARSENIC	3.66E-07	1.1E-06	1.4E-06	1.3E-06	8.1E-07	5.5E-07	1.2E-06
CHROMIUM	5.51E-07	8.6E-08	7.5E-08	7.8E-08	6.1E-08	5.0E-08	6.4E-08
COBALT	2.27E-10	7.5E-10	8.2E-10	7.0E-10	4.5E-10	3.4E-10	4.3E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.3E-06	1.8E-06	1.5E-06	2.2E-06	8.5E-06	6.8E-05

Residential

BAP EQUIVALENT-HALFND	7.19E-08	2.1E-06	6.4E-06	2.7E-06	2.8E-05	1.6E-04	1.4E-03
AROCLOR-1260	4.95E-09	5.0E-08	5.4E-08	5.0E-08	5.0E-08	4.5E-08	5.2E-08
ARSENIC	2.85E-06	8.8E-06	1.1E-05	1.0E-05	6.3E-06	4.3E-06	9.7E-06
CHROMIUM	7.74E-06	1.2E-06	1.1E-06	1.1E-06	8.5E-07	7.0E-07	9.1E-07
COBALT	1.15E-09	3.8E-09	4.1E-09	3.5E-09	2.3E-09	1.7E-09	2.2E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.2E-05	1.8E-05	1.4E-05	3.6E-05	1.7E-04	1.4E-03

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.1

Location-Specific Cancer Risks - Surface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-069	GSP-SB-070	GSP-SB-071	GSP-SB-091	GSP-SB-093	GSP-SB-094
SAMPLE ID	GSP-SB-69-0-2	GSP-SB-70-0-2	GSP-SB-71-0-2	GSP-SB-91-0-2	GSP-SB-93-0-2	GSP-SB-94-0-2
REC #	REC 10	REC 10	REC 10	REC 8/9	REC 9	REC 9
SAMPLE DATE	20100416	20100416	20100511	20110601	20110601	20110601
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	1499.2	4217.1	9431.5	30.643	23.308	40.997
AROCLOR-1260	20 U	19 U	18 U	19 U	19 U	19 U
ARSENIC	1.7	3	1.9	2.3	2.8	2.1
CHROMIUM[1]	0.071	0.081	0.162	0.071	0.072	0.072
COBALT	2.4	1.8	1.9	1	1.2	2
IRON	5470	5750	8110			
MANGANESE	93.6	41	2390			
THALLIUM	0.074 B	0.065 B	0.035 B	0.57 U	0.51 U	0.59 U
VANADIUM	13	13.3	59	13	14	17

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	6.23E-10	9.3E-07	2.6E-06	5.9E-06	1.9E-08	1.5E-08	2.6E-08
AROCLOR-1260	1.74E-10	1.7E-09	1.7E-09	1.6E-09	1.7E-09	1.7E-09	1.7E-09
ARSENIC	1.17E-07	2.0E-07	3.5E-07	2.2E-07	2.7E-07	3.3E-07	2.4E-07
CHROMIUM	2.53E-07	1.8E-08	2.0E-08	4.1E-08	1.8E-08	1.8E-08	1.8E-08
COBALT	2.05E-08	4.9E-08	3.7E-08	3.9E-08	2.1E-08	2.5E-08	4.1E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.2E-06	3.0E-06	6.2E-06	3.3E-07	3.9E-07	3.3E-07

Industrial

BAP EQUIVALENT-HALFND	3.46E-09	5.2E-06	1.5E-05	3.3E-05	1.1E-07	8.1E-08	1.4E-07
AROCLOR-1260	9.95E-10	1.0E-08	9.5E-09	9.0E-09	9.5E-09	9.5E-09	9.5E-09
ARSENIC	3.66E-07	6.2E-07	1.1E-06	7.0E-07	8.4E-07	1.0E-06	7.7E-07
CHROMIUM	5.51E-07	3.9E-08	4.5E-08	8.9E-08	3.9E-08	4.0E-08	4.0E-08
COBALT	2.27E-10	5.5E-10	4.1E-10	4.3E-10	2.3E-10	2.7E-10	4.5E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		5.9E-06	1.6E-05	3.3E-05	1.0E-06	1.2E-06	9.6E-07

Residential

BAP EQUIVALENT-HALFND	7.19E-08	1.1E-04	3.0E-04	6.8E-04	2.2E-06	1.7E-06	2.9E-06
AROCLOR-1260	4.95E-09	5.0E-08	4.7E-08	4.5E-08	4.7E-08	4.7E-08	4.7E-08
ARSENIC	2.85E-06	4.8E-06	8.5E-06	5.4E-06	6.6E-06	8.0E-06	6.0E-06
CHROMIUM	7.74E-06	5.5E-07	6.3E-07	1.3E-06	5.5E-07	5.6E-07	5.6E-07
COBALT	1.15E-09	2.7E-09	2.1E-09	2.2E-09	1.1E-09	1.4E-09	2.3E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.1E-04	3.1E-04	6.9E-04	9.4E-06	1.0E-05	9.5E-06

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.1

Location-Specific Cancer Risks - Surface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-095	GSP-SB-096	GSP-SB-097	GSP-SB-098	GSP-SB-099	GSP-SB-101
SAMPLE ID	GSP-SB-95-0-2	GSP-SB-96-0-2	GSP-SB-97-0-2	GSP-SB-98-0-2	GSP-SB-99-0-2	GSP-SB-101-0-2
REC #	REC 9	REC 9	REC 9	REC 9	REC 9	REC 10
SAMPLE DATE	20110601	20110601	20110601	20110601	20110602	20110602
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	3.6 U	57.33	119.005	3.7 U	122.85	210.15
AROCLOR-1260	19 U	63	18 U	19 U	20 U	18 U
ARSENIC	1.2	1.6	1.8	2	2.4	1.8
CHROMIUM[1]	0.033	0.053	0.031	0.081	0.074	0.11
COBALT	0.69	1.4	0.59	1.7	2	1.6
IRON						
MANGANESE						
THALLIUM	0.49 U	0.54 U	0.59 U	0.46 U	0.56 U	2.3
VANADIUM	5.9	8.6	5.8	14	14	19

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	6.23E-10	1.1E-09	3.6E-08	7.4E-08	1.2E-09	7.7E-08	1.3E-07
AROCLOR-1260	1.74E-10	1.7E-09	1.1E-08	1.6E-09	1.7E-09	1.7E-09	1.6E-09
ARSENIC	1.17E-07	1.4E-07	1.9E-07	2.1E-07	2.3E-07	2.8E-07	2.1E-07
CHROMIUM	2.53E-07	8.3E-09	1.3E-08	7.8E-09	2.0E-08	1.9E-08	2.8E-08
COBALT	2.05E-08	1.4E-08	2.9E-08	1.2E-08	3.5E-08	4.1E-08	3.3E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.7E-07	2.8E-07	3.1E-07	2.9E-07	4.2E-07	4.0E-07

Industrial

BAP EQUIVALENT-HALFND	3.46E-09	6.2E-09	2.0E-07	4.1E-07	6.4E-09	4.3E-07	7.3E-07
AROCLOR-1260	9.95E-10	9.5E-09	6.3E-08	9.0E-09	9.5E-09	1.0E-08	9.0E-09
ARSENIC	3.66E-07	4.4E-07	5.9E-07	6.6E-07	7.3E-07	8.8E-07	6.6E-07
CHROMIUM	5.51E-07	1.8E-08	2.9E-08	1.7E-08	4.5E-08	4.1E-08	6.1E-08
COBALT	2.27E-10	1.6E-10	3.2E-10	1.3E-10	3.9E-10	4.5E-10	3.6E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		4.7E-07	8.8E-07	1.1E-06	7.9E-07	1.4E-06	1.5E-06

Residential

BAP EQUIVALENT-HALFND	7.19E-08	1.3E-07	4.1E-06	8.6E-06	1.3E-07	8.8E-06	1.5E-05
AROCLOR-1260	4.95E-09	4.7E-08	3.1E-07	4.5E-08	4.7E-08	5.0E-08	4.5E-08
ARSENIC	2.85E-06	3.4E-06	4.6E-06	5.1E-06	5.7E-06	6.8E-06	5.1E-06
CHROMIUM	7.74E-06	2.6E-07	4.1E-07	2.4E-07	6.3E-07	5.7E-07	8.5E-07
COBALT	1.15E-09	7.9E-10	1.6E-09	6.8E-10	1.9E-09	2.3E-09	1.8E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		3.9E-06	9.4E-06	1.4E-05	6.5E-06	1.6E-05	2.1E-05

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.1

Location-Specific Cancer Risks - Surface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-102	GSP-SB-103	GSP-SB-104	GSP-SB-105	GSP-SB-106	GSP-SB-107
SAMPLE ID	GSP-SB-102-0-2	GSP-SB-103-0-2	GSP-SB-104-0-2	GSP-SB-105-0-2	GSP-SB-106-0-2	GSP-SB-107-0-2
REC #	REC 10	REC 10	REC 10	REC 10	REC 10	REC 10
SAMPLE DATE	20110602	20110602	20110601	20110602	20110601	20110602
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	277.06	15.6775	55.556	142.12	692.55	21.2855
AROCLOR-1260	18 U	20 U	19 U	20 U	19 U	21 U
ARSENIC	2.1	4.1	3.3	2	3.1	1.9
CHROMIUM[(1)]	0.17	0.11	0.11	0.075	0.12	0.095
COBALT	5.6	2.5	3.2	1.5	2.9	1.6
IRON						
MANGANESE						
THALLIUM	2	0.61 U	0.57 U	0.54 U	0.6 U	0.62 U
VANADIUM	22	20	19	13	19	13

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	6.23E-10	1.7E-07	9.8E-09	3.5E-08	8.9E-08	4.3E-07	1.3E-08
AROCLOR-1260	1.74E-10	1.6E-09	1.7E-09	1.7E-09	1.7E-09	1.7E-09	1.8E-09
ARSENIC	1.17E-07	2.4E-07	4.8E-07	3.8E-07	2.3E-07	3.6E-07	2.2E-07
CHROMIUM	2.53E-07	4.3E-08	2.8E-08	2.8E-08	1.9E-08	3.0E-08	2.4E-08
COBALT	2.05E-08	1.1E-07	5.1E-08	6.6E-08	3.1E-08	6.0E-08	3.3E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		5.8E-07	5.7E-07	5.1E-07	3.7E-07	8.8E-07	2.9E-07

Industrial

BAP EQUIVALENT-HALFND	3.46E-09	9.6E-07	5.4E-08	1.9E-07	4.9E-07	2.4E-06	7.4E-08
AROCLOR-1260	9.95E-10	9.0E-09	1.0E-08	9.5E-09	1.0E-08	9.5E-09	1.0E-08
ARSENIC	3.66E-07	7.7E-07	1.5E-06	1.2E-06	7.3E-07	1.1E-06	7.0E-07
CHROMIUM	5.51E-07	9.4E-08	6.1E-08	6.1E-08	4.1E-08	6.6E-08	5.2E-08
COBALT	2.27E-10	1.3E-09	5.7E-10	7.3E-10	3.4E-10	6.6E-10	3.6E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.8E-06	1.6E-06	1.5E-06	1.3E-06	3.6E-06	8.3E-07

Residential

BAP EQUIVALENT-HALFND	7.19E-08	2.0E-05	1.1E-06	4.0E-06	1.0E-05	5.0E-05	1.5E-06
AROCLOR-1260	4.95E-09	4.5E-08	5.0E-08	4.7E-08	5.0E-08	4.7E-08	5.2E-08
ARSENIC	2.85E-06	6.0E-06	1.2E-05	9.4E-06	5.7E-06	8.8E-06	5.4E-06
CHROMIUM	7.74E-06	1.3E-06	8.5E-07	8.5E-07	5.8E-07	9.3E-07	7.4E-07
COBALT	1.15E-09	6.4E-09	2.9E-09	3.7E-09	1.7E-09	3.3E-09	1.8E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.7E-05	1.4E-05	1.4E-05	1.7E-05	6.0E-05	7.7E-06

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.1

Location-Specific Cancer Risks - Surface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-108	GSP-SB-109	GSP-SB-110
SAMPLE ID	GSP-SB-108-0-2	GSP-SB-109-0-2	GSP-SB-110-0-2
REC #	REC 10	REC 10	REC 10
SAMPLE DATE	20110602	20110602	20110602
SAMPLE CODE	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS
TOP DEPTH	0	0	0
BOTTOM DEPTH	2	2	2
BAP EQUIVALENT-HALFND	3.8 U	580.91	62.647
AROCLOR-1260	20 U	18 U	19 U
ARSENIC	5.5	3.6	5.6
CHROMIUM[(1)]	0.24	0.17	0.23
COBALT	7.1	4.9	5.6
IRON			
MANGANESE			
THALLIUM	0.55 U	0.7	0.57 U
VANADIUM	65	18	47

Construction Workers	**Unit Risk**			
BAP EQUIVALENT-HALFND	6.23E-10	1.2E-09	3.6E-07	3.9E-08
AROCLOR-1260	1.74E-10	1.7E-09	1.6E-09	1.7E-09
ARSENIC	1.17E-07	6.4E-07	4.2E-07	6.5E-07
CHROMIUM	2.53E-07	6.1E-08	4.3E-08	5.8E-08
COBALT	2.05E-08	1.5E-07	1.0E-07	1.1E-07
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00
Total		8.5E-07	9.3E-07	8.7E-07

Industrial				
BAP EQUIVALENT-HALFND	3.46E-09	6.6E-09	2.0E-06	2.2E-07
AROCLOR-1260	9.95E-10	1.0E-08	9.0E-09	9.5E-09
ARSENIC	3.66E-07	2.0E-06	1.3E-06	2.0E-06
CHROMIUM	5.51E-07	1.3E-07	9.4E-08	1.3E-07
COBALT	2.27E-10	1.6E-09	1.1E-09	1.3E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.2E-06	3.4E-06	2.4E-06

Residential				
BAP EQUIVALENT-HALFND	7.19E-08	1.4E-07	4.2E-05	4.5E-06
AROCLOR-1260	4.95E-09	5.0E-08	4.5E-08	4.7E-08
ARSENIC	2.85E-06	1.6E-05	1.0E-05	1.6E-05
CHROMIUM	7.74E-06	1.9E-06	1.3E-06	1.8E-06
COBALT	1.15E-09	8.1E-09	5.6E-09	6.4E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.8E-05	5.3E-05	2.2E-05

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.2

Location-Specific Hazard Indices - Surface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-057	GSP-SB-058	GSP-SB-059	GSP-SB-060	GSP-SB-061	GSP-SB-062
SAMPLE ID	GSP-SB-57-0-2	GSP-SB-58-0-2	GSP-SB-59-0-2	GSP-SB-60-0-2	GSP-SB-61-0-2	GSP-SB-62-0-2
REC #	REC 9	REC 9	REC 9	REC 9	REC 9	REC 9/10
SAMPLE DATE	20100510	20100510	20100510	20100511	20100426	20100426
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	133.42	3.6 U	3.6 U	18.6535	33.9865	3718.3
AROCLOR-1260	19 U	18 U	19 U	19 U	20 U	22
ARSENIC	1.2	0.71	1.6	2.3	2	2.5
CHROMIUM[(1)]	0.036	0.021	0.057	0.085	0.072	0.137
COBALT	0.69	0.26	1.2	2.3	1.6	4
IRON	3660	1860	4540	7570	5740	7670
MANGANESE	17.2	4.6	15.1	29.3	74.3	864
THALLIUM	0.036 B	0.014 U	0.027 B	0.079 B	0.06 B	0.06 B
VANADIUM	6.1	3.5	9	13.6	12.8	32.3

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	3.3E-02	1.9E-02	4.4E-02	6.3E-02	5.5E-02	6.8E-02
CHROMIUM	2.02E-03	7.3E-05	4.3E-05	1.2E-04	1.7E-04	1.5E-04	2.8E-04
COBALT	9.58E-03	6.6E-03	2.5E-03	1.1E-02	2.2E-02	1.5E-02	3.8E-02
IRON	6.85E-06	2.5E-02	1.3E-02	3.1E-02	5.2E-02	3.9E-02	5.3E-02
MANGANESE	3.49E-03	6.0E-02	1.6E-02	5.3E-02	1.0E-01	2.6E-01	3.0E+00
THALLIUM	1.20E-01	2.2E-03	8.4E-04	1.6E-03	4.7E-03	3.6E-03	3.6E-03
VANADIUM	9.59E-04	5.8E-03	3.4E-03	8.6E-03	1.3E-02	1.2E-02	3.1E-02
Total		1.3E-01	5.5E-02	1.5E-01	2.6E-01	3.8E-01	3.2E+00

Industrial

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	2.7E-03	1.6E-03	3.7E-03	5.2E-03	4.6E-03	5.7E-03
CHROMIUM	1.02E-03	3.7E-05	2.2E-05	5.8E-05	8.7E-05	7.4E-05	1.4E-04
COBALT	1.86E-03	1.3E-03	4.8E-04	2.2E-03	4.3E-03	3.0E-03	7.4E-03
IRON	7.91E-07	2.9E-03	1.5E-03	3.6E-03	6.0E-03	4.5E-03	6.1E-03
MANGANESE	8.91E-05	1.5E-03	4.1E-04	1.3E-03	2.6E-03	6.6E-03	7.7E-02
THALLIUM	5.54E-02	1.0E-03	3.9E-04	7.5E-04	2.2E-03	1.7E-03	1.7E-03
VANADIUM	1.11E-04	6.8E-04	3.9E-04	1.0E-03	1.5E-03	1.4E-03	3.6E-03
Total		1.0E-02	4.8E-03	1.3E-02	2.2E-02	2.2E-02	1.0E-01

Residential

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	5.5E-02	3.3E-02	7.4E-02	1.1E-01	9.2E-02	1.2E-01
CHROMIUM	9.04E-03	3.3E-04	1.9E-04	5.2E-04	7.7E-04	6.5E-04	1.2E-03
COBALT	4.39E-02	3.0E-02	1.1E-02	5.3E-02	1.0E-01	7.0E-02	1.8E-01
IRON	1.88E-05	6.9E-02	3.5E-02	8.5E-02	1.4E-01	1.1E-01	1.4E-01
MANGANESE	9.12E-04	1.6E-02	4.2E-03	1.4E-02	2.7E-02	6.8E-02	7.9E-01
THALLIUM	1.31E+00	2.4E-02	9.2E-03	1.8E-02	5.2E-02	3.9E-02	3.9E-02
VANADIUM	2.63E-03	1.6E-02	9.2E-03	2.4E-02	3.6E-02	3.4E-02	8.5E-02
Total		2.1E-01	1.0E-01	2.7E-01	4.6E-01	4.1E-01	1.3E+00

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.2

Location-Specific Hazard Indices - Surface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-063	GSP-SB-064	GSP-SB-065	GSP-SB-066	GSP-SB-067	GSP-SB-068
SAMPLE ID	GSP-SB-63-0-2	GSP-SB-64-0-2	GSP-SB-65-0-2	GSP-SB-66-0-2	GSP-SB-67-0-2	GSP-SB-68-0-2
REC #	REC 10	REC 10	REC 10	REC 10	REC 9	REC 10
SAMPLE DATE	20100426	20100416	20100426	20100415	20100416	20100416
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	28.9982	89.463	37.152	394.81	2280.7	19285
AROCLOR-1260	20 U	22 U	20 U	20 U	18 U	21 U
ARSENIC	3.1	3.8	3.6	2.2	1.5	3.4
CHROMIUM[(1)]	0.157	0.136	0.142	0.11	0.09	0.117
COBALT	3.3	3.6	3.1	2	1.5	1.9
IRON	12900	11400	12700	5750	3870	7000
MANGANESE	1590	77	116	34	417	202
THALLIUM	0.092 B	0.1 B	0.12 B	0.11 B	0.033 B	0.076 B
VANADIUM	24.2	22.2	22.1	19.6	19.3	15.1

Construction Workers

	Unit Risk						
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	8.5E-02	1.0E-01	9.8E-02	6.0E-02	4.1E-02	9.3E-02
CHROMIUM	2.02E-03	3.2E-04	2.8E-04	2.9E-04	2.2E-04	1.8E-04	2.4E-04
COBALT	9.58E-03	3.2E-02	3.4E-02	3.0E-02	1.9E-02	1.4E-02	1.8E-02
IRON	6.85E-06	8.8E-02	7.8E-02	8.7E-02	3.9E-02	2.6E-02	4.8E-02
MANGANESE	3.49E-03	5.5E+00	2.7E-01	4.0E-01	1.2E-01	1.5E+00	7.0E-01
THALLIUM	1.20E-01	5.5E-03	6.0E-03	7.2E-03	6.6E-03	2.0E-03	4.6E-03
VANADIUM	9.59E-04	2.3E-02	2.1E-02	2.1E-02	1.9E-02	1.9E-02	1.4E-02
Total		5.8E+00	5.1E-01	6.5E-01	2.6E-01	1.6E+00	8.8E-01

Industrial

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	7.1E-03	8.7E-03	8.2E-03	5.0E-03	3.4E-03	7.8E-03
CHROMIUM	1.02E-03	1.6E-04	1.4E-04	1.5E-04	1.1E-04	9.2E-05	1.2E-04
COBALT	1.86E-03	6.1E-03	6.7E-03	5.8E-03	3.7E-03	2.8E-03	3.5E-03
IRON	7.91E-07	1.0E-02	9.0E-03	1.0E-02	4.5E-03	3.1E-03	5.5E-03
MANGANESE	8.91E-05	1.4E-01	6.9E-03	1.0E-02	3.0E-03	3.7E-02	1.8E-02
THALLIUM	5.54E-02	2.5E-03	2.8E-03	3.3E-03	3.0E-03	9.1E-04	2.1E-03
VANADIUM	1.11E-04	2.7E-03	2.5E-03	2.4E-03	2.2E-03	2.1E-03	1.7E-03
Total		1.7E-01	3.7E-02	4.0E-02	2.2E-02	5.0E-02	3.9E-02

Residential

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	1.4E-01	1.8E-01	1.7E-01	1.0E-01	6.9E-02	1.6E-01
CHROMIUM	9.04E-03	1.4E-03	1.2E-03	1.3E-03	9.9E-04	8.1E-04	1.1E-03
COBALT	4.39E-02	1.4E-01	1.6E-01	1.4E-01	8.8E-02	6.6E-02	8.3E-02
IRON	1.88E-05	2.4E-01	2.1E-01	2.4E-01	1.1E-01	7.3E-02	1.3E-01
MANGANESE	9.12E-04	1.4E+00	7.0E-02	1.1E-01	3.1E-02	3.8E-01	1.8E-01
THALLIUM	1.31E+00	6.0E-02	6.6E-02	7.9E-02	7.2E-02	2.2E-02	5.0E-02
VANADIUM	2.63E-03	6.4E-02	5.8E-02	5.8E-02	5.2E-02	5.1E-02	4.0E-02
Total		2.1E+00	7.4E-01	7.8E-01	4.5E-01	6.6E-01	6.5E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.2

Location-Specific Hazard Indices - Surface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-069	GSP-SB-070	GSP-SB-071	GSP-SB-091	GSP-SB-093	GSP-SB-094
SAMPLE ID	GSP-SB-69-0-2	GSP-SB-70-0-2	GSP-SB-71-0-2	GSP-SB-91-0-2	GSP-SB-93-0-2	GSP-SB-94-0-2
REC #	REC 10	REC 10	REC 10	REC 8/9	REC 9	REC 9
SAMPLE DATE	20100416	20100416	20100511	20110601	20110601	20110601
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	1499.2	4217.1	9431.5	30.643	23.308	40.997
AROCLOR-1260	20 U	19 U	18 U	19 U	19 U	19 U
ARSENIC	1.7	3	1.9	2.3	2.8	2.1
CHROMIUM[(1)]	0.071	0.081	0.162	0.071	0.072	0.072
COBALT	2.4	1.8	1.9	1	1.2	2
IRON	5470	5750	8110			
MANGANESE	93.6	41	2390			
THALLIUM	0.074 B	0.065 B	0.035 B	0.57 U	0.51 U	0.59 U
VANADIUM	13	13.3	59	13	14	17

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	4.6E-02	8.2E-02	5.2E-02	6.3E-02	7.6E-02	5.7E-02
CHROMIUM	2.02E-03	1.4E-04	1.6E-04	3.3E-04	1.4E-04	1.5E-04	1.5E-04
COBALT	9.58E-03	2.3E-02	1.7E-02	1.8E-02	9.6E-03	1.1E-02	1.9E-02
IRON	6.85E-06	3.7E-02	3.9E-02	5.6E-02	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	3.3E-01	1.4E-01	8.3E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	4.4E-03	3.9E-03	2.1E-03	3.4E-02	3.1E-02	3.5E-02
VANADIUM	9.59E-04	1.2E-02	1.3E-02	5.7E-02	1.2E-02	1.3E-02	1.6E-02
Total		4.5E-01	3.0E-01	8.5E+00	1.2E-01	1.3E-01	1.3E-01

Industrial

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	3.9E-03	6.8E-03	4.3E-03	5.2E-03	6.4E-03	4.8E-03
CHROMIUM	1.02E-03	7.3E-05	8.3E-05	1.7E-04	7.3E-05	7.4E-05	7.4E-05
COBALT	1.86E-03	4.5E-03	3.3E-03	3.5E-03	1.9E-03	2.2E-03	3.7E-03
IRON	7.91E-07	4.3E-03	4.5E-03	6.4E-03	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	8.3E-03	3.7E-03	2.1E-01	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	2.0E-03	1.8E-03	9.7E-04	1.6E-02	1.4E-02	1.6E-02
VANADIUM	1.11E-04	1.4E-03	1.5E-03	6.5E-03	1.4E-03	1.6E-03	1.9E-03
Total		2.5E-02	2.2E-02	2.3E-01	2.4E-02	2.4E-02	2.7E-02

Residential

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	7.9E-02	1.4E-01	8.8E-02	1.1E-01	1.3E-01	9.7E-02
CHROMIUM	9.04E-03	6.4E-04	7.3E-04	1.5E-03	6.4E-04	6.5E-04	6.5E-04
COBALT	4.39E-02	1.1E-01	7.9E-02	8.3E-02	4.4E-02	5.3E-02	8.8E-02
IRON	1.88E-05	1.0E-01	1.1E-01	1.5E-01	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	8.5E-02	3.7E-02	2.2E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	4.9E-02	4.3E-02	2.3E-02	3.7E-01	3.4E-01	3.9E-01
VANADIUM	2.63E-03	3.4E-02	3.5E-02	1.6E-01	3.4E-02	3.7E-02	4.5E-02
Total		4.6E-01	4.4E-01	2.7E+00	5.6E-01	5.5E-01	6.2E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.2

Location-Specific Hazard Indices - Surface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-095	GSP-SB-096	GSP-SB-097	GSP-SB-098	GSP-SB-099	GSP-SB-101
SAMPLE ID	GSP-SB-95-0-2	GSP-SB-96-0-2	GSP-SB-97-0-2	GSP-SB-98-0-2	GSP-SB-99-0-2	GSP-SB-101-0-2
REC #	REC 9	REC 9	REC 9	REC 9	REC 9	REC 10
SAMPLE DATE	20110601	20110601	20110601	20110601	20110602	20110602
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	3.6 U	57.33	119.005	3.7 U	122.85	210.15
AROCLOR-1260	19 U	63	18 U	19 U	20 U	18 U
ARSENIC	1.2	1.6	1.8	2	2.4	1.8
CHROMIUM[1]	0.033	0.053	0.031	0.081	0.074	0.11
COBALT	0.69	1.4	0.59	1.7	2	1.6
IRON						
MANGANESE						
THALLIUM	0.49 U	0.54 U	0.59 U	0.46 U	0.56 U	2.3
VANADIUM	5.9	8.6	5.8	14	14	19

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	3.3E-02	4.4E-02	4.9E-02	5.5E-02	6.5E-02	4.9E-02
CHROMIUM	2.02E-03	6.7E-05	1.1E-04	6.3E-05	1.6E-04	1.5E-04	2.2E-04
COBALT	9.58E-03	6.6E-03	1.3E-02	5.7E-03	1.6E-02	1.9E-02	1.5E-02
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	2.9E-02	3.2E-02	3.5E-02	2.8E-02	3.4E-02	2.8E-01
VANADIUM	9.59E-04	5.7E-03	8.2E-03	5.6E-03	1.3E-02	1.3E-02	1.8E-02
Total		7.4E-02	9.8E-02	9.6E-02	1.1E-01	1.3E-01	3.6E-01

Industrial

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	2.7E-03	3.7E-03	4.1E-03	4.6E-03	5.5E-03	4.1E-03
CHROMIUM	1.02E-03	3.4E-05	5.4E-05	3.2E-05	8.3E-05	7.6E-05	1.1E-04
COBALT	1.86E-03	1.3E-03	2.6E-03	1.1E-03	3.2E-03	3.7E-03	3.0E-03
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	1.4E-02	1.5E-02	1.6E-02	1.3E-02	1.6E-02	1.3E-01
VANADIUM	1.11E-04	6.5E-04	9.5E-04	6.4E-04	1.6E-03	1.6E-03	2.1E-03
Total		1.8E-02	2.2E-02	2.2E-02	2.2E-02	2.6E-02	1.4E-01

Residential

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	5.5E-02	7.4E-02	8.3E-02	9.2E-02	1.1E-01	8.3E-02
CHROMIUM	9.04E-03	3.0E-04	4.8E-04	2.8E-04	7.3E-04	6.7E-04	9.9E-04
COBALT	4.39E-02	3.0E-02	6.1E-02	2.6E-02	7.5E-02	8.8E-02	7.0E-02
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	3.2E-01	3.5E-01	3.9E-01	3.0E-01	3.7E-01	3.0E+00
VANADIUM	2.63E-03	1.6E-02	2.3E-02	1.5E-02	3.7E-02	3.7E-02	5.0E-02
Total		4.2E-01	5.1E-01	5.1E-01	5.1E-01	6.0E-01	3.2E+00

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.2

Location-Specific Hazard Indices - Surface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-102	GSP-SB-103	GSP-SB-104	GSP-SB-105	GSP-SB-106	GSP-SB-107
SAMPLE ID	GSP-SB-102-0-2	GSP-SB-103-0-2	GSP-SB-104-0-2	GSP-SB-105-0-2	GSP-SB-106-0-2	GSP-SB-107-0-2
REC #	REC 10	REC 10	REC 10	REC 10	REC 10	REC 10
SAMPLE DATE	20110602	20110602	20110601	20110602	20110601	20110602
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	277.06	15.6775	55.556	142.12	692.55	21.2855
AROCLOR-1260	18 U	20 U	19 U	20 U	19 U	21 U
ARSENIC	2.1	4.1	3.3	2	3.1	1.9
CHROMIUM[1]	0.17	0.11	0.11	0.075	0.12	0.095
COBALT	5.6	2.5	3.2	1.5	2.9	1.6
IRON						
MANGANESE						
THALLIUM	2	0.61 U	0.57 U	0.54 U	0.6 U	0.62 U
VANADIUM	22	20	19	13	19	13

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	5.7E-02	1.1E-01	9.0E-02	5.5E-02	8.5E-02	5.2E-02
CHROMIUM	2.02E-03	3.4E-04	2.2E-04	2.2E-04	1.5E-04	2.4E-04	1.9E-04
COBALT	9.58E-03	5.4E-02	2.4E-02	3.1E-02	1.4E-02	2.8E-02	1.5E-02
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	2.4E-01	3.7E-02	3.4E-02	3.2E-02	3.6E-02	3.7E-02
VANADIUM	9.59E-04	2.1E-02	1.9E-02	1.8E-02	1.2E-02	1.8E-02	1.2E-02
Total		3.7E-01	1.9E-01	1.7E-01	1.1E-01	1.7E-01	1.2E-01

Industrial

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	4.8E-03	9.4E-03	7.5E-03	4.6E-03	7.1E-03	4.3E-03
CHROMIUM	1.02E-03	1.7E-04	1.1E-04	1.1E-04	7.7E-05	1.2E-04	9.7E-05
COBALT	1.86E-03	1.0E-02	4.6E-03	5.9E-03	2.8E-03	5.4E-03	3.0E-03
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	1.1E-01	1.7E-02	1.6E-02	1.5E-02	1.7E-02	1.7E-02
VANADIUM	1.11E-04	2.4E-03	2.2E-03	2.1E-03	1.4E-03	2.1E-03	1.4E-03
Total		1.3E-01	3.3E-02	3.1E-02	2.4E-02	3.1E-02	2.6E-02

Residential

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	9.7E-02	1.9E-01	1.5E-01	9.2E-02	1.4E-01	8.8E-02
CHROMIUM	9.04E-03	1.5E-03	9.9E-04	9.9E-04	6.8E-04	1.1E-03	8.6E-04
COBALT	4.39E-02	2.5E-01	1.1E-01	1.4E-01	6.6E-02	1.3E-01	7.0E-02
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	2.6E+00	4.0E-01	3.7E-01	3.5E-01	3.9E-01	4.1E-01
VANADIUM	2.63E-03	5.8E-02	5.3E-02	5.0E-02	3.4E-02	5.0E-02	3.4E-02
Total		3.0E+00	7.5E-01	7.2E-01	5.5E-01	7.2E-01	6.0E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.2

Location-Specific Hazard Indices - Surface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-108	GSP-SB-109	GSP-SB-110
SAMPLE ID	GSP-SB-108-0-2	GSP-SB-109-0-2	GSP-SB-110-0-2
REC #	REC 10	REC 10	REC 10
SAMPLE DATE	20110602	20110602	20110602
SAMPLE CODE	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS
TOP DEPTH	0	0	0
BOTTOM DEPTH	2	2	2
BAP EQUIVALENT-HALFND	3.8 U	580.91	62.647
AROCLOR-1260	20 U	18 U	19 U
ARSENIC	5.5	3.6	5.6
CHROMIUM[(1)]	0.24	0.17	0.23
COBALT	7.1	4.9	5.6
IRON			
MANGANESE			
THALLIUM	0.55 U	0.7	0.57 U
VANADIUM	65	18	47

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	1.5E-01	9.8E-02	1.5E-01
CHROMIUM	2.02E-03	4.9E-04	3.4E-04	4.7E-04
COBALT	9.58E-03	6.8E-02	4.7E-02	5.4E-02
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	3.3E-02	8.4E-02	3.4E-02
VANADIUM	9.59E-04	6.2E-02	1.7E-02	4.5E-02
Total		3.1E-01	2.5E-01	2.9E-01

Industrial

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	1.3E-02	8.2E-03	1.3E-02
CHROMIUM	1.02E-03	2.5E-04	1.7E-04	2.4E-04
COBALT	1.86E-03	1.3E-02	9.1E-03	1.0E-02
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	1.5E-02	3.9E-02	1.6E-02
VANADIUM	1.11E-04	7.2E-03	2.0E-03	5.2E-03
Total		4.8E-02	5.8E-02	4.4E-02

Residential

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	2.5E-01	1.7E-01	2.6E-01
CHROMIUM	9.04E-03	2.2E-03	1.5E-03	2.1E-03
COBALT	4.39E-02	3.1E-01	2.1E-01	2.5E-01
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	3.6E-01	9.2E-01	3.7E-01
VANADIUM	2.63E-03	1.7E-01	4.7E-02	1.2E-01
Total		1.1E+00	1.4E+00	1.0E+00

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.3

Location-Specific Cancer Risks - Surface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-072	GSP-SB-074	GSP-SB-075	GSP-SB-076	GSP-SB-077	GSP-SB-078
SAMPLE ID	GSP-SB-72-0-2	GSP-SB-74-0-2	GSP-SB-75-0-2	GSP-SB-76-1-3	GSP-SB-77-1-3	GSP-SB-78-0-2
REC #	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20100511	20100511	20100412	20100413	20100414	20100413
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SB	SB	SS
TOP DEPTH	0	0	0	1	1	0
BOTTOM DEPTH	2	2	2	3	3	2
BAP EQUIVALENT-HALFND	302.22	5.7288	486.45	1760.5	96.083	690.3
N-NITROSO-DI-N-PROPYLAMINE	120	33 U	31 U	59 U	30 U	31 U
AROCLOR-1260	21 U	21 U	250	220	1200	12000
ARSENIC	0.98	1.9	3.4	2.5	2.6 J	2.6
CHROMIUM[(1)]	0.034 J	0.043 J	0.112 J	0.099 J	0.134 J	0.095 J
COBALT	0.22 J	0.38 J	2.7	1.5	3.2 J	2.3
IRON	866 J	1390 J	9210	5970	9590 J	9650
MANGANESE	2.5 J	3.3 J	57.8	75.2	113 J	101
THALLIUM	0.016 U	0.016 U	0.082 B	0.056 B	0.083 B	0.058 B
VANADIUM	5.6 J	12 J	18.9 J	17.5 J	20.7	15.5 J

Construction Workers

	Unit Risk						
BAP EQUIVALENT-HALFND	6.23E-10	1.9E-07	3.6E-09	3.0E-07	1.1E-06	6.0E-08	4.3E-07
N-NITROSO-DI-N-PROPYLAMINE	5.71E-10	6.8E-08	9.4E-09	8.8E-09	1.7E-08	8.6E-09	8.8E-09
AROCLOR-1260	1.74E-10	1.8E-09	1.8E-09	4.4E-08	3.8E-08	2.1E-07	2.1E-06
ARSENIC	1.17E-07	1.1E-07	2.2E-07	4.0E-07	2.9E-07	3.0E-07	3.0E-07
CHROMIUM	2.53E-07	8.6E-09	1.1E-08	2.8E-08	2.5E-08	3.4E-08	2.4E-08
COBALT	2.05E-08	4.5E-09	7.8E-09	5.5E-08	3.1E-08	6.6E-08	4.7E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		3.9E-07	2.6E-07	8.4E-07	1.5E-06	6.8E-07	2.9E-06

Industrial

BAP EQUIVALENT-HALFND	3.46E-09	1.0E-06	2.0E-08	1.7E-06	6.1E-06	3.3E-07	2.4E-06
N-NITROSO-DI-N-PROPYLAMINE	2.84E-09	3.4E-07	4.7E-08	4.4E-08	8.4E-08	4.3E-08	4.4E-08
AROCLOR-1260	9.95E-10	1.0E-08	1.0E-08	2.5E-07	2.2E-07	1.2E-06	1.2E-05
ARSENIC	3.66E-07	3.6E-07	7.0E-07	1.2E-06	9.1E-07	9.5E-07	9.5E-07
CHROMIUM	5.51E-07	1.9E-08	2.4E-08	6.2E-08	5.5E-08	7.4E-08	5.2E-08
COBALT	2.27E-10	5.0E-11	8.6E-11	6.1E-10	3.4E-10	7.3E-10	5.2E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.8E-06	8.0E-07	3.3E-06	7.4E-06	2.6E-06	1.5E-05

Residential

BAP EQUIVALENT-HALFND	7.19E-08	2.2E-05	4.1E-07	3.5E-05	1.3E-04	6.9E-06	5.0E-05
N-NITROSO-DI-N-PROPYLAMINE	1.59E-08	1.9E-06	2.6E-07	2.5E-07	4.7E-07	2.4E-07	2.5E-07
AROCLOR-1260	4.95E-09	5.2E-08	5.2E-08	1.2E-06	1.1E-06	5.9E-06	5.9E-05
ARSENIC	2.85E-06	2.8E-06	5.4E-06	9.7E-06	7.1E-06	7.4E-06	7.4E-06
CHROMIUM	7.74E-06	2.6E-07	3.3E-07	8.7E-07	7.7E-07	1.0E-06	7.4E-07
COBALT	1.15E-09	2.5E-10	4.4E-10	3.1E-09	1.7E-09	3.7E-09	2.6E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.7E-05	6.5E-06	4.7E-05	1.4E-04	2.2E-05	1.2E-04

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.3

Location-Specific Cancer Risks - Surface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-080	GSP-SB-082	GSP-SB-083	GSP-SB-084	GSP-SB-086	GSP-SB-087
SAMPLE ID	GSP-SB-80-0-2	GSP-SB-82-0-2	GSP-SB-83-0-2	GSP-SB-84-0-2	GSP-SB-86-0-2	GSP-SB-87-0-2
REC #	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20100413	20100415	20100415	20100415	20100413	20100414
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	958.94	1254.96	7404.2	1549.5	2552.8	1463
N-NITROSO-DI-N-PROPYLAMINE	31 U	62 U	400 U	76 U	120 U	61 U
AROCLOR-1260	3100	19 U	20 U	19 U	3500	86
ARSENIC	3	4.3	1.5	2.5	2.9	3.5 J
CHROMIUM[(1)]	0.155 J	0.241 K	0.089 K	0.129 K	0.188 J	0.16 J
COBALT	2.7	4.9	1.2	2.3	3.3	10.8 J
IRON	9830	15000	3720	5590	10100	12000 J
MANGANESE	164	49.5	24.3	1050	200	323 J
THALLIUM	0.055 B	0.088 B	0.095 B	0.075 B	0.05 B	0.065 B
VANADIUM	22 J	54.2	15	21	19.7 J	26.5

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	6.23E-10	6.0E-07	7.8E-07	4.6E-06	9.7E-07	1.6E-06	9.1E-07
N-NITROSO-DI-N-PROPYLAMINE	5.71E-10	8.8E-09	1.8E-08	1.1E-07	2.2E-08	3.4E-08	1.7E-08
AROCLOR-1260	1.74E-10	5.4E-07	1.7E-09	1.7E-09	1.7E-09	6.1E-07	1.5E-08
ARSENIC	1.17E-07	3.5E-07	5.0E-07	1.7E-07	2.9E-07	3.4E-07	4.1E-07
CHROMIUM	2.53E-07	3.9E-08	6.1E-08	2.2E-08	3.3E-08	4.7E-08	4.0E-08
COBALT	2.05E-08	5.5E-08	1.0E-07	2.5E-08	4.7E-08	6.8E-08	2.2E-07
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.6E-06	1.5E-06	4.9E-06	1.4E-06	2.7E-06	1.6E-06

Industrial

BAP EQUIVALENT-HALFND	3.46E-09	3.3E-06	4.3E-06	2.6E-05	5.4E-06	8.8E-06	5.1E-06
N-NITROSO-DI-N-PROPYLAMINE	2.84E-09	4.4E-08	8.8E-08	5.7E-07	1.1E-07	1.7E-07	8.7E-08
AROCLOR-1260	9.95E-10	3.1E-06	9.5E-09	1.0E-08	9.5E-09	3.5E-06	8.6E-08
ARSENIC	3.66E-07	1.1E-06	1.6E-06	5.5E-07	9.1E-07	1.1E-06	1.3E-06
CHROMIUM	5.51E-07	8.5E-08	1.3E-07	4.9E-08	7.1E-08	1.0E-07	8.8E-08
COBALT	2.27E-10	6.1E-10	1.1E-09	2.7E-10	5.2E-10	7.5E-10	2.5E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		7.6E-06	6.2E-06	2.7E-05	6.5E-06	1.4E-05	6.6E-06

Residential

BAP EQUIVALENT-HALFND	7.19E-08	6.9E-05	9.0E-05	5.3E-04	1.1E-04	1.8E-04	1.1E-04
N-NITROSO-DI-N-PROPYLAMINE	1.59E-08	2.5E-07	4.9E-07	3.2E-06	6.0E-07	9.5E-07	4.8E-07
AROCLOR-1260	4.95E-09	1.5E-05	4.7E-08	5.0E-08	4.7E-08	1.7E-05	4.3E-07
ARSENIC	2.85E-06	8.5E-06	1.2E-05	4.3E-06	7.1E-06	8.3E-06	1.0E-05
CHROMIUM	7.74E-06	1.2E-06	1.9E-06	6.9E-07	1.0E-06	1.5E-06	1.2E-06
COBALT	1.15E-09	3.1E-09	5.6E-09	1.4E-09	2.6E-09	3.8E-09	1.2E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		9.4E-05	1.0E-04	5.4E-04	1.2E-04	2.1E-04	1.2E-04

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.3

Location-Specific Cancer Risks - Surface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-090	GSP-SB-111	GSP-SB-112	GSP-SB-113	GSP-SB-114	GSP-SB-115
SAMPLE ID	GSP-SB-90-0-2	GSP-SB-111-0-2	GSP-SB-112-0-2	GSP-SB-113-0-2	GSP-SB-114-0-2	GSP-SB-115-0-2
REC #	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20100415	20110603	20110603	20110601	20110601	20110531
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	2345.9	592.62	1777.3	404.64	492.7	999.79
N-NITROSO-DI-N-PROPYLAMINE	79 U	31 U	59 U	30 U	30 U	67 U
AROCLOR-1260	20 U	19 U	19 U	19 U	70	21 U
ARSENIC	3.5	2.8	3.3	4	3.3	3.4
CHROMIUM[(1)]	0.15 K	0.13	0.14	0.18	0.15	0.11
COBALT	4.6	1.4	2.7	5	3.6	2.4
IRON	14200					
MANGANESE	110					
THALLIUM	0.081 B	0.7 B	0.65 B	0.56 U	0.58 U	0.6 U
VANADIUM	26.6	22	25	29	25	20

Construction Workers	**Unit Risk**						
BAP EQUIVALENT-HALFND	6.23E-10	1.5E-06	3.7E-07	1.1E-06	2.5E-07	3.1E-07	6.2E-07
N-NITROSO-DI-N-PROPYLAMINE	5.71E-10	2.3E-08	8.8E-09	1.7E-08	8.6E-09	8.6E-09	1.9E-08
AROCLOR-1260	1.74E-10	1.7E-09	1.7E-09	1.7E-09	1.7E-09	1.2E-08	1.8E-09
ARSENIC	1.17E-07	4.1E-07	3.3E-07	3.8E-07	4.7E-07	3.8E-07	4.0E-07
CHROMIUM	2.53E-07	3.8E-08	3.3E-08	3.5E-08	4.5E-08	3.8E-08	2.8E-08
COBALT	2.05E-08	9.4E-08	2.9E-08	5.5E-08	1.0E-07	7.4E-08	4.9E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.0E-06	7.7E-07	1.6E-06	8.8E-07	8.2E-07	1.1E-06

Industrial							
BAP EQUIVALENT-HALFND	3.46E-09	8.1E-06	2.1E-06	6.2E-06	1.4E-06	1.7E-06	3.5E-06
N-NITROSO-DI-N-PROPYLAMINE	2.84E-09	1.1E-07	4.4E-08	8.4E-08	4.3E-08	4.3E-08	9.5E-08
AROCLOR-1260	9.95E-10	1.0E-08	9.5E-09	9.5E-09	9.5E-09	7.0E-08	1.0E-08
ARSENIC	3.66E-07	1.3E-06	1.0E-06	1.2E-06	1.5E-06	1.2E-06	1.2E-06
CHROMIUM	5.51E-07	8.3E-08	7.2E-08	7.7E-08	9.9E-08	8.3E-08	6.1E-08
COBALT	2.27E-10	1.0E-09	3.2E-10	6.1E-10	1.1E-09	8.2E-10	5.5E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		9.6E-06	3.2E-06	7.5E-06	3.0E-06	3.1E-06	4.9E-06

Residential							
BAP EQUIVALENT-HALFND	7.19E-08	1.7E-04	4.3E-05	1.3E-04	2.9E-05	3.5E-05	7.2E-05
N-NITROSO-DI-N-PROPYLAMINE	1.59E-08	6.3E-07	2.5E-07	4.7E-07	2.4E-07	2.4E-07	5.3E-07
AROCLOR-1260	4.95E-09	5.0E-08	4.7E-08	4.7E-08	4.7E-08	3.5E-07	5.2E-08
ARSENIC	2.85E-06	1.0E-05	8.0E-06	9.4E-06	1.1E-05	9.4E-06	9.7E-06
CHROMIUM	7.74E-06	1.2E-06	1.0E-06	1.1E-06	1.4E-06	1.2E-06	8.5E-07
COBALT	1.15E-09	5.3E-09	1.6E-09	3.1E-09	5.7E-09	4.1E-09	2.7E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.8E-04	5.2E-05	1.4E-04	4.2E-05	4.7E-05	8.3E-05

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.3

Location-Specific Cancer Risks - Surface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-116	GSP-SB-117	GSP-SB-118	GSP-SB-119	GSP-SB-120	GSP-SB-121
SAMPLE ID	GSP-SB-116-0-2	GSP-SB-117-0-2	GSP-SB-118-0-2	GSP-SB-119-0-2	GSP-SB-120-0-2	GSP-SB-121-0-3
REC #	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20110603	20110531	20110531	20110531	20110531	20110531
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	3
BAP EQUIVALENT-HALFND	381.72	1496.9	1081.66	836.01	1933.1	1772.7
N-NITROSO-DI-N-PROPYLAMINE	30 U	74 U	62 U	30 UR	78 U	63 UJ
AROCLOR-1260	19 U	19 U	1200	92	1700	2400
ARSENIC	2.8	3.4	2.8	4.2	3.6	4.1
CHROMIUM[(1)]	0.14	0.14	0.13	0.19	0.19	0.18
COBALT	5.9	3.8	3.4	4.4	4.1	3.7
IRON						
MANGANESE						
THALLIUM	0.6 U	0.56 U	0.61 U	0.5 U	0.92 J	0.6 U
VANADIUM	28	27	22	33	22	31

Construction Workers	**Unit Risk**						
BAP EQUIVALENT-HALFND	6.23E-10	2.4E-07	9.3E-07	6.7E-07	5.2E-07	1.2E-06	1.1E-06
N-NITROSO-DI-N-PROPYLAMINE	5.71E-10	8.6E-09	2.1E-08	1.8E-08	0.0E+00	2.2E-08	3.6E-08
AROCLOR-1260	1.74E-10	1.7E-09	1.7E-09	2.1E-07	1.6E-08	3.0E-07	4.2E-07
ARSENIC	1.17E-07	3.3E-07	4.0E-07	3.3E-07	4.9E-07	4.2E-07	4.8E-07
CHROMIUM	2.53E-07	3.5E-08	3.5E-08	3.3E-08	4.8E-08	4.8E-08	4.5E-08
COBALT	2.05E-08	1.2E-07	7.8E-08	7.0E-08	9.0E-08	8.4E-08	7.6E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		7.3E-07	1.5E-06	1.3E-06	1.2E-06	2.1E-06	2.2E-06

Industrial							
BAP EQUIVALENT-HALFND	3.46E-09	1.3E-06	5.2E-06	3.7E-06	2.9E-06	6.7E-06	6.1E-06
N-NITROSO-DI-N-PROPYLAMINE	2.84E-09	4.3E-08	1.0E-07	8.8E-08	0.0E+00	1.1E-07	1.8E-07
AROCLOR-1260	9.95E-10	9.5E-09	9.5E-09	1.2E-06	9.2E-08	1.7E-06	2.4E-06
ARSENIC	3.66E-07	1.0E-06	1.2E-06	1.0E-06	1.5E-06	1.3E-06	1.5E-06
CHROMIUM	5.51E-07	7.7E-08	7.7E-08	7.2E-08	1.0E-07	1.0E-07	9.9E-08
COBALT	2.27E-10	1.3E-09	8.6E-10	7.7E-10	1.0E-09	9.3E-10	8.4E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.5E-06	6.6E-06	6.1E-06	4.6E-06	9.9E-06	1.0E-05

Residential							
BAP EQUIVALENT-HALFND	7.19E-08	2.7E-05	1.1E-04	7.8E-05	6.0E-05	1.4E-04	1.3E-04
N-NITROSO-DI-N-PROPYLAMINE	1.59E-08	2.4E-07	5.9E-07	4.9E-07	0.0E+00	6.2E-07	1.0E-06
AROCLOR-1260	4.95E-09	4.7E-08	4.7E-08	5.9E-06	4.6E-07	8.4E-06	1.2E-05
ARSENIC	2.85E-06	8.0E-06	9.7E-06	8.0E-06	1.2E-05	1.0E-05	1.2E-05
CHROMIUM	7.74E-06	1.1E-06	1.1E-06	1.0E-06	1.5E-06	1.5E-06	1.4E-06
COBALT	1.15E-09	6.8E-09	4.4E-09	3.9E-09	5.0E-09	4.7E-09	4.2E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		3.7E-05	1.2E-04	9.3E-05	7.4E-05	1.6E-04	1.5E-04

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.3

Location-Specific Cancer Risks - Surface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-122	GSP-SB-123	GSP-SB-124	GSP-SB-125	GSP-SB-126	GSP-SB-127
SAMPLE ID	GSP-SB-122-0-2	GSP-SB-123-0-2	GSP-SB-124-0-2	GSP-SB-125-0-2	GSP-SB-126-0-2	GSP-SB-127-0-2
REC #	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20110531	20110606	20110606	20110603	20110606	20110606
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	682.68	324.73	5755.2	739.97	60.645	81.967
N-NITROSO-DI-N-PROPYLAMINE	29 U	30 U	590 U	35 U	30 U	31 U
AROCLOR-1260	3400	640	24 J	22 U	19 U	62
ARSENIC	3.2	3.2	4.1	3.9	4.5	1.9
CHROMIUM[(1)]	0.12	0.14	0.13	0.16	0.11	0.067
COBALT	3.2	2.4	3.8	3.9	1.1	0.88 J
IRON						
MANGANESE						
THALLIUM	0.48 U	0.56 U	0.58 U	0.7 U	0.57 U	0.55 U
VANADIUM	20	21	23	24	16	13

Construction Workers	**Unit Risk**						
BAP EQUIVALENT-HALFND	6.23E-10	4.3E-07	2.0E-07	3.6E-06	4.6E-07	3.8E-08	5.1E-08
N-NITROSO-DI-N-PROPYLAMINE	5.71E-10	8.3E-09	8.6E-09	1.7E-07	1.0E-08	8.6E-09	8.8E-09
AROCLOR-1260	1.74E-10	5.9E-07	1.1E-07	4.2E-09	1.9E-09	1.7E-09	1.1E-08
ARSENIC	1.17E-07	3.7E-07	3.7E-07	4.8E-07	4.5E-07	5.2E-07	2.2E-07
CHROMIUM	2.53E-07	3.0E-08	3.5E-08	3.3E-08	4.0E-08	2.8E-08	1.7E-08
COBALT	2.05E-08	6.6E-08	4.9E-08	7.8E-08	8.0E-08	2.3E-08	1.8E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.5E-06	7.8E-07	4.3E-06	1.0E-06	6.2E-07	3.3E-07

Industrial							
BAP EQUIVALENT-HALFND	3.46E-09	2.4E-06	1.1E-06	2.0E-05	2.6E-06	2.1E-07	2.8E-07
N-NITROSO-DI-N-PROPYLAMINE	2.84E-09	4.1E-08	4.3E-08	8.4E-07	5.0E-08	4.3E-08	4.4E-08
AROCLOR-1260	9.95E-10	3.4E-06	6.4E-07	2.4E-08	1.1E-08	9.5E-09	6.2E-08
ARSENIC	3.66E-07	1.2E-06	1.2E-06	1.5E-06	1.4E-06	1.6E-06	7.0E-07
CHROMIUM	5.51E-07	6.6E-08	7.7E-08	7.2E-08	8.8E-08	6.1E-08	3.7E-08
COBALT	2.27E-10	7.3E-10	5.5E-10	8.6E-10	8.9E-10	2.5E-10	2.0E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		7.0E-06	3.1E-06	2.2E-05	4.1E-06	2.0E-06	1.1E-06

Residential							
BAP EQUIVALENT-HALFND	7.19E-08	4.9E-05	2.3E-05	4.1E-04	5.3E-05	4.4E-06	5.9E-06
N-NITROSO-DI-N-PROPYLAMINE	1.59E-08	2.3E-07	2.4E-07	4.7E-06	2.8E-07	2.4E-07	2.5E-07
AROCLOR-1260	4.95E-09	1.7E-05	3.2E-06	1.2E-07	5.4E-08	4.7E-08	3.1E-07
ARSENIC	2.85E-06	9.1E-06	9.1E-06	1.2E-05	1.1E-05	1.3E-05	5.4E-06
CHROMIUM	7.74E-06	9.3E-07	1.1E-06	1.0E-06	1.2E-06	8.5E-07	5.2E-07
COBALT	1.15E-09	3.7E-09	2.7E-09	4.4E-09	4.5E-09	1.3E-09	1.0E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		7.6E-05	3.7E-05	4.3E-04	6.6E-05	1.8E-05	1.2E-05

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.3

Location-Specific Cancer Risks - Surface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-128	GSP-SB-129	GSP-SB-130
SAMPLE ID	GSP-SB-128-0-2	GSP-SB-129-0-2	GSP-SB-130-0-2
REC #	REC 11	REC 11	REC 11
SAMPLE DATE	20110606	20110531	20110606
SAMPLE CODE	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS
TOP DEPTH	0	0	0
BOTTOM DEPTH	2	2	2
BAP EQUIVALENT-HALFND	438.86	63.815	173.12
N-NITROSO-DI-N-PROPYLAMINE	34 U	31 U	130 U
AROCLOR-1260	30 J	220	56
ARSENIC	3.7	2.6	2.4
CHROMIUM[(1)]	0.11	0.1	0.096
COBALT	0.53 J	2.1	1.7
IRON			
MANGANESE			
THALLIUM	0.68 U	0.55 U	0.61 U
VANADIUM	22	15	18

Construction Workers

	Unit Risk			
BAP EQUIVALENT-HALFND	6.23E-10	2.7E-07	4.0E-08	1.1E-07
N-NITROSO-DI-N-PROPYLAMINE	5.71E-10	9.7E-09	8.8E-09	3.7E-08
AROCLOR-1260	1.74E-10	5.2E-09	3.8E-08	9.7E-09
ARSENIC	1.17E-07	4.3E-07	3.0E-07	2.8E-07
CHROMIUM	2.53E-07	2.8E-08	2.5E-08	2.4E-08
COBALT	2.05E-08	1.1E-08	4.3E-08	3.5E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00
Total		7.6E-07	4.6E-07	4.9E-07

Industrial

BAP EQUIVALENT-HALFND	3.46E-09	1.5E-06	2.2E-07	6.0E-07
N-NITROSO-DI-N-PROPYLAMINE	2.84E-09	4.8E-08	4.4E-08	1.8E-07
AROCLOR-1260	9.95E-10	3.0E-08	2.2E-07	5.6E-08
ARSENIC	3.66E-07	1.4E-06	9.5E-07	8.8E-07
CHROMIUM	5.51E-07	6.1E-08	5.5E-08	5.3E-08
COBALT	2.27E-10	1.2E-10	4.8E-10	3.9E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00
Total		3.0E-06	1.5E-06	1.8E-06

Residential

BAP EQUIVALENT-HALFND	7.19E-08	3.2E-05	4.6E-06	1.2E-05
N-NITROSO-DI-N-PROPYLAMINE	1.59E-08	2.7E-07	2.5E-07	1.0E-06
AROCLOR-1260	4.95E-09	1.5E-07	1.1E-06	2.8E-07
ARSENIC	2.85E-06	1.1E-05	7.4E-06	6.8E-06
CHROMIUM	7.74E-06	8.5E-07	7.7E-07	7.4E-07
COBALT	1.15E-09	6.1E-10	2.4E-09	1.9E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00
Total		4.3E-05	1.4E-05	2.1E-05

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.4

Location-Specific Hazard Indices - Surface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-072	GSP-SB-074	GSP-SB-075	GSP-SB-076	GSP-SB-077	GSP-SB-078
SAMPLE ID	GSP-SB-72-0-2	GSP-SB-74-0-2	GSP-SB-75-0-2	GSP-SB-76-1-3	GSP-SB-77-1-3	GSP-SB-78-0-2
REC #	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20100511	20100511	20100412	20100413	20100414	20100413
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SB	SB	SS
TOP DEPTH	0	0	0	1	1	0
BOTTOM DEPTH	2	2	2	3	3	2
BAP EQUIVALENT-HALFND	302.22	5.7288	486.45	1760.5	96.083	690.3
N-NITROSO-DI-N-PROPYLAMINE	120	33 U	31 U	59 U	30 U	31 U
AROCLOR-1260	21 U	21 U	250	220	1200	12000
ARSENIC	0.98	1.9	3.4	2.5	2.6 J	2.6
CHROMIUM[(1)]	0.034 J	0.043 J	0.112 J	0.099 J	0.134 J	0.095 J
COBALT	0.22 J	0.38 J	2.7	1.5	3.2 J	2.3
IRON	866 J	1390 J	9210	5970	9590 J	9650
MANGANESE	2.5 J	3.3 J	57.8	75.2	113 J	101
THALLIUM	0.016 U	0.016 U	0.082 B	0.056 B	0.083 B	0.058 B
VANADIUM	5.6 J	12 J	18.9 J	17.5 J	20.7	15.5 J

Construction Workers	**Unit Risk**						
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	2.7E-02	5.2E-02	9.3E-02	6.8E-02	7.1E-02	7.1E-02
CHROMIUM	2.02E-03	6.9E-05	8.7E-05	2.3E-04	2.0E-04	2.7E-04	1.9E-04
COBALT	9.58E-03	2.1E-03	3.6E-03	2.6E-02	1.4E-02	3.1E-02	2.2E-02
IRON	6.85E-06	5.9E-03	9.5E-03	6.3E-02	4.1E-02	6.6E-02	6.6E-02
MANGANESE	3.49E-03	8.7E-03	1.2E-02	2.0E-01	2.6E-01	3.9E-01	3.5E-01
THALLIUM	1.20E-01	9.6E-04	9.6E-04	4.9E-03	3.4E-03	5.0E-03	3.5E-03
VANADIUM	9.59E-04	5.4E-03	1.2E-02	1.8E-02	1.7E-02	2.0E-02	1.5E-02
Total		5.0E-02	8.9E-02	4.1E-01	4.1E-01	5.9E-01	5.3E-01

Industrial							
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	2.2E-03	4.3E-03	7.8E-03	5.7E-03	5.9E-03	5.9E-03
CHROMIUM	1.02E-03	3.5E-05	4.4E-05	1.1E-04	1.0E-04	1.4E-04	9.7E-05
COBALT	1.86E-03	4.1E-04	7.1E-04	5.0E-03	2.8E-03	5.9E-03	4.3E-03
IRON	7.91E-07	6.9E-04	1.1E-03	7.3E-03	4.7E-03	7.6E-03	7.6E-03
MANGANESE	8.91E-05	2.2E-04	2.9E-04	5.1E-03	6.7E-03	1.0E-02	9.0E-03
THALLIUM	5.54E-02	4.4E-04	4.4E-04	2.3E-03	1.6E-03	2.3E-03	1.6E-03
VANADIUM	1.11E-04	6.2E-04	1.3E-03	2.1E-03	1.9E-03	2.3E-03	1.7E-03
Total		4.7E-03	8.3E-03	3.0E-02	2.4E-02	3.4E-02	3.0E-02

Residential							
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	4.5E-02	8.8E-02	1.6E-01	1.2E-01	1.2E-01	1.2E-01
CHROMIUM	9.04E-03	3.1E-04	3.9E-04	1.0E-03	8.9E-04	1.2E-03	8.6E-04
COBALT	4.39E-02	9.6E-03	1.7E-02	1.2E-01	6.6E-02	1.4E-01	1.0E-01
IRON	1.88E-05	1.6E-02	2.6E-02	1.7E-01	1.1E-01	1.8E-01	1.8E-01
MANGANESE	9.12E-04	2.3E-03	3.0E-03	5.3E-02	6.9E-02	1.0E-01	9.2E-02
THALLIUM	1.31E+00	1.1E-02	1.1E-02	5.4E-02	3.7E-02	5.5E-02	3.8E-02
VANADIUM	2.63E-03	1.5E-02	3.2E-02	5.0E-02	4.6E-02	5.4E-02	4.1E-02
Total		9.9E-02	1.8E-01	6.1E-01	4.5E-01	6.5E-01	5.7E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.4

Location-Specific Hazard Indices - Surface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-080	GSP-SB-082	GSP-SB-083	GSP-SB-084	GSP-SB-086	GSP-SB-087
SAMPLE ID	GSP-SB-80-0-2	GSP-SB-82-0-2	GSP-SB-83-0-2	GSP-SB-84-0-2	GSP-SB-86-0-2	GSP-SB-87-0-2
REC #	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20100413	20100415	20100415	20100415	20100413	20100414
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	958.94	1254.96	7404.2	1549.5	2552.8	1463
N-NITROSO-DI-N-PROPYLAMINE	31 U	62 U	400 U	76 U	120 U	61 U
AROCLOR-1260	3100	19 U	20 U	19 U	3500	86
ARSENIC	3	4.3	1.5	2.5	2.9	3.5 J
CHROMIUM[(1)]	0.155 J	0.241 K	0.089 K	0.129 K	0.188 J	0.16 J
COBALT	2.7	4.9	1.2	2.3	3.3	10.8 J
IRON	9830	15000	3720	5590	10100	12000 J
MANGANESE	164	49.5	24.3	1050	200	323 J
THALLIUM	0.055 B	0.088 B	0.095 B	0.075 B	0.05 B	0.065 B
VANADIUM	22 J	54.2	15	21	19.7 J	26.5

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	8.2E-02	1.2E-01	4.1E-02	6.8E-02	7.9E-02	9.5E-02
CHROMIUM	2.02E-03	3.1E-04	4.9E-04	1.8E-04	2.6E-04	3.8E-04	3.2E-04
COBALT	9.58E-03	2.6E-02	4.7E-02	1.1E-02	2.2E-02	3.2E-02	1.0E-01
IRON	6.85E-06	6.7E-02	1.0E-01	2.5E-02	3.8E-02	6.9E-02	8.2E-02
MANGANESE	3.49E-03	5.7E-01	1.7E-01	8.5E-02	3.7E+00	7.0E-01	1.1E+00
THALLIUM	1.20E-01	3.3E-03	5.3E-03	5.7E-03	4.5E-03	3.0E-03	3.9E-03
VANADIUM	9.59E-04	2.1E-02	5.2E-02	1.4E-02	2.0E-02	1.9E-02	2.5E-02
Total		7.7E-01	5.0E-01	1.8E-01	3.8E+00	9.0E-01	1.4E+00

Industrial

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	6.8E-03	9.8E-03	3.4E-03	5.7E-03	6.6E-03	8.0E-03
CHROMIUM	1.02E-03	1.6E-04	2.5E-04	9.1E-05	1.3E-04	1.9E-04	1.6E-04
COBALT	1.86E-03	5.0E-03	9.1E-03	2.2E-03	4.3E-03	6.1E-03	2.0E-02
IRON	7.91E-07	7.8E-03	1.2E-02	2.9E-03	4.4E-03	8.0E-03	9.5E-03
MANGANESE	8.91E-05	1.5E-02	4.4E-03	2.2E-03	9.4E-02	1.8E-02	2.9E-02
THALLIUM	5.54E-02	1.5E-03	2.4E-03	2.6E-03	2.1E-03	1.4E-03	1.8E-03
VANADIUM	1.11E-04	2.4E-03	6.0E-03	1.7E-03	2.3E-03	2.2E-03	2.9E-03
Total		3.8E-02	4.4E-02	1.5E-02	1.1E-01	4.2E-02	7.1E-02

Residential

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	1.4E-01	2.0E-01	6.9E-02	1.2E-01	1.3E-01	1.6E-01
CHROMIUM	9.04E-03	1.4E-03	2.2E-03	8.0E-04	1.2E-03	1.7E-03	1.4E-03
COBALT	4.39E-02	1.2E-01	2.1E-01	5.3E-02	1.0E-01	1.4E-01	4.7E-01
IRON	1.88E-05	1.8E-01	2.8E-01	7.0E-02	1.0E-01	1.9E-01	2.3E-01
MANGANESE	9.12E-04	1.5E-01	4.5E-02	2.2E-02	9.6E-01	1.8E-01	2.9E-01
THALLIUM	1.31E+00	3.6E-02	5.8E-02	6.2E-02	4.9E-02	3.3E-02	4.3E-02
VANADIUM	2.63E-03	5.8E-02	1.4E-01	3.9E-02	5.5E-02	5.2E-02	7.0E-02
Total		6.9E-01	9.4E-01	3.2E-01	1.4E+00	7.4E-01	1.3E+00

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.4

Location-Specific Hazard Indices - Surface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-090	GSP-SB-111	GSP-SB-112	GSP-SB-113	GSP-SB-114	GSP-SB-115
SAMPLE ID	GSP-SB-90-0-2	GSP-SB-111-0-2	GSP-SB-112-0-2	GSP-SB-113-0-2	GSP-SB-114-0-2	GSP-SB-115-0-2
REC #	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20100415	20110603	20110603	20110601	20110601	20110531
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	2345.9	592.62	1777.3	404.64	492.7	999.79
N-NITROSO-DI-N-PROPYLAMINE	79 U	31 U	59 U	30 U	30 U	67 U
AROCLOR-1260	20 U	19 U	19 U	19 U	70	21 U
ARSENIC	3.5	2.8	3.3	4	3.3	3.4
CHROMIUM[(1)]	0.15 K	0.13	0.14	0.18	0.15	0.11
COBALT	4.6	1.4	2.7	5	3.6	2.4
IRON	14200					
MANGANESE	110					
THALLIUM	0.081 B	0.7 B	0.65 B	0.56 U	0.58 U	0.6 U
VANADIUM	26.6	22	25	29	25	20

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	9.5E-02	7.6E-02	9.0E-02	1.1E-01	9.0E-02	9.3E-02
CHROMIUM	2.02E-03	3.0E-04	2.6E-04	2.8E-04	3.6E-04	3.0E-04	2.2E-04
COBALT	9.58E-03	4.4E-02	1.3E-02	2.6E-02	4.8E-02	3.4E-02	2.3E-02
IRON	6.85E-06	9.7E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	3.8E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	4.9E-03	4.2E-02	3.9E-02	3.4E-02	3.5E-02	3.6E-02
VANADIUM	9.59E-04	2.5E-02	2.1E-02	2.4E-02	2.8E-02	2.4E-02	1.9E-02
Total		6.5E-01	1.5E-01	1.8E-01	2.2E-01	1.8E-01	1.7E-01

Industrial

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	8.0E-03	6.4E-03	7.5E-03	9.1E-03	7.5E-03	7.8E-03
CHROMIUM	1.02E-03	1.5E-04	1.3E-04	1.4E-04	1.8E-04	1.5E-04	1.1E-04
COBALT	1.86E-03	8.5E-03	2.6E-03	5.0E-03	9.3E-03	6.7E-03	4.5E-03
IRON	7.91E-07	1.1E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	9.8E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	2.2E-03	1.9E-02	1.8E-02	1.6E-02	1.6E-02	1.7E-02
VANADIUM	1.11E-04	2.9E-03	2.4E-03	2.8E-03	3.2E-03	2.8E-03	2.2E-03
Total		4.3E-02	3.1E-02	3.3E-02	3.7E-02	3.3E-02	3.1E-02

Residential

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	1.6E-01	1.3E-01	1.5E-01	1.8E-01	1.5E-01	1.6E-01
CHROMIUM	9.04E-03	1.4E-03	1.2E-03	1.3E-03	1.6E-03	1.4E-03	9.9E-04
COBALT	4.39E-02	2.0E-01	6.1E-02	1.2E-01	2.2E-01	1.6E-01	1.1E-01
IRON	1.88E-05	2.7E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	1.0E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	5.3E-02	4.6E-01	4.3E-01	3.7E-01	3.8E-01	3.9E-01
VANADIUM	2.63E-03	7.0E-02	5.8E-02	6.6E-02	7.6E-02	6.6E-02	5.3E-02
Total		8.5E-01	7.1E-01	7.7E-01	8.5E-01	7.6E-01	7.1E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.4

Location-Specific Hazard Indices - Surface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-116	GSP-SB-117	GSP-SB-118	GSP-SB-119	GSP-SB-120	GSP-SB-121
SAMPLE ID	GSP-SB-116-0-2	GSP-SB-117-0-2	GSP-SB-118-0-2	GSP-SB-119-0-2	GSP-SB-120-0-2	GSP-SB-121-0-3
REC #	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20110603	20110531	20110531	20110531	20110531	20110531
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	3
BAP EQUIVALENT-HALFND	381.72	1496.9	1081.66	836.01	1933.1	1772.7
N-NITROSO-DI-N-PROPYLAMINE	30 U	74 U	62 U	30 UR	78 U	63 UJ
AROCLOR-1260	19 U	19 U	1200	92	1700	2400
ARSENIC	2.8	3.4	2.8	4.2	3.6	4.1
CHROMIUM[(1)]	0.14	0.14	0.13	0.19	0.19	0.18
COBALT	5.9	3.8	3.4	4.4	4.1	3.7
IRON						
MANGANESE						
THALLIUM	0.6 U	0.56 U	0.61 U	0.5 U	0.92 J	0.6 U
VANADIUM	28	27	22	33	22	31

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	7.6E-02	9.3E-02	7.6E-02	1.1E-01	9.8E-02	1.1E-01
CHROMIUM	2.02E-03	2.8E-04	2.8E-04	2.6E-04	3.8E-04	3.8E-04	3.6E-04
COBALT	9.58E-03	5.7E-02	3.6E-02	3.3E-02	4.2E-02	3.9E-02	3.5E-02
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	3.6E-02	3.4E-02	3.7E-02	3.0E-02	1.1E-01	3.6E-02
VANADIUM	9.59E-04	2.7E-02	2.6E-02	2.1E-02	3.2E-02	2.1E-02	3.0E-02
Total		2.0E-01	1.9E-01	1.7E-01	2.2E-01	2.7E-01	2.1E-01

Industrial

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	6.4E-03	7.8E-03	6.4E-03	9.6E-03	8.2E-03	9.4E-03
CHROMIUM	1.02E-03	1.4E-04	1.4E-04	1.3E-04	1.9E-04	1.9E-04	1.8E-04
COBALT	1.86E-03	1.1E-02	7.1E-03	6.3E-03	8.2E-03	7.6E-03	6.9E-03
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	1.7E-02	1.6E-02	1.7E-02	1.4E-02	5.1E-02	1.7E-02
VANADIUM	1.11E-04	3.1E-03	3.0E-03	2.4E-03	3.7E-03	2.4E-03	3.4E-03
Total		3.7E-02	3.3E-02	3.2E-02	3.5E-02	6.9E-02	3.6E-02

Residential

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	1.3E-01	1.6E-01	1.3E-01	1.9E-01	1.7E-01	1.9E-01
CHROMIUM	9.04E-03	1.3E-03	1.3E-03	1.2E-03	1.7E-03	1.7E-03	1.6E-03
COBALT	4.39E-02	2.6E-01	1.7E-01	1.5E-01	1.9E-01	1.8E-01	1.6E-01
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	3.9E-01	3.7E-01	4.0E-01	3.3E-01	1.2E+00	3.9E-01
VANADIUM	2.63E-03	7.4E-02	7.1E-02	5.8E-02	8.7E-02	5.8E-02	8.1E-02
Total		8.6E-01	7.6E-01	7.4E-01	8.0E-01	1.6E+00	8.3E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.4

Location-Specific Hazard Indices - Surface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-122	GSP-SB-123	GSP-SB-124	GSP-SB-125	GSP-SB-126	GSP-SB-127
SAMPLE ID	GSP-SB-122-0-2	GSP-SB-123-0-2	GSP-SB-124-0-2	GSP-SB-125-0-2	GSP-SB-126-0-2	GSP-SB-127-0-2
REC #	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20110531	20110606	20110606	20110603	20110606	20110606
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS	SS	SS	SS
TOP DEPTH	0	0	0	0	0	0
BOTTOM DEPTH	2	2	2	2	2	2
BAP EQUIVALENT-HALFND	682.68	324.73	5755.2	739.97	60.645	81.967
N-NITROSO-DI-N-PROPYLAMINE	29 U	30 U	590 U	35 U	30 U	31 U
AROCLOR-1260	3400	640	24 J	22 U	19 U	62
ARSENIC	3.2	3.2	4.1	3.9	4.5	1.9
CHROMIUM[(1)]	0.12	0.14	0.13	0.16	0.11	0.067
COBALT	3.2	2.4	3.8	3.9	1.1	0.88 J
IRON						
MANGANESE						
THALLIUM	0.48 U	0.56 U	0.58 U	0.7 U	0.57 U	0.55 U
VANADIUM	20	21	23	24	16	13

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	8.7E-02	8.7E-02	1.1E-01	1.1E-01	1.2E-01	5.2E-02
CHROMIUM	2.02E-03	2.4E-04	2.8E-04	2.6E-04	3.2E-04	2.2E-04	1.4E-04
COBALT	9.58E-03	3.1E-02	2.3E-02	3.6E-02	3.7E-02	1.1E-02	8.4E-03
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	2.9E-02	3.4E-02	3.5E-02	4.2E-02	3.4E-02	3.3E-02
VANADIUM	9.59E-04	1.9E-02	2.0E-02	2.2E-02	2.3E-02	1.5E-02	1.2E-02
Total		1.7E-01	1.6E-01	2.1E-01	2.1E-01	1.8E-01	1.1E-01

Industrial

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	7.3E-03	7.3E-03	9.4E-03	8.9E-03	1.0E-02	4.3E-03
CHROMIUM	1.02E-03	1.2E-04	1.4E-04	1.3E-04	1.6E-04	1.1E-04	6.9E-05
COBALT	1.86E-03	5.9E-03	4.5E-03	7.1E-03	7.2E-03	2.0E-03	1.6E-03
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	1.3E-02	1.6E-02	1.6E-02	1.9E-02	1.6E-02	1.5E-02
VANADIUM	1.11E-04	2.2E-03	2.3E-03	2.5E-03	2.7E-03	1.8E-03	1.4E-03
Total		2.9E-02	3.0E-02	3.5E-02	3.8E-02	3.0E-02	2.3E-02

Residential

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	1.5E-01	1.5E-01	1.9E-01	1.8E-01	2.1E-01	8.8E-02
CHROMIUM	9.04E-03	1.1E-03	1.3E-03	1.2E-03	1.4E-03	9.9E-04	6.1E-04
COBALT	4.39E-02	1.4E-01	1.1E-01	1.7E-01	1.7E-01	4.8E-02	3.9E-02
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	3.2E-01	3.7E-01	3.8E-01	4.6E-01	3.7E-01	3.6E-01
VANADIUM	2.63E-03	5.3E-02	5.5E-02	6.0E-02	6.3E-02	4.2E-02	3.4E-02
Total		6.6E-01	6.8E-01	8.0E-01	8.8E-01	6.7E-01	5.2E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.4

Location-Specific Hazard Indices - Surface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-128	GSP-SB-129	GSP-SB-130
SAMPLE ID	GSP-SB-128-0-2	GSP-SB-129-0-2	GSP-SB-130-0-2
REC #	REC 11	REC 11	REC 11
SAMPLE DATE	20110606	20110531	20110606
SAMPLE CODE	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL
SUBMATRIX	SS	SS	SS
TOP DEPTH	0	0	0
BOTTOM DEPTH	2	2	2
BAP EQUIVALENT-HALFND	438.86	63.815	173.12
N-NITROSO-DI-N-PROPYLAMINE	34 U	31 U	130 U
AROCLOR-1260	30 J	220	56
ARSENIC	3.7	2.6	2.4
CHROMIUM[(1)]	0.11	0.1	0.096
COBALT	0.53 J	2.1	1.7
IRON			
MANGANESE			
THALLIUM	0.68 U	0.55 U	0.61 U
VANADIUM	22	15	18

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	1.0E-01	7.1E-02	6.5E-02
CHROMIUM	2.02E-03	2.2E-04	2.0E-04	1.9E-04
COBALT	9.58E-03	5.1E-03	2.0E-02	1.6E-02
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	4.1E-02	3.3E-02	3.7E-02
VANADIUM	9.59E-04	2.1E-02	1.4E-02	1.7E-02
Total		1.7E-01	1.4E-01	1.4E-01

Industrial

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	8.4E-03	5.9E-03	5.5E-03
CHROMIUM	1.02E-03	1.1E-04	1.0E-04	9.8E-05
COBALT	1.86E-03	9.8E-04	3.9E-03	3.2E-03
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	1.9E-02	1.5E-02	1.7E-02
VANADIUM	1.11E-04	2.4E-03	1.7E-03	2.0E-03
Total		3.1E-02	2.7E-02	2.8E-02

Residential

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00
N-NITROSO-DI-N-PROPYLAMINE	0.00E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	1.7E-01	1.2E-01	1.1E-01
CHROMIUM	9.04E-03	9.9E-04	9.0E-04	8.7E-04
COBALT	4.39E-02	2.3E-02	9.2E-02	7.5E-02
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	4.5E-01	3.6E-01	4.0E-01
VANADIUM	2.63E-03	5.8E-02	3.9E-02	4.7E-02
Total		7.0E-01	6.1E-01	6.3E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.5

Location-Specific Cancer Risks - Subsurface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-056	GSP-SB-091	GSP-SB-093	GSP-SB-094	GSP-SB-095	GSP-SB-096
SAMPLE ID	GSP-SB-56-10-12	GSP-SB-91-8-10	GSP-SB-93-12-14	GSP-SB-94-6-8	GSP-SB-95-6-8	GSP-SB-96-6-8
REC	REC 9	REC 8/9	REC 9	REC 9	REC 9	REC 9
SAMPLE DATE	20100429	20110601	20110601	20110601	20110601	20110601
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	10	8	12	6	6	6
BOTTOM DEPTH	12	10	14	8	8	8
NAPHTHALENE	0.23 U	0.17 U	25 B	0.19 U	0.21 U	0.17 U
BAP EQUIVALENT-HALFND	3.9 U	3.9 U	3.9 U	4.1 U	3.8 U	3.6 U
AROCLOR-1260	20 U	20 U	20 U	21 U	20 U	18 U
ARSENIC	1.1	6.8	0.85	0.34 U	6.4	1
CHROMIUM[(1)]	0.049	0.39	0.059	0.014	0.18	0.02
COBALT	0.11	0.47	0.15 U	0.23	0.37	0.19
IRON	1020					
MANGANESE	2					
THALLIUM	0.016 U	0.64 U	0.53 U	0.62 U	0.62 U	0.56 U
VANADIUM	6.1	93	6.6	1.3	25	4.3

Construction Workers	**Unit Risk**						
NAPHTHALENE	1.08E-11	1.2E-12	9.2E-13	1.4E-10	1.0E-12	1.1E-12	9.2E-13
BAP EQUIVALENT-HALFND	6.23E-10	1.2E-09	1.2E-09	1.2E-09	1.3E-09	1.2E-09	1.1E-09
AROCLOR-1260	1.74E-10	1.7E-09	1.7E-09	1.7E-09	1.8E-09	1.7E-09	1.6E-09
ARSENIC	1.17E-07	1.3E-07	7.9E-07	9.9E-08	2.0E-08	7.5E-07	1.2E-07
CHROMIUM	2.53E-07	1.2E-08	9.9E-08	1.5E-08	3.5E-09	4.5E-08	5.1E-09
COBALT	2.05E-08	2.3E-09	9.6E-09	1.5E-09	4.7E-09	7.6E-09	3.9E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.5E-07	9.0E-07	1.2E-07	3.1E-08	8.0E-07	1.3E-07
Industrial Workers							
NAPHTHALENE	4.35E-11	5.0E-12	3.7E-12	5.4E-10	4.1E-12	4.6E-12	3.7E-12
BAP EQUIVALENT-HALFND	3.46E-09	6.8E-09	6.8E-09	6.8E-09	7.1E-09	6.6E-09	6.2E-09
AROCLOR-1260	9.95E-10	1.0E-08	1.0E-08	1.0E-08	1.0E-08	1.0E-08	9.0E-09
ARSENIC	3.66E-07	4.0E-07	2.5E-06	3.1E-07	6.2E-08	2.3E-06	3.7E-07
CHROMIUM	5.51E-07	2.7E-08	2.1E-07	3.2E-08	7.7E-09	9.9E-08	1.1E-08
COBALT	2.27E-10	2.5E-11	1.1E-10	1.7E-11	5.2E-11	8.4E-11	4.3E-11
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		4.5E-07	2.7E-06	3.6E-07	8.8E-08	2.5E-06	3.9E-07
Residents							
NAPHTHALENE	2.19E-10	2.5E-11	1.9E-11	2.7E-09	2.1E-11	2.3E-11	1.9E-11
BAP EQUIVALENT-HALFND	7.19E-08	1.4E-07	1.4E-07	1.4E-07	1.5E-07	1.4E-07	1.3E-07
AROCLOR-1260	4.95E-09	5.0E-08	5.0E-08	5.0E-08	5.2E-08	5.0E-08	4.5E-08
ARSENIC	2.85E-06	3.1E-06	1.9E-05	2.4E-06	4.8E-07	1.8E-05	2.8E-06
CHROMIUM	7.74E-06	3.8E-07	3.0E-06	4.6E-07	1.1E-07	1.4E-06	1.5E-07
COBALT	1.15E-09	1.3E-10	5.4E-10	8.6E-11	2.6E-10	4.2E-10	2.2E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		3.7E-06	2.3E-05	3.1E-06	7.9E-07	2.0E-05	3.2E-06

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.5

Location-Specific Cancer Risks - Subsurface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-097	GSP-SB-098	GSP-SB-099	GSP-SB-100		GSP-SB-101
SAMPLE ID	GSP-SB-97-6-8	GSP-SB-98-6-8	GSP-SB-99-6-8	GSP-SB-100-2-4	GSP-SB-100-6-8	GSP-SB-101-6-8
REC	REC 9	REC 9	REC 9	REC 9	REC 9	REC 10
SAMPLE DATE	20110601	20110601	20110602	20110602	20110602	20110602
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	6	6	6	2	6	6
BOTTOM DEPTH	8	8	8	4	8	8
NAPHTHALENE	0.17 U	0.11 U	0.19 U	0.17 U	0.36 B	0.18 U
BAP EQUIVALENT-HALFND	3.8 U	3.8 U	4.1 U	3.8 U	3.7 U	3.8 U
AROCLOR-1260	20 U	20 UL	21 U	19 U	19 U	20 U
ARSENIC	3	1.7	2.2	1.7	1.7	1.2
CHROMIUM[(1)]	0.051	0.05	0.038	0.072	0.033	0.04
COBALT	0.43	0.29	0.69	0.17	0.17 U	0.99
IRON						
MANGANESE						
THALLIUM	0.55 U	0.61 U	0.65 U	0.58 U	0.57 U	0.46 U
VANADIUM	8.9	9.5	9.7	10	4.8	8.9

Construction Workers

	Unit Risk						
NAPHTHALENE	1.08E-11	9.2E-13	6.0E-13	1.0E-12	9.2E-13	2.0E-12	9.8E-13
BAP EQUIVALENT-HALFND	6.23E-10	1.2E-09	1.2E-09	1.3E-09	1.2E-09	1.2E-09	1.2E-09
AROCLOR-1260	1.74E-10	1.7E-09	3.5E-09	1.8E-09	1.7E-09	1.7E-09	1.7E-09
ARSENIC	1.17E-07	3.5E-07	2.0E-07	2.6E-07	2.0E-07	2.0E-07	1.4E-07
CHROMIUM	2.53E-07	1.3E-08	1.3E-08	9.6E-09	1.8E-08	8.3E-09	1.0E-08
COBALT	2.05E-08	8.8E-09	6.0E-09	1.4E-08	3.5E-09	1.7E-09	2.0E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		3.7E-07	2.2E-07	2.8E-07	2.2E-07	2.1E-07	1.7E-07

Industrial Workers

NAPHTHALENE	4.35E-11	3.7E-12	2.4E-12	4.1E-12	3.7E-12	7.8E-12	3.9E-12
BAP EQUIVALENT-HALFND	3.46E-09	6.6E-09	6.6E-09	7.1E-09	6.6E-09	6.4E-09	6.6E-09
AROCLOR-1260	9.95E-10	1.0E-08	2.0E-08	1.0E-08	9.5E-09	9.5E-09	1.0E-08
ARSENIC	3.66E-07	1.1E-06	6.2E-07	8.1E-07	6.2E-07	6.2E-07	4.4E-07
CHROMIUM	5.51E-07	2.8E-08	2.8E-08	2.1E-08	4.0E-08	1.8E-08	2.2E-08
COBALT	2.27E-10	9.8E-11	6.6E-11	1.6E-10	3.9E-11	1.9E-11	2.2E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.1E-06	6.8E-07	8.4E-07	6.8E-07	6.6E-07	4.8E-07

Residents

NAPHTHALENE	2.19E-10	1.9E-11	1.2E-11	2.1E-11	1.9E-11	3.9E-11	2.0E-11
BAP EQUIVALENT-HALFND	7.19E-08	1.4E-07	1.4E-07	1.5E-07	1.4E-07	1.3E-07	1.4E-07
AROCLOR-1260	4.95E-09	5.0E-08	9.9E-08	5.2E-08	4.7E-08	4.7E-08	5.0E-08
ARSENIC	2.85E-06	8.5E-06	4.8E-06	6.3E-06	4.8E-06	4.8E-06	3.4E-06
CHROMIUM	7.74E-06	3.9E-07	3.9E-07	2.9E-07	5.6E-07	2.6E-07	3.1E-07
COBALT	1.15E-09	4.9E-10	3.3E-10	7.9E-10	1.9E-10	9.7E-11	1.1E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		9.1E-06	5.5E-06	6.8E-06	5.6E-06	5.3E-06	3.9E-06

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.5

Location-Specific Cancer Risks - Subsurface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-102	GSP-SB-103	GSP-SB-104	GSP-SB-105	GSP-SB-106	GSP-SB-107
SAMPLE ID	GSP-SB-102-6-8	GSP-SB-103-6-8	GSP-SB-104-6-8	GSP-SB-105-6-8	GSP-SB-106-6-8	GSP-SB-107-6-8
REC	REC 10	REC 10	REC 10	REC 10	REC 10	REC 10
SAMPLE DATE	20110602	20110602	20110601	20110602	20110601	20110602
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	6	6	6	6	6	6
BOTTOM DEPTH	8	8	8	8	8	8
NAPHTHALENE	0.26 B	0.18 U	0.18 U	0.16 U	0.14 U	0.18 U
BAP EQUIVALENT-HALFND	3339.5	3.7 U	4.2 U	10.0241	4 U	3.9 U
AROCLOR-1260	18 U	19 U	22 U	19 U	21 U	20 U
ARSENIC	5.2	1.7	2.5	4.1	4.1	1.5
CHROMIUM[(1)]	0.16	0.09	0.067	0.27	0.11	0.058
COBALT	5.7	0.97	0.81	0.78	2.7	1
IRON						
MANGANESE						
THALLIUM	0.51 U	0.56 U	0.63 U	0.6 U	0.6 U	0.57 U
VANADIUM	29	11	17	49	26	9.8

Construction Workers

	Unit Risk						
NAPHTHALENE	1.08E-11	1.4E-12	9.8E-13	9.8E-13	8.7E-13	7.6E-13	9.8E-13
BAP EQUIVALENT-HALFND	6.23E-10	2.1E-06	1.2E-09	1.3E-09	6.2E-09	1.2E-09	1.2E-09
AROCLOR-1260	1.74E-10	1.6E-09	1.7E-09	1.9E-09	1.7E-09	1.8E-09	1.7E-09
ARSENIC	1.17E-07	6.1E-07	2.0E-07	2.9E-07	4.8E-07	4.8E-07	1.7E-07
CHROMIUM	2.53E-07	4.0E-08	2.3E-08	1.7E-08	6.8E-08	2.8E-08	1.5E-08
COBALT	2.05E-08	1.2E-07	2.0E-08	1.7E-08	1.6E-08	5.5E-08	2.1E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.8E-06	2.4E-07	3.3E-07	5.7E-07	5.6E-07	2.1E-07

Industrial Workers

NAPHTHALENE	4.35E-11	5.7E-12	3.9E-12	3.9E-12	3.5E-12	3.0E-12	3.9E-12
BAP EQUIVALENT-HALFND	3.46E-09	1.2E-05	6.4E-09	7.3E-09	3.5E-08	6.9E-09	6.8E-09
AROCLOR-1260	9.95E-10	9.0E-09	9.5E-09	1.1E-08	9.5E-09	1.0E-08	1.0E-08
ARSENIC	3.66E-07	1.9E-06	6.2E-07	9.1E-07	1.5E-06	1.5E-06	5.5E-07
CHROMIUM	5.51E-07	8.8E-08	5.0E-08	3.7E-08	1.5E-07	6.1E-08	3.2E-08
COBALT	2.27E-10	1.3E-09	2.2E-10	1.8E-10	1.8E-10	6.1E-10	2.3E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.4E-05	6.9E-07	9.7E-07	1.7E-06	1.6E-06	6.0E-07

Residents

NAPHTHALENE	2.19E-10	2.8E-11	2.0E-11	2.0E-11	1.8E-11	1.5E-11	2.0E-11
BAP EQUIVALENT-HALFND	7.19E-08	2.4E-04	1.3E-07	1.5E-07	7.2E-07	1.4E-07	1.4E-07
AROCLOR-1260	4.95E-09	4.5E-08	4.7E-08	5.4E-08	4.7E-08	5.2E-08	5.0E-08
ARSENIC	2.85E-06	1.5E-05	4.8E-06	7.1E-06	1.2E-05	1.2E-05	4.3E-06
CHROMIUM	7.74E-06	1.2E-06	7.0E-07	5.2E-07	2.1E-06	8.5E-07	4.5E-07
COBALT	1.15E-09	6.5E-09	1.1E-09	9.3E-10	8.9E-10	3.1E-09	1.1E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.6E-04	5.7E-06	7.8E-06	1.5E-05	1.3E-05	4.9E-06

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.5

Location-Specific Cancer Risks - Subsurface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-108	GSP-SB-109	GSP-SB-110	GSP-TP-01	GSP-TP-02	GSP-TP-03
SAMPLE ID	GSP-SB-108-6-8	GSP-SB-109-6-8	GSP-SB-110-6-8	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7
REC	REC 10	REC 10	REC 10	REC 10	REC 10	REC 10
SAMPLE DATE	20110602	20110602	20110602	20110607	20110607	20110608
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	6	6	6	10	10	5
BOTTOM DEPTH	8	8	8	12	12	7
NAPHTHALENE	0.16 U	0.18 U	0.25 B	0.17 U	0.17 U	0.17 U
BAP EQUIVALENT-HALFND	27.61	20027	499.46	3.8 U	3.9 U	3.6 U
AROCLOR-1260	20 U	64	18 U	20 U	20 U	19 U
ARSENIC	5.4	4	2.6	0.4	0.52	1.9
CHROMIUM[1]	0.32	0.15	0.14	0.069	0.2	0.056
COBALT	8.2	7.4	4	3.1	2.6	0.21
IRON						
MANGANESE						
THALLIUM	0.63 U	0.67	1.5	0.64 UL	0.6 UL	0.6 U
VANADIUM	59	26	26	7.1	15	12

Construction Workers **Unit Risk**

NAPHTHALENE	1.08E-11	8.7E-13	9.8E-13	1.4E-12	9.2E-13	9.2E-13	9.2E-13
BAP EQUIVALENT-HALFND	6.23E-10	1.7E-08	1.2E-05	3.1E-07	1.2E-09	1.2E-09	1.1E-09
AROCLOR-1260	1.74E-10	1.7E-09	1.1E-08	1.6E-09	1.7E-09	1.7E-09	1.7E-09
ARSENIC	1.17E-07	6.3E-07	4.7E-07	3.0E-07	4.7E-08	6.1E-08	2.2E-07
CHROMIUM	2.53E-07	8.1E-08	3.8E-08	3.5E-08	1.7E-08	5.1E-08	1.4E-08
COBALT	2.05E-08	1.7E-07	1.5E-07	8.2E-08	6.4E-08	5.3E-08	4.3E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		9.0E-07	1.3E-05	7.3E-07	1.3E-07	1.7E-07	2.4E-07

Industrial Workers

NAPHTHALENE	4.35E-11	3.5E-12	3.9E-12	5.4E-12	3.7E-12	3.7E-12	3.7E-12
BAP EQUIVALENT-HALFND	3.46E-09	9.6E-08	6.9E-05	1.7E-06	6.6E-09	6.8E-09	6.2E-09
AROCLOR-1260	9.95E-10	1.0E-08	6.4E-08	9.0E-09	1.0E-08	1.0E-08	9.5E-09
ARSENIC	3.66E-07	2.0E-06	1.5E-06	9.5E-07	1.5E-07	1.9E-07	7.0E-07
CHROMIUM	5.51E-07	1.8E-07	8.3E-08	7.7E-08	3.8E-08	1.1E-07	3.1E-08
COBALT	2.27E-10	1.9E-09	1.7E-09	9.1E-10	7.0E-10	5.9E-10	4.8E-11
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.3E-06	7.1E-05	2.8E-06	2.0E-07	3.2E-07	7.4E-07

Residents

NAPHTHALENE	2.19E-10	1.8E-11	2.0E-11	2.7E-11	1.9E-11	1.9E-11	1.9E-11
BAP EQUIVALENT-HALFND	7.19E-08	2.0E-06	1.4E-03	3.6E-05	1.4E-07	1.4E-07	1.3E-07
AROCLOR-1260	4.95E-09	5.0E-08	3.2E-07	4.5E-08	5.0E-08	5.0E-08	4.7E-08
ARSENIC	2.85E-06	1.5E-05	1.1E-05	7.4E-06	1.1E-06	1.5E-06	5.4E-06
CHROMIUM	7.74E-06	2.5E-06	1.2E-06	1.1E-06	5.3E-07	1.5E-06	4.3E-07
COBALT	1.15E-09	9.4E-09	8.5E-09	4.6E-09	3.5E-09	3.0E-09	2.4E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.0E-05	1.5E-03	4.4E-05	1.9E-06	3.2E-06	6.0E-06

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.5

Location-Specific Cancer Risks - Subsurface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-TP-04	GSP-TP-05		GSP-TP-06	GSP-TP-07	GSP-TP-08
SAMPLE ID	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6	GSP-TP-7-9-10	GSP-TP-8-6-7
REC	REC 10	REC 10	REC 10	REC 9	REC 9	REC 9
SAMPLE DATE	20110608	20110608	20110608	20110609	20110609	20110608
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	3	10	10	4	9	6
BOTTOM DEPTH	5	12	12	6	10	7
NAPHTHALENE	0.22 B	42000	8600	21	0.19 U	1.8 B
BAP EQUIVALENT-HALFND	2131.8	2389	2686.9	686.72	4.1 U	4.94065
AROCLOR-1260	100 U	20 U	20 U	19 U	21 U	20 U
ARSENIC	3.1	1.5	3.1	2.6	0.5	2.2
CHROMIUM[(1)]	0.15	0.28	0.23	0.09	0.062	0.032
COBALT	3.4	7.3	8.8	2.8	0.2 U	0.27
IRON						
MANGANESE						
THALLIUM	0.92	1.3	1.1	0.69	0.69 U	0.65 U
VANADIUM	27	34	36	18	3.3	5.1

Construction Workers

	Unit Risk						
NAPHTHALENE	1.08E-11	1.2E-12	4.6E-07	9.3E-08	2.3E-10	1.0E-12	9.8E-12
BAP EQUIVALENT-HALFND	6.23E-10	1.3E-06	1.5E-06	1.7E-06	4.3E-07	1.3E-09	3.1E-09
AROCLOR-1260	1.74E-10	8.7E-09	1.7E-09	1.7E-09	1.7E-09	1.8E-09	1.7E-09
ARSENIC	1.17E-07	3.6E-07	1.7E-07	3.6E-07	3.0E-07	5.8E-08	2.6E-07
CHROMIUM	2.53E-07	3.8E-08	7.1E-08	5.8E-08	2.3E-08	1.6E-08	8.1E-09
COBALT	2.05E-08	7.0E-08	1.5E-07	1.8E-07	5.7E-08	2.1E-09	5.5E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.8E-06	2.3E-06	2.4E-06	8.1E-07	7.9E-08	2.8E-07

Industrial Workers

NAPHTHALENE	4.35E-11	4.8E-12	1.8E-06	3.7E-07	9.1E-10	4.1E-12	3.9E-11
BAP EQUIVALENT-HALFND	3.46E-09	7.4E-06	8.3E-06	9.3E-06	2.4E-06	7.1E-09	1.7E-08
AROCLOR-1260	9.95E-10	5.0E-08	1.0E-08	1.0E-08	9.5E-09	1.0E-08	1.0E-08
ARSENIC	3.66E-07	1.1E-06	5.5E-07	1.1E-06	9.5E-07	1.8E-07	8.1E-07
CHROMIUM	5.51E-07	8.3E-08	1.5E-07	1.3E-07	5.0E-08	3.4E-08	1.8E-08
COBALT	2.27E-10	7.7E-10	1.7E-09	2.0E-09	6.4E-10	2.3E-11	6.1E-11
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		8.7E-06	1.1E-05	1.1E-05	3.4E-06	2.3E-07	8.5E-07

Residents

NAPHTHALENE	2.19E-10	2.4E-11	9.2E-06	1.9E-06	4.6E-09	2.1E-11	2.0E-10
BAP EQUIVALENT-HALFND	7.19E-08	1.5E-04	1.7E-04	1.9E-04	4.9E-05	1.5E-07	3.6E-07
AROCLOR-1260	4.95E-09	2.5E-07	5.0E-08	5.0E-08	4.7E-08	5.2E-08	5.0E-08
ARSENIC	2.85E-06	8.8E-06	4.3E-06	8.8E-06	7.4E-06	1.4E-06	6.3E-06
CHROMIUM	7.74E-06	1.2E-06	2.2E-06	1.8E-06	7.0E-07	4.8E-07	2.5E-07
COBALT	1.15E-09	3.9E-09	8.4E-09	1.0E-08	3.2E-09	1.1E-10	3.1E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.6E-04	1.9E-04	2.1E-04	5.8E-05	2.1E-06	6.9E-06

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.5

Location-Specific Cancer Risks - Subsurface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	**GSP-TP-09**
SAMPLE ID	**GSP-TP-9-8-10**
REC	**REC 9**
SAMPLE DATE	**20110609**
SAMPLE CODE	**NORMAL**
MATRIX	**SO**
SAMPLE TYPE	**NORMAL**
SUBMATRIX	**SB**
TOP DEPTH	**8**
BOTTOM DEPTH	**10**
NAPHTHALENE	0.3 B
BAP EQUIVALENT-HALFND	4 U
AROCLOR-1260	21 U
ARSENIC	0.68
CHROMIUM[(1)]	0.024
COBALT	0.19 U
IRON	
MANGANESE	
THALLIUM	0.64 U
VANADIUM	3.8

Construction Workers	**Unit Risk**	
NAPHTHALENE	1.08E-11	1.6E-12
BAP EQUIVALENT-HALFND	6.23E-10	1.2E-09
AROCLOR-1260	1.74E-10	1.8E-09
ARSENIC	1.17E-07	7.9E-08
CHROMIUM	2.53E-07	6.1E-09
COBALT	2.05E-08	2.0E-09
IRON	0.00E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00
Total		9.0E-08

Industrial Workers		
NAPHTHALENE	4.35E-11	6.5E-12
BAP EQUIVALENT-HALFND	3.46E-09	6.9E-09
AROCLOR-1260	9.95E-10	1.0E-08
ARSENIC	3.66E-07	2.5E-07
CHROMIUM	5.51E-07	1.3E-08
COBALT	2.27E-10	2.2E-11
IRON	0.00E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00
Total		2.8E-07

Residents		
NAPHTHALENE	2.19E-10	3.3E-11
BAP EQUIVALENT-HALFND	7.19E-08	1.4E-07
AROCLOR-1260	4.95E-09	5.2E-08
ARSENIC	2.85E-06	1.9E-06
CHROMIUM	7.74E-06	1.9E-07
COBALT	1.15E-09	1.1E-10
IRON	0.00E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00
Total		2.3E-06

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.6

Location-Specific Hazard Indices - Subsurface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-056	GSP-SB-091	GSP-SB-093	GSP-SB-094	GSP-SB-095	GSP-SB-096
SAMPLE ID	GSP-SB-56-10-12	GSP-SB-91-8-10	GSP-SB-93-12-14	GSP-SB-94-6-8	GSP-SB-95-6-8	GSP-SB-96-6-8
REC	REC 9	REC 8/9	REC 9	REC 9	REC 9	REC 9
SAMPLE DATE	20100429	20110601	20110601	20110601	20110601	20110601
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	10	8	12	6	6	6
BOTTOM DEPTH	12	10	14	8	8	8
NAPHTHALENE	0.23 U	0.17 U	25 B	0.19 U	0.21 U	0.17 U
TRICHLOROETHENE	19	0.38 U	360	0.41 U	0.46 U	0.38 U
BAP EQUIVALENT-HALFND	3.9 U	3.9 U	3.9 U	4.1 U	3.8 U	3.6 U
AROCLOR-1260	20 U	20 U	20 U	21 U	20 U	18 U
ARSENIC	1.1	6.8	0.85	0.34 U	6.4	1
CHROMIUM[(1)]	0.049	0.39	0.059	0.014	0.18	0.02
COBALT	0.11	0.47	0.15 U	0.23	0.37	0.19
IRON	1020					
MANGANESE	2					
THALLIUM	0.016 U	0.64 U	0.53 U	0.62 U	0.62 U	0.56 U
VANADIUM	6.1	93	6.6	1.3	25	4.3

Construction Workers **Unit Risk**

NAPHTHALENE	7.45E-06	8.6E-07	6.3E-07	9.3E-05	7.1E-07	7.8E-07	6.3E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	3.0E-02	1.9E-01	2.3E-02	4.6E-03	1.7E-01	2.7E-02
CHROMIUM	2.02E-03	9.9E-05	7.9E-04	1.2E-04	2.8E-05	3.6E-04	4.0E-05
COBALT	9.58E-03	1.1E-03	4.5E-03	7.2E-04	2.2E-03	3.5E-03	1.8E-03
IRON	6.85E-06	7.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	7.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	9.6E-04	3.8E-02	3.2E-02	3.7E-02	3.7E-02	3.4E-02
VANADIUM	9.59E-04	5.8E-03	8.9E-02	6.3E-03	1.2E-03	2.4E-02	4.1E-03
Total		5.2E-02	3.2E-01	6.2E-02	4.5E-02	2.4E-01	6.7E-02

Industrial Workers

NAPHTHALENE	1.26E-06	1.4E-07	1.1E-07	1.6E-05	1.2E-07	1.3E-07	1.1E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	2.5E-03	1.6E-02	1.9E-03	3.9E-04	1.5E-02	2.3E-03
CHROMIUM	1.02E-03	5.0E-05	4.0E-04	6.0E-05	1.4E-05	1.8E-04	2.0E-05
COBALT	1.86E-03	2.0E-04	8.7E-04	1.4E-04	4.3E-04	6.9E-04	3.5E-04
IRON	7.91E-07	8.1E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	1.8E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	4.4E-04	1.8E-02	1.5E-02	1.7E-02	1.7E-02	1.6E-02
VANADIUM	1.11E-04	6.8E-04	1.0E-02	7.3E-04	1.4E-04	2.8E-03	4.8E-04
Total		4.9E-03	4.5E-02	1.8E-02	1.8E-02	3.5E-02	1.9E-02

Residents

NAPHTHALENE	5.88E-06	6.8E-07	5.0E-07	7.4E-05	5.6E-07	6.2E-07	5.0E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	5.1E-02	3.1E-01	3.9E-02	7.9E-03	3.0E-01	4.6E-02
CHROMIUM	9.04E-03	4.4E-04	3.5E-03	5.3E-04	1.3E-04	1.6E-03	1.8E-04
COBALT	4.39E-02	4.8E-03	2.1E-02	3.3E-03	1.0E-02	1.6E-02	8.3E-03
IRON	1.88E-05	1.9E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	1.8E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	1.1E-02	4.2E-01	3.5E-01	4.1E-01	4.1E-01	3.7E-01
VANADIUM	2.63E-03	1.6E-02	2.4E-01	1.7E-02	3.4E-03	6.6E-02	1.1E-02
Total		1.0E-01	1.0E+00	4.1E-01	4.3E-01	7.9E-01	4.3E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.6

Location-Specific Hazard Indices - Subsurface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-097	GSP-SB-098	GSP-SB-099	GSP-SB-100		GSP-SB-101
SAMPLE ID	GSP-SB-97-6-8	GSP-SB-98-6-8	GSP-SB-99-6-8	GSP-SB-100-2-4	GSP-SB-100-6-8	GSP-SB-101-6-8
REC	REC 9	REC 9	REC 9	REC 9	REC 9	REC 10
SAMPLE DATE	20110601	20110601	20110602	20110602	20110602	20110602
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	6	6	6	2	6	6
BOTTOM DEPTH	8	8	8	4	8	8
NAPHTHALENE	0.17 U	0.11 U	0.19 U	0.17 U	0.36 B	0.18 U
TRICHLOROETHENE	0.38 U	0.24 U	0.41 U	0.37 U	0.36 U	0.4 U
BAP EQUIVALENT-HALFND	3.8 U	3.8 U	4.1 U	3.8 U	3.7 U	3.8 U
AROCLOR-1260	20 U	20 UL	21 U	19 U	19 U	20 U
ARSENIC	3	1.7	2.2	1.7	1.7	1.2
CHROMIUM[(1)]	0.051	0.05	0.038	0.072	0.033	0.04
COBALT	0.43	0.29	0.69	0.17	0.17 U	0.99
IRON						
MANGANESE						
THALLIUM	0.55 U	0.61 U	0.65 U	0.58 U	0.57 U	0.46 U
VANADIUM	8.9	9.5	9.7	10	4.8	8.9

Construction Workers **Unit Risk**

NAPHTHALENE	7.45E-06	6.3E-07	4.1E-07	7.1E-07	6.3E-07	1.3E-06	6.7E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	8.2E-02	4.6E-02	6.0E-02	4.6E-02	4.6E-02	3.3E-02
CHROMIUM	2.02E-03	1.0E-04	1.0E-04	7.7E-05	1.5E-04	6.7E-05	8.1E-05
COBALT	9.58E-03	4.1E-03	2.8E-03	6.6E-03	1.6E-03	8.1E-04	9.5E-03
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	3.3E-02	3.7E-02	3.9E-02	3.5E-02	3.4E-02	2.8E-02
VANADIUM	9.59E-04	8.5E-03	9.1E-03	9.3E-03	9.6E-03	4.6E-03	8.5E-03
Total		1.3E-01	9.5E-02	1.1E-01	9.2E-02	8.6E-02	7.8E-02

Industrial Workers

NAPHTHALENE	1.26E-06	1.1E-07	6.9E-08	1.2E-07	1.1E-07	2.3E-07	1.1E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	6.8E-03	3.9E-03	5.0E-03	3.9E-03	3.9E-03	2.7E-03
CHROMIUM	1.02E-03	5.2E-05	5.1E-05	3.9E-05	7.4E-05	3.4E-05	4.1E-05
COBALT	1.86E-03	8.0E-04	5.4E-04	1.3E-03	3.2E-04	1.6E-04	1.8E-03
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	1.5E-02	1.7E-02	1.8E-02	1.6E-02	1.6E-02	1.3E-02
VANADIUM	1.11E-04	9.9E-04	1.1E-03	1.1E-03	1.1E-03	5.3E-04	9.9E-04
Total		2.4E-02	2.2E-02	2.5E-02	2.1E-02	2.0E-02	1.8E-02

Residents

NAPHTHALENE	5.88E-06	5.0E-07	3.2E-07	5.6E-07	5.0E-07	1.1E-06	5.3E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	1.4E-01	7.9E-02	1.0E-01	7.9E-02	7.9E-02	5.5E-02
CHROMIUM	9.04E-03	4.6E-04	4.5E-04	3.4E-04	6.5E-04	3.0E-04	3.6E-04
COBALT	4.39E-02	1.9E-02	1.3E-02	3.0E-02	7.5E-03	3.7E-03	4.3E-02
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	3.6E-01	4.0E-01	4.3E-01	3.8E-01	3.7E-01	3.0E-01
VANADIUM	2.63E-03	2.3E-02	2.5E-02	2.5E-02	2.6E-02	1.3E-02	2.3E-02
Total		5.4E-01	5.2E-01	5.8E-01	4.9E-01	4.7E-01	4.2E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.6

Location-Specific Hazard Indices - Subsurface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-102	GSP-SB-103	GSP-SB-104	GSP-SB-105	GSP-SB-106	GSP-SB-107
SAMPLE ID	GSP-SB-102-6-8	GSP-SB-103-6-8	GSP-SB-104-6-8	GSP-SB-105-6-8	GSP-SB-106-6-8	GSP-SB-107-6-8
REC	REC 10	REC 10	REC 10	REC 10	REC 10	REC 10
SAMPLE DATE	20110602	20110602	20110601	20110602	20110601	20110602
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	6	6	6	6	6	6
BOTTOM DEPTH	8	8	8	8	8	8
NAPHTHALENE	0.26 B	0.18 U	0.18 U	0.16 U	0.14 U	0.18 U
TRICHLOROETHENE	0.39 U	0.39 U	0.4 U	0.36 U	0.3 U	0.4 U
BAP EQUIVALENT-HALFND	3339.5	3.7 U	4.2 U	10.0241	4 U	3.9 U
AROCLOR-1260	18 U	19 U	22 U	19 U	21 U	20 U
ARSENIC	5.2	1.7	2.5	4.1	4.1	1.5
CHROMIUM[(1)]	0.16	0.09	0.067	0.27	0.11	0.058
COBALT	5.7	0.97	0.81	0.78	2.7	1
IRON						
MANGANESE						
THALLIUM	0.51 U	0.56 U	0.63 U	0.6 U	0.6 U	0.57 U
VANADIUM	29	11	17	49	26	9.8

Construction Workers

	Unit Risk						
NAPHTHALENE	7.45E-06	9.7E-07	6.7E-07	6.7E-07	6.0E-07	5.2E-07	6.7E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	1.4E-01	4.6E-02	6.8E-02	1.1E-01	1.1E-01	4.1E-02
CHROMIUM	2.02E-03	3.2E-04	1.8E-04	1.4E-04	5.5E-04	2.2E-04	1.2E-04
COBALT	9.58E-03	5.5E-02	9.3E-03	7.8E-03	7.5E-03	2.6E-02	9.6E-03
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	3.1E-02	3.4E-02	3.8E-02	3.6E-02	3.6E-02	3.4E-02
VANADIUM	9.59E-04	2.8E-02	1.1E-02	1.6E-02	4.7E-02	2.5E-02	9.4E-03
Total		2.6E-01	1.0E-01	1.3E-01	2.0E-01	2.0E-01	9.4E-02

Industrial Workers

NAPHTHALENE	1.26E-06	1.6E-07	1.1E-07	1.1E-07	1.0E-07	8.8E-08	1.1E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	1.2E-02	3.9E-03	5.7E-03	9.4E-03	9.4E-03	3.4E-03
CHROMIUM	1.02E-03	1.6E-04	9.2E-05	6.9E-05	2.8E-04	1.1E-04	5.9E-05
COBALT	1.86E-03	1.1E-02	1.8E-03	1.5E-03	1.4E-03	5.0E-03	1.9E-03
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	1.4E-02	1.6E-02	1.7E-02	1.7E-02	1.7E-02	1.6E-02
VANADIUM	1.11E-04	3.2E-03	1.2E-03	1.9E-03	5.4E-03	2.9E-03	1.1E-03
Total		4.0E-02	2.2E-02	2.7E-02	3.3E-02	3.4E-02	2.2E-02

Residents

NAPHTHALENE	5.88E-06	7.6E-07	5.3E-07	5.3E-07	4.7E-07	4.1E-07	5.3E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	2.4E-01	7.9E-02	1.2E-01	1.9E-01	1.9E-01	6.9E-02
CHROMIUM	9.04E-03	1.4E-03	8.1E-04	6.1E-04	2.4E-03	9.9E-04	5.2E-04
COBALT	4.39E-02	2.5E-01	4.3E-02	3.6E-02	3.4E-02	1.2E-01	4.4E-02
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	3.4E-01	3.7E-01	4.1E-01	3.9E-01	3.9E-01	3.7E-01
VANADIUM	2.63E-03	7.6E-02	2.9E-02	4.5E-02	1.3E-01	6.8E-02	2.6E-02
Total		9.0E-01	5.2E-01	6.1E-01	7.5E-01	7.7E-01	5.1E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.6

Location-Specific Hazard Indices - Subsurface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-108	GSP-SB-109	GSP-SB-110	GSP-TP-01	GSP-TP-02	GSP-TP-03
SAMPLE ID	GSP-SB-108-6-8	GSP-SB-109-6-8	GSP-SB-110-6-8	GSP-TP-1-10-12	GSP-TP-2-10-12	GSP-TP-3-5-7
REC	REC 10	REC 10	REC 10	REC 10	REC 10	REC 10
SAMPLE DATE	20110602	20110602	20110602	20110607	20110607	20110608
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	6	6	6	10	10	5
BOTTOM DEPTH	8	8	8	12	12	7
NAPHTHALENE	0.16 U	0.18 U	0.25 B	0.17 U	0.17 U	0.17 U
TRICHLOROETHENE	0.35 U	0.4 U	0.52 U	0.37 U	0.38 U	0.38 U
BAP EQUIVALENT-HALFND	27.61	20027	499.46	3.8 U	3.9 U	3.6 U
AROCLOR-1260	20 U	64	18 U	20 U	20 U	19 U
ARSENIC	5.4	4	2.6	0.4	0.52	1.9
CHROMIUM[(1)]	0.032	0.15	0.14	0.069	0.2	0.056
COBALT	8.2	7.4	4	3.1	2.6	0.21
IRON						
MANGANESE						
THALLIUM	0.63 U	0.67	1.5	0.64 UL	0.6 UL	0.6 U
VANADIUM	59	26	26	7.1	15	12

Construction Workers **Unit Risk**

NAPHTHALENE	7.45E-06	6.0E-07	6.7E-07	9.3E-07	6.3E-07	6.3E-07	6.3E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	1.5E-01	1.1E-01	7.1E-02	1.1E-02	1.4E-02	5.2E-02
CHROMIUM	2.02E-03	6.5E-05	3.0E-04	2.8E-04	1.4E-04	4.0E-04	1.1E-04
COBALT	9.58E-03	7.9E-02	7.1E-02	3.8E-02	3.0E-02	2.5E-02	2.0E-03
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	3.8E-02	8.0E-02	1.8E-01	7.7E-02	7.2E-02	3.6E-02
VANADIUM	9.59E-04	5.7E-02	2.5E-02	2.5E-02	6.8E-03	1.4E-02	1.2E-02
Total		3.2E-01	2.9E-01	3.1E-01	1.2E-01	1.3E-01	1.0E-01

Industrial Workers

NAPHTHALENE	1.26E-06	1.0E-07	1.1E-07	1.6E-07	1.1E-07	1.1E-07	1.1E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	1.2E-02	9.1E-03	5.9E-03	9.1E-04	1.2E-03	4.3E-03
CHROMIUM	1.02E-03	3.3E-05	1.5E-04	1.4E-04	7.1E-05	2.0E-04	5.7E-05
COBALT	1.86E-03	1.5E-02	1.4E-02	7.4E-03	5.8E-03	4.8E-03	3.9E-04
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	1.7E-02	3.7E-02	8.3E-02	3.5E-02	3.3E-02	1.7E-02
VANADIUM	1.11E-04	6.5E-03	2.9E-03	2.9E-03	7.9E-04	1.7E-03	1.3E-03
Total		5.2E-02	6.3E-02	9.9E-02	4.3E-02	4.1E-02	2.3E-02

Residents

NAPHTHALENE	5.88E-06	4.7E-07	5.3E-07	7.4E-07	5.0E-07	5.0E-07	5.0E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	2.5E-01	1.8E-01	1.2E-01	1.8E-02	2.4E-02	8.8E-02
CHROMIUM	9.04E-03	2.9E-04	1.4E-03	1.3E-03	6.2E-04	1.8E-03	5.1E-04
COBALT	4.39E-02	3.6E-01	3.2E-01	1.8E-01	1.4E-01	1.1E-01	9.2E-03
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	4.1E-01	8.8E-01	2.0E+00	8.4E-01	7.9E-01	3.9E-01
VANADIUM	2.63E-03	1.6E-01	6.8E-02	6.8E-02	1.9E-02	3.9E-02	3.2E-02
Total		1.2E+00	1.5E+00	2.3E+00	1.0E+00	9.7E-01	5.2E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.6

Location-Specific Hazard Indices - Subsurface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-TP-04	GSP-TP-05		GSP-TP-06	GSP-TP-07	GSP-TP-08
SAMPLE ID	GSP-TP-4-3-5	GSP-TP-5E-10-12	GSP-TP-5W-10-12	GSP-TP-6-4-6	GSP-TP-7-9-10	GSP-TP-8-6-7
REC	REC 10	REC 10	REC 10	REC 9	REC 9	REC 9
SAMPLE DATE	20110608	20110608	20110608	20110609	20110609	20110608
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	3	10	10	4	9	6
BOTTOM DEPTH	5	12	12	6	10	7
NAPHTHALENE	0.22 B	42000	8600	21	0.19 U	1.8 B
TRICHLOROETHENE	0.38 U	61 U	8.8 U	0.38 U	0.41 U	0.46 U
BAP EQUIVALENT-HALFND	2131.8	2389	2686.9	686.72	4.1 U	4.94065
AROCLOR-1260	100 U	20 U	20 U	19 U	21 U	20 U
ARSENIC	3.1	1.5	3.1	2.6	0.5	2.2
CHROMIUM[(1)]	0.15	0.28	0.23	0.09	0.062	0.032
COBALT	3.4	7.3	8.8	2.8	0.2 U	0.27
IRON						
MANGANESE						
THALLIUM	0.92	1.3	1.1	0.69	0.69 U	0.65 U
VANADIUM	27	34	36	18	3.3	5.1

Construction Workers **Unit Risk**

NAPHTHALENE	7.45E-06	8.2E-07	3.1E-01	6.4E-02	1.6E-04	7.1E-07	6.7E-06
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	8.5E-02	4.1E-02	8.5E-02	7.1E-02	1.4E-02	6.0E-02
CHROMIUM	2.02E-03	3.0E-04	5.7E-04	4.7E-04	1.8E-04	1.3E-04	6.5E-05
COBALT	9.58E-03	3.3E-02	7.0E-02	8.4E-02	2.7E-02	9.6E-04	2.6E-03
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	1.1E-01	1.6E-01	1.3E-01	8.3E-02	4.1E-02	3.9E-02
VANADIUM	9.59E-04	2.6E-02	3.3E-02	3.5E-02	1.7E-02	3.2E-03	4.9E-03
Total		2.5E-01	6.1E-01	4.0E-01	2.0E-01	5.9E-02	1.1E-01

Industrial Workers

NAPHTHALENE	1.26E-06	1.4E-07	5.3E-02	1.1E-02	2.6E-05	1.2E-07	1.1E-06
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	7.1E-03	3.4E-03	7.1E-03	5.9E-03	1.1E-03	5.0E-03
CHROMIUM	1.02E-03	1.5E-04	2.9E-04	2.4E-04	9.2E-05	6.4E-05	3.3E-05
COBALT	1.86E-03	6.3E-03	1.4E-02	1.6E-02	5.2E-03	1.9E-04	5.0E-04
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	5.1E-02	7.2E-02	6.1E-02	3.8E-02	1.9E-02	1.8E-02
VANADIUM	1.11E-04	3.0E-03	3.8E-03	4.0E-03	2.0E-03	3.7E-04	5.6E-04
Total		6.7E-02	1.5E-01	9.9E-02	5.1E-02	2.1E-02	2.4E-02

Residents

NAPHTHALENE	5.88E-06	6.5E-07	2.5E-01	5.1E-02	1.2E-04	5.6E-07	5.3E-06
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	1.4E-01	6.9E-02	1.4E-01	1.2E-01	2.3E-02	1.0E-01
CHROMIUM	9.04E-03	1.4E-03	2.5E-03	2.1E-03	8.1E-04	5.6E-04	2.9E-04
COBALT	4.39E-02	1.5E-01	3.2E-01	3.9E-01	1.2E-01	4.4E-03	1.2E-02
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	1.2E+00	1.7E+00	1.4E+00	9.1E-01	4.5E-01	4.3E-01
VANADIUM	2.63E-03	7.1E-02	8.9E-02	9.5E-02	4.7E-02	8.7E-03	1.3E-02
Total		1.6E+00	2.4E+00	2.1E+00	1.2E+00	4.9E-01	5.5E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.6

Location-Specific Hazard Indices - Subsurface Soil - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	**GSP-TP-09**
SAMPLE ID	**GSP-TP-9-8-10**
REC	**REC 9**
SAMPLE DATE	**20110609**
SAMPLE CODE	**NORMAL**
MATRIX	**SO**
SAMPLE TYPE	**NORMAL**
SUBMATRIX	**SB**
TOP DEPTH	**8**
BOTTOM DEPTH	**10**

NAPHTHALENE	0.3 B
TRICHLOROETHENE	0.39 U
BAP EQUIVALENT-HALFND	4 U
AROCLOR-1260	21 U
ARSENIC	0.68
CHROMIUM[(1)]	0.024
COBALT	0.19 U
IRON	
MANGANESE	
THALLIUM	0.64 U
VANADIUM	3.8

Construction Workers	**Unit Risk**	
NAPHTHALENE	7.45E-06	1.1E-06
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00
ARSENIC	2.73E-02	1.9E-02
CHROMIUM	2.02E-03	4.9E-05
COBALT	9.58E-03	9.1E-04
IRON	6.85E-06	0.0E+00
MANGANESE	3.49E-03	0.0E+00
THALLIUM	1.20E-01	3.8E-02
VANADIUM	9.59E-04	3.6E-03
Total		6.1E-02

Industrial Workers		
NAPHTHALENE	1.26E-06	1.9E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00
ARSENIC	2.28E-03	1.6E-03
CHROMIUM	1.02E-03	2.5E-05
COBALT	1.86E-03	1.8E-04
IRON	7.91E-07	0.0E+00
MANGANESE	8.91E-05	0.0E+00
THALLIUM	5.54E-02	1.8E-02
VANADIUM	1.11E-04	4.2E-04
Total		2.0E-02

Residents		
NAPHTHALENE	5.88E-06	8.8E-07
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00
AROCLOR-1260	0.00E+00	0.0E+00
ARSENIC	4.62E-02	3.1E-02
CHROMIUM	9.04E-03	2.2E-04
COBALT	4.39E-02	4.2E-03
IRON	1.88E-05	0.0E+00
MANGANESE	9.12E-04	0.0E+00
THALLIUM	1.31E+00	4.2E-01
VANADIUM	2.63E-03	1.0E-02
Total		4.7E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.7

Location-Specific Cancer Risks - Subsurface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-073		GSP-SB-079	GSP-SB-080	GSP-SB-081	GSP-SB-085
SAMPLE ID	GSP-SB-73-12-14	GSP-SB-73-12-14-R	GSP-SB-79-4-6	GSP-SB-80-14-16	GSP-SB-81-2-4	GSP-SB-85-10-12
REC	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20100412	20100512	20100412	20100413	20100414	20100413
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	12	12	4	14	2	10
BOTTOM DEPTH	14	14	6	16	4	12
BAP EQUIVALENT-HALFND	3.9 U		1212.05	4 U	13917	4 U
NAPHTHALENE	3.9 U		220	4 U	2900	4 U
AROCLOR-1260	20 U		20 U	21 U	19 U	21 U
ARSENIC	0.97		4.2	1.3	3.5	0.57
CHROMIUM[(1)]	0.019		0.163	0.014	0.224	0.022
COBALT	0.32		3.1	0.12	6	0.19
IRON	569		13900	578	15600	183
MANGANESE	3.8		34.7	1.9	713	0.98
THALLIUM	0.045 B		0.12 B	0.021 B	0.07 B	0.03 B
VANADIUM	7.1		25	3.7 B	34.6	9.4

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	6.23E-10	1.2E-09	0.0E+00	7.5E-07	1.2E-09	8.7E-06	1.2E-09
NAPHTHALENE	1.08E-11	2.1E-11	0.0E+00	2.4E-09	2.2E-11	3.1E-08	2.2E-11
AROCLOR-1260	1.74E-10	1.7E-09	0.0E+00	1.7E-09	1.8E-09	1.7E-09	1.8E-09
ARSENIC	1.17E-07	1.1E-07	0.0E+00	4.9E-07	1.5E-07	4.1E-07	6.6E-08
CHROMIUM	2.53E-07	4.8E-09	0.0E+00	4.1E-08	3.5E-09	5.7E-08	5.6E-09
COBALT	2.05E-08	6.6E-09	0.0E+00	6.4E-08	2.5E-09	1.2E-07	3.9E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.3E-07	0.0E+00	1.4E-06	1.6E-07	9.3E-06	7.9E-08

Industrial Workers

BAP EQUIVALENT-HALFND	3.46E-09	6.8E-09	0.0E+00	4.2E-06	6.9E-09	4.8E-05	6.9E-09
NAPHTHALENE	4.35E-11	8.5E-11	0.0E+00	9.6E-09	8.7E-11	1.3E-07	8.7E-11
AROCLOR-1260	9.95E-10	1.0E-08	0.0E+00	1.0E-08	1.0E-08	9.5E-09	1.0E-08
ARSENIC	3.66E-07	3.6E-07	0.0E+00	1.5E-06	4.8E-07	1.3E-06	2.1E-07
CHROMIUM	5.51E-07	1.0E-08	0.0E+00	9.0E-08	7.7E-09	1.2E-07	1.2E-08
COBALT	2.27E-10	7.3E-11	0.0E+00	7.0E-10	2.7E-11	1.4E-09	4.3E-11
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		3.8E-07	0.0E+00	5.8E-06	5.0E-07	5.0E-05	2.4E-07

Residents

BAP EQUIVALENT-HALFND	7.19E-08	1.4E-07	0.0E+00	8.7E-05	1.4E-07	1.0E-03	1.4E-07
NAPHTHALENE	2.19E-10	4.3E-10	0.0E+00	4.8E-08	4.4E-10	6.4E-07	4.4E-10
AROCLOR-1260	4.95E-09	5.0E-08	0.0E+00	5.0E-08	5.2E-08	4.7E-08	5.2E-08
ARSENIC	2.85E-06	2.8E-06	0.0E+00	1.2E-05	3.7E-06	1.0E-05	1.6E-06
CHROMIUM	7.74E-06	1.5E-07	0.0E+00	1.3E-06	1.1E-07	1.7E-06	1.7E-07
COBALT	1.15E-09	3.7E-10	0.0E+00	3.5E-09	1.4E-10	6.9E-09	2.2E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		3.1E-06	0.0E+00	1.0E-04	4.0E-06	1.0E-03	2.0E-06

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.7

Location-Specific Cancer Risks - Subsurface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-088	GSP-SB-089	GSP-SB-111	GSP-SB-112	GSP-SB-113	GSP-SB-114
SAMPLE ID	GSP-SB-88-2-4	GSP-SB-89-2-4	GSP-SB-111-6-8	GSP-SB-112-6-8	GSP-SB-113-6-8	GSP-SB-114-6-8
REC	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20100414	20100414	20110603	20110603	20110601	20110601
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	2	2	6	6	6	6
BOTTOM DEPTH	4	4	8	8	8	8
BAP EQUIVALENT-HALFND	409.53	9469.8	4.8891	3.9 U	3.7 U	206.04
NAPHTHALENE	23	47 U	3.7 U	3.9 U	3.7 U	130
AROCLOR-1260	19 U	19 U	19 U	20 U	19 U	20 U
ARSENIC	1.5	5.8	52	2.9	1.6	1.4
CHROMIUM[(1)]	0.055	0.168	0.27	0.18	0.051	0.053
COBALT	0.85	4.9	2.2	0.35	0.61	0.94
IRON	3630	12000				
MANGANESE	33.2	131				
THALLIUM	0.032 B	0.065 B	0.6 U	0.51 U	0.52 U	0.6 U
VANADIUM	9.5	30.8	300	37	8.3	9.6

Construction Workers	**Unit Risk**						
BAP EQUIVALENT-HALFND	6.23E-10	2.6E-07	5.9E-06	3.0E-09	1.2E-09	1.2E-09	1.3E-07
NAPHTHALENE	1.08E-11	2.5E-10	2.5E-10	2.0E-11	2.1E-11	2.0E-11	1.4E-09
AROCLOR-1260	1.74E-10	1.7E-09	1.7E-09	1.7E-09	1.7E-09	1.7E-09	1.7E-09
ARSENIC	1.17E-07	1.7E-07	6.8E-07	6.1E-06	3.4E-07	1.9E-07	1.6E-07
CHROMIUM	2.53E-07	1.4E-08	4.2E-08	6.8E-08	4.5E-08	1.3E-08	1.3E-08
COBALT	2.05E-08	1.7E-08	1.0E-07	4.5E-08	7.2E-09	1.3E-08	1.9E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		4.6E-07	6.7E-06	6.2E-06	3.9E-07	2.1E-07	3.3E-07

Industrial Workers							
BAP EQUIVALENT-HALFND	3.46E-09	1.4E-06	3.3E-05	1.7E-08	6.8E-09	6.4E-09	7.1E-07
NAPHTHALENE	4.35E-11	1.0E-09	1.0E-09	8.0E-11	8.5E-11	8.0E-11	5.7E-09
AROCLOR-1260	9.95E-10	9.5E-09	9.5E-09	9.5E-09	1.0E-08	9.5E-09	1.0E-08
ARSENIC	3.66E-07	5.5E-07	2.1E-06	1.9E-05	1.1E-06	5.9E-07	5.1E-07
CHROMIUM	5.51E-07	3.0E-08	9.3E-08	1.5E-07	9.9E-08	2.8E-08	2.9E-08
COBALT	2.27E-10	1.9E-10	1.1E-09	5.0E-10	8.0E-11	1.4E-10	2.1E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.0E-06	3.5E-05	1.9E-05	1.2E-06	6.3E-07	1.3E-06

Residents							
BAP EQUIVALENT-HALFND	7.19E-08	2.9E-05	6.8E-04	3.5E-07	1.4E-07	1.3E-07	1.5E-05
NAPHTHALENE	2.19E-10	5.0E-09	5.1E-09	4.1E-10	4.3E-10	4.1E-10	2.8E-08
AROCLOR-1260	4.95E-09	4.7E-08	4.7E-08	4.7E-08	5.0E-08	4.7E-08	5.0E-08
ARSENIC	2.85E-06	4.3E-06	1.7E-05	1.5E-04	8.3E-06	4.6E-06	4.0E-06
CHROMIUM	7.74E-06	4.3E-07	1.3E-06	2.1E-06	1.4E-06	3.9E-07	4.1E-07
COBALT	1.15E-09	9.7E-10	5.6E-09	2.5E-09	4.0E-10	7.0E-10	1.1E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		3.4E-05	7.0E-04	1.5E-04	9.8E-06	5.1E-06	1.9E-05

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.7

Location-Specific Cancer Risks - Subsurface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-115	GSP-SB-116	GSP-SB-117	GSP-SB-118	GSP-SB-119	GSP-SB-120
SAMPLE ID	GSP-SB-115-10-12	GSP-SB-116-6-8	GSP-SB-117-6-8	GSP-SB-118-6-8	GSP-SB-119-6-8	GSP-SB-120-6-8
REC	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20110531	20110603	20110531	20110531	20110531	20110531
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	10	6	6	6	6	6
BOTTOM DEPTH	12	8	8	8	8	8
BAP EQUIVALENT-HALFND	268.3	21.134	3.8 U	5.9026	40.869	1288.2
NAPHTHALENE	88	4.1 U	3.8 U	3.9 U	3.7 UL	260
AROCLOR-1260	20 U	21 U	19 U	20 U	2700	37
ARSENIC	2.9	1.1	0.46	1	2.1	1.7
CHROMIUM[(1)]	0.17	0.24	0.052	0.21	0.13	0.082
COBALT	0.69	0.77	0.54	2.5	2.6	1.4
IRON						
MANGANESE						
THALLIUM	0.67	0.61 U	0.6 U	0.65 U	0.64	0.53 U
VANADIUM	19	20	9.5	11	18	14

Construction Workers

	Unit Risk						
BAP EQUIVALENT-HALFND	6.23E-10	1.7E-07	1.3E-08	1.2E-09	3.7E-09	2.5E-08	8.0E-07
NAPHTHALENE	1.08E-11	9.5E-10	2.2E-11	2.1E-11	2.1E-11	4.0E-11	2.8E-09
AROCLOR-1260	1.74E-10	1.7E-09	1.8E-09	1.7E-09	1.7E-09	4.7E-07	6.4E-09
ARSENIC	1.17E-07	3.4E-07	1.3E-07	5.4E-08	1.2E-07	2.4E-07	2.0E-07
CHROMIUM	2.53E-07	4.3E-08	6.1E-08	1.3E-08	5.3E-08	3.3E-08	2.1E-08
COBALT	2.05E-08	1.4E-08	1.6E-08	1.1E-08	5.1E-08	5.3E-08	2.9E-08
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		5.7E-07	2.2E-07	8.1E-08	2.3E-07	8.3E-07	1.1E-06

Industrial Workers

BAP EQUIVALENT-HALFND	3.46E-09	9.3E-07	7.3E-08	6.6E-09	2.0E-08	1.4E-07	4.5E-06
NAPHTHALENE	4.35E-11	3.8E-09	8.9E-11	8.3E-11	8.5E-11	1.6E-10	1.1E-08
AROCLOR-1260	9.95E-10	1.0E-08	1.0E-08	9.5E-09	1.0E-08	2.7E-06	3.7E-08
ARSENIC	3.66E-07	1.1E-06	4.0E-07	1.7E-07	3.7E-07	7.7E-07	6.2E-07
CHROMIUM	5.51E-07	9.4E-08	1.3E-07	2.9E-08	1.2E-07	7.2E-08	4.5E-08
COBALT	2.27E-10	1.6E-10	1.7E-10	1.2E-10	5.7E-10	5.9E-10	3.2E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.1E-06	6.2E-07	2.1E-07	5.1E-07	3.7E-06	5.2E-06

Residents

BAP EQUIVALENT-HALFND	7.19E-08	1.9E-05	1.5E-06	1.4E-07	4.2E-07	2.9E-06	9.3E-05
NAPHTHALENE	2.19E-10	1.9E-08	4.5E-10	4.2E-10	4.3E-10	8.1E-10	5.7E-08
AROCLOR-1260	4.95E-09	5.0E-08	5.2E-08	4.7E-08	5.0E-08	1.3E-05	1.8E-07
ARSENIC	2.85E-06	8.3E-06	3.1E-06	1.3E-06	2.8E-06	6.0E-06	4.8E-06
CHROMIUM	7.74E-06	1.3E-06	1.9E-06	4.0E-07	1.6E-06	1.0E-06	6.3E-07
COBALT	1.15E-09	7.9E-10	8.8E-10	6.2E-10	2.9E-09	3.0E-09	1.6E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.9E-05	6.6E-06	1.9E-06	5.0E-06	2.3E-05	9.8E-05

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.7

Location-Specific Cancer Risks - Subsurface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-121	GSP-SB-122	GSP-SB-123	GSP-SB-124	GSP-SB-125	GSP-SB-126
SAMPLE ID	GSP-SB-121-6-8	GSP-SB-122-6-8	GSP-SB-123-6-8	GSP-SB-124-6-8	GSP-SB-125-6-8	GSP-SB-126-8-10
REC	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20110531	20110531	20110606	20110606	20110603	20110606
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	6	6	6	6	6	8
BOTTOM DEPTH	8	8	8	8	8	10
BAP EQUIVALENT-HALFND	5614.2	9.3 U	4 U	4 U	4.1 U	3.9 U
NAPHTHALENE	690	9.3 U	4 U	4 U	4.1 U	3.9 U
AROCLOR-1260	47	19	21 U	21 U	21 U	20 U
ARSENIC	2.8	2.6	1.1	1.7	1.8	0.65
CHROMIUM[(1)]	0.13	0.073	0.036	0.1	0.084	0.058
COBALT	2.7	3.1	0.19 U	0.34	1.9	0.42
IRON						
MANGANESE						
THALLIUM	0.94	0.57 U	0.67 U	0.63 U	0.67 U	0.59 U
VANADIUM	15	15	15	27	9.5	10

Construction Workers

	Unit Risk						
BAP EQUIVALENT-HALFND	6.23E-10	3.5E-06	2.9E-09	1.2E-09	1.2E-09	1.3E-09	1.2E-09
NAPHTHALENE	1.08E-11	7.5E-09	5.0E-11	2.2E-11	2.2E-11	2.2E-11	2.1E-11
AROCLOR-1260	1.74E-10	8.2E-09	3.3E-09	1.8E-09	1.8E-09	1.8E-09	1.7E-09
ARSENIC	1.17E-07	3.3E-07	3.0E-07	1.3E-07	2.0E-07	2.1E-07	7.6E-08
CHROMIUM	2.53E-07	3.3E-08	1.8E-08	9.1E-09	2.5E-08	2.1E-08	1.5E-08
COBALT	2.05E-08	5.5E-08	6.4E-08	2.0E-09	7.0E-09	3.9E-08	8.6E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		3.9E-06	3.9E-07	1.4E-07	2.3E-07	2.7E-07	1.0E-07

Industrial Workers

BAP EQUIVALENT-HALFND	3.46E-09	1.9E-05	1.6E-08	6.9E-09	6.9E-09	7.1E-09	6.8E-09
NAPHTHALENE	4.35E-11	3.0E-08	2.0E-10	8.7E-11	8.7E-11	8.9E-11	8.5E-11
AROCLOR-1260	9.95E-10	4.7E-08	1.9E-08	1.0E-08	1.0E-08	1.0E-08	1.0E-08
ARSENIC	3.66E-07	1.0E-06	9.5E-07	4.0E-07	6.2E-07	6.6E-07	2.4E-07
CHROMIUM	5.51E-07	7.2E-08	4.0E-08	2.0E-08	5.5E-08	4.6E-08	3.2E-08
COBALT	2.27E-10	6.1E-10	7.0E-10	2.2E-11	7.7E-11	4.3E-10	9.5E-11
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.1E-05	1.0E-06	4.4E-07	6.9E-07	7.2E-07	2.9E-07

Residents

BAP EQUIVALENT-HALFND	7.19E-08	4.0E-04	3.3E-07	1.4E-07	1.4E-07	1.5E-07	1.4E-07
NAPHTHALENE	2.19E-10	1.5E-07	1.0E-09	4.4E-10	4.4E-10	4.5E-10	4.3E-10
AROCLOR-1260	4.95E-09	2.3E-07	9.4E-08	5.2E-08	5.2E-08	5.2E-08	5.0E-08
ARSENIC	2.85E-06	8.0E-06	7.4E-06	3.1E-06	4.8E-06	5.1E-06	1.9E-06
CHROMIUM	7.74E-06	1.0E-06	5.6E-07	2.8E-07	7.7E-07	6.5E-07	4.5E-07
COBALT	1.15E-09	3.1E-09	3.5E-09	1.1E-10	3.9E-10	2.2E-09	4.8E-10
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		4.1E-04	8.4E-06	3.6E-06	5.8E-06	6.0E-06	2.5E-06

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.7

Location-Specific Cancer Risks - Subsurface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-127	GSP-SB-128	GSP-SB-129	GSP-SB-130
SAMPLE ID	GSP-SB-127-6-8	GSP-SB-128-6-8	GSP-SB-129-6-8	GSP-SB-130-6-8
REC	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20110606	20110606	20110531	20110606
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB
TOP DEPTH	6	6	6	6
BOTTOM DEPTH	8	8	8	8
BAP EQUIVALENT-HALFND	4.1 U	4.2 U	9.7023	4 U
NAPHTHALENE	4.1 U	4.2 U	3.9 U	4 U
AROCLOR-1260	21 U	22 U	20 U	20 U
ARSENIC	0.98	1.3	1.2	0.33 U
CHROMIUM[(1)]	0.035	0.025	0.035	0.032
COBALT	0.19 U	0.2	0.82	0.17 U
IRON				
MANGANESE				
THALLIUM	0.64 U	0.67 U	0.58 U	0.6 U
VANADIUM	8.3	5.3	6.8	4.2

Construction Workers **Unit Risk**

BAP EQUIVALENT-HALFND	6.23E-10	1.3E-09	1.3E-09	6.0E-09	1.2E-09
NAPHTHALENE	1.08E-11	2.2E-11	2.3E-11	2.1E-11	2.2E-11
AROCLOR-1260	1.74E-10	1.8E-09	1.9E-09	1.7E-09	1.7E-09
ARSENIC	1.17E-07	1.1E-07	1.5E-07	1.4E-07	1.9E-08
CHROMIUM	2.53E-07	8.8E-09	6.3E-09	8.8E-09	8.1E-09
COBALT	2.05E-08	2.0E-09	4.1E-09	1.7E-08	1.7E-09
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		1.3E-07	1.7E-07	1.7E-07	3.2E-08

Industrial Workers

BAP EQUIVALENT-HALFND	3.46E-09	7.1E-09	7.3E-09	3.4E-08	6.9E-09
NAPHTHALENE	4.35E-11	8.9E-11	9.1E-11	8.5E-11	8.7E-11
AROCLOR-1260	9.95E-10	1.0E-08	1.1E-08	1.0E-08	1.0E-08
ARSENIC	3.66E-07	3.6E-07	4.8E-07	4.4E-07	6.0E-08
CHROMIUM	5.51E-07	1.9E-08	1.4E-08	1.9E-08	1.8E-08
COBALT	2.27E-10	2.2E-11	4.5E-11	1.9E-10	1.9E-11
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		4.0E-07	5.1E-07	5.0E-07	9.5E-08

Residents

BAP EQUIVALENT-HALFND	7.19E-08	1.5E-07	1.5E-07	7.0E-07	1.4E-07
NAPHTHALENE	2.19E-10	4.5E-10	4.6E-10	4.3E-10	4.4E-10
AROCLOR-1260	4.95E-09	5.2E-08	5.4E-08	5.0E-08	5.0E-08
ARSENIC	2.85E-06	2.8E-06	3.7E-06	3.4E-06	4.7E-07
CHROMIUM	7.74E-06	2.7E-07	1.9E-07	2.7E-07	2.5E-07
COBALT	1.15E-09	1.1E-10	2.3E-10	9.4E-10	9.7E-11
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		3.3E-06	4.1E-06	4.4E-06	9.1E-07

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.8

Location-Specific Hazard Indices - Subsurface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-073		GSP-SB-079	GSP-SB-080	GSP-SB-081	GSP-SB-085
SAMPLE ID	GSP-SB-73-12-14	GSP-SB-73-12-14-R	GSP-SB-79-4-6	GSP-SB-80-14-16	GSP-SB-81-2-4	GSP-SB-85-10-12
REC	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20100412	20100512	20100412	20100413	20100414	20100413
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	12	12	4	14	2	10
BOTTOM DEPTH	14	14	6	16	4	12
BAP EQUIVALENT-HALFND	3.9 U		1212.05	4 U	13917	4 U
NAPHTHALENE	3.9 U		220	4 U	2900	4 U
AROCLOR-1260	20 U		20 U	21 U	19 U	21 U
ARSENIC	0.97		4.2	1.3	3.5	0.57
CHROMIUM[(1)]	0.019		0.163	0.014	0.224	0.022
COBALT	0.32		3.1	0.12	6	0.19
IRON	569		13900	578	15600	183
MANGANESE	3.8		34.7	1.9	713	0.98
THALLIUM	0.045 B		0.12 B	0.021 B	0.07 B	0.03 B
VANADIUM	7.1		25	3.7 B	34.6	9.4

Construction Workers

	Unit Risk						
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	7.45E-06	1.5E-05	0.0E+00	1.6E-03	1.5E-05	2.2E-02	1.5E-05
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	2.6E-02	0.0E+00	1.1E-01	3.5E-02	9.5E-02	1.6E-02
CHROMIUM	2.02E-03	3.8E-05	0.0E+00	3.3E-04	2.8E-05	4.5E-04	4.5E-05
COBALT	9.58E-03	3.1E-03	0.0E+00	3.0E-02	1.1E-03	5.7E-02	1.8E-03
IRON	6.85E-06	3.9E-03	0.0E+00	9.5E-02	4.0E-03	1.1E-01	1.3E-03
MANGANESE	3.49E-03	1.3E-02	0.0E+00	1.2E-01	6.6E-03	2.5E+00	3.4E-03
THALLIUM	1.20E-01	2.7E-03	0.0E+00	7.2E-03	1.3E-03	4.2E-03	1.8E-03
VANADIUM	9.59E-04	6.8E-03	0.0E+00	2.4E-02	1.8E-03	3.3E-02	9.0E-03
Total		5.6E-02	0.0E+00	3.9E-01	5.0E-02	2.8E+00	3.3E-02

Industrial Workers

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	1.26E-06	0.0E+00	0.0E+00	2.8E-04	2.5E-06	3.7E-03	2.5E-06
AROCLOR-1260	0.00E+00	1.3E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	0.0E+00	0.0E+00	9.6E-03	3.0E-03	8.0E-03	1.3E-03
CHROMIUM	1.02E-03	4.3E-05	0.0E+00	1.7E-04	1.4E-05	2.3E-04	2.3E-05
COBALT	1.86E-03	3.3E-04	0.0E+00	5.8E-03	2.2E-04	1.1E-02	3.5E-04
IRON	7.91E-07	1.1E+00	0.0E+00	1.1E-02	4.6E-04	1.2E-02	1.4E-04
MANGANESE	8.91E-05	3.0E-06	0.0E+00	3.1E-03	1.7E-04	6.4E-02	8.7E-05
THALLIUM	5.54E-02	2.0E-06	0.0E+00	3.3E-03	5.8E-04	1.9E-03	8.3E-04
VANADIUM	1.11E-04	3.9E-01	0.0E+00	2.8E-03	2.0E-04	3.8E-03	1.0E-03
Total		1.5E+00	0.0E+00	3.6E-02	4.6E-03	1.0E-01	3.8E-03

Residents

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	5.88E-06	1.1E-05	0.0E+00	1.3E-03	1.2E-05	1.7E-02	1.2E-05
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	4.5E-02	0.0E+00	1.9E-01	6.0E-02	1.6E-01	2.6E-02
CHROMIUM	9.04E-03	1.7E-04	0.0E+00	1.5E-03	1.3E-04	2.0E-03	2.0E-04
COBALT	4.39E-02	1.4E-02	0.0E+00	1.4E-01	5.3E-03	2.6E-01	8.3E-03
IRON	1.88E-05	1.1E-02	0.0E+00	2.6E-01	1.1E-02	2.9E-01	3.4E-03
MANGANESE	9.12E-04	3.5E-03	0.0E+00	3.2E-02	1.7E-03	6.5E-01	8.9E-04
THALLIUM	1.31E+00	3.0E-02	0.0E+00	7.9E-02	1.4E-02	4.6E-02	2.0E-02
VANADIUM	2.63E-03	1.9E-02	0.0E+00	6.6E-02	4.9E-03	9.1E-02	2.5E-02
Total		1.2E-01	0.0E+00	7.7E-01	9.7E-02	1.5E+00	8.4E-02

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.8

Location-Specific Hazard Indices - Subsurface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-088	GSP-SB-089	GSP-SB-111	GSP-SB-112	GSP-SB-113	GSP-SB-114
SAMPLE ID	GSP-SB-88-2-4	GSP-SB-89-2-4	GSP-SB-111-6-8	GSP-SB-112-6-8	GSP-SB-113-6-8	GSP-SB-114-6-8
REC	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20100414	20100414	20110603	20110603	20110601	20110601
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	2	2	6	6	6	6
BOTTOM DEPTH	4	4	8	8	8	8
BAP EQUIVALENT-HALFND	409.53	9469.8	4.8891	3.9 U	3.7 U	206.04
NAPHTHALENE	23	47 U	3.7 U	3.9 U	3.7 U	130
AROCLOR-1260	19 U	19 U	19 U	20 U	19 U	20 U
ARSENIC	1.5	5.8	52	2.9	1.6	1.4
CHROMIUM[(1)]	0.055	0.168	0.27	0.18	0.051	0.053
COBALT	0.85	4.9	2.2	0.35	0.61	0.94
IRON	3630	12000				
MANGANESE	33.2	131				
THALLIUM	0.032 B	0.065 B	0.6 U	0.51 U	0.52 U	0.6 U
VANADIUM	9.5	30.8	300	37	8.3	9.6

Construction Workers

	Unit Risk						
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	7.45E-06	1.7E-04	1.7E-04	1.4E-05	1.5E-05	1.4E-05	9.7E-04
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	4.1E-02	1.6E-01	1.4E+00	7.9E-02	4.4E-02	3.8E-02
CHROMIUM	2.02E-03	1.1E-04	3.4E-04	5.5E-04	3.6E-04	1.0E-04	1.1E-04
COBALT	9.58E-03	8.1E-03	4.7E-02	2.1E-02	3.4E-03	5.8E-03	9.0E-03
IRON	6.85E-06	2.5E-02	8.2E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	1.2E-01	4.6E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	1.9E-03	3.9E-03	3.6E-02	3.1E-02	3.1E-02	3.6E-02
VANADIUM	9.59E-04	9.1E-03	3.0E-02	2.9E-01	3.5E-02	8.0E-03	9.2E-03
Total		2.0E-01	7.8E-01	1.8E+00	1.5E-01	8.9E-02	9.3E-02

Industrial Workers

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	1.26E-06	2.9E-05	3.0E-05	2.3E-06	2.5E-06	2.3E-06	1.6E-04
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	3.4E-03	1.3E-02	1.2E-01	6.6E-03	3.7E-03	3.2E-03
CHROMIUM	1.02E-03	5.6E-05	1.7E-04	2.8E-04	1.8E-04	5.2E-05	5.4E-05
COBALT	1.86E-03	1.6E-03	9.1E-03	4.1E-03	6.5E-04	1.1E-03	1.7E-03
IRON	7.91E-07	2.9E-03	9.5E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	3.0E-03	1.2E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	8.9E-04	1.8E-03	1.7E-02	1.4E-02	1.4E-02	1.7E-02
VANADIUM	1.11E-04	1.1E-03	3.4E-03	3.3E-02	4.1E-03	9.2E-04	1.1E-03
Total		1.3E-02	4.9E-02	1.7E-01	2.6E-02	2.0E-02	2.3E-02

Residents

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	5.88E-06	1.4E-04	1.4E-04	1.1E-05	1.1E-05	1.1E-05	7.6E-04
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	6.9E-02	2.7E-01	2.4E+00	1.3E-01	7.4E-02	6.5E-02
CHROMIUM	9.04E-03	5.0E-04	1.5E-03	2.4E-03	1.6E-03	4.6E-04	4.8E-04
COBALT	4.39E-02	3.7E-02	2.1E-01	9.6E-02	1.5E-02	2.7E-02	4.1E-02
IRON	1.88E-05	6.8E-02	2.3E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	3.0E-02	1.2E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	2.1E-02	4.3E-02	3.9E-01	3.4E-01	3.4E-01	3.9E-01
VANADIUM	2.63E-03	2.5E-02	8.1E-02	7.9E-01	9.7E-02	2.2E-02	2.5E-02
Total		2.5E-01	9.5E-01	3.7E+00	5.8E-01	4.6E-01	5.3E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.8

Location-Specific Hazard Indices - Subsurface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-115	GSP-SB-116	GSP-SB-117	GSP-SB-118	GSP-SB-119	GSP-SB-120
SAMPLE ID	GSP-SB-115-10-12	GSP-SB-116-6-8	GSP-SB-117-6-8	GSP-SB-118-6-8	GSP-SB-119-6-8	GSP-SB-120-6-8
REC	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20110531	20110603	20110531	20110531	20110531	20110531
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	10	6	6	6	6	6
BOTTOM DEPTH	12	8	8	8	8	8
BAP EQUIVALENT-HALFND	268.3	21.134	3.8 U	5.9026	40.869	1288.2
NAPHTHALENE	88	4.1 U	3.8 U	3.9 U	3.7 UL	260
AROCLOR-1260	20 U	21 U	19 U	20 U	2700	37
ARSENIC	2.9	1.1	0.46	1	2.1	1.7
CHROMIUM[(1)]	0.17	0.24	0.052	0.21	0.13	0.082
COBALT	0.69	0.77	0.54	2.5	2.6	1.4
IRON						
MANGANESE						
THALLIUM	0.67	0.61 U	0.6 U	0.65 U	0.64	0.53 U
VANADIUM	19	20	9.5	11	18	14

Construction Workers

	Unit Risk						
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	7.45E-06	6.6E-04	1.5E-05	1.4E-05	1.5E-05	2.8E-05	1.9E-03
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	7.9E-02	3.0E-02	1.3E-02	2.7E-02	5.7E-02	4.6E-02
CHROMIUM	2.02E-03	3.4E-04	4.9E-04	1.1E-04	4.3E-04	2.6E-04	1.7E-04
COBALT	9.58E-03	6.6E-03	7.4E-03	5.2E-03	2.4E-02	2.5E-02	1.3E-02
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	8.0E-02	3.7E-02	3.6E-02	3.9E-02	7.7E-02	3.2E-02
VANADIUM	9.59E-04	1.8E-02	1.9E-02	9.1E-03	1.1E-02	1.7E-02	1.3E-02
Total		1.9E-01	9.4E-02	6.3E-02	1.0E-01	1.8E-01	1.1E-01

Industrial Workers

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	1.26E-06	1.1E-04	2.6E-06	2.4E-06	2.5E-06	4.7E-06	3.3E-04
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	6.6E-03	2.5E-03	1.0E-03	2.3E-03	4.8E-03	3.9E-03
CHROMIUM	1.02E-03	1.7E-04	2.5E-04	5.3E-05	2.2E-04	1.3E-04	8.4E-05
COBALT	1.86E-03	1.3E-03	1.4E-03	1.0E-03	4.6E-03	4.8E-03	2.6E-03
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	3.7E-02	1.7E-02	1.7E-02	1.8E-02	3.5E-02	1.5E-02
VANADIUM	1.11E-04	2.1E-03	2.2E-03	1.1E-03	1.2E-03	2.0E-03	1.6E-03
Total		4.7E-02	2.3E-02	2.0E-02	2.6E-02	4.7E-02	2.3E-02

Residents

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	5.88E-06	5.2E-04	1.2E-05	1.1E-05	1.1E-05	2.2E-05	1.5E-03
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	1.3E-01	5.1E-02	2.1E-02	4.6E-02	9.7E-02	7.9E-02
CHROMIUM	9.04E-03	1.5E-03	2.2E-03	4.7E-04	1.9E-03	1.2E-03	7.4E-04
COBALT	4.39E-02	3.0E-02	3.4E-02	2.4E-02	1.1E-01	1.1E-01	6.1E-02
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	8.8E-01	4.0E-01	3.9E-01	4.3E-01	8.4E-01	3.5E-01
VANADIUM	2.63E-03	5.0E-02	5.3E-02	2.5E-02	2.9E-02	4.7E-02	3.7E-02
Total		1.1E+00	5.4E-01	4.6E-01	6.1E-01	1.1E+00	5.3E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.8

Location-Specific Hazard Indices - Subsurface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-121	GSP-SB-122	GSP-SB-123	GSP-SB-124	GSP-SB-125	GSP-SB-126
SAMPLE ID	GSP-SB-121-6-8	GSP-SB-122-6-8	GSP-SB-123-6-8	GSP-SB-124-6-8	GSP-SB-125-6-8	GSP-SB-126-8-10
REC	REC 11	REC 11	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20110531	20110531	20110606	20110606	20110603	20110606
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB	SB	SB
TOP DEPTH	6	6	6	6	6	8
BOTTOM DEPTH	8	8	8	8	8	10
BAP EQUIVALENT-HALFND	5614.2	9.3 U	4 U	4 U	4.1 U	3.9 U
NAPHTHALENE	690	9.3 U	4 U	4 U	4.1 U	3.9 U
AROCLOR-1260	47	19	21 U	21 U	21 U	20 U
ARSENIC	2.8	2.6	1.1	1.7	1.8	0.65
CHROMIUM[(1)]	0.13	0.073	0.036	0.1	0.084	0.058
COBALT	2.7	3.1	0.19 U	0.34	1.9	0.42
IRON						
MANGANESE						
THALLIUM	0.94	0.57 U	0.67 U	0.63 U	0.67 U	0.59 U
VANADIUM	15	15	15	27	9.5	10

Construction Workers

	Unit Risk						
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	7.45E-06	5.1E-03	3.5E-05	1.5E-05	1.5E-05	1.5E-05	1.5E-05
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	7.6E-02	7.1E-02	3.0E-02	4.6E-02	4.9E-02	1.8E-02
CHROMIUM	2.02E-03	2.6E-04	1.5E-04	7.3E-05	2.0E-04	1.7E-04	1.2E-04
COBALT	9.58E-03	2.6E-02	3.0E-02	9.1E-04	3.3E-03	1.8E-02	4.0E-03
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	1.1E-01	3.4E-02	4.0E-02	3.8E-02	4.0E-02	3.5E-02
VANADIUM	9.59E-04	1.4E-02	1.4E-02	1.4E-02	2.6E-02	9.1E-03	9.6E-03
Total		2.3E-01	1.5E-01	8.6E-02	1.1E-01	1.2E-01	6.7E-02

Industrial Workers

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	1.26E-06	8.7E-04	5.9E-06	2.5E-06	2.5E-06	2.6E-06	2.5E-06
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	6.4E-03	5.9E-03	2.5E-03	3.9E-03	4.1E-03	1.5E-03
CHROMIUM	1.02E-03	1.3E-04	7.5E-05	3.7E-05	1.0E-04	8.6E-05	5.9E-05
COBALT	1.86E-03	5.0E-03	5.8E-03	1.8E-04	6.3E-04	3.5E-03	7.8E-04
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	5.2E-02	1.6E-02	1.9E-02	1.7E-02	1.9E-02	1.6E-02
VANADIUM	1.11E-04	1.7E-03	1.7E-03	1.7E-03	3.0E-03	1.1E-03	1.1E-03
Total		6.6E-02	2.9E-02	2.3E-02	2.5E-02	2.7E-02	2.0E-02

Residents

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	5.88E-06	4.1E-03	2.7E-05	1.2E-05	1.2E-05	1.2E-05	1.1E-05
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	1.3E-01	1.2E-01	5.1E-02	7.9E-02	8.3E-02	3.0E-02
CHROMIUM	9.04E-03	1.2E-03	6.6E-04	3.3E-04	9.0E-04	7.6E-04	5.2E-04
COBALT	4.39E-02	1.2E-01	1.4E-01	4.2E-03	1.5E-02	8.3E-02	1.8E-02
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	1.2E+00	3.7E-01	4.4E-01	4.1E-01	4.4E-01	3.9E-01
VANADIUM	2.63E-03	3.9E-02	3.9E-02	3.9E-02	7.1E-02	2.5E-02	2.6E-02
Total		1.5E+00	6.7E-01	5.4E-01	5.8E-01	6.3E-01	4.6E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.8

Location-Specific Hazard Indices - Subsurface Soil - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-127	GSP-SB-128	GSP-SB-129	GSP-SB-130
SAMPLE ID	GSP-SB-127-6-8	GSP-SB-128-6-8	GSP-SB-129-6-8	GSP-SB-130-6-8
REC	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20110606	20110606	20110531	20110606
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	SO	SO	SO	SO
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	SB	SB	SB	SB
TOP DEPTH	6	6	6	6
BOTTOM DEPTH	8	8	8	8
BAP EQUIVALENT-HALFND	4.1 U	4.2 U	9.7023	4 U
NAPHTHALENE	4.1 U	4.2 U	3.9 U	4 U
AROCLOR-1260	21 U	22 U	20 U	20 U
ARSENIC	0.98	1.3	1.2	0.33 U
CHROMIUM[(1)]	0.035	0.025	0.035	0.032
COBALT	0.19 U	0.2	0.82	0.17 U
IRON				
MANGANESE				
THALLIUM	0.64 U	0.67 U	0.58 U	0.6 U
VANADIUM	8.3	5.3	6.8	4.2

Construction Workers

	Unit Risk				
BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	7.45E-06	1.5E-05	1.6E-05	1.5E-05	1.5E-05
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.73E-02	2.7E-02	3.5E-02	3.3E-02	4.5E-03
CHROMIUM	2.02E-03	7.1E-05	5.1E-05	7.1E-05	6.5E-05
COBALT	9.58E-03	9.1E-04	1.9E-03	7.9E-03	8.1E-04
IRON	6.85E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.49E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.20E-01	3.8E-02	4.0E-02	3.5E-02	3.6E-02
VANADIUM	9.59E-04	8.0E-03	5.1E-03	6.5E-03	4.0E-03
Total		7.4E-02	8.3E-02	8.2E-02	4.5E-02

Industrial Workers

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	1.26E-06	2.6E-06	2.6E-06	2.5E-06	2.5E-06
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	2.28E-03	2.2E-03	3.0E-03	2.7E-03	3.8E-04
CHROMIUM	1.02E-03	3.6E-05	2.6E-05	3.6E-05	3.3E-05
COBALT	1.86E-03	1.8E-04	3.7E-04	1.5E-03	1.6E-04
IRON	7.91E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	8.91E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	5.54E-02	1.8E-02	1.9E-02	1.6E-02	1.7E-02
VANADIUM	1.11E-04	9.2E-04	5.9E-04	7.5E-04	4.7E-04
Total		2.1E-02	2.3E-02	2.1E-02	1.8E-02

Residents

BAP EQUIVALENT-HALFND	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NAPHTHALENE	5.88E-06	1.2E-05	1.2E-05	1.1E-05	1.2E-05
AROCLOR-1260	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ARSENIC	4.62E-02	4.5E-02	6.0E-02	5.5E-02	7.6E-03
CHROMIUM	9.04E-03	3.2E-04	2.3E-04	3.2E-04	2.9E-04
COBALT	4.39E-02	4.2E-03	8.8E-03	3.6E-02	3.7E-03
IRON	1.88E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	9.12E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	1.31E+00	4.2E-01	4.4E-01	3.8E-01	3.9E-01
VANADIUM	2.63E-03	2.2E-02	1.4E-02	1.8E-02	1.1E-02
Total		4.9E-01	5.2E-01	4.9E-01	4.2E-01

1 - One percent of total chroimum was evaluated as hexavalent chromium.

Table J-5.9

Location-Specific Cancer Risks - Groundwater - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-MW-05	GSP-MW-06	GSP-MW-07	GSP-MW-08
SAMPLE ID	GSP-MW-5-062011	GSP-MW-6-062011	GSP-MW-7-062211	GSP-MW-8-062311
REC #	REC 10	REC 10	REC 9	REC 9
SAMPLE DATE	20110620	20110620	20110622	20110623
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999
BENZENE	0.13 U	0.13 U	3.1	0.13 U
CARBON TETRACHLORIDE	2.6	0.13 U	2.2 U	0.13 U
CHLOROFORM	0.92	0.16 U	2.7 U	0.16 U
TRICHLOROETHENE - NON-MUTAGEN	0.17 U	0.17 U	450	0.27
TRICHLOROETHENE - MUTAGEN	0.17 U	0.17 U	450	0.27
4-METHYLPHENOL				
BIS(2-ETHYLHEXYL)PHTHALATE	0.8 U	0.76 U	0.83 B	0.77 U
ARSENIC	0.71	0.42	0.93	0.48 B
BERYLLIUM	2.8	0.092 U	0.092 U	0.16 J
CADMIUM	1.3	0.053 J	0.046 U	0.31 J
CHROMIUM	6.7	0.67 B	1.6	0.79
COBALT	76	1.5	3.5	15
IRON				
MANGANESE				
NICKEL	53	0.63 U	7.9	23
VANADIUM	3.7	1.4	1.3	0.55
ZINC	79	6	18	37

Residential	**Unit Risk**				
BENZENE	1.25E-06	8.1E-08	8.1E-08	3.9E-06	8.1E-08
CARBON TETRACHLORIDE	1.65E-06	4.3E-06	1.1E-07	1.8E-06	1.1E-07
CHLOROFORM	8.63E-07	7.9E-07	6.9E-08	1.2E-06	6.9E-08
TRICHLOROETHENE - NON-MUTAGEN	8.12E-07	6.9E-08	6.9E-08	3.7E-04	2.2E-07
TRICHLOROETHENE - MUTAGEN	6.06E-07	5.2E-08	5.2E-08	2.7E-04	1.6E-07
4-METHYLPHENOL	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
BIS(2-ETHYLHEXYL)PHTHALATE	6.02E-07	2.4E-07	2.3E-07	2.5E-07	2.3E-07
ARSENIC	2.77E-05	2.0E-05	1.2E-05	2.6E-05	6.7E-06
BERYLLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CADMIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CHROMIUM	3.99E-05	2.7E-04	1.3E-05	6.4E-05	3.2E-05
COBALT	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NICKEL	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ZINC	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.9E-04	2.6E-05	7.3E-04	3.9E-05

Table J-5.9

Location-Specific Cancer Risks - Groundwater - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION		GSP-SB-061			
SAMPLE ID	GSP-SB/WP-61-20100527	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-SB/WP-66-20100527
REC #	REC 9	REC 9	REC 9	REC 10
SAMPLE DATE	20100527	20110622	20110623	20100527
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999
BENZENE	0.13 U	0.13 U		0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U		0.13 U
CHLOROFORM	0.16 U	0.16 U		0.16 U
TRICHLOROETHENE - NON-MUTAGEN	0.17 U	0.17 U		0.17 U
TRICHLOROETHENE - MUTAGEN	0.17 U	0.17 U		0.17 U
4-METHYLPHENOL	0.8 U			2.1
BIS(2-ETHYLHEXYL)PHTHALATE	0.8 U		0.77 U	0.8 U
ARSENIC	0.9	0.79		2.2
BERYLLIUM	0.056 B	0.092 U		0.33 J
CADMIUM	0.062 B	0.046 U		0.13 B
CHROMIUM	4.3	1.8		7.5
COBALT	3.8	0.68		31.8
IRON	6080			5040
MANGANESE	212			496
NICKEL	7.9	1		10.5
VANADIUM	3.4	3.9		12
ZINC	10.2 B	30		44 B

Residential	**Unit Risk**				
BENZENE	1.25E-06	8.1E-08	8.1E-08	0.0E+00	8.1E-08
CARBON TETRACHLORIDE	1.65E-06	1.1E-07	1.1E-07	0.0E+00	1.1E-07
CHLOROFORM	8.63E-07	6.9E-08	6.9E-08	0.0E+00	6.9E-08
TRICHLOROETHENE - NON-MUTAGEN	8.12E-07	6.9E-08	6.9E-08	0.0E+00	6.9E-08
TRICHLOROETHENE - MUTAGEN	6.06E-07	5.2E-08	5.2E-08	0.0E+00	5.2E-08
4-METHYLPHENOL	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
BIS(2-ETHYLHEXYL)PHTHALATE	6.02E-07	2.4E-07	0.0E+00	2.3E-07	2.4E-07
ARSENIC	2.77E-05	2.5E-05	2.2E-05	0.0E+00	6.1E-05
BERYLLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CADMIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CHROMIUM	3.99E-05	1.7E-04	7.2E-05	0.0E+00	3.0E-04
COBALT	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NICKEL	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ZINC	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.0E-04	9.4E-05	2.3E-07	3.6E-04

Table J-5.9

Location-Specific Cancer Risks - Groundwater - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-066		GSP-SB-071	
SAMPLE ID	GSP-SB-WP-66-062311	GSP-SB-WP-66-062411	GSP-SB/WP-71-20100528	GSP-SB-WP-71-062111
REC #	REC 10	REC 10	REC 10	REC 10
SAMPLE DATE	20110623	20110624	20100528	20110621
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999
BENZENE	0.13 U		0.13 U	0.13 U
CARBON TETRACHLORIDE	0.13 U		0.13 U	0.13 U
CHLOROFORM	0.16 U		0.16 U	0.16 U
TRICHLOROETHENE - NON-MUTAGEN	0.17 U		0.17 U	0.17 U
TRICHLOROETHENE - MUTAGEN	0.17 U		0.17 U	0.17 U
4-METHYLPHENOL			0.8 U	
BIS(2-ETHYLHEXYL)PHTHALATE		1.2 U	0.85 J	0.85 B
ARSENIC	7.1		4	9.7
BERYLLIUM	0.092 U		0.0059 U	0.092 U
CADMIUM	0.046 U		0.044 B	0.055 J
CHROMIUM	8.2		6.4	5.9
COBALT	11		2.5	11
IRON			13600	
MANGANESE			756	
NICKEL	9.7		4	2
VANADIUM	23		7.5	11
ZINC	26		10.4 B	12

Residential	**Unit Risk**				
BENZENE	1.25E-06	8.1E-08	0.0E+00	8.1E-08	8.1E-08
CARBON TETRACHLORIDE	1.65E-06	1.1E-07	0.0E+00	1.1E-07	1.1E-07
CHLOROFORM	8.63E-07	6.9E-08	0.0E+00	6.9E-08	6.9E-08
TRICHLOROETHENE - NON-MUTAGEN	8.12E-07	6.9E-08	0.0E+00	6.9E-08	6.9E-08
TRICHLOROETHENE - MUTAGEN	6.06E-07	5.2E-08	0.0E+00	5.2E-08	5.2E-08
4-METHYLPHENOL	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
BIS(2-ETHYLHEXYL)PHTHALATE	6.02E-07	0.0E+00	3.6E-07	5.1E-07	2.6E-07
ARSENIC	2.77E-05	2.0E-04	0.0E+00	1.1E-04	2.7E-04
BERYLLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CADMIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CHROMIUM	3.99E-05	3.3E-04	0.0E+00	2.6E-04	2.4E-04
COBALT	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NICKEL	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ZINC	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		5.2E-04	3.6E-07	3.7E-04	5.1E-04

Table J-5.10

Location-Specific Hazard Indices - Groundwater - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-MW-05	GSP-MW-06	GSP-MW-07	GSP-MW-08
SAMPLE ID	GSP-MW-5-062011	GSP-MW-6-062011	GSP-MW-7-062211	GSP-MW-8-062311
REC #	REC 10	REC 10	REC 9	REC 9
SAMPLE DATE	20110620	20110620	20110622	20110623
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999
BENZENE	0.13 U	0.13 U	3.1	0.13 U
CARBON TETRACHLORIDE	2.6	0.13 U	2.2 U	0.13 U
CHLOROFORM	0.92	0.16 U	2.7 U	0.16 U
TRICHLOROETHENE - NON-MUTAGEN	0.17 U	0.17 U	450	0.27
TRICHLOROETHENE - MUTAGEN	0.17 U	0.17 U	450	0.27
4-METHYLPHENOL				
BIS(2-ETHYLHEXYL)PHTHALATE	0.8 U	0.76 U	0.83 B	0.77 U
ARSENIC	0.71	0.42	0.93	0.48 B
BERYLLIUM	2.8	0.092 U	0.092 U	0.16 J
CADMIUM	1.3	0.053 J	0.046 U	0.31 J
CHROMIUM	6.7	0.67 B	1.6	0.79
COBALT	76	1.5	3.5	15
IRON				
MANGANESE				
NICKEL	53	0.63 U	7.9	23
VANADIUM	3.7	1.4	1.3	0.55
ZINC	79	6	18	37

Residential	**Unit Risk**				
BENZENE	1.84E-02	1.2E-03	1.2E-03	5.7E-02	1.2E-03
CARBON TETRACHLORIDE	2.02E-02	5.2E-02	1.3E-03	2.2E-02	1.3E-03
CHLOROFORM	6.95E-03	6.4E-03	5.6E-04	9.4E-03	5.6E-04
TRICHLOROETHENE - NON-MUTAGEN	1.49E-01	1.3E-02	1.3E-02	6.7E+01	4.0E-02
TRICHLOROETHENE - MUTAGEN	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4-METHYLPHENOL	1.40E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
BIS(2-ETHYLHEXYL)PHTHALATE	7.94E-03	3.2E-03	3.0E-03	3.3E-03	3.1E-03
ARSENIC	2.14E-01	1.5E-01	9.0E-02	2.0E-01	5.1E-02
BERYLLIUM	6.21E-02	4.2E-01	2.1E-02	9.9E-02	4.9E-02
CADMIUM	8.08E-02	6.1E+00	1.2E-01	2.8E-01	1.2E+00
CHROMIUM	3.26E-02	2.2E-01	1.1E-02	5.2E-02	2.6E-02
COBALT	2.14E-01	1.6E+01	3.2E-01	7.5E-01	3.2E+00
IRON	9.19E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.10E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NICKEL	3.30E-03	1.7E-01	1.0E-03	2.6E-02	7.6E-02
VANADIUM	1.29E-02	4.8E-02	1.8E-02	1.7E-02	7.1E-03
ZINC	2.14E-04	1.7E-02	1.3E-03	3.9E-03	7.9E-03
Total		2.3E+01	6.0E-01	6.8E+01	4.7E+00

Table J-5.10

Location-Specific Hazard Indices - Groundwater - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION			GSP-SB-061		
SAMPLE ID	GSP-SB/WP-61-20100527	GSP-SB-WP-61-062211	GSP-SB-WP-61-062311	GSP-SB/WP-66-20100527
REC #	REC 9	REC 9	REC 9	REC 10
SAMPLE DATE	20100527	20110622	20110623	20100527
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999
BENZENE	0.13 U	0.13 U		0.13 U
CARBON TETRACHLORIDE	0.13 U	0.13 U		0.13 U
CHLOROFORM	0.16 U	0.16 U		0.16 U
TRICHLOROETHENE - NON-MUTAGEN	0.17 U	0.17 U		0.17 U
TRICHLOROETHENE - MUTAGEN	0.17 U	0.17 U		0.17 U
4-METHYLPHENOL	0.8 U			2.1
BIS(2-ETHYLHEXYL)PHTHALATE	0.8 U		0.77 U	0.8 U
ARSENIC	0.9	0.79		2.2
BERYLLIUM	0.056 B	0.092 U		0.33 J
CADMIUM	0.062 B	0.046 U		0.13 B
CHROMIUM	4.3	1.8		7.5
COBALT	3.8	0.68		31.8
IRON	6080			5040
MANGANESE	212			496
NICKEL	7.9	1		10.5
VANADIUM	3.4	3.9		12
ZINC	10.2 B	30		44 B

Residential	**Unit Risk**				
BENZENE	1.84E-02	1.2E-03	1.2E-03	0.0E+00	1.2E-03
CARBON TETRACHLORIDE	2.02E-02	1.3E-03	1.3E-03	0.0E+00	1.3E-03
CHLOROFORM	6.95E-03	5.6E-04	5.6E-04	0.0E+00	5.6E-04
TRICHLOROETHENE - NON-MUTAGEN	1.49E-01	1.3E-02	1.3E-02	0.0E+00	1.3E-02
TRICHLOROETHENE - MUTAGEN	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4-METHYLPHENOL	1.40E-02	5.6E-03	0.0E+00	0.0E+00	2.9E-02
BIS(2-ETHYLHEXYL)PHTHALATE	7.94E-03	3.2E-03	0.0E+00	3.1E-03	3.2E-03
ARSENIC	2.14E-01	1.9E-01	1.7E-01	0.0E+00	4.7E-01
BERYLLIUM	6.21E-02	2.7E-01	1.1E-01	0.0E+00	4.7E-01
CADMIUM	8.08E-02	3.1E-01	5.5E-02	0.0E+00	2.6E+00
CHROMIUM	3.26E-02	1.4E-01	5.9E-02	0.0E+00	2.4E-01
COBALT	2.14E-01	8.1E-01	1.5E-01	0.0E+00	6.8E+00
IRON	9.19E-05	5.6E-01	0.0E+00	0.0E+00	4.6E-01
MANGANESE	3.10E-03	6.6E-01	0.0E+00	0.0E+00	1.5E+00
NICKEL	3.30E-03	2.6E-02	3.3E-03	0.0E+00	3.5E-02
VANADIUM	1.29E-02	4.4E-02	5.0E-02	0.0E+00	1.5E-01
ZINC	2.14E-04	1.1E-03	6.4E-03	0.0E+00	4.7E-03
Total		3.0E+00	6.2E-01	NA	1.3E+01

Table J-5.10

Location-Specific Hazard Indices - Groundwater - RECs #9 and #10
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-066		GSP-SB-071	
SAMPLE ID	GSP-SB-WP-66-062311	GSP-SB-WP-66-062411	GSP-SB/WP-71-20100528	GSP-SB-WP-71-062111
REC #	REC 10	REC 10	REC 10	REC 10
SAMPLE DATE	20110623	20110624	20100528	20110621
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999
BENZENE	0.13 U		0.13 U	0.13 U
CARBON TETRACHLORIDE	0.13 U		0.13 U	0.13 U
CHLOROFORM	0.16 U		0.16 U	0.16 U
TRICHLOROETHENE - NON-MUTAGEN	0.17 U		0.17 U	0.17 U
TRICHLOROETHENE - MUTAGEN	0.17 U		0.17 U	0.17 U
4-METHYLPHENOL			0.8 U	
BIS(2-ETHYLHEXYL)PHTHALATE		1.2 U	0.85 J	0.85 B
ARSENIC	7.1		4	9.7
BERYLLIUM	0.092 U		0.0059 U	0.092 U
CADMIUM	0.046 U		0.044 B	0.055 J
CHROMIUM	8.2		6.4	5.9
COBALT	11		2.5	11
IRON			13600	
MANGANESE			756	
NICKEL	9.7		4	2
VANADIUM	23		7.5	11
ZINC	26		10.4 B	12

Residential	**Unit Risk**				
BENZENE	1.84E-02	1.2E-03	0.0E+00	1.2E-03	1.2E-03
CARBON TETRACHLORIDE	2.02E-02	1.3E-03	0.0E+00	1.3E-03	1.3E-03
CHLOROFORM	6.95E-03	5.6E-04	0.0E+00	5.6E-04	5.6E-04
TRICHLOROETHENE - NON-MUTAGEN	1.49E-01	1.3E-02	0.0E+00	1.3E-02	1.3E-02
TRICHLOROETHENE - MUTAGEN	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4-METHYLPHENOL	1.40E-02	0.0E+00	0.0E+00	5.6E-03	0.0E+00
BIS(2-ETHYLHEXYL)PHTHALATE	7.94E-03	0.0E+00	4.8E-03	6.7E-03	3.4E-03
ARSENIC	2.14E-01	1.5E+00	0.0E+00	8.6E-01	2.1E+00
BERYLLIUM	6.21E-02	5.1E-01	0.0E+00	4.0E-01	3.7E-01
CADMIUM	8.08E-02	8.9E-01	0.0E+00	2.0E-01	8.9E-01
CHROMIUM	3.26E-02	2.7E-01	0.0E+00	2.1E-01	1.9E-01
COBALT	2.14E-01	2.4E+00	0.0E+00	5.3E-01	2.4E+00
IRON	9.19E-05	0.0E+00	0.0E+00	1.3E+00	0.0E+00
MANGANESE	3.10E-03	0.0E+00	0.0E+00	2.3E+00	0.0E+00
NICKEL	3.30E-03	3.2E-02	0.0E+00	1.3E-02	6.6E-03
VANADIUM	1.29E-02	3.0E-01	0.0E+00	9.7E-02	1.4E-01
ZINC	2.14E-04	5.6E-03	0.0E+00	1.1E-03	2.6E-03
Total		5.9E+00	NA	5.9E+00	6.0E+00

Table J-5.11

Location-Specific Cancer Risks - Groundwater - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-MW-01	GSP-MW-02	GSP-MW-03	GSP-MW-04
SAMPLE ID	GSP-MW-1-061711	GSP-MW-2-061711	GSP-MW-3-061711	GSP-MW-4-062011
REC #	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20110617	20110617	20110617	20110620
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999
BENZENE	0.35 B	0.19 B	0.16 B	0.13
CIS-1,2-DICHLOROETHENE	2.1	0.17 U	0.17 U	1.6
TRICHLOROETHENE - NON-MUTAGEN	12	0.17 U	0.17 U	6
TRICHLOROETHENE - MUTAGEN	12	0.17 U	0.17 U	6
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.66
4-METHYLPHENOL				
BIS(2-ETHYLHEXYL)PHTHALATE	0.77 U	0.78 U	0.99 J	0.76 U
ARSENIC	0.55	0.95	11	4.9
BERYLLIUM	1.7	0.092 U	0.092 U	0.092 U
CADMIUM	0.3 J	0.11 J	0.046 U	0.046 U
CHROMIUM	5.1	0.36 B	4.3	0.73 B
COBALT	52	16	11	11
IRON				
MANGANESE				
NICKEL	77	17	11	0.69
THALLIUM	0.47 B	0.28 B	0.29 B	0.32 B
VANADIUM	0.3 U	0.41	48	0.37
ZINC	210	29	45	3.5 B

Residential	**Unit Risk**				
BENZENE	1.25E-06	2.2E-07	1.2E-07	1.0E-07	1.6E-07
CIS-1,2-DICHLOROETHENE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
TRICHLOROETHENE - NON-MUTAGEN	8.12E-07	9.7E-06	6.9E-08	6.9E-08	4.9E-06
TRICHLOROETHENE - MUTAGEN	6.06E-07	7.3E-06	5.2E-08	5.2E-08	3.6E-06
VINYL CHLORIDE	6.45E-05	7.1E-06	7.1E-06	7.1E-06	4.3E-05
4-METHYLPHENOL	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
BIS(2-ETHYLHEXYL)PHTHALATE	6.02E-07	2.3E-07	2.3E-07	6.0E-07	2.3E-07
ARSENIC	2.77E-05	1.5E-05	2.6E-05	3.1E-04	1.4E-04
BERYLLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CADMIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CHROMIUM	3.99E-05	2.0E-04	7.2E-06	1.7E-04	1.5E-05
COBALT	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NICKEL	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ZINC	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		2.4E-04	4.1E-05	4.8E-04	2.0E-04

Table J-5.11

Location-Specific Cancer Risks - Groundwater - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-083		GSP-SB-084	
SAMPLE ID	GSP-SB/WP-83-20100528	GSP-SB-WP-83-062211	GSP-SB/WP-84-20100526	GSP-SB-WP-84-062311
REC #	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20100528	20110622	20100526	20110623
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
CIS-1,2-DICHLOROETHENE	0.84 J	0.17 U	0.32 J	0.33 J
TRICHLOROETHENE - NON-MUTAGEN	2.7	1.3	3.8	5
TRICHLOROETHENE - MUTAGEN	2.7	1.3	3.8	5
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U
4-METHYLPHENOL	8.4		0.8 U	
BIS(2-ETHYLHEXYL)PHTHALATE	0.8 U	0.77 U	1.3 J	0.77 U
ARSENIC	5.3	11	8.5	6.4
BERYLLIUM	0.75 J	0.092 U	0.51 J	0.64 J
CADMIUM	0.029 B	0.046 U	0.96 J	1
CHROMIUM	5.9	4.2	7.5	2.2
COBALT	48.4	4.5	194	210
IRON	20800		7470	
MANGANESE	215		29.8	
NICKEL	68.7	3.4	352	380
THALLIUM	0.13 U	0.21 B	1.1 B	1.1
VANADIUM	1.2	3.6	21.1	14
ZINC	112	6	1300	1500

Residential	**Unit Risk**				
BENZENE	1.25E-06	8.1E-08	8.1E-08	8.1E-08	8.1E-08
CIS-1,2-DICHLOROETHENE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
TRICHLOROETHENE - NON-MUTAGEN	8.12E-07	2.2E-06	1.1E-06	3.1E-06	4.1E-06
TRICHLOROETHENE - MUTAGEN	6.06E-07	1.6E-06	7.9E-07	2.3E-06	3.0E-06
VINYL CHLORIDE	6.45E-05	7.1E-06	7.1E-06	7.1E-06	7.1E-06
4-METHYLPHENOL	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
BIS(2-ETHYLHEXYL)PHTHALATE	6.02E-07	2.4E-07	2.3E-07	7.8E-07	2.3E-07
ARSENIC	2.77E-05	1.5E-04	3.1E-04	2.4E-04	1.8E-04
BERYLLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CADMIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CHROMIUM	3.99E-05	2.4E-04	1.7E-04	3.0E-04	8.8E-05
COBALT	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
IRON	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NICKEL	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ZINC	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total		3.9E-04	4.8E-04	5.5E-04	2.8E-04

Table J-5.11

Location-Specific Cancer Risks - Groundwater - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-089	
SAMPLE ID	GSP-SB/WP-89-20100528	GSP-SB-WP-89-062311
REC #	REC 11	REC 11
SAMPLE DATE	20100528	20110623
SAMPLE CODE	NORMAL	NORMAL
MATRIX	GW	GW
SAMPLE TYPE	NORMAL	NORMAL
SUBMATRIX	NA	NA
TOP DEPTH	-9999	-9999
BOTTOM DEPTH	-9999	-9999
BENZENE	0.13 U	0.13 U
CIS-1,2-DICHLOROETHENE	4.5	4.1
TRICHLOROETHENE - NON-MUTAGEN	25	25
TRICHLOROETHENE - MUTAGEN	25	25
VINYL CHLORIDE	0.28	0.22 U
4-METHYLPHENOL	0.8 U	
BIS(2-ETHYLHEXYL)PHTHALATE	0.8 U	0.76 U
ARSENIC	2.7	4.8
BERYLLIUM	0.77 J	0.6 J
CADMIUM	0.058 B	0.1 J
CHROMIUM	5.8	3.6
COBALT	34	38
IRON	8690	
MANGANESE	120	
NICKEL	44.4	47
THALLIUM	0.15 B	0.36 B
VANADIUM	9.3	4.2
ZINC	98.1 B	100

Residential	**Unit Risk**		
BENZENE	1.25E-06	8.1E-08	8.1E-08
CIS-1,2-DICHLOROETHENE	0.00E+00	0.0E+00	0.0E+00
TRICHLOROETHENE - NON-MUTAGEN	8.12E-07	2.0E-05	2.0E-05
TRICHLOROETHENE - MUTAGEN	6.06E-07	1.5E-05	1.5E-05
VINYL CHLORIDE	6.45E-05	1.8E-05	7.1E-06
4-METHYLPHENOL	0.00E+00	0.0E+00	0.0E+00
BIS(2-ETHYLHEXYL)PHTHALATE	6.02E-07	2.4E-07	2.3E-07
ARSENIC	2.77E-05	7.5E-05	1.3E-04
BERYLLIUM	0.00E+00	0.0E+00	0.0E+00
CADMIUM	0.00E+00	0.0E+00	0.0E+00
CHROMIUM	3.99E-05	2.3E-04	1.4E-04
COBALT	0.00E+00	0.0E+00	0.0E+00
IRON	0.00E+00	0.0E+00	0.0E+00
MANGANESE	0.00E+00	0.0E+00	0.0E+00
NICKEL	0.00E+00	0.0E+00	0.0E+00
THALLIUM	0.00E+00	0.0E+00	0.0E+00
VANADIUM	0.00E+00	0.0E+00	0.0E+00
ZINC	0.00E+00	0.0E+00	0.0E+00
Total		3.6E-04	3.2E-04

Table J-5.12

Location-Specific Hazard Indices - Groundwater - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-MW-01	GSP-MW-02	GSP-MW-03	GSP-MW-04
SAMPLE ID	GSP-MW-1-061711	GSP-MW-2-061711	GSP-MW-3-061711	GSP-MW-4-062011
REC #	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20110617	20110617	20110617	20110620
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999
BENZENE	0.35 B	0.19 B	0.16 B	0.13
CIS-1,2-DICHLOROETHENE	2.1	0.17 U	0.17 U	1.6
TRICHLOROETHENE - NON-MUTAGEN	12	0.17 U	0.17 U	6
TRICHLOROETHENE - MUTAGEN	12	0.17 U	0.17 U	6
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.66
4-METHYLPHENOL				
BIS(2-ETHYLHEXYL)PHTHALATE	0.77 U	0.78 U	0.99 J	0.76 U
ARSENIC	0.55	0.95	11	4.9
BERYLLIUM	1.7	0.092 U	0.092 U	0.092 U
CADMIUM	0.3 J	0.11 J	0.046 U	0.046 U
CHROMIUM	5.1	0.36 B	4.3	0.73 B
COBALT	52	16	11	11
IRON				
MANGANESE				
NICKEL	77	17	11	0.69
THALLIUM	0.47 B	0.28 B	0.29 B	0.32 B
VANADIUM	0.3 U	0.41	48	0.37
ZINC	210	29	45	3.5 B

Residential	**Unit Risk**				
BENZENE	1.84E-02	3.2E-03	1.8E-03	1.5E-03	2.4E-03
CIS-1,2-DICHLOROETHENE	3.59E-02	7.5E-02	3.1E-03	3.1E-03	5.7E-02
TRICHLOROETHENE - NON-MUTAGEN	1.49E-01	1.8E+00	1.3E-02	1.3E-02	8.9E-01
TRICHLOROETHENE - MUTAGEN	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VINYL CHLORIDE	2.25E-02	2.5E-03	2.5E-03	2.5E-03	1.5E-02
4-METHYLPHENOL	1.40E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00
BIS(2-ETHYLHEXYL)PHTHALATE	7.94E-03	3.1E-03	3.1E-03	7.9E-03	3.0E-03
ARSENIC	2.14E-01	1.2E-01	2.0E-01	2.4E+00	1.1E+00
BERYLLIUM	6.21E-02	1.1E-01	2.9E-03	2.9E-03	2.9E-03
CADMIUM	8.08E-02	2.4E-02	8.9E-03	1.9E-03	1.9E-03
CHROMIUM	3.26E-02	1.7E-01	5.9E-03	1.4E-01	1.2E-02
COBALT	2.14E-01	1.1E+01	3.4E+00	2.4E+00	2.4E+00
IRON	9.19E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MANGANESE	3.10E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NICKEL	3.30E-03	2.5E-01	5.6E-02	3.6E-02	2.3E-03
THALLIUM	6.43E+00	1.5E+00	9.0E-01	9.3E-01	1.0E+00
VANADIUM	1.29E-02	1.9E-03	5.3E-03	6.2E-01	4.8E-03
ZINC	2.14E-04	4.5E-02	6.2E-03	9.6E-03	3.7E-04
Total		1.5E+01	4.6E+00	6.5E+00	5.4E+00

Table J-5.12

Location-Specific Hazard Indices - Groundwater - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-083		GSP-SB-084	
SAMPLE ID	GSP-SB/WP-83-20100528	GSP-SB-WP-83-062211	GSP-SB/WP-84-20100526	GSP-SB-WP-84-062311
REC #	REC 11	REC 11	REC 11	REC 11
SAMPLE DATE	20100528	20110622	20100526	20110623
SAMPLE CODE	NORMAL	NORMAL	NORMAL	NORMAL
MATRIX	GW	GW	GW	GW
SAMPLE TYPE	NORMAL	NORMAL	NORMAL	NORMAL
SUBMATRIX	NA	NA	NA	NA
TOP DEPTH	-9999	-9999	-9999	-9999
BOTTOM DEPTH	-9999	-9999	-9999	-9999
BENZENE	0.13 U	0.13 U	0.13 U	0.13 U
CIS-1,2-DICHLOROETHENE	0.84 J	0.17 U	0.32 J	0.33 J
TRICHLOROETHENE - NON-MUTAGEN	2.7	1.3	3.8	5
TRICHLOROETHENE - MUTAGEN	2.7	1.3	3.8	5
VINYL CHLORIDE	0.22 U	0.22 U	0.22 U	0.22 U
4-METHYLPHENOL	8.4		0.8 U	
BIS(2-ETHYLHEXYL)PHTHALATE	0.8 U	0.77 U	1.3 J	0.77 U
ARSENIC	5.3	11	8.5	6.4
BERYLLIUM	0.75 J	0.092 U	0.51 J	0.64 J
CADMIUM	0.029 B	0.046 U	0.96 J	1
CHROMIUM	5.9	4.2	7.5	2.2
COBALT	48.4	4.5	194	210
IRON	20800		7470	
MANGANESE	215		29.8	
NICKEL	68.7	3.4	352	380
THALLIUM	0.13 U	0.21 B	1.1 B	1.1
VANADIUM	1.2	3.6	21.1	14
ZINC	112	6	1300	1500

Residential	**Unit Risk**				
BENZENE	1.84E-02	1.2E-03	1.2E-03	1.2E-03	1.2E-03
CIS-1,2-DICHLOROETHENE	3.59E-02	3.0E-02	3.1E-03	1.1E-02	1.2E-02
TRICHLOROETHENE - NON-MUTAGEN	1.49E-01	4.0E-01	1.9E-01	5.6E-01	7.4E-01
TRICHLOROETHENE - MUTAGEN	0.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
VINYL CHLORIDE	2.25E-02	2.5E-03	2.5E-03	2.5E-03	2.5E-03
4-METHYLPHENOL	1.40E-02	1.2E-01	0.0E+00	5.6E-03	0.0E+00
BIS(2-ETHYLHEXYL)PHTHALATE	7.94E-03	3.2E-03	3.1E-03	1.0E-02	3.1E-03
ARSENIC	2.14E-01	1.1E+00	2.4E+00	1.8E+00	1.4E+00
BERYLLIUM	6.21E-02	4.7E-02	2.9E-03	3.2E-02	4.0E-02
CADMIUM	8.08E-02	1.2E-03	1.9E-03	7.8E-02	8.1E-02
CHROMIUM	3.26E-02	1.9E-01	1.4E-01	2.4E-01	7.2E-02
COBALT	2.14E-01	1.0E+01	9.6E-01	4.1E+01	4.5E+01
IRON	9.19E-05	1.9E+00	0.0E+00	6.9E-01	0.0E+00
MANGANESE	3.10E-03	6.7E-01	0.0E+00	9.2E-02	0.0E+00
NICKEL	3.30E-03	2.3E-01	1.1E-02	1.2E+00	1.3E+00
THALLIUM	6.43E+00	4.2E-01	6.8E-01	3.5E+00	7.1E+00
VANADIUM	1.29E-02	1.5E-02	4.6E-02	2.7E-01	1.8E-01
ZINC	2.14E-04	2.4E-02	1.3E-03	2.8E-01	3.2E-01
Total		1.6E+01	4.4E+00	5.0E+01	5.6E+01

Table J-5.12

Location-Specific Hazard Indices - Groundwater - REC #11
Greater Strawberry Point
Lockheed Martin, Martin State Airport
Middle River, Maryland

LOCATION	GSP-SB-089	
SAMPLE ID	GSP-SB/WP-89-20100528	GSP-SB-WP-89-062311
REC #	REC 11	REC 11
SAMPLE DATE	20100528	20110623
SAMPLE CODE	NORMAL	NORMAL
MATRIX	GW	GW
SAMPLE TYPE	NORMAL	NORMAL
SUBMATRIX	NA	NA
TOP DEPTH	-9999	-9999
BOTTOM DEPTH	-9999	-9999
BENZENE	0.13 U	0.13 U
CIS-1,2-DICHLOROETHENE	4.5	4.1
TRICHLOROETHENE - NON-MUTAGEN	25	25
TRICHLOROETHENE - MUTAGEN	25	25
VINYL CHLORIDE	0.28	0.22 U
4-METHYLPHENOL	0.8 U	
BIS(2-ETHYLHEXYL)PHTHALATE	0.8 U	0.76 U
ARSENIC	2.7	4.8
BERYLLIUM	0.77 J	0.6 J
CADMIUM	0.058 B	0.1 J
CHROMIUM	5.8	3.6
COBALT	34	38
IRON	8690	
MANGANESE	120	
NICKEL	44.4	47
THALLIUM	0.15 B	0.36 B
VANADIUM	9.3	4.2
ZINC	98.1 B	100

Residential	**Unit Risk**		
BENZENE	1.84E-02	1.2E-03	1.2E-03
CIS-1,2-DICHLOROETHENE	3.59E-02	1.6E-01	1.5E-01
TRICHLOROETHENE - NON-MUTAGEN	1.49E-01	3.7E+00	3.7E+00
TRICHLOROETHENE - MUTAGEN	0.00E+00	0.0E+00	0.0E+00
VINYL CHLORIDE	2.25E-02	6.3E-03	2.5E-03
4-METHYLPHENOL	1.40E-02	5.6E-03	0.0E+00
BIS(2-ETHYLHEXYL)PHTHALATE	7.94E-03	3.2E-03	3.0E-03
ARSENIC	2.14E-01	5.8E-01	1.0E+00
BERYLLIUM	6.21E-02	4.8E-02	3.7E-02
CADMIUM	8.08E-02	2.3E-03	8.1E-03
CHROMIUM	3.26E-02	1.9E-01	1.2E-01
COBALT	2.14E-01	7.3E+00	8.1E+00
IRON	9.19E-05	8.0E-01	0.0E+00
MANGANESE	3.10E-03	3.7E-01	0.0E+00
NICKEL	3.30E-03	1.5E-01	1.6E-01
THALLIUM	6.43E+00	4.8E-01	1.2E+00
VANADIUM	1.29E-02	1.2E-01	5.4E-02
ZINC	2.14E-04	1.0E-02	2.1E-02
Total		1.4E+01	1.5E+01

APPENDIX J-6

REFINED EVALUATION FOR DRO/GRO

CLIENT	JOB NUMBER		
Lockheed			
SUBJECT: MSA - Calculation of Risk-based Concentrations for TPH (GRO/DRO)			
BASED ON: MDE / State of Massachusetts	DRAWING NUMBER		
BY: L. Ciofani	CHECKED BY: RJ	APPROVED BY	DATE

$C_{soil/gw}$ = Risk based Concentration for non-carcinogenic hazard index of 1 for soil or ground water.

C_{soil}: Residential (child)

$$= \frac{1 \times 3E\text{-}02\ mg/kg/d \times 15\ kg \times 365\ d/yr \times 6\ yr}{200\ mg/d \times 10^{-6}\ kg/mg \times 350\ d/yr \times 6\ yr}$$

$$= 2,300\ mg/kg \checkmark$$

C_{soil}: Trespasser (child)

$$= \frac{1 \times 3E\text{-}02\ mg/kg/d \times 15\ kg \times 365\ d/yr \times 6\ yr}{200\ mg/day \times 10^{-6}\ kg/mg \times 52\ d/yr \times 6\ yr}$$

$$= 16,000\ mg/kg \checkmark$$

C_{soil}: Industrial (adult)

$$= \frac{1 \times 3E\text{-}02\ mg/kg/d \times 70\ kg \times 365\ d/yr \times 25\ yr}{50\ mg/d \times 10^{-6}\ kg/mg \times 250\ d/yr \times 25\ yr}$$

$$= 61,000\ mg/kg \checkmark$$

C_{soil}: Recreational (child)

$$= \frac{1 \times 3E\text{-}02\ mg/kg/d \times 15\ kg \times 365\ d/yr \times 6\ yr}{200\ mg/d \times 10^{-6}\ kg/mg \times 70\ d/yr \times 6\ yr}$$

$$= 12,000\ mg/kg \checkmark$$

C_{gw}: Residential (child)

$$= \frac{1 \times 3E\text{-}02\ mg/kg/day \times 15\ kg \times 365\ d/yr \times 6\ yr}{1\ L/d \times 350\ d/yr \times 6\ yr}$$

$$= 0.47\ mg/L \checkmark$$

$$= 470\ ug/L \checkmark$$

CLIENT	JOB NUMBER		
Lockheed			
SUBJECT: MSA - Calculation of Risk-based Concentrations for TPH (GRO/DRO)			
BASED ON: MDE / State of Massachusetts	DRAWING NUMBER		
BY: L. Ciofani	CHECKED BY	APPROVED BY	DATE

- See attached State of Maryland, Department of the Environment Cleanup Standards for Soil and Groundwater, June 2008, Interim Final Guidance, Update No. 2.1 (selected pages).

- Toxicity criteria recommended (3E-02 mg/kg/d) by State of Massachusetts, Final Policy Document # WSC-02-411 (10.31.2002).

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STATE OF MARYLAND

DEPARTMENT OF THE ENVIRONMENT

CLEANUP STANDARDS FOR SOIL AND GROUNDWATER

JUNE 2008

INTERIM FINAL GUIDANCE

(UPDATE No. 2.1)

Appendix 1. Risk Assessment Equations and Tables

Groundwater Ingestion:

Noncarcinogenic:
$$C_{water}\,(mg/l) = \frac{HI \times RfD_o \times BW \times AT_n}{IR_{dw} \times EF \times ED} \quad (1)$$

Carcinogenic (age adjusted):
$$C_{water}\,(mg/l) = \frac{CR \times AT_c}{IF_{dw} \times EF \times CSF_o} \quad (2)$$

Carcinogenic:
$$C_{water}\,(mg/l) = \frac{CR \times BW \times AT_c}{IR_{dw} \times EF \times ED \times CSF_o} \quad (3)$$

Inhalation of Volatiles in Groundwater:

Noncarcinogenic:
$$C_{water}\,(mg/l) = \frac{HI \times RfD_i \times BW \times AT_n}{InhR \times EF \times ED \times ET \times VF} \quad (4)$$

Carcinogenic (age adjusted):
$$C_{water}\,(mg/l) = \frac{CR \times AT_c}{IF_{inh} \times EF \times CSF_i \times VF} \quad (5)$$

Carcinogenic:
$$C_{water}\,(mg/l) = \frac{CR \times BW \times AT_c}{InhR \times EF \times ED \times ET \times CSF_i \times VF} \quad (6)$$

Soil Ingestion:

Noncarcinogenic:
$$C_{soil}\,(mg/kg) = \frac{HI \times RfD_o \times BW \times AT_n}{IR_{soil} \times CF \times EF \times ED} \quad (7)$$

Carcinogenic (age adjusted):
$$C_{soil}\,(mg/kg) = \frac{CR \times AT_c}{CF \times IF_{soil} \times EF \times CSF_o} \quad (8)$$

Carcinogenic:
$$C_{soil}\,(mg/kg) = \frac{CR \times BW \times AT_c}{CF \times IR_{soil} \times EF \times ED \times CSF_o} \quad (9)$$

Appendix 1 - Table 1. Default ingestion parameters used to calculate the risk based concentrations for groundwater.

Parameter		Pathway / Population				
		Adult	Youth (>6 - <18 Years)	Child (<6 Years)	Construction Worker	Age-Adjusted Resident
HI	Hazard Index	0.1	0.1	0.1	0.1	
CR	Excess Lifetime Cancer Risk	1E-05	1E-05	1E-05	1E-05	1E-05
BW	Body Weight (kg)	70[a, b, c, d]	40[a]	15[a, b, c]	70[a, b, c, d]	
		Ingestion – Residential				
IR_{dw}	Ingestion Rate/Drinking Water (l/day)	2[a]	2[a]	1[a]	3[a]	
IF_{dw}	Age-Adjusted Ingestion Factor (l-yr/kg-day)					1[e]
EF	Exposure Frequency (days/year)	350[d, f]	350[d, f]	350[d, f]	250[c, d]	350[d, f]
ED	Exposure Duration (years)	30[a, b]	12[a]	6[a, b]	1[c]	
		Ingestion – Commercial				
IR_{dw}	Ingestion Rate/ Groundwater (l/day)	1[c]	2[a]	1[a]	3[a]	
IF_{dw}	Age-Adjusted Ingestion Factor (l-yr/kg-day)					1[e]
EF	Exposure Frequency (days/year)	250[c, d]	132[b, g]	132[b, g]	250[c, d]	132[b, g]
ED	Exposure Duration (years)	25[c, d]	12[a]	6[a, b]	1[c]	
		Ingestion – Industrial				
IR_{dw}	Ingestion Rate/Drinking Water (l/day)	1[c]	2[a]		3[a]	
EF	Exposure Frequency (days/year)	250[c, d]	132 [b, g]		250[c, d]	
ED	Exposure Duration (years)	25[c]	12[a]		1[c]	

Note: The following body weight values were used in deriving the standards; 70 kg for the adult and construction worker; 40 kg for youths, and 15 kg for the child population.

Appendix 1 - Table 3. Default ingestion parameters used to calculate the risk based concentrations for soil.

	Parameter	Ingestion - Residential				
		Adult	Youth (>6 - <18 Years)	Child (<6 Years)	Construction Worker	Age-Adjusted Resident
IR_{soil}	Ingestion Rate/Soil (mg/day)	100[a, b, c, d]	100[a, b, c, d]	200[a, b]	480[c]	
IF_{soil}	Age-Adjusted Ingestion Factor (mg-yr/kg-day)					127[e]
CF	Conversion Factor (kg/mg)	1E-06 [b]	1E-06[b]	1E-06[b]	1E-06[b]	1E-06[b]
EF	Exposure Frequency (days/year)	350[d, f]	350[d, f]	350[d, f]	250[c, d]	350[d, f]
ED	Exposure Duration (years)	30[a, b]	12[a]	6[a, b]	1[c]	
		Ingestion - Commercial				
IR_{soil}	Ingestion Rate/Soil (mg/day)	50[c, d]	100[a, b, c, d]	200[a, b]	480[c]	
IF_{soil}	Age-Adjusted Ingestion Factor (mg-yr/kg-day)					110 [e]
EF	Exposure Frequency (days/year)	250[c, d]	132[b, g]	132[b, g]	250[c, d]	132[b, g]
ED	Exposure Duration (years)	25[c, d]	12[a]	6[a, b]	1[c]	
		Ingestion - Industrial				
IR_{soil}	Ingestion Rate/Soil (mg/day)	50[c, d]	100[a, b, c, d]		480[c]	
CF	Conversion Factor (kg/mg)	1E-06[b]	1E-06[b]		1E-06[b]	
FI	Fraction Ingested (unitless)	1	1		1	
EF	Exposure Frequency (days/year)	250[c, d]	132[b, g]		250[c, d]	
ED	Exposure Duration (years)	25[c]	12[a]		1[c]	

Note: The following body weight values were used in deriving the standards; 70 kg for the adult and construction worker; 40 kg for youths, and 15 kg for the child population.

Parameter	Definition (units)	Default Value
SFS_{adj}	Age-adjusted dermal exposure factor – (cm^2- event/kg)	3084000
SSA_{1-6}	Skin surface area available for contact during ages 1-6 (cm^2)	6,600
SSA_{7-31}	Skin surface area available for contact during ages 7-31 (cm^2)	18,000
EF_{1-6}	Exposure Frequency ages 1-6 (days/years)	350
EF_{7-31}	Exposure Frequency ages 7-31 (days/years)	350
EV_{1-6}	Exposure Event ages 1-6 (event/day)	1
EV_{7-31}	Exposure Event ages 7-31 (event/day)	1
ED_{1-6}	Exposure duration during ages 1-6 (years)	6
ED_{7-31}	Exposure duration during ages 7-31 (years)	24
BW_{1-6}	Average Body weight during ages 1-6 (kg)	15
BW_{7-31}	Average Body weight during ages 7-31 (kg)	70

Age-Adjusted Dermal Exposure Factor (SFS_{adj}) for Soil[r]

$$SFS_{adj} = \frac{(SSA_{1-6})(AF_{1-6})(ED_{1-6})}{(BW_{1-6})} + \frac{(SSA_{7-31})(AF_{7-31})(ED_{7-31})}{(BW_{7-31})}$$

Parameter	Definition (units)	Default Value
SFS_{adj}	Age-adjusted dermal exposure factor – (mg-yrs/kg-events)	360
AF_{1-6}	Adherence factor of soil to skin for a child (1-6 years) (mg/cm^2-event) (Referred to as contact rate in RAGS, Part A	0.2 (EFH, EPA 1997a
AF_{7-31}	Adherence factor of soil to skin for an adult (7-31 years) (mg/cm^2-event) (Referred to as contact rate in RAGS, Part A)	0.07 (EFH, EPA 1997a)
SSA_{1-6}	Skin surface area available for contact during ages 1-6 (cm^2)	2,800
SSA_{7-31}	Skin surface area available for contact during ages 7-31 (cm^2)	5,700
ED_{1-6}	Exposure duration during ages 1-6 (years)	6
ED_{7-31}	Exposure duration during ages 7-31 (years)	24
BW_{1-6}	Average Body weight during ages 1-6 (kg)	15
BW_{7-31}	Average Body weight during ages 7-31 (kg)	70

Default exposure parameters for groundwater and soil pathways are presented in Tables 1 – 6.

Small child and adult receptor body weight

APPENDIX K—ECOLOGICAL RISK ASSESSMENT SUPPORTING DOCUMENTATION

APPENDIX K-1

CHEMICAL ECOTOXICITY
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

This attachment presents a discussion of the different chemical classes detected at Greater Strawberry Point, including toxicity information, potential food chain and trophic transfer, and bioaccumulation potential.

Volatile Organic Compounds

VOCs are usually very mobile in the environment because they are poorly adsorbed to soil and sediment particles. Also, because they are very volatile, they typically are only detected in surface water, surface soil, and sediment at low concentrations.

Most VOCs have very little potential to bioaccumulate in ecological receptors; therefore, biomagnification through the food chain does not appear to be significant. VOCs are not expected to biomagnify in plants and are typically only toxic to ecological receptors at relatively high concentrations.

Semivolatile Organic Compounds

The most common semivolatile organic compounds that are found at naval facilities include polynuclear aromatic hydocarbons (PAHs) and phthalates. PAHs are a diverse group of compounds consisting of two or more substituted and unsubstituted polynuclear aromatic rings formed by the incomplete combustion of carbonaceous materials. PAHs are ubiquitous in the modern environment and are common constituents of coal tar, soot, vehicle exhaust, cigarette smoke, certain petroleum products, road tar, mineral oils, creosote, and many cooked foods. PAHs also are released to the environment through natural sources such as volcanoes and forest fires.

PAHs are transferred from surface water by volatilization and sorption to settling particles. The compounds are transformed in surface water by photooxidation, chemical oxidation, and microbial metabolism (ATSDR, 1989a). In soil and sediments, microbial metabolism is the major process for degradation of PAHs (ATSDR, 1989a). Although PAHs accumulate in terrestrial and aquatic plants, many organisms are able to metabolize and eliminate these compounds. Vertebrates can readily metabolize PAHs, but lower forms (insects and worms) cannot

metabolize PAHs as quickly. However, food chain uptake does not appear to be a major exposure source to PAHs for aquatic animals (ATSDR, 1989a).

PAHs vary substantially in their toxicity to aquatic organisms. In general, toxicity increases as molecular weight increases, with the exception of some high molecular weight PAHs that have low acute toxicity. Most species of aquatic organisms rapidly accumulate PAHs that occur at low concentrations in the ambient medium. However, uptake of PAHs is highly species-specific, it is higher in algae, mollusks, and other species that are incapable of metabolizing PAHs (Eisler, 1987). The ability of fish to metabolize PAHs may explain why benzo(a)pyrene is frequently not detected or is found at only very low levels in fish from environments heavily contaminated with PAHs (ATSDR, 1989a).

Phthalates are semivolatile organic compounds that are used in production of plastics (ATSDR, 1993). Most phthalates are expected to sorb to soil or sediment particles after their release because of their high Log K_{OC} values (Howard, 1989). Some phthalates may bioconcentrate in aquatic organisms [Spectrum Laboratories, 1999; Howard, 1989; ATSDR, 1989a].

PCBs

The term polychlorinated biphenyls (PCBs) commonly refers to a variety of mixtures of individual biphenyl isomers, each consisting of two joined benzene rings and up to 10 chlorine atoms. Mixtures of these isomers are known by their commercial designation of Aroclor. This trade name is followed by a four-digit number; the first two numbers indicate the type of isomer mixture and the last two numbers indicate the approximate weight percent of chlorine in the mixture (USEPA, 1985).

PCBs released into water adsorb to sediments and other organic matter. Typically, PCB concentrations are greater in the sediment and suspended material than in the water column. Substantial quantities of PCBs in aquatic sediments can act as an environmental reservoir from which PCBs may be released slowly over a long period of time (ATSDR, 1989b). For PCBs that exist in the dissolved state in water, volatilization becomes the primary fate process (USEPA, 1985).

Degradation of PCBs in the environment is dependent upon the degree of chlorination. Generally, the more chlorinated the PCB molecule, the more persistent it will be in the environment. Factors that determine biodegradability include the amount of chlorination, concentration, type of microbial population, available nutrients, and the temperature (ATSDR, 1989b).

Because PCBs are highly lipophilic, they can bioaccumulate in the lipid portions of animals. Bioconcentration factors in the thousands have been reported for various aquatic species (Eisler, 1986). PCBs can also accumulate in upper trophic level animals such as piscivorous birds and mammals that feed on contaminated prey items (Eisler, 1986).

Adverse effects of PCBs on terrestrial wildlife include increased mortality, reproductive effects, and behavioral effects (USEPA, 1985). As a group, birds are more resistant to acutely toxic effects of PCBs than mammals (Eisler, 1986). Among sensitive avian species, PCBs disrupt the normal pattern of growth, reproduction, metabolism, and behavior (Eisler, 1986). Of the mammals, the mink is the most sensitive wildlife species tested for which data are available (Eisler, 1986). Impacts to mink include anorexia, weight loss, lethargy, reproductive effects, and death (Eisler, 1986).

Metals

Many metals occur naturally at various concentrations in the surface water and sediment primarily to chemical weathering of rocks and fallout from volcanoes. Most metals are toxic to aquatic (i.e., fish, invertebrates) and terrestrial (i.e., plants, invertebrates, vertebrates) ecological receptors above certain concentrations, with some metals being more toxic at lower concentrations than others. Also, different chemical forms of the metals may be more toxic than others. For example, hexavalent chromium is typically more toxic than trivalent chromium, and methylmercury is more toxic than inorganic mercury. In addition, the toxicity of several metals (cadmium, chromium, copper, lead, nickel, silver, and zinc) to aquatic receptors in freshwater systems decreases with increasing water hardness.

Many factors (e.g., pH, Eh, clay content, organic matter content) influence the bioavailability of metals to invertebrates in sediment. One way to estimate the bioavailable portion of certain divalent metals (cadmium, copper, lead, nickel, and zinc) in sediment is to measure the amount of acid volatile sulfides (AVS) and simultaneously extracted metals (SEM) in a sediment sample. If the molar concentration of AVS is higher than the molar concentration of SEM, than the SEM metals are expected to be unavailable to aquatic invertebrates and, therefore, nontoxic. AVS plays little or no role in determining interstitial water concentrations of metals in aerobic systems or those with low productivity (i.e., where the absence of organic carbon limits sulfate reduction) (Ankley et al., 1995), or when ingestion of sediments is the primary exposure route (Lee et al., 2000).

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APPENDIX K-1

SOIL ECOLOGICAL SCREENING LEVELS
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

	Ecological Screening Level							
	Plants		Invertebrates		Avian		Mammals	
Parameter	Value	Source	Value	Source	Value	Source	Value	Source
VOLATILES (UG/KG)								
1,2,3-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	100	R3 BTAG	20000	NOAA	100	R3 BTAG	11100	NOAA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	100	R3 BTAG	100	R3 BTAG	100	R3 BTAG	2960	NOAA
1,3-DICHLOROBENZENE	30	NOAA Dutch	30	NOAA Dutch	30	NOAA Dutch	37700	NOAA
2-BUTANONE	NA	NA	NA	NA	NA	NA	89600	NOAA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	100000	R3 BTAG	443000	NOAA
ACETONE	NA	NA	NA	NA	NA	NA	2500	NOAA
BENZENE	31000	Canadian SQG	31000	Canadian SQG	25000	Canadian SQG	25000	Canadian SQG
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	94.1	NOAA
CHLOROBENZENE	30	NOAA Dutch	40000	NOAA	100	R3 BTAG	13100	NOAA
CIS-1,2-DICHLOROETHENE	200	NOAA Dutch	200	NOAA Dutch	200	NOAA Dutch	200	NOAA Dutch
ETHYLBENZENE	55000	Canadian SQG	55000	Canadian SQG	910000	Canadian SQG	910000	Canadian SQG
METHYLENE CHLORIDE	300	R3 BTAG	300	R3 BTAG	300	R3 BTAG	4050	NOAA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	100	R3 BTAG	29000	Eco SSL	100	R3 BTAG	100000	Eco SSL
O-XYLENE	100	NOAA Dutch	100	NOAA Dutch	100	NOAA Dutch	100	NOAA Dutch
TERTIARY-BUTYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA	NA
TOLUENE	75000	Canadian SQG	75000	Canadian SQG	1400000	Canadian SQG	1400000	Canadian SQG
TOTAL XYLENES	65000	Canadian SQG	65000	Canadian SQG	3700000	Canadian SQG	3700000	Canadian SQG
TRICHLOROETHENE	3000	Canadian SQG	3000	Canadian SQG	100	NOAA Dutch	12400	NOAA
SEMIVOLATILES (UG/KG)								
2-METHYLNAPHTHALENE	NA	NA	29000	Eco SSL	NA	NA	100000	Eco SSL
ACENAPHTHENE	20000	NOAA	29000	Eco SSL	100	R3 BTAG	100000	Eco SSL
ACENAPHTHYLENE	100	R3 BTAG	29000	Eco SSL	100	R3 BTAG	100000	Eco SSL
ANTHRACENE	2500	Canadian SQG	29000	Eco SSL	100	R3 BTAG	100000	Eco SSL
BAP EQUIVALENT	NA	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	100	R3 BTAG	18000	Eco SSL	100	R3 BTAG	1100	Eco SSL
BENZO(A)PYRENE	20000	Canadian SQG	18000	Eco SSL	100	R3 BTAG	1100	Eco SSL
BENZO(B)FLUORANTHENE	100	R3 BTAG	18000	Eco SSL	100	R3 BTAG	1100	Eco SSL
BENZO(G,H,I)PERYLENE	100	R3 BTAG	18000	Eco SSL	100	R3 BTAG	1100	Eco SSL
BENZO(K)FLUORANTHENE	100	R3 BTAG	18000	Eco SSL	100	R3 BTAG	1100	Eco SSL
BIS(2-ETHYLHEXYL)PHTHALATE	100	NOAA Dutch	100	NOAA Dutch	100	NOAA Dutch	925	NOAA
BUTYL BENZYL PHTHALATE	100	NOAA Dutch	100	NOAA Dutch	100	NOAA Dutch	239	NOAA
CAPROLACTAM	NA	NA	NA	NA	NA	NA	NA	NA
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	100	R3 BTAG	18000	Eco SSL	100	R3 BTAG	1100	Eco SSL
DI-N-BUTYL PHTHALATE	200000	NOAA	100	NOAA Dutch	100	NOAA Dutch	150	NOAA
DIBENZO(A,H)ANTHRACENE	100	R3 BTAG	18000	Eco SSL	100	R3 BTAG	1100	Eco SSL
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	NA
DIETHYL PHTHALATE	100000	NOAA	100	NOAA Dutch	100	NOAA Dutch	24800	NOAA
FLUORANTHENE	50000	Canadian SQG	29000	Eco SSL	100	R3 BTAG	100000	Eco SSL
FLUORENE	100	R3 BTAG	29000	Eco SSL	100	R3 BTAG	100000	Eco SSL
INDENO(1,2,3-CD)PYRENE	100	R3 BTAG	18000	Eco SSL	100	R3 BTAG	1100	Eco SSL
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	544	NOAA
NAPHTHALENE	100	R3 BTAG	29000	Eco SSL	100	R3 BTAG	100000	Eco SSL
PHENANTHRENE	100	R3 BTAG	29000	Eco SSL	100	R3 BTAG	100000	Eco SSL
PYRENE	100	R3 BTAG	18000	Eco SSL	100	R3 BTAG	1100	Eco SSL
PCBS (UG/KG)								
AROCLOR-1260	33000	Canadian SQG	33000	Canadian SQG	1300	Canadian SQG	1300	Canadian SQG
METALS (MG/KG)								
ANTIMONY	5	NOAA	78	Eco SSL	3	NOAA Dutch	0.27	Eco SSL
ARSENIC	18	Eco SSL	17.1	Canadian SQG	43	Eco SSL	46	Eco SSL
BARIUM	500	NOAA	330	Eco SSL	440	R3 BTAG	2000	Eco SSL
BERYLLIUM	10	NOAA	40	Eco SSL	1.1	NOAA Dutch	21	Eco SSL
CADMIUM	32	Eco SSL	140	Eco SSL	0.77	Eco SSL	0.36	Eco SSL
CHROMIUM	64	Canadian SQG	64	Canadian SQG	26	Eco SSL	34	Eco SSL
COBALT	13	Eco SSL	200	R3 BTAG	120	Eco SSL	230	Eco SSL
COPPER	70	Eco SSL	80	Eco SSL	28	Eco SSL	49	Eco SSL
IRON	pH<5,pH>8	Eco SSL	200	NOAA[(1)]	12	R3 BTAG	12	R3 BTAG
LEAD	120	Eco SSL	1700	Eco SSL	11	Eco SSL	56	Eco SSL
MANGANESE	220	Eco SSL	450	Eco SSL	4300	Eco SSL	4000	Eco SSL
MERCURY	12	Canadian SQG	12	Canadian SQG	0.058	R3 BTAG	0.00158	NOAA
MOLYBDENUM	2	NOAA	200	NOAA[(1)]	0.59	R3 BTAG	0.59	R3 BTAG
NICKEL	38	Eco SSL	280	Eco SSL	210	Eco SSL	130	Eco SSL
SELENIUM	0.52	Eco SSL	4.1	Eco SSL	1.2	Eco SSL	0.63	Eco SSL
SILVER	560	Eco SSL	NA	NA	4.2	Eco SSL	14	Eco SSL
THALLIUM	1.4	Canadian SQG	1.4	Canadian SQG	1	NOAA Dutch	0.0569	NOAA
VANADIUM	130	Canadian SQG	130	Canadian SQG	7.8	Eco SSL	280	Eco SSL

APPENDIX K-1

SOIL ECOLOGICAL SCREENING LEVELS
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

	Ecological Screening Level							
	Plants		Invertebrates		Avian		Mammals	
Parameter	**Value**	**Source**	**Value**	**Source**	**Value**	**Source**	**Value**	**Source**
ZINC	160	Eco SSL	120	Eco SSL	46	Eco SSL	79	Eco SSL
PETROLEUM HYDROCARBONS (MG/KG)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA
PETROLEUM HYDROCARBONS (UG/KG)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NA

NA - Not Available
1 - Value for microbes.
Screening Level Sources in the order of Preference:
Eco SSL - EPA Ecological Soil Screening Levels (EPA, 2003, 2005, 2006, 2007, 2008)
Canadian SQG - Canadian Soil Quality Guidelines (CCME, 2006 and supporting documents)
NOAA - Values from sources as compiled in NOAA's Quick Reference Tables (Buchman, 2008)
EPA Region 3 BTAG (R3 BTAG) Surface Soil Screening Levels (EPA, 1995)
NOAA Dutch - Dutch target values provided in NOAA's Quick Reference Tables (Buchman, 2008)

APPENDIX K-1

SURFACE WATER ECOLOGICAL SCREENING LEVELS
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	CAS Number	Freshwater Ecological Screening Value (ESV)[1]	Marine Surface Water ESV[1]	Lowest ESV
VOLATILES (UG/L)				
1,1-DICHLOROETHENE	75-35-4	25	2240	25
1,2,4-TRIMETHYLBENZENE	95-63-6	33	19	19
2-BUTANONE	78-93-3	14000	NA	14000
ACETONE	67-64-1	1500	564000	1500
BENZENE	71-43-2	370	110	110
CARBON DISULFIDE	75-15-0	0.92	NA	0.92
CARBON TETRACHLORIDE	56-23-5	13.3	1500	13.3
CHLOROFORM	67-66-3	1.8	815	1.8
CHLOROMETHANE	74-87-3	NA	2700	2700
CIS-1,2-DICHLOROETHENE	156-59-2	590[2]	680[2]	590
M+P-XYLENES	NA	13[3]	19[3]	13
O-XYLENE	95-47-6	13[3]	19[3]	13
TERTIARY-BUTYL ALCOHOL	75-65-0	NA	NA	NA
TOLUENE	108-88-3	2	215	2
TOTAL XYLENES	1330-20-7	13	19	13
TRANS-1,2-DICHLOROETHENE	156-60-5	970	NA	970
TRICHLOROETHENE	79-01-6	21	1940	21
VINYL CHLORIDE	75-01-4	930	NA	930
SEMIVOLATILES (UG/L)				
4-METHYLPHENOL	106-44-5	543	NA	543
BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	16	NA	16
BUTYL BENZYL PHTHALATE	85-68-7	19	29.4	19
CAPROLACTAM	105-60-2	NA	NA	NA
PHENOL	108-95-2	4	58	4
METALS (UG/L)				
ANTIMONY	7440-36-0	30	500	30
ARSENIC	7440-38-2	5	12.5	5
BARIUM	7440-39-3	4	NA	4
BERYLLIUM	7440-41-7	0.66	NA	0.66
CADMIUM	7440-43-9	0.25	0.12	0.12
CHROMIUM	7440-47-3	85	57.5	57.5
COBALT	7440-48-4	23	NA	23
COPPER	7440-50-8	9	3.1	3.1
IRON	7439-89-6	300	NA	300
LEAD	7439-92-1	2.5	8.1	2.5
MANGANESE	7439-96-5	120	NA	120
MERCURY	7439-97-6	0.02	0.01	0.01
MOLYBDENUM	7439-98-7	73	NA	73
NICKEL	7440-02-0	52	8.2	8.2
SELENIUM	7782-49-2	1	71	1
THALLIUM	7440-28-0	0.8	21.3	0.8
VANADIUM	7440-62-2	20	NA	20
ZINC	7440-66-6	120	81	81
DISSOLVED METALS (UG/L)				
ANTIMONY	7440-36-0	30	500	30
ARSENIC	7440-38-2	5	12.5	5

APPENDIX K-1

SURFACE WATER ECOLOGICAL SCREENING LEVELS
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameter	CAS Number	Freshwater Ecological Screening Value (ESV)[(1)]	Marine Surface Water ESV[(1)]	Lowest ESV
BARIUM	7440-39-3	4	NA	4
BERYLLIUM	7440-41-7	0.66	NA	0.66
CADMIUM	7440-43-9	0.25	0.12	0.12
CHROMIUM	7440-47-3	85	57.5	57.5
COBALT	7440-48-4	23	NA	23
COPPER	7440-50-8	9	3.1	3.1
IRON	7439-89-6	300	NA	300
LEAD	7439-92-1	2.5	8.1	2.5
MANGANESE	7439-96-5	120	NA	120
MERCURY	7439-97-6	0.02	0.01	0.01
MOLYBDENUM	7439-98-7	73	NA	73
NICKEL	7440-02-0	52	8.2	8.2
SELENIUM	7782-49-2	1	71	1
THALLIUM	7440-28-0	0.8	21.3	0.8
VANADIUM	7440-62-2	20	NA	20
ZINC	7440-66-6	120	81	81
PETROLEUM HYDROCARBONS (UG/L)				
DIESEL RANGE ORGANICS	NA	NA	NA	NA
GASOLINE RANGE ORGANICS	NA	NA	NA	NA

1 - Value is the USEPA Region 3 Biological Technical Assistance Group (BTAG) screening level for freshwater and marine surface water (USEPA, July 2006) unless otherwise noted. The lower of the freshwater and marine ESVs was used as the screening level.

2 - The value for 1,2-dichloroethene is used as a surrogate for cis-1,2-dichloroethene.

3 - Value for total xylenes.

APPENDIX K-1

SOIL TO PLANT AND EARTHWORM BIOACCUMULATION FACTORS GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT MIDDLE RIVER, MARYLAND

This attachment presents the bioaccumulation factors (BAFs) that were used in the food chain models. The following sources of BAFs were used in the ecological risk assessment for most of the chemicals:

- Plant and Soil Invertebrate BAFs: EPA Guidance for Developing Ecological Soil Screening Levels, Attachment 4-1 (USEPA, 2007).

- Plant BAFs (organic chemicals and select metals): Toxicity and Chemical-Specific Factors Database (ORNL, 2009).

- Plant BAFs (metals): Empirical Model for the Uptake of Inorganic Chemicals from Soil by Plants (ORNL, 1998).

- Soil Invertebrate BAFs: Development and Validation of Bioaccumulation Models for Earthworms (Sample et al., 1998).

The BAF Table in this Appendix presents the BAFs that were used in the food-chain models for the individual constituents that were detected at Greater Strawberry Point. Note that dry weight BAFs were used for this ERA.

The EPA Guidance for Developing Ecological Soil Screening Levels (Eco SSLs) was the source of the BAFs for some of the chemicals. The majority of these BAFs are actually regression or BAF equations that are used to calculate the tissue concentration from the soil concentration.

References

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Sample, B.E., J.J. Beauchamp, R.A. Efroymson, G.W., Suter II, and T.L. Ashwood. 1998. Development and Validation of Bioaccumulation Models for Earthworms. Oak Ridge National Laboratory. June. ES/ER/TM-220.

USEPA, 2007. Guidance for Developing Ecological Soil Screening Levels Attachment 4-1. Office of Solid Waste and Emergency and Response. OSWER Directive 92857-55. February.

APPENDIX K-1

TERRESTRIAL FOOD CHAIN MODEL - BAF VALUES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Plant Bioaccumulation Factors			Earthworm Bioaccumulation Factors		
	Conservative	Average		Conservative	Average	
Semivolatile Organic Compounds						
ACENAPHTHENE	Regression equation from Eco SSL		(1)	1.47E+00	1.47E+00	(1)
ACENAPHTHYLENE	Regression equation from Eco SSL		(1)	2.29E+01	2.29E+01	(1)
ANTHRACENE	Regression equation from Eco SSL		(1)	2.42E+00	2.42E+00	(1)
BENZO(A)ANTHRACENE	Regression equation from Eco SSL		(1)	1.59E+00	1.59E+00	(1)
BENZO(A)PYRENE	Regression equation from Eco SSL		(1)	1.33E+00	1.33E+00	(1)
BENZO(B)FLUORANTHENE	3.10E-01	3.10E-01	(1)	2.60E+00	2.60E+00	(1)
BENZO(G,H,I)PERYLENE	Regression equation from Eco SSL		(1)	2.94E+00	2.94E+00	(1)
BENZO(K)FLUORANTHENE	Regression equation from Eco SSL		(1)	2.60E+00	2.60E+00	(1)
BUTYL BENZYL PHTHALATE	6.95E-02	6.95E-02	(2)	1.00E+00	1.00E+00	
CHRYSENE	Regression equation from Eco SSL		(1)	2.29E+00	2.29E+00	(1)
DIBENZO(A,H)ANTHRACENE	1.30E-01	1.30E-01	(1)	2.31E+00	2.31E+00	(1)
FLUORANTHENE	5.00E-01	5.00E-01	(1)	3.04E+00	3.04E+00	(1)
FLUORENE	Regression equation from Eco SSL		(1)	9.57E+00	9.57E+00	(1)
INDENO(1,2,3-CD)PYRENE	1.10E-01	1.10E-01	(1)	2.86E+00	2.86E+00	(1)
NAPHTHALENE	1.22E+01	1.22E+01	(1)	4.40E+00	4.40E+00	(1)
PHENANTHRENE	Regression equation from Eco SSL		(1)	1.72E+00	1.72E+00	(1)
PYRENE	7.20E-01	7.20E-01	(1)	1.75E+00	1.75E+00	(1)
PCBs						
AROCLOR-1260	6.15E-04	6.15E-04	(2)	1.59E+01	6.67E+00	(3)
Metals						
ANTIMONY	Regression equation from Eco SSL		(1)	1.00E+00	1.00E+00	(1)
BERYLLIUM	Regression equation from Eco SSL		(1)	4.50E-02	4.50E-02	(1)
CADMIUM	Regression equation from Eco SSL		(1)	Regression equation from Eco SSL		(1)
COPPER	Regression equation from Eco SSL		(1)	5.15E-01	5.15E-01	(1)
IRON	1.00E-02	1.00E-02	(2)	1.00E+00	1.00E+00	
LEAD	Regression equation from Eco SSL		(1)	Regression equation from Eco SSL		(1)
MERCURY	5.00E+00	6.52E-01	(4)	Regression - Sample et al., (1998)		(3)
MOLYBDENUM	4.00E-01	4.00E-01	(2)	1.00E+00	1.00E+00	
SELENIUM	Regression equation from Eco SSL		(1)	Regression equation from Eco SSL		(1)
THALLIUM	4.00E-03	4.00E-03	(2)	1.00E+00	1.00E+00	
VANADIUM	4.85E-03	4.85E-03	(1)	4.20E-02	4.20E-02	(1)
ZINC	Regression equation from Eco SSL		(1)	Regression equation from Eco SSL		(1)

- A default value of 1.0 was assigned to chemicals with unknown BAFs. No footnotes are listed by these values.
1 - USEPA (2007). Where "Regression equation from Eco-SSL" is given, tissue concentration will be calculated using regression equations from USEPA (2007), Attachment 4-1, Tables 4a (for inorganics), 4b (for organics).
2 - ORNL Risk Assessment Information System (http://rais.ornl.gov/cgi-bin/tools/TOX_search?select=chem_spef)
3 - Sample et al., (February, 1998) conservative value is 90th percentile; average value is median value.
4 - ORNL (September, 1998) for all chemicals; conservative value is 90th percentile; average value is median value.

APPENDIX K-1

TOXICITY REFERENCE VALUES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

PARAMETER	Mammal		Bird	
	NOAEL	LOAEL	NOAEL	LOAEL
SEMIVOLATILES				
Acenaphthene	65.6	356	2	20
Acenaphthylene	65.6	356	2	20
Anthracene	65.6	356	2	20
Benzo(a)anthracene	0.615	38.4	2	20
Benzo(a)pyrene	0.615	38.4	2	20
Benzo(b)fluoranthene	0.615	38.4	2	20
Benzo(g,h,i)perylene	0.615	38.4	2	20
Benzo(k)fluoranthene	0.615	38.4	2	20
Butylbenzylphthalate	15.9	47	NV	NV
Chrysene	0.615	38.4	2	20
Dibenzo(a,h)anthracene	0.615	38.4	2	20
Fluoranthene	65.6	356	2	20
Fluorene	65.6	356	2	20
Indeno(1,2,3-cd)pyrene	0.615	38.4	2	20
Naphthalene	65.6	356	2	20
Phenanthrene	65.6	356	2	20
Pyrene	0.615	38.4	2	20
PESTICIDES/PCBs				
Aroclor-1260	0.068	0.68	0.18	1.8
INORGANICS				
Antimony	0.059	2.76	NV	NV
Beryllium	0.532	0.673	NV	NV
Cadmium	0.77	6.9	1.47	6.35
Copper	5.6	82.7	4.05	34.87
Iron	50	500	100	1000
Lead	4.7	186.4	1.63	44.63
Mercury	0.032	0.16	0.0064	0.064
Molybdenum	NV	NV	NV	NV
Selenium	0.143	0.661	0.29	0.819
Thallium	0.0074	0.074	NV	NV
Vanadium	4.16	9.44	0.34	1.69
Zinc	75.4	297.58	66.1	171.44

Notes:
The sources of these NOAELS and LOAELS are presented in the table titled "Sources and Endpoints for NOAELS and LOAELS for Terrestrial Wildlife" in this appendix.

The NOAELS and LOAELS in the source table were divided by 10 if a subchronic study was the basis for the value. Also, if only a NOAEL was available, the value was multiplied by 10 to estimate the LOAEL. If only a LOAEL was available, the value was divided by 10 to estimate the NOAEL.

NV - No value available.

APPENDIX K-1

SOURCES AND ENDPOINTS FOR NOAELS AND LOAELS FOR TERRESTRIAL WILDLIFE
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameters	Concentration (mg/kg-day)	Endpoint	Effect	Chronic/ Subchronic	Species	Primary Reference	Source of Reference
Semivolatiles Organics							
7,12-Dimethylbenz(a)anthracene	20	LOAEL	systemic	chronic	nestling/starlings	Trust et al., 1994	
7,12-Dimethylbenz(a)anthracene	2	NOAEL	systemic	chronic	nestling/starlings	Trust et al., 1994	
Butylbenzylphthalate	470	LOAEL	systemic	subchronic	rat	NTP, 1985	IRIS, 2011
Butylbenzylphthalate	159	NOAEL	systemic	subchronic	rat	NTP, 1985	IRIS, 2011
High Molecular Weight PAHs	38.4	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
High Molecular Weight PAHs	0.615	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
Low Molecular Weight PAHs	356	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
Low Molecular Weight PAHs	65.6	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
PCBs							
Aroclor-1254	1.8	LOAEL	reproductive	chronic	pheasant	Dahlgren et al., 1972	Sample et.al., 1996
Aroclor-1254	0.68	LOAEL	reproduction	chronic	mouse	McCoy et al., 1995	Sample et.al., 1996
Inorganics							
Antimony	2.76	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Antimony	0.059	NOAEL	reproduction & growth	chronic	rat	USEPA, 2005	
Beryllium	0.673	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Beryllium	0.532	NOAEL	Survival	chronic	rat	USEPA, 2005	
Cadmium	6.35	LOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Cadmium	6.9	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Cadmium	1.47	NOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Cadmium	0.77	NOAEL	reproduction & growth	chronic	rat	USEPA, 2005	
Copper	34.87	LOAEL	reproduction & growth	chronic	birds	USEPA, 2007	
Copper	82.7	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
Copper	4.05	NOAEL	reproduction & growth	chronic	chicken	USEPA, 2007	
Copper	5.6	NOAEL	reproduction & growth	chronic	pig	USEPA, 2007	
Iron	500	LOAEL	unknown	chronic	rabbit	NAS, 1980	
Iron	1000	LOAEL	unknown	chronic	poultry	NAS, 1980	
Lead	44.6	LOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Lead	186.4	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Lead	1.63	NOAEL	reproduction & growth	chronic	chicken	USEPA, 2005	
Lead	4.7	NOAEL	reproduction & growth	chronic	rat	USEPA, 2005	
Mercury	0.064	LOAEL	reproductive	chronic	mallard duck	Heinz, 1979	Sample et.al., 1996
Mercury	0.16	LOAEL	reproductive	chronic	rat	Verschuuren et al., 1976	Sample et.al., 1996
Mercury	0.032	NOAEL	reproductive	chronic	rat	Verschuuren et al., 1976	Sample et.al., 1996
Selenium	0.819	LOAEL	reproduction & growth	chronic	birds	USEPA, 2007	
Selenium	0.661	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
Selenium	0.29	NOAEL	reproduction & growth	chronic	chicken	USEPA, 2007	
Selenium	0.143	NOAEL	reproduction & growth	chronic	pig	USEPA, 2007	
Thallium	0.74	LOAEL	reproductive	subchronic	rat	Formigli et al., 1986	Sample et.al., 1996
Vanadium	1.686	LOAEL	reproduction & growth	chronic	birds	USEPA, 2005	
Vanadium	9.436	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2005	
Vanadium	0.344	NOAEL	reproduction & growth	chronic	chicken	USEPA, 2005	
Vanadium	4.16	NOAEL	reproduction & growth	chronic	mouse	USEPA, 2005	
Zinc	297.58	LOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	

APPENDIX K-1

SOURCES AND ENDPOINTS FOR NOAELS AND LOAELS FOR TERRESTRIAL WILDLIFE
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Parameters	Concentration (mg/kg-day)	Endpoint	Effect	Chronic/ Subchronic	Species	Primary Reference	Source of Reference
Zinc	171.44	LOAEL	reproduction & growth	chronic	birds	USEPA, 2007	
Zinc	75.4	NOAEL	reproduction & growth	chronic	mammals	USEPA, 2007	
Zinc	66.1	NOAEL	reproduction & growth	chronic	birds	USEPA, 2007	

Notes:

NOAEL = No Observed Adverse Effects Level

LOAEL = Lowest Observed Adverse Effects Level

The NOAELS and LOAELS for the following PAHs are based on the Low Molecular Weight PAH values: acenapthylene, acenaphthene, anthracene, fluoranthene, fluorene, phenanthrene, and naphthalene.

The NOAELS and LOAELS for the following PAHs are based on the High Molecular Weight PAH values: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, chrysene, dibenzo(a,h)anthracene, dibenzofuran, indeno(1,2,3-c,d)pyrene, and pyrene.

The NOAELS and LOAELS for the PAHs for birds were based on 7,12-dimethylbenz(a)anthracene.

The LOAELs used for several metals were calculated as the geometric mean of growth and reproduction data from the Ecological Soil Screening Levels (U.S. EPA, 2005, 2006, 2007).

The LOAELs for Aroclor-1254 were used as surrogate for Aroclor-1260.

References for the NOAELS and LOAELs are presented in this Attachment and Titled "TRV Source and Endpoint References".

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APPENDIX K-2

FOOD CHAIN MODEL RECEPTOR PROFILES
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

The following sections present the receptor profiles for the short-tailed shrew, American robin, meadow vole, and northern bobwhite quail. The majority of the information for the profiles was obtained from the Wildlife Exposure Factors Handbook (USEPA, 1993). The data for the incidental soil ingestion rates were obtained from the Estimates of Soil Ingestion by Wildlife (Beyer, 1994) or the USEPA Ecological Soil Screening Guidance (USEPA, 2007).

The food and water ingestion rates are listed in g/g (of body weight)-day on a wet weight basis but were converted to dry weight for the ERA. The home ranges are presented in hectares in USEPA (1993) but were converted to acres by multiplying the number of hectares by 2.471. Also note that the estimated percent of soil in the diets are listed in dry weight. The attached table presents the calculation of the exposure parameters and how the calculations were done.

Short-Tailed Shrew (*Blarina brevicauda*)

Shrews inhabit a wide variety of habitats and are common in areas with abundant vegetative cover. They need cool, moist habitats because of their high metabolic and water-loss rates. The short-tailed shrew is primarily carnivorous, eating insects such as earthworms, slugs, and snails.

The adult body weight for the short-tailed shrew in various habitats ranged from 0.015 to 0.01921 kg with an average of 0.0161 kg. The listed food ingestion rates for shrews are 0.49 and 0.62 g/g-day (wet-weight). The water ingestion rate was listed as 0.223 g/g-day. The food and water ingestion rates in kg/day and L/day, respectively, were calculated as shown in the attached table. The food ingestion rates were then multiplied by 0.16, which is the percent solids of worms (Sample et al., 1997) to convert the ingestion rate from a wet-weight value to a dry-weight value. The incidental soil ingestion rate was calculated by multiplying the ingestion rate by the percentage of soil that is incidentally ingested (assumed 3% for conservative food chain model and 0.9% for the average food chain model) from USEPA (2007). 3% is the 90th percentile value and 0.9% is the 50th percentile value from USEPA (2007). The home range for the shrew (0. 9699 acres) was calculated using data from a tamarek bog in Manitoba (only value available).

American Robin (*Turdus migratorius*)

American robins' habitats include parks, lawns, moist forests, swamps, open woodlands, and orchards.

Robins forage on the ground in open areas, along habitat edges, or the edges of streams. They also may forage above ground in shrubs and within the lower branches of trees. In the months preceding and during the breeding season, robins feed primarily on invertebrates and on some fruits. During the rest of the year their diet consists primarily of fruits.

The adult body weight for the American robin in New York woodlands and forests and in Pennsylvania ranged from 0.0773 to 0.0862 kg with an average of 0.0804 kg. The only listed food ingestion rates were for robins in Kansas (1.52 g/g-day) and California (0.89 g/g-day), with an average of 1.205 g/g-day. Studies calculating ingestion rates for the robin included in the USEPA (December 1993) are based on a diet comprised of berries. Based on these studies, the food and water ingestion rates in kg/day and L/day, respectively, were calculated as shown in the attached table. The food ingestion rates were then multiplied by 0.23, which is the percent solids of fruit (Sample et al., 1997) to convert the ingestion rate from a wet-weight value to a dry-weight value. However, because it is assumed that the robin 100 percent of the robin's diet are worms for the food chain models, the ingestion rate for the robin was calculated using field metabolism scaling as presented on the attached table (Nagy et al., 1999). These are the values that will be used in the food chain model for this site.

The water ingestion rate was estimated as 0.14 g/g-day. The incidental soil ingestion rate was calculated by multiplying the ingestion rate by the percentage of soil that is incidentally ingested (assumed 16.4% for conservative food chain model and 6.4% for the average food chain model) from USEPA (2007). The 16.4% and 6.4% values are from the American woodcock since it is assumed that both the woodcock and robin are consuming 100% worms, and no incidental soil ingestion rate was available for the robin.

The home range for the robin was calculated using data from Tennessee and a New York dense conifer forest. The values ranged from 0.27 to 1.04 acres with an average home range of 0.6095 acres.

Meadow Vole (*Microtus pennsylvanicus*)

Meadow voles inhabit grassy fields, marshes, and bogs; however, they prefer fields with more grass, more cover, and fewer woody plants. They typically consume green succulent vegetation, sedges, seeds, roots, bark, fungi, insects, and animal matter. However, green succulent vegetation makes up the majority of their diet.

The adult body weight for the vole ranges from 0.017 to 0.0524 kg with an average of 0.0358 kg. The only listed food ingestion rates for voles range from 0.30 to 0.35 g/g-day (wet-weight), with an average of 0.325 g/g-day. The water ingestion rates are 0.14 (estimated) and 0.21 g/g-day, with an average of 0.175 g/g-day. The food and water ingestion rates in kg/day and L/day, respectively, were calculated as shown

in the attached table. The food ingestion rates were then multiplied by 0.15, which is the percent solids of plant foilage (USEPA, 2007) to convert the ingestion rate from a wet-weight value to a dry-weight value. Finally, the incidental soil ingestion rate is calculated by multiplying the ingestion rate by the percentage of soil that is incidentally ingested, which was 3.2% for conservative food chain model and 1.2% for the average food chain model) from USEPA (2007). The home range for the meadow vole ranges from 0.000494 to 0.2051 acres with an average home range of 0.0659 acres.

Northern Bobwhite Quail (*Colinus virginianus*)

Quails inhabit grasslands, idle fields, pastures, and large clumps of grasses. Bobwhite quails forage in areas with open vegetation, some bare ground, and light litter. Seeds from weeds, woody plants, and grasses comprise the majority of an adult's diet, although green vegetation has been found to dominate the diet of this species in winter in the southern areas of the United States.

The adult body weight for the bobwhite quail ranges from 0.154 to 0.1939 kg with an average of 0.1751 kg. The listed food ingestion rates for quails range from 0.067 to 0.093 g/g-day (dry-weight), with an average of 0.078 g/g-day. The water ingestion rate is estimated as 0.10 and 0.11 g/g-day, and measured as 0.10 to 0.13 g/g-day, for an average water ingestion rate of 0.11 g/g-day. The food and water ingestion rates in kg/day and L/day, respectively, were calculated as shown in the attached table. The food ingestion rates were already dry-weight values. Finally, the incidental soil ingestion rate is calculated by multiplying the ingestion rate by the percentage of soil that is incidentally ingested, which was 13.9% for conservative food chain model and 6.1% for the average food chain model from USEPA (2007) and was based on the mourning dove.

The home range for the quail ranges from 8.9 to 41.3 acres with an average home range of 18.8 acres.

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APPENDIX K-2

DRY WEIGHT DERIVATION OF BODY WEIGHT, FOOD INTAKE, AND WATER INTAKE FACTORS FOR TERRESTRIAL FOOD CHAIN MODELS
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Data from EPA (1993)				Derivation of Factors for Modeling		
Species/Factor	**Age/Sex/ Cond./Seas.**	**Value**	**Study Average**	**Calculation of Values**		**Notes**
American Robin						
Body Weight (g)	A B	77.3	77.3	Minimum Value	0.0773 kg	
				Maximum Value	0.0862 kg	
	A M nonbreeding	86.2		Overall Study Average	0.0804 kg	
	A F nonbreeding	83.6	84.9			
	A M breeding	77.4				
	A F breeding	80.6	79			
Food Ingestion Rate (g/g-day)	B B free-living	0.89		*For Eating Mostly Fruit*		
				Conservative value:	0.0281 kg/day	Maximum ingestion rate * Average Body weight * 0.23[1]
	- B free-living	1.52				
				Average value	0.0223 kg/day	Average ingestion rate * Average Body weight * 0.23[1]
	Overall Study Average		1.21			
				Based on Metabolic Scaling		
					0.01247 kg/day	Used maximum body weight in below equation
					0.01188 kg/day	Used average body weight in below equation
						Food ingestion rates were calculated from Nagy et al., (1999) for insectivores as follows: FI = (9.7*BW(g)$^{0.705}$)/18kJ/g/1000
Water Ingestion Rate (g/g-day)	A B	0.14		Conservative value:	0.012 L/day	Ingestion rate * Maximum Body weight
				Average value	0.011 L/day	Ingestion rate * Average Body weight
Short-Tailed Shrew						
Body Weight (g)	A B	15	15	Minimum Value	0.0150 kg	
				Maximum Value	0.01921 kg	
	M summer	19.21	17.27	Overall Study Average	0.01613 kg	
	F summer	17.4				
	M fall	16.87				
	M fall	15.58				
Food Ingestion Rate (g/g-day)	A B	0.49		Conservative value:	0.0016 kg/day	Maximum ingestion rate * Average Body weight * 0.16[2]
	A B	0.62		Average value	0.00143 kg/day	Average ingestion rate * Average Body weight * 0.16[2]
	Overall Study Average		0.555			
Water Ingestion Rate (g/g-day)	A B	0.223		Conservative value:	0.00428 L/day	Ingestion rate * Maximum Body weight
				Average value	0.00360 L/day	Ingestion rate * Average Body weight

DRY WEIGHT DERIVATION OF BODY WEIGHT, FOOD INTAKE, AND WATER INTAKE FACTORS FOR TERRESTRIAL FOOD CHAIN MODELS
GREATER STRAWBERRY POINT, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Data from EPA (1993)				Derivation of Factors for Modeling		
Species/Factor	Age/Sex/ Cond./Seas.	Value	Study Average	Calculation of Values		Notes
Meadow Vole						
Body Weight (g)	A M summer	40	36.7	Minimum Value	0.017 kg	
	A F summer	33.4		Maximum Value	0.052 kg	
				Overall Study Average	0.0358 kg	
	A M spring	52.4	48.0			
	A F spring	43.5				
	A B spring	26	21.2			
	A B summer	24.3				
	A B fall	17				
	A B winter	17.5				
	A M	35.5	37.3			
	A F	39				
Food Ingestion Rate (g/g-day)		0.3	0.33	Conservative value:	0.001878 kg/day	Maximum ingestion rate * Average Body weight * 0.15 (3)
		0.35		Average value	0.001744 kg/day	Average ingestion rate * Average Body weight * 0.15 (3)
Water Ingestion Rate	A B	0.21	0.18	Conservative value:	0.007513 L/day	Maximum ingestion rate * Average Body weight
	A B	0.14		Average value	0.006261 L/day	Average ingestion rate * Average Body weight
Northern Bobwhite Quail						
Body Weight (g)	A B fall	189.9	191	Minimum Value	0.154 kg	
	A B winter	193.9		Maximum Value	0.194 kg	
	A B spring	190		Overall Study Average	0.1751 kg	
	A M winter	181	177			
	A M summer	163				
	A F winter	183				
	A F summer	180				
	A M winter	161	157			
	A M summer	154				
	A F winter	157				
	A F summer	157				
Food Ingestion Rate (g/g-day)	A B winter	0.093	0.078	Conservative value:	0.01628 kg/day	Maximum ingestion rate * Average Body weight
	A B spring	0.067				
	A B summer	0.079		Average value	0.01361 kg/day	Average ingestion rate * Average Body weight
	A B fall	0.072				
Water Ingestion Rate (g/g-day)	A M summer	0.1	0.11	Conservative value:	0.022762 L/day	Maximum ingestion rate * Average Body weight
	A F summer	0.13				
	A M summer	0.11		Average value	0.01926 L/day	Average ingestion rate * Average Body weight
	A F summer	0.1				

Notes:
A = Adult
F = Female, M = Male, B = Both
BW = Body Weight
g = gram
kg = kilogram
L = liter

Footnotes:
1 0.23 = percent solids in fruit to convert to a dry weight ingestion rate
2 0.16 = percent solids in earthworms to convert to a dry weight ingestion rate
3 0.15 = percent solids in plant foilage to convert to a dry weight ingestion rate

Appendix K-3

Chemical Concentrations in Surface Soil and Tissue
Greater Strawberry Point - REC 9 and 10
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Surface Soil Concentrations (mg/kg)				Earthworm Bioaccumulation Factors		Earthworm Concentrations (mg/kg)		Plant Bioaccumulation Factors		Plant Concentrations (mg/kg)	
	Maximum Detection	Average All	Average of Positive Detections	Average [1]	Conservative	Average	Maximum Detection	Average	Conservative	Average	Maximum Detection	Average
Semivolatile Organics												
ACENAPHTHENE	3.30E+00	1.55E-01	4.59E-01	1.55E-04	1.47E+00	1.47E+00	4.85E+00	2.28E-04	Regression equation from Eco SSL		1.38E-03	6.97E+00
ACENAPHTHYLENE	3.10E+00	1.52E-01	4.11E-01	1.52E-04	2.29E+01	2.29E+01	7.10E+01	3.48E-03	Regression equation from Eco SSL		7.80E-01	3.04E-04
ANTHRACENE	7.60E+00	3.86E-01	6.34E-01	3.86E-04	2.42E+00	2.42E+00	1.84E+01	9.33E-04	Regression equation from Eco SSL		1.80E+00	8.19E-04
BENZO(A)ANTHRACENE	1.70E+01	9.86E-01	1.20E+00	9.86E-04	1.59E+00	1.59E+00	2.70E+01	1.57E-03	Regression equation from Eco SSL		3.59E-01	1.09E-03
BENZO(A)PYRENE	1.50E+01	9.88E-01	1.21E+00	9.88E-04	1.33E+00	1.33E+00	2.00E+01	1.31E-03	Regression equation from Eco SSL		1.78E+00	1.49E-04
BENZO(B)FLUORANTHENE	1.70E+01	1.09E+00	1.28E+00	1.09E-03	2.60E+00	2.60E+00	4.42E+01	2.83E-03	3.10E-01	3.10E-01	5.27E+00	3.37E-04
BENZO(G,H,I)PERYLENE	9.40E+00	7.13E-01	9.03E-01	7.13E-04	2.94E+00	2.94E+00	2.76E+01	2.09E-03	Regression equation from Eco SSL		5.58E+00	7.46E-05
BENZO(K)FLUORANTHENE	6.80E+00	4.54E-01	7.12E-01	4.54E-04	2.60E+00	2.60E+00	1.77E+01	1.18E-03	Regression equation from Eco SSL		6.00E-01	1.55E-04
CHRYSENE	1.70E+01	1.05E+00	1.29E+00	1.05E-03	2.29E+00	2.29E+00	3.89E+01	2.42E-03	Regression equation from Eco SSL		3.59E-01	1.13E-03
DIBENZO(A,H)ANTHRACENE	1.40E+00	6.66E-02	3.38E-01	6.66E-05	2.31E+00	2.31E+00	3.23E+00	1.54E-04	1.30E-01	1.30E-01	1.82E-01	8.66E-06
FLUORANTHENE	3.30E+01	1.81E+00	1.99E+00	1.81E-03	3.04E+00	3.04E+00	1.00E+02	5.49E-03	5.00E-01	5.00E-01	1.65E+01	9.03E-04
FLUORENE	3.60E+00	1.62E-01	4.78E-01	1.62E-04	9.57E+00	9.57E+00	3.45E+01	1.55E-03	Regression equation from Eco SSL		1.28E-03	6.73E+00
INDENO(1,2,3-CD)PYRENE	7.50E+00	5.49E-01	7.54E-01	5.49E-04	2.86E+00	2.86E+00	2.15E+01	1.57E-03	1.10E-01	1.10E-01	8.25E-01	6.04E-05
NAPHTHALENE	1.90E+00	1.09E-01	2.95E-01	1.09E-04	4.40E+00	4.40E+00	8.36E+00	4.82E-04	1.22E+01	1.22E+01	2.32E+01	1.34E-03
PHENANTHRENE	2.70E+01	1.27E+00	1.55E+00	1.27E-03	1.72E+00	1.72E+00	4.64E+01	2.19E-03	Regression equation from Eco SSL		6.54E+00	1.35E-02
PYRENE	3.40E+01	2.00E+00	2.20E+00	2.00E-03	1.75E+00	1.75E+00	5.95E+01	3.50E-03	7.20E-01	7.20E-01	2.45E+01	1.44E-03
Inorganics												
ANTIMONY	7.20E-01	1.67E-01	1.75E-01	1.67E-01	1.00E+00	1.00E+00	5.60E+00	1.67E-01	Regression equation from Eco SSL		2.90E-02	7.35E-03
BERYLLIUM	1.60E+00	2.78E-01	3.24E-01	2.78E-01	4.50E-02	4.50E-02	7.20E-02	1.25E-02	Regression equation from Eco SSL		8.26E-01	2.29E-01
CADMIUM	6.80E-01	7.23E-02	1.60E-01	7.23E-02	Regression equation from Eco SSL		6.09E+00	1.03E+00	Regression equation from Eco SSL		5.04E-01	1.48E-01
COPPER	3.80E+01	7.68E+00	7.68E+00	7.68E+00	5.15E-01	5.15E-01	1.96E+01	3.95E+00	Regression equation from Eco SSL		6.26E-01	4.35E+00
IRON	1.29E+04	6.93E+03	6.93E+03	6.93E+03	1.00E+00	1.00E+00	1.29E+04	6.93E+03	1.00E-02	1.00E-02	1.29E+02	6.93E+01
LEAD	2.51E+01	9.34E+00	9.34E+00	9.34E+00	Regression equation from Eco SSL		1.08E+01	4.88E+00	Regression equation from Eco SSL		1.62E+00	9.28E-01
MERCURY	1.60E-01	3.69E-02	4.76E-02	3.69E-02	Regression - Sample et al., (1998)		5.83E-01	3.56E-01	5.00E+00	6.52E-01	8.00E-01	2.41E-02
MOLYBDENUM	1.00E+00	3.40E-01	5.11E-01	3.40E-01	1.00E+00	1.00E+00	1.00E+00	3.40E-01	4.00E-01	4.00E-01	4.00E-01	1.36E-01
SELENIUM	1.20E+00	4.73E-01	5.90E-01	4.73E-01	Regression equation from Eco SSL		1.06E+00	5.36E-01	Regression equation from Eco SSL		6.21E-01	2.22E-01
THALLIUM	2.30E+00	2.93E-01	1.67E+00	2.93E-01	1.00E+00	1.00E+00	2.30E+00	2.93E-01	4.00E-03	4.00E-03	9.20E-03	1.17E-03
VANADIUM	6.50E+01	1.92E+01	1.92E+01	1.92E+01	4.20E-02	4.20E-02	2.73E+00	8.05E-01	4.85E-03	4.85E-03	3.15E-01	9.29E-02
ZINC	6.34E+01	2.05E+01	2.23E+01	2.05E+01	Regression equation from Eco SSL		3.34E+02	2.30E+02	Regression equation from Eco SSL		4.81E+01	2.57E+01

1 - If the average of all value is the greater than the maximum detection, the average of the positive detections was used as the average value.

APPENDIX K-3

MEADOW VOLE - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 9 and 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
ACENAPHTHENE	3.30E+00	1.38E-03	1.17E-02	1.53E-04	1.18E-02	6.56E+01	3.56E+02	1.8E-04	3.3E-05
ACENAPHTHYLENE	3.10E+00	7.80E-01	1.10E-02	8.61E-02	9.71E-02	6.56E+01	3.56E+02	1.5E-03	2.7E-04
ANTHRACENE	7.60E+00	1.80E+00	2.69E-02	1.99E-01	2.26E-01	6.56E+01	3.56E+02	3.4E-03	6.4E-04
BENZO(A)ANTHRACENE	1.70E+01	3.59E-01	6.01E-02	3.97E-02	9.98E-02	6.15E-01	3.84E+01	1.6E-01	2.6E-03
BENZO(A)PYRENE	1.50E+01	1.78E+00	5.30E-02	1.97E-01	2.50E-01	6.15E-01	3.84E+01	4.1E-01	6.5E-03
BENZO(B)FLUORANTHENE	1.70E+01	5.27E+00	6.01E-02	5.82E-01	6.42E-01	6.15E-01	3.84E+01	1.0E+00	1.7E-02
BENZO(G,H,I)PERYLENE	9.40E+00	5.58E+00	3.32E-02	6.17E-01	6.50E-01	6.15E-01	3.84E+01	**1.1E+00**	1.7E-02
BENZO(K)FLUORANTHENE	6.80E+00	6.00E-01	2.40E-02	6.63E-02	9.04E-02	6.15E-01	3.84E+01	1.5E-01	2.4E-03
CHRYSENE	1.70E+01	3.59E-01	6.01E-02	3.97E-02	9.98E-02	6.15E-01	3.84E+01	1.6E-01	2.6E-03
DIBENZO(A,H)ANTHRACENE	1.40E+00	1.82E-01	4.95E-03	2.01E-02	2.51E-02	6.15E-01	3.84E+01	4.1E-02	6.5E-04
FLUORANTHENE	3.30E+01	1.65E+01	1.17E-01	1.82E+00	1.94E+00	6.56E+01	3.56E+02	3.0E-02	5.4E-03
FLUORENE	3.60E+00	1.28E-03	1.27E-02	1.42E-04	1.29E-02	6.56E+01	3.56E+02	2.0E-04	3.6E-05
INDENO(1,2,3-CD)PYRENE	7.50E+00	8.25E-01	2.65E-02	9.11E-02	1.18E-01	6.15E-01	3.84E+01	1.9E-01	3.1E-03
NAPHTHALENE	1.90E+00	2.32E+01	6.72E-03	2.56E+00	2.57E+00	6.56E+01	3.56E+02	3.9E-02	7.2E-03
PHENANTHRENE	2.70E+01	6.54E+00	9.55E-02	7.23E-01	8.18E-01	6.56E+01	3.56E+02	1.2E-02	2.3E-03
PYRENE	3.40E+01	2.45E+01	1.20E-01	2.70E+00	2.82E+00	6.15E-01	3.84E+01	**4.6E+00**	7.4E-02
Inorganics									
ANTIMONY	7.20E-01	2.90E-02	2.55E-03	3.20E-03	5.75E-03	5.90E-02	2.76E+00	9.7E-02	2.1E-03
BERYLLIUM	1.60E+00	8.26E-01	5.66E-03	9.13E-02	9.69E-02	5.32E-01	6.73E-01	1.8E-01	1.4E-01
CADMIUM	6.80E-01	5.04E-01	2.40E-03	5.57E-02	5.81E-02	7.70E-01	6.90E+00	7.5E-02	8.4E-03
COPPER	3.80E+01	6.26E-01	1.34E-01	6.92E-02	2.04E-01	5.60E+00	8.27E+01	3.6E-02	2.5E-03
IRON	1.29E+04	1.29E+02	4.56E+01	1.43E+01	5.99E+01	5.00E+01	5.00E+02	**1.2E+00**	1.2E-01
LEAD	2.51E+01	1.62E+00	8.87E-02	1.79E-01	2.67E-01	4.70E+00	1.86E+02	5.7E-02	1.4E-03
MERCURY	1.60E-01	8.00E-01	5.66E-04	8.84E-02	8.90E-02	3.20E-02	1.60E-01	**2.8E+00**	5.6E-01
MOLYBDENUM	1.00E+00	4.00E-01	3.54E-03	4.42E-02	4.77E-02	NV	NV	NV	NV
SELENIUM	1.20E+00	6.21E-01	4.24E-03	6.87E-02	7.29E-02	1.43E-01	6.61E-01	5.1E-01	1.1E-01
THALLIUM	2.30E+00	9.20E-03	8.13E-03	1.02E-03	9.15E-03	7.40E-03	7.40E-02	**1.2E+00**	1.2E-01
VANADIUM	6.50E+01	3.15E-01	2.30E-01	3.48E-02	2.65E-01	4.16E+00	9.44E+00	6.4E-02	2.8E-02
ZINC	6.34E+01	4.81E+01	2.24E-01	5.32E+00	5.54E+00	7.54E+01	2.98E+02	7.3E-02	1.9E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.70E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.88E-03	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	6.01E-05	kg/day	Cv = Contaminant concentration in vegetation	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	Assume 100% on site		Cs = Contaminant concentration in soil	NA = Not applicable; Not detected in surface soil
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (vegetation)	NV- Value Not Available/Not Able to be Calculated
			H=CA/HR (Assume = to 1)	

APPENDIX K-3

BOBWHITE QUAIL - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 9 and 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
ACENAPHTHENE	3.30E+00	1.38E-03	4.85E-02	1.46E-04	4.86E-02	2.00E+00	2.00E+01	2.4E-02	2.4E-03
ACENAPHTHYLENE	3.10E+00	7.80E-01	4.56E-02	8.24E-02	1.28E-01	2.00E+00	2.00E+01	6.4E-02	6.4E-03
ANTHRACENE	7.60E+00	1.80E+00	1.12E-01	1.91E-01	3.02E-01	2.00E+00	2.00E+01	1.5E-01	1.5E-02
BENZO(A)ANTHRACENE	1.70E+01	3.59E-01	2.50E-01	3.80E-02	2.88E-01	2.00E+00	2.00E+01	1.4E-01	1.4E-02
BENZO(A)PYRENE	1.50E+01	1.78E+00	2.20E-01	1.89E-01	4.09E-01	2.00E+00	2.00E+01	2.0E-01	2.0E-02
BENZO(B)FLUORANTHENE	1.70E+01	5.27E+00	2.50E-01	5.57E-01	8.07E-01	2.00E+00	2.00E+01	4.0E-01	4.0E-02
BENZO(G,H,I)PERYLENE	9.40E+00	5.58E+00	1.38E-01	5.90E-01	7.28E-01	2.00E+00	2.00E+01	3.6E-01	3.6E-02
BENZO(K)FLUORANTHENE	6.80E+00	6.00E-01	9.99E-02	6.35E-02	1.63E-01	2.00E+00	2.00E+01	8.2E-02	8.2E-03
CHRYSENE	1.70E+01	3.59E-01	2.50E-01	3.80E-02	2.88E-01	2.00E+00	2.00E+01	1.4E-01	1.4E-02
DIBENZO(A,H)ANTHRACENE	1.40E+00	1.82E-01	2.06E-02	1.92E-02	3.98E-02	2.00E+00	2.00E+01	2.0E-02	2.0E-03
FLUORANTHENE	3.30E+01	1.65E+01	4.85E-01	1.74E+00	2.23E+00	2.00E+00	2.00E+01	1.1E+00	1.1E-01
FLUORENE	3.60E+00	1.28E-03	5.29E-02	1.36E-04	5.30E-02	2.00E+00	2.00E+01	2.7E-02	2.7E-03
INDENO(1,2,3-CD)PYRENE	7.50E+00	8.25E-01	1.10E-01	8.72E-02	1.97E-01	2.00E+00	2.00E+01	9.9E-02	9.9E-03
NAPHTHALENE	1.90E+00	2.32E+01	2.79E-02	2.45E+00	2.48E+00	2.00E+00	2.00E+01	1.2E+00	1.2E-01
PHENANTHRENE	2.70E+01	6.54E+00	3.97E-01	6.91E-01	1.09E+00	2.00E+00	2.00E+01	5.4E-01	5.4E-02
PYRENE	3.40E+01	2.45E+01	5.00E-01	2.59E+00	3.09E+00	2.00E+00	2.00E+01	1.5E+00	1.5E-01
Inorganics									
ANTIMONY	7.20E-01	2.90E-02	1.06E-02	3.06E-03	1.36E-02	NV	NV	NV	NV
BERYLLIUM	1.60E+00	8.26E-01	2.35E-02	8.74E-02	1.11E-01	NV	NV	NV	NV
CADMIUM	6.80E-01	5.04E-01	9.99E-03	5.33E-02	6.33E-02	1.47E+00	6.35E+00	4.3E-02	1.0E-02
COPPER	3.80E+01	6.26E-01	5.58E-01	6.62E-02	6.25E-01	4.05E+00	3.49E+01	1.5E-01	1.8E-02
IRON	1.29E+04	1.29E+02	1.90E+02	1.36E+01	2.03E+02	1.00E+02	1.00E+03	2.0E+00	2.0E-01
LEAD	2.51E+01	1.62E+00	3.69E-01	1.71E-01	5.40E-01	1.63E+00	4.46E+01	3.3E-01	1.2E-02
MERCURY	1.60E-01	8.00E-01	2.35E-03	8.46E-02	8.69E-02	6.40E-03	6.40E-02	1.4E+01	1.4E+00
MOLYBDENUM	1.00E+00	4.00E-01	1.47E-02	4.23E-02	5.70E-02	NV	NV	NV	NV
SELENIUM	1.20E+00	6.21E-01	1.76E-02	6.57E-02	8.33E-02	2.90E-01	8.19E-01	2.9E-01	1.0E-01
THALLIUM	2.30E+00	9.20E-03	3.38E-02	9.73E-04	3.48E-02	NV	NV	NV	NV
VANADIUM	6.50E+01	3.15E-01	9.55E-01	3.33E-02	9.89E-01	3.44E-01	1.69E+00	2.9E+00	5.9E-01
ZINC	6.34E+01	4.81E+01	9.32E-01	5.09E+00	6.02E+00	6.61E+01	1.71E+02	9.1E-02	3.5E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.54E-01	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.63E-02	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	2.26E-03	kg/day	Cv = Contaminant concentration in vegetation	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	Assume 100% on site		Cs = Contaminant concentration in soil	NA = Not applicable; Not detected in surface soil
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (vegetation)	NV- Value Not Available/Not Able to be Calculated
			H=CA/HR (Assume = to 1)	

APPENDIX K-3

SHORT-TAILED SHREW - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 9 and 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
ACENAPHTHENE	3.30E+00	4.85E+00	1.06E-02	5.18E-01	5.28E-01	6.56E+01	3.56E+02	8.1E-03	1.5E-03
ACENAPHTHYLENE	3.10E+00	7.10E+01	9.92E-03	7.57E+00	7.58E+00	6.56E+01	3.56E+02	1.2E-01	2.1E-02
ANTHRACENE	7.60E+00	1.84E+01	2.43E-02	1.96E+00	1.99E+00	6.56E+01	3.56E+02	3.0E-02	5.6E-03
BENZO(A)ANTHRACENE	1.70E+01	2.70E+01	5.44E-02	2.88E+00	2.94E+00	6.15E-01	3.84E+01	4.8E+00	7.7E-02
BENZO(A)PYRENE	1.50E+01	2.00E+01	4.80E-02	2.13E+00	2.18E+00	6.15E-01	3.84E+01	3.5E+00	5.7E-02
BENZO(B)FLUORANTHENE	1.70E+01	4.42E+01	5.44E-02	4.72E+00	4.77E+00	6.15E-01	3.84E+01	7.8E+00	1.2E-01
BENZO(G,H,I)PERYLENE	9.40E+00	2.76E+01	3.01E-02	2.95E+00	2.98E+00	6.15E-01	3.84E+01	4.8E+00	7.8E-02
BENZO(K)FLUORANTHENE	6.80E+00	1.77E+01	2.18E-02	1.89E+00	1.91E+00	6.15E-01	3.84E+01	3.1E+00	5.0E-02
CHRYSENE	1.70E+01	3.89E+01	5.44E-02	4.15E+00	4.21E+00	6.15E-01	3.84E+01	6.8E+00	1.1E-01
DIBENZO(A,H)ANTHRACENE	1.40E+00	3.23E+00	4.48E-03	3.45E-01	3.50E-01	6.15E-01	3.84E+01	5.7E-01	9.1E-03
FLUORANTHENE	3.30E+01	1.00E+02	1.06E-01	1.07E+01	1.08E+01	6.56E+01	3.56E+02	1.6E-01	3.0E-02
FLUORENE	3.60E+00	3.45E+01	1.15E-02	3.68E+00	3.69E+00	6.56E+01	3.56E+02	5.6E-02	1.0E-02
INDENO(1,2,3-CD)PYRENE	7.50E+00	2.15E+01	2.40E-02	2.29E+00	2.31E+00	6.15E-01	3.84E+01	3.8E+00	6.0E-02
NAPHTHALENE	1.90E+00	8.36E+00	6.08E-03	8.92E-01	8.98E-01	6.56E+01	3.56E+02	1.4E-02	2.5E-03
PHENANTHRENE	2.70E+01	4.64E+01	8.64E-02	4.95E+00	5.04E+00	6.56E+01	3.56E+02	7.7E-02	1.4E-02
PYRENE	3.40E+01	5.95E+01	1.09E-01	6.35E+00	6.46E+00	6.15E-01	3.84E+01	1.0E+01	1.7E-01
Inorganics									
ANTIMONY	7.20E-01	5.60E+00	2.30E-03	5.97E-01	6.00E-01	5.90E-02	2.76E+00	1.0E+01	2.2E-01
BERYLLIUM	1.60E+00	7.20E-02	5.12E-03	7.68E-03	1.28E-02	5.32E-01	6.73E-01	2.4E-02	1.9E-02
CADMIUM	6.80E-01	6.09E+00	2.18E-03	6.50E-01	6.52E-01	7.70E-01	6.90E+00	8.5E-01	9.5E-02
COPPER	3.80E+01	1.96E+01	1.22E-01	2.09E+00	2.21E+00	5.60E+00	8.27E+01	3.9E-01	2.7E-02
IRON	1.29E+04	1.29E+04	4.13E+01	1.38E+03	1.42E+03	5.00E+01	5.00E+02	2.8E+01	2.8E+00
LEAD	2.51E+01	1.08E+01	8.03E-02	1.16E+00	1.24E+00	4.70E+00	1.86E+02	2.6E-01	6.6E-03
MERCURY	1.60E-01	5.83E-01	5.12E-04	6.22E-02	6.27E-02	3.20E-02	1.60E-01	2.0E+00	3.9E-01
MOLYBDENUM	1.00E+00	1.00E+00	3.20E-03	1.07E-01	1.10E-01	NV	NV	NV	NV
SELENIUM	1.20E+00	1.06E+00	3.84E-03	1.13E-01	1.17E-01	1.43E-01	6.61E-01	8.2E-01	1.8E-01
THALLIUM	2.30E+00	2.30E+00	7.36E-03	2.45E-01	2.53E-01	7.40E-03	7.40E-02	3.4E+01	3.4E+00
VANADIUM	6.50E+01	2.73E+00	2.08E-01	2.91E-01	4.99E-01	4.16E+00	9.44E+00	1.2E-01	5.3E-02
ZINC	6.34E+01	3.34E+02	2.03E-01	3.56E+01	3.58E+01	7.54E+01	2.98E+02	4.7E-01	1.2E-01

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.50E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.60E-03	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	4.80E-05		Ci = Contaminant concentration in invertebrate	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	Assume 100% on site		Total Dose = Dose (soil) + Dose (vegetation)	NA = Not applicable; Not detected in surface soil
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (invertebrate)	NV- Value Not Available/Not Able to be Calculated
			H=CA/HR (Assume = to 1)	

APPENDIX K-3

AMERICAN ROBIN - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 9 and 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
ACENAPHTHENE	3.30E+00	4.85E+00	8.73E-02	7.83E-01	8.70E-01	2.00E+00	2.00E+01	4.4E-01	4.4E-02
ACENAPHTHYLENE	3.10E+00	7.10E+01	8.20E-02	1.15E+01	1.15E+01	2.00E+00	2.00E+01	5.8E+00	5.8E-01
ANTHRACENE	7.60E+00	1.84E+01	2.01E-01	2.97E+00	3.17E+00	2.00E+00	2.00E+01	1.6E+00	1.6E-01
BENZO(A)ANTHRACENE	1.70E+01	2.70E+01	4.50E-01	4.36E+00	4.81E+00	2.00E+00	2.00E+01	2.4E+00	2.4E-01
BENZO(A)PYRENE	1.50E+01	2.00E+01	3.97E-01	3.22E+00	3.62E+00	2.00E+00	2.00E+01	1.8E+00	1.8E-01
BENZO(B)FLUORANTHENE	1.70E+01	4.42E+01	4.50E-01	7.13E+00	7.58E+00	2.00E+00	2.00E+01	3.8E+00	3.8E-01
BENZO(G,H,I)PERYLENE	9.40E+00	2.76E+01	2.49E-01	4.46E+00	4.71E+00	2.00E+00	2.00E+01	2.4E+00	2.4E-01
BENZO(K)FLUORANTHENE	6.80E+00	1.77E+01	1.80E-01	2.85E+00	3.03E+00	2.00E+00	2.00E+01	1.5E+00	1.5E-01
CHRYSENE	1.70E+01	3.89E+01	4.50E-01	6.28E+00	6.73E+00	2.00E+00	2.00E+01	3.4E+00	3.4E-01
DIBENZO(A,H)ANTHRACENE	1.40E+00	3.23E+00	3.71E-02	5.22E-01	5.59E-01	2.00E+00	2.00E+01	2.8E-01	2.8E-02
FLUORANTHENE	3.30E+01	1.00E+02	8.73E-01	1.62E+01	1.71E+01	2.00E+00	2.00E+01	8.5E+00	8.5E-01
FLUORENE	3.60E+00	3.45E+01	9.53E-02	5.56E+00	5.66E+00	2.00E+00	2.00E+01	2.8E+00	2.8E-01
INDENO(1,2,3-CD)PYRENE	7.50E+00	2.15E+01	1.98E-01	3.46E+00	3.66E+00	2.00E+00	2.00E+01	1.8E+00	1.8E-01
NAPHTHALENE	1.90E+00	8.36E+00	5.03E-02	1.35E+00	1.40E+00	2.00E+00	2.00E+01	7.0E-01	7.0E-02
PHENANTHRENE	2.70E+01	4.64E+01	7.15E-01	7.49E+00	8.21E+00	2.00E+00	2.00E+01	4.1E+00	4.1E-01
PYRENE	3.40E+01	5.95E+01	9.00E-01	9.60E+00	1.05E+01	2.00E+00	2.00E+01	5.3E+00	5.3E-01
Inorganics									
ANTIMONY	7.20E-01	5.60E+00	1.91E-02	9.04E-01	9.23E-01	NV	NV	NV	NV
BERYLLIUM	1.60E+00	7.20E-02	4.23E-02	1.16E-02	5.40E-02	NV	NV	NV	NV
CADMIUM	6.80E-01	6.09E+00	1.80E-02	9.84E-01	1.00E+00	1.47E+00	6.35E+00	6.8E-01	1.6E-01
COPPER	3.80E+01	1.96E+01	1.01E+00	3.16E+00	4.16E+00	4.05E+00	3.49E+01	1.0E+00	1.2E-01
IRON	1.29E+04	1.29E+04	3.41E+02	2.08E+03	2.42E+03	1.00E+02	1.00E+03	2.4E+01	2.4E+00
LEAD	2.51E+01	1.08E+01	6.64E-01	1.75E+00	2.41E+00	1.63E+00	4.46E+01	1.5E+00	5.4E-02
MERCURY	1.60E-01	5.83E-01	4.23E-03	9.41E-02	9.83E-02	6.40E-03	6.40E-02	1.5E+01	1.5E+00
MOLYBDENUM	1.00E+00	1.00E+00	2.65E-02	1.61E-01	1.88E-01	NV	NV	NV	NV
SELENIUM	1.20E+00	1.06E+00	3.18E-02	1.71E-01	2.03E-01	2.90E-01	8.19E-01	7.0E-01	2.5E-01
THALLIUM	2.30E+00	2.30E+00	6.09E-02	3.71E-01	4.32E-01	NV	NV	NV	NV
VANADIUM	6.50E+01	2.73E+00	1.72E+00	4.41E-01	2.16E+00	3.44E-01	1.69E+00	6.3E+00	1.3E+00
ZINC	6.34E+01	3.34E+02	1.68E+00	5.38E+01	5.55E+01	6.61E+01	1.71E+02	8.4E-01	3.2E-01

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	7.73E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.25E-02	kg/day	Dose (invertebrate) = (Ci * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	2.05E-03	kg/day	Ci = Contaminant concentration in invertebrate	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	Assume 100% on site		Cs = Contaminant concentration in soil	NA = Not applicable; Not detected in surface soil
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (vegetation)	NV- Value Not Available/Not Able to be Calculated
			H=CA/HR (Assume = to 1)	

APPENDIX K-3

MEADOW VOLE - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 9 and 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
ACENAPHTHYLENE	1.52E-04	3.04E-04	8.87E-08	1.48E-05	1.49E-05	6.56E+01	3.56E+02	2.27E-07	4.18E-08
ANTHRACENE	3.86E-04	8.19E-04	2.25E-07	3.99E-05	4.01E-05	6.56E+01	3.56E+02	6.12E-07	1.13E-07
BENZO(A)ANTHRACENE	9.86E-04	1.09E-03	5.76E-07	5.31E-05	5.36E-05	6.15E-01	3.84E+01	8.72E-05	1.40E-06
BENZO(A)PYRENE	9.88E-04	1.49E-04	5.78E-07	7.28E-06	7.86E-06	6.15E-01	3.84E+01	1.28E-05	2.05E-07
BENZO(B)FLUORANTHENE	1.09E-03	3.37E-04	6.36E-07	1.64E-05	1.71E-05	6.15E-01	3.84E+01	2.78E-05	4.44E-07
BENZO(G,H,I)PERYLENE	7.13E-04	7.46E-05	4.17E-07	3.63E-06	4.05E-06	6.15E-01	3.84E+01	6.59E-06	1.05E-07
BENZO(K)FLUORANTHENE	4.54E-04	1.55E-04	2.65E-07	7.54E-06	7.81E-06	6.15E-01	3.84E+01	1.27E-05	2.03E-07
CHRYSENE	1.05E-03	1.13E-03	6.17E-07	5.52E-05	5.59E-05	6.15E-01	3.84E+01	9.08E-05	1.45E-06
FLUORANTHENE	1.81E-03	9.03E-04	1.06E-06	4.40E-05	4.51E-05	6.56E+01	3.56E+02	6.87E-07	1.27E-07
FLUORENE	1.62E-04	6.73E+00	9.46E-08	3.28E-01	3.28E-01	6.56E+01	3.56E+02	5.00E-03	9.21E-04
INDENO(1,2,3-CD)PYRENE	5.49E-04	6.04E-05	3.21E-07	2.94E-06	3.27E-06	6.15E-01	3.84E+01	5.31E-06	8.50E-08
NAPHTHALENE	1.09E-04	1.34E-03	6.40E-08	6.51E-05	6.51E-05	6.56E+01	3.56E+02	9.93E-07	1.83E-07
PHENANTHRENE	1.27E-03	1.35E-02	7.44E-07	6.60E-04	6.61E-04	6.56E+01	3.56E+02	1.01E-05	1.86E-06
PYRENE	2.00E-03	1.44E-03	1.17E-06	7.02E-05	7.14E-05	6.15E-01	3.84E+01	1.16E-04	1.86E-06
Inorganics									
ANTIMONY	1.67E-01	7.35E-03	9.76E-05	3.58E-04	4.56E-04	5.90E-02	2.76E+00	7.73E-03	1.65E-04
IRON	6.93E+03	6.93E+01	4.05E+00	3.38E+00	7.43E+00	5.00E+01	5.00E+02	1.49E-01	1.49E-02
LEAD	9.34E+00	9.28E-01	5.46E-03	4.52E-02	5.07E-02	4.70E+00	1.86E+02	1.08E-02	2.72E-04
MERCURY	3.69E-02	2.41E-02	2.16E-05	1.17E-03	1.19E-03	3.20E-02	1.60E-01	3.73E-02	7.46E-03
THALLIUM	2.93E-01	1.17E-03	1.71E-04	5.71E-05	2.29E-04	7.40E-03	7.40E-02	3.09E-02	3.09E-03
VANADIUM	1.92E+01	9.29E-02	1.12E-02	4.53E-03	1.57E-02	4.16E+00	9.44E+00	3.78E-03	1.67E-03

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	3.58E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.74E-03	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	2.09E-05	kg/day	Cv = Contaminant concentration in vegetation	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	6.59E-02	acres	Cs = Contaminant concentration in soil	NA = Not applicable; Not detected in surface soil
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (vegetation)	NV- Value Not Available/Not Able to be Calculated
			H=CA/HR (Assume = to 1)	

APPENDIX K-3

BOBWHITE QUAIL - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
ACENAPHTHYLENE	1.52E-04	3.04E-04	7.20E-07	2.36E-05	2.43E-05	2.00E+00	2.00E+01	1.2E-05	1.2E-06
ANTHRACENE	3.86E-04	8.19E-04	1.83E-06	6.37E-05	6.55E-05	2.00E+00	2.00E+01	3.3E-05	3.3E-06
BENZO(A)ANTHRACENE	9.86E-04	1.09E-03	4.68E-06	8.47E-05	8.94E-05	2.00E+00	2.00E+01	4.5E-05	4.5E-06
BENZO(A)PYRENE	9.88E-04	1.49E-04	4.69E-06	1.16E-05	1.63E-05	2.00E+00	2.00E+01	8.2E-06	8.2E-07
BENZO(B)FLUORANTHENE	1.09E-03	3.37E-04	5.16E-06	2.62E-05	3.14E-05	2.00E+00	2.00E+01	1.6E-05	1.6E-06
BENZO(G,H,I)PERYLENE	7.13E-04	7.46E-05	3.38E-06	5.80E-06	9.18E-06	2.00E+00	2.00E+01	4.6E-06	4.6E-07
BENZO(K)FLUORANTHENE	4.54E-04	1.55E-04	2.15E-06	1.20E-05	1.42E-05	2.00E+00	2.00E+01	7.1E-06	7.1E-07
CHRYSENE	1.05E-03	1.13E-03	5.00E-06	8.82E-05	9.32E-05	2.00E+00	2.00E+01	4.7E-05	4.7E-06
FLUORANTHENE	1.81E-03	9.03E-04	8.57E-06	7.02E-05	7.88E-05	2.00E+00	2.00E+01	3.9E-05	3.9E-06
FLUORENE	1.62E-04	6.73E+00	7.67E-07	5.23E-01	5.23E-01	2.00E+00	2.00E+01	2.6E-01	2.6E-02
INDENO(1,2,3-CD)PYRENE	5.49E-04	6.04E-05	2.61E-06	4.70E-06	7.30E-06	2.00E+00	2.00E+01	3.7E-06	3.7E-07
NAPHTHALENE	1.09E-04	1.34E-03	5.19E-07	1.04E-04	1.04E-04	2.00E+00	2.00E+01	5.2E-05	5.2E-06
PHENANTHRENE	1.27E-03	1.35E-02	6.04E-06	1.05E-03	1.06E-03	2.00E+00	2.00E+01	5.3E-04	5.3E-05
PYRENE	2.00E-03	1.44E-03	9.49E-06	1.12E-04	1.22E-04	2.00E+00	2.00E+01	6.1E-05	6.1E-06
Inorganics									
ANTIMONY	1.67E-01	7.35E-03	7.91E-04	5.72E-04	1.36E-03	NV	NV	NV	NV
IRON	6.93E+03	6.93E+01	3.29E+01	5.39E+00	3.83E+01	1.00E+02	1.00E+03	3.8E-01	3.8E-02
LEAD	9.34E+00	9.28E-01	4.43E-02	7.21E-02	1.16E-01	1.63E+00	4.46E+01	7.1E-02	2.6E-03
MERCURY	3.69E-02	2.41E-02	1.75E-04	1.87E-03	2.05E-03	6.40E-03	6.40E-02	3.2E-01	3.2E-02
THALLIUM	2.93E-01	1.17E-03	1.39E-03	9.12E-05	1.48E-03	NV	NV	NV	NV
VANADIUM	1.92E+01	9.29E-02	9.09E-02	7.23E-03	9.81E-02	3.44E-01	1.69E+00	2.9E-01	5.8E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.75E-01	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.36E-02	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	8.30E-04	kg/day	Cv = Contaminant concentration in vegetation	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	1.88E+01	acres	Cs = Contaminant concentration in soil	NA = Not applicable; Not detected in surface soil
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (vegetation)	NV- Value Not Available/Not Able to be Calculated
			H=CA/HR (Assume = to 1)	

APPENDIX K-3

SHORT-TAILED SHREW - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 9 and 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
ACENAPHTHYLENE	1.52E-04	3.48E-03	1.22E-07	3.09E-04	3.09E-04	6.56E+01	3.56E+02	4.7E-06	8.7E-07
ANTHRACENE	3.86E-04	9.33E-04	3.09E-07	8.30E-05	8.33E-05	6.56E+01	3.56E+02	1.3E-06	2.3E-07
BENZO(A)ANTHRACENE	9.86E-04	1.57E-03	7.90E-07	1.39E-04	1.40E-04	6.15E-01	3.84E+01	2.3E-04	3.7E-06
BENZO(A)PYRENE	9.88E-04	1.31E-03	7.91E-07	1.17E-04	1.18E-04	6.15E-01	3.84E+01	1.9E-04	3.1E-06
BENZO(B)FLUORANTHENE	1.09E-03	2.83E-03	8.71E-07	2.52E-04	2.53E-04	6.15E-01	3.84E+01	4.1E-04	6.6E-06
BENZO(G,H,I)PERYLENE	7.13E-04	2.09E-03	5.71E-07	1.86E-04	1.87E-04	6.15E-01	3.84E+01	3.0E-04	4.9E-06
BENZO(K)FLUORANTHENE	4.54E-04	1.18E-03	3.64E-07	1.05E-04	1.05E-04	6.15E-01	3.84E+01	1.7E-04	2.7E-06
CHRYSENE	1.05E-03	2.42E-03	8.45E-07	2.15E-04	2.16E-04	6.15E-01	3.84E+01	3.5E-04	5.6E-06
FLUORANTHENE	1.81E-03	5.49E-03	1.45E-06	4.89E-04	4.90E-04	6.56E+01	3.56E+02	7.5E-06	1.4E-06
FLUORENE	1.62E-04	1.55E-03	1.30E-07	1.38E-04	1.38E-04	6.56E+01	3.56E+02	2.1E-06	3.9E-07
INDENO(1,2,3-CD)PYRENE	5.49E-04	1.57E-03	4.40E-07	1.40E-04	1.40E-04	6.15E-01	3.84E+01	2.3E-04	3.7E-06
NAPHTHALENE	1.09E-04	4.82E-04	8.77E-08	4.29E-05	4.29E-05	6.56E+01	3.56E+02	6.5E-07	1.2E-07
PHENANTHRENE	1.27E-03	2.19E-03	1.02E-06	1.95E-04	1.96E-04	6.56E+01	3.56E+02	3.0E-06	5.5E-07
PYRENE	2.00E-03	3.50E-03	1.60E-06	3.12E-04	3.13E-04	6.15E-01	3.84E+01	5.1E-04	8.2E-06
Inorganics									
ANTIMONY	1.67E-01	1.67E-01	1.34E-04	1.49E-02	1.50E-02	5.90E-02	2.76E+00	2.5E-01	5.4E-03
IRON	6.93E+03	6.93E+03	5.55E+00	6.17E+02	6.22E+02	5.00E+01	5.00E+02	1.2E+01	1.2E+00
LEAD	9.34E+00	4.88E+00	7.48E-03	4.34E-01	4.41E-01	4.70E+00	1.86E+02	9.4E-02	2.4E-03
MERCURY	3.69E-02	3.56E-01	2.96E-05	3.17E-02	3.17E-02	3.20E-02	1.60E-01	9.9E-01	2.0E-01
THALLIUM	2.93E-01	2.93E-01	2.35E-04	2.61E-02	2.63E-02	7.40E-03	7.40E-02	3.6E+00	3.6E-01
VANADIUM	1.92E+01	8.05E-01	1.53E-02	7.16E-02	8.70E-02	4.16E+00	9.44E+00	2.1E-02	9.2E-03

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.61E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.43E-03	kg/day	Dose (invertebrate) = (Ci * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	1.29E-05	kg/day	Ci = Contaminant concentration in invertebrate	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	9.70E-01	acres	Total Dose = Dose (soil) + Dose (vegetation)	NA = Not applicable; Not detected in surface soil
	Assume equal to home range		Total Dose = Dose (soil) + Dose (invertebrate)	NV- Value Not Available/Not Able to be Calculated
			H=CA/HR (Assume = to 1)	

APPENDIX K-3

AMERICAN ROBIN - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 9 and 10, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
ACENAPHTHYLENE	1.52E-04	3.48E-03	1.43E-06	5.13E-04	5.15E-04	2.00E+00	2.00E+01	2.6E-04	2.6E-05
ANTHRACENE	3.86E-04	9.33E-04	3.65E-06	1.38E-04	1.41E-04	2.00E+00	2.00E+01	7.1E-05	7.1E-06
BENZO(A)ANTHRACENE	9.86E-04	1.57E-03	9.32E-06	2.32E-04	2.41E-04	2.00E+00	2.00E+01	1.2E-04	1.2E-05
BENZO(A)PYRENE	9.88E-04	1.31E-03	9.34E-06	1.94E-04	2.03E-04	2.00E+00	2.00E+01	1.0E-04	1.0E-05
BENZO(B)FLUORANTHENE	1.09E-03	2.83E-03	1.03E-05	4.18E-04	4.28E-04	2.00E+00	2.00E+01	2.1E-04	2.1E-05
BENZO(G,H,I)PERYLENE	7.13E-04	2.09E-03	6.74E-06	3.09E-04	3.16E-04	2.00E+00	2.00E+01	1.6E-04	1.6E-05
BENZO(K)FLUORANTHENE	4.54E-04	1.18E-03	4.29E-06	1.74E-04	1.79E-04	2.00E+00	2.00E+01	8.9E-05	8.9E-06
CHRYSENE	1.05E-03	2.42E-03	9.97E-06	3.57E-04	3.67E-04	2.00E+00	2.00E+01	1.8E-04	1.8E-05
FLUORANTHENE	1.81E-03	5.49E-03	1.71E-05	8.11E-04	8.28E-04	2.00E+00	2.00E+01	4.1E-04	4.1E-05
FLUORENE	1.62E-04	1.55E-03	1.53E-06	2.29E-04	2.30E-04	2.00E+00	2.00E+01	1.2E-04	1.2E-05
INDENO(1,2,3-CD)PYRENE	5.49E-04	1.57E-03	5.19E-06	2.32E-04	2.37E-04	2.00E+00	2.00E+01	1.2E-04	1.2E-05
NAPHTHALENE	1.09E-04	4.82E-04	1.04E-06	7.12E-05	7.22E-05	2.00E+00	2.00E+01	3.6E-05	3.6E-06
PHENANTHRENE	1.27E-03	2.19E-03	1.20E-05	3.23E-04	3.35E-04	2.00E+00	2.00E+01	1.7E-04	1.7E-05
PYRENE	2.00E-03	3.50E-03	1.89E-05	5.17E-04	5.36E-04	2.00E+00	2.00E+01	2.7E-04	2.7E-05
Inorganics									
ANTIMONY	1.67E-01	1.67E-01	1.58E-03	2.47E-02	2.62E-02	NV	NV	NV	NV
IRON	6.93E+03	6.93E+03	6.55E+01	1.02E+03	1.09E+03	1.00E+02	1.00E+03	1.1E+01	1.1E+00
LEAD	9.34E+00	4.88E+00	8.83E-02	7.21E-01	8.09E-01	1.63E+00	4.46E+01	5.0E-01	1.8E-02
MERCURY	3.69E-02	3.56E-01	3.49E-04	5.26E-02	5.29E-02	6.40E-03	6.40E-02	8.3E+00	8.3E-01
THALLIUM	2.93E-01	2.93E-01	2.77E-03	4.33E-02	4.61E-02	NV	NV	NV	NV
VANADIUM	1.92E+01	8.05E-01	1.81E-01	1.19E-01	3.00E-01	3.44E-01	1.69E+00	8.7E-01	1.8E-01

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	8.04E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.19E-02	kg/day	Dose (invertebrate) = (Ci * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	7.60E-04	kg/day	Ci = Contaminant concentration in invertebrate	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	6.10E-01	acres	Cs = Contaminant concentration in soil	NA = Not applicable; Not detected in surface soil
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (vegetation)	NV- Value Not Available/Not Able to be Calculated
			H=CA/HR (Assume = to 1)	

Appendix P-3

Chemical Concentrations in Surface Soil and Tissue
Greater Strawberry Point - REC 11
Lockheed Martin, Martin State Airport
Middle River, Maryland

Chemical	Surface Soil Concentrations (mg/kg)				Earthworm Bioaccumulation Factors		Earthworm Concentrations (mg/kg)		Plant Bioaccumulation Factors		Plant Concentrations (mg/kg)	
	Maximum Detection	Average All	Average of Positive Detections	Average [1]	Conservative	Average	Maximum Detection	Average	Conservative	Average	Maximum Detection	Average
Semivolatile Organics												
ACENAPHTHENE	5.20E-01	8.77E-02	1.07E-01	8.77E-02	1.47E+00	1.47E+00	7.64E-01	1.29E-01	Regression equation from Eco SSL		6.72E-03	3.08E-02
ACENAPHTHYLENE	3.00E-01	4.92E-02	6.18E-02	4.92E-02	2.29E+01	2.29E+01	6.87E+00	1.13E+00	Regression equation from Eco SSL		1.23E-01	2.94E-02
ANTHRACENE	1.90E+00	2.83E-01	2.92E-01	2.83E-01	2.42E+00	2.42E+00	4.60E+00	6.86E-01	Regression equation from Eco SSL		6.13E-01	1.39E-01
BENZO(A)ANTHRACENE	5.80E+00	9.05E-01	9.33E-01	9.05E-01	1.59E+00	1.59E+00	9.22E+00	1.44E+00	Regression equation from Eco SSL		1.90E-01	6.28E-02
BENZO(A)PYRENE	5.20E+00	8.59E-01	8.85E-01	8.59E-01	1.33E+00	1.33E+00	6.92E+00	1.14E+00	Regression equation from Eco SSL		6.35E-01	1.10E-01
BENZO(B)FLUORANTHENE	5.10E+00	9.32E-01	9.32E-01	9.32E-01	2.60E+00	2.60E+00	1.33E+01	2.42E+00	3.10E-01	3.10E-01	1.58E+00	2.89E-01
BENZO(G,H,I)PERYLENE	3.10E+00	5.41E-01	5.57E-01	5.41E-01	2.94E+00	2.94E+00	9.11E+00	1.59E+00	Regression equation from Eco SSL		1.50E+00	1.90E-01
BENZO(K)FLUORANTHENE	1.80E+00	4.06E-01	4.18E-01	4.06E-01	2.60E+00	2.60E+00	4.68E+00	1.05E+00	Regression equation from Eco SSL		1.92E-01	5.32E-02
BUTYL BENZYL PHTHALATE	2.50E-01	2.16E-02	2.50E-01	2.16E-02	1.00E+00	1.00E+00	2.50E-01	2.16E-02	6.95E-02	6.95E-02	1.74E-02	1.50E-03
CHRYSENE	6.20E+00	9.33E-01	9.33E-01	9.33E-01	2.29E+00	2.29E+00	1.42E+01	2.14E+00	Regression equation from Eco SSL		1.97E-01	6.40E-02
DIBENZO(A,H)ANTHRACENE	8.50E-01	1.49E-01	1.76E-01	1.49E-01	2.31E+00	2.31E+00	1.96E+00	3.45E-01	1.30E-01	1.30E-01	1.11E-01	1.94E-02
FLUORANTHENE	8.80E+00	1.56E+00	1.56E+00	1.56E+00	3.04E+00	3.04E+00	2.68E+01	4.74E+00	5.00E-01	5.00E-01	4.40E+00	7.80E-01
FLUORENE	9.10E-01	1.18E-01	1.43E-01	1.18E-01	9.57E+00	9.57E+00	8.71E+00	1.13E+00	Regression equation from Eco SSL		4.16E-03	2.40E-02
INDENO(1,2,3-CD)PYRENE	2.40E+00	4.45E-01	4.59E-01	4.45E-01	2.86E+00	2.86E+00	6.86E+00	1.27E+00	1.10E-01	1.10E-01	2.64E-01	4.89E-02
NAPHTHALENE	5.60E-01	7.78E-02	1.02E-01	7.78E-02	4.40E+00	4.40E+00	2.46E+00	3.42E-01	1.22E+01	1.22E+01	6.83E+00	9.49E-01
PHENANTHRENE	7.90E+00	9.69E-01	9.69E-01	9.69E-01	1.72E+00	1.72E+00	1.36E+01	1.67E+00	Regression equation from Eco SSL		3.05E+00	8.30E-01
PYRENE	1.30E+01	1.75E+00	1.75E+00	1.75E+00	1.75E+00	1.75E+00	2.28E+01	3.06E+00	7.20E-01	7.20E-01	9.36E+00	1.26E+00
PCBs												
AROCLOR-1260	1.20E+01	9.21E-01	1.59E+00	9.21E-01	1.59E+01	6.67E+00	1.91E+02	6.14E+00	6.15E-04	6.15E-04	7.38E-03	5.66E-04
Inorganics												
ANTIMONY	1.20E+00	3.05E-01	4.08E-01	3.05E-01	1.00E+00	1.00E+00	4.50E+00	3.05E-01	Regression equation from Eco SSL		4.68E-02	1.29E-02
CADMIUM	1.00E+00	9.95E-02	2.26E-01	9.95E-02	Regression equation from Eco SSL		8.28E+00	1.32E+00	Regression equation from Eco SSL		6.22E-01	1.76E-01
IRON	1.50E+04	8.24E+03	8.24E+03	8.24E+03	1.00E+00	1.00E+00	1.50E+04	8.24E+03	1.00E-02	1.00E-02	1.50E+02	8.24E+01
LEAD	4.10E+01	1.30E+01	1.30E+01	1.30E+01	Regression equation from Eco SSL		1.61E+01	6.39E+00	Regression equation from Eco SSL		2.13E+00	1.12E+00
MERCURY	3.00E-01	6.08E-02	8.03E-02	6.08E-02	Regression - Sample et al., (1998)		7.21E-01	4.21E-01	5.00E+00	6.52E-01	1.50E+00	3.96E-02
SELENIUM	3.10E+00	5.01E-01	6.50E-01	5.01E-01	Regression equation from Eco SSL		2.13E+00	5.59E-01	Regression equation from Eco SSL		1.77E+00	2.37E-01
THALLIUM	9.20E-01	2.11E-01	9.20E-01	2.11E-01	1.00E+00	1.00E+00	9.20E-01	2.11E-01	4.00E-03	4.00E-03	3.68E-03	8.42E-04
VANADIUM	5.42E+01	2.22E+01	2.22E+01	2.22E+01	4.20E-02	4.20E-02	2.28E+00	9.31E-01	4.85E-03	4.85E-03	2.63E-01	1.07E-01
ZINC	5.10E+01	2.67E+01	2.76E+01	2.67E+01	Regression equation from Eco SSL		3.11E+02	2.51E+02	Regression equation from Eco SSL		4.27E+01	2.98E+01

1 - If the average of all value is the greater than the maximum detection, the average of the positive detections was used as the average value.

APPENDIX K-3

MEADOW VOLE - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
ACENAPHTHENE	5.20E-01	6.72E-03	1.84E-03	7.43E-04	2.58E-03	6.56E+01	3.56E+02	3.9E-05	7.2E-06
ACENAPHTHYLENE	3.00E-01	1.23E-01	1.06E-03	1.36E-02	1.46E-02	6.56E+01	3.56E+02	2.2E-04	4.1E-05
ANTHRACENE	1.90E+00	6.13E-01	6.72E-03	6.77E-02	7.45E-02	6.56E+01	3.56E+02	1.1E-03	2.1E-04
BENZO(A)ANTHRACENE	5.80E+00	1.90E-01	2.05E-02	2.09E-02	4.15E-02	6.15E-01	3.84E+01	6.7E-02	1.1E-03
BENZO(A)PYRENE	5.20E+00	6.35E-01	1.84E-02	7.02E-02	8.85E-02	6.15E-01	3.84E+01	1.4E-01	2.3E-03
BENZO(B)FLUORANTHENE	5.10E+00	1.58E+00	1.80E-02	1.75E-01	1.93E-01	6.15E-01	3.84E+01	3.1E-01	5.0E-03
BENZO(G,H,I)PERYLENE	3.10E+00	1.50E+00	1.10E-02	1.66E-01	1.77E-01	6.15E-01	3.84E+01	2.9E-01	4.6E-03
BENZO(K)FLUORANTHENE	1.80E+00	1.92E-01	6.36E-03	2.12E-02	2.75E-02	6.15E-01	3.84E+01	4.5E-02	7.2E-04
BUTYL BENZYL PHTHALATE	2.50E-01	1.74E-02	8.84E-04	1.92E-03	2.80E-03	1.59E+01	4.70E+01	1.8E-04	6.0E-05
CHRYSENE	6.20E+00	1.97E-01	2.19E-02	2.18E-02	4.37E-02	6.15E-01	3.84E+01	7.1E-02	1.1E-03
DIBENZO(A,H)ANTHRACENE	8.50E-01	1.11E-01	3.01E-03	1.22E-02	1.52E-02	6.15E-01	3.84E+01	2.5E-02	4.0E-04
FLUORANTHENE	8.80E+00	4.40E+00	3.11E-02	4.86E-01	5.17E-01	6.56E+01	3.56E+02	7.9E-03	1.5E-03
FLUORENE	9.10E-01	4.16E-03	3.22E-03	4.60E-04	3.68E-03	6.56E+01	3.56E+02	5.6E-05	1.0E-05
INDENO(1,2,3-CD)PYRENE	2.40E+00	2.64E-01	8.48E-03	2.92E-02	3.77E-02	6.15E-01	3.84E+01	6.1E-02	9.8E-04
NAPHTHALENE	5.60E-01	6.83E+00	1.98E-03	7.55E-01	7.57E-01	6.56E+01	3.56E+02	1.2E-02	2.1E-03
PHENANTHRENE	7.90E+00	3.05E+00	2.79E-02	3.37E-01	3.65E-01	6.56E+01	3.56E+02	5.6E-03	1.0E-03
PYRENE	1.30E+01	9.36E+00	4.60E-02	1.03E+00	1.08E+00	6.15E-01	3.84E+01	**1.8E+00**	2.8E-02
PCBs									
AROCLOR-1260	1.20E+01	7.38E-03	4.24E-02	8.15E-04	4.32E-02	6.80E-02	6.80E-01	6.4E-01	6.4E-02
Inorganics									
ANTIMONY	1.20E+00	4.68E-02	4.24E-03	5.17E-03	9.41E-03	5.90E-02	2.76E+00	1.6E-01	3.4E-03
CADMIUM	1.00E+00	6.22E-01	3.54E-03	6.87E-02	7.22E-02	7.70E-01	6.90E+00	9.4E-02	1.0E-02
IRON	1.50E+04	1.50E+02	5.30E+01	1.66E+01	6.96E+01	5.00E+01	5.00E+02	**1.4E+00**	1.4E-01
LEAD	4.10E+01	2.13E+00	1.45E-01	2.35E-01	3.80E-01	4.70E+00	1.86E+02	8.1E-02	2.0E-03
MERCURY	3.00E-01	1.50E+00	1.06E-03	1.66E-01	1.67E-01	3.20E-02	1.60E-01	**5.2E+00**	1.0E+00
SELENIUM	3.10E+00	1.77E+00	1.10E-02	1.96E-01	2.07E-01	1.43E-01	6.61E-01	**1.4E+00**	3.1E-01
THALLIUM	9.20E-01	3.68E-03	3.25E-03	4.07E-04	3.66E-03	7.40E-03	7.40E-02	4.9E-01	4.9E-02
VANADIUM	5.42E+01	2.63E-01	1.92E-01	2.90E-02	2.21E-01	4.16E+00	9.44E+00	5.3E-02	2.3E-02
ZINC	5.10E+01	4.27E+01	1.80E-01	4.71E+00	4.89E+00	7.54E+01	2.98E+02	6.5E-02	1.6E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.70E-02	kg
Food Ingestion Rate = (If)	1.88E-03	kg/day
Soil Ingestion Rate = (Is)	6.01E-05	kg/day
Home Range = (HR)	Assume 100% on site	
Contaminated Area = (CA)	Assume equal to home range	

Dose (soil) = (Cs * Is)(H)/BW
Dose (vegetation) = (Cv * If)(H)/BW
Cv = Contaminant concentration in vegetation
Cs = Contaminant concentration in soil
Total Dose = Dose (soil) + Dose (vegetation)
H=CA/HR (Assume = to 1)

Conc = Concentration
LOAEL = Lowest Observed Adverse Effects Concentration
NOAEL = No Observed Adverse Effects Concentration
NV- Value Not Available/Not Able to be Calculated

APPENDIX K-3

BOBWHITE QUAIL - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
ACENAPHTHENE	5.20E-01	6.72E-03	7.64E-03	7.11E-04	8.35E-03	2.00E+00	2.00E+01	4.2E-03	4.2E-04
ACENAPHTHYLENE	3.00E-01	1.23E-01	4.41E-03	1.30E-02	1.74E-02	2.00E+00	2.00E+01	8.7E-03	8.7E-04
ANTHRACENE	1.90E+00	6.13E-01	2.79E-02	6.48E-02	9.28E-02	2.00E+00	2.00E+01	4.6E-02	4.6E-03
BENZO(A)ANTHRACENE	5.80E+00	1.90E-01	8.52E-02	2.00E-02	1.05E-01	2.00E+00	2.00E+01	5.3E-02	5.3E-03
BENZO(A)PYRENE	5.20E+00	6.35E-01	7.64E-02	6.71E-02	1.44E-01	2.00E+00	2.00E+01	7.2E-02	7.2E-03
BENZO(B)FLUORANTHENE	5.10E+00	1.58E+00	7.50E-02	1.67E-01	2.42E-01	2.00E+00	2.00E+01	1.2E-01	1.2E-02
BENZO(G,H,I)PERYLENE	3.10E+00	1.50E+00	4.56E-02	1.59E-01	2.04E-01	2.00E+00	2.00E+01	1.0E-01	1.0E-02
BENZO(K)FLUORANTHENE	1.80E+00	1.92E-01	2.65E-02	2.03E-02	4.67E-02	2.00E+00	2.00E+01	2.3E-02	2.3E-03
BUTYL BENZYL PHTHALATE	2.50E-01	1.74E-02	3.67E-03	1.84E-03	5.51E-03	NV	NV	NV	NV
CHRYSENE	6.20E+00	1.97E-01	9.11E-02	2.09E-02	1.12E-01	2.00E+00	2.00E+01	5.6E-02	5.6E-03
DIBENZO(A,H)ANTHRACENE	8.50E-01	1.11E-01	1.25E-02	1.17E-02	2.42E-02	2.00E+00	2.00E+01	1.2E-02	1.2E-03
FLUORANTHENE	8.80E+00	4.40E+00	1.29E-01	4.65E-01	5.95E-01	2.00E+00	2.00E+01	3.0E-01	3.0E-02
FLUORENE	9.10E-01	4.16E-03	1.34E-02	4.40E-04	1.38E-02	2.00E+00	2.00E+01	6.9E-03	6.9E-04
INDENO(1,2,3-CD)PYRENE	2.40E+00	2.64E-01	3.53E-02	2.79E-02	6.32E-02	2.00E+00	2.00E+01	3.2E-02	3.2E-03
NAPHTHALENE	5.60E-01	6.83E+00	8.23E-03	7.22E-01	7.31E-01	2.00E+00	2.00E+01	3.7E-01	3.7E-02
PHENANTHRENE	7.90E+00	3.05E+00	1.16E-01	3.23E-01	4.39E-01	2.00E+00	2.00E+01	2.2E-01	2.2E-02
PYRENE	1.30E+01	9.36E+00	1.91E-01	9.90E-01	1.18E+00	2.00E+00	2.00E+01	5.9E-01	5.9E-02
PCBs									
AROCLOR-1260	1.20E+01	7.38E-03	1.76E-01	7.80E-04	1.77E-01	1.80E-01	1.80E+00	9.8E-01	9.8E-02
Inorganics									
ANTIMONY	1.20E+00	4.68E-02	1.76E-02	4.95E-03	2.26E-02	NV	NV	NV	NV
CADMIUM	1.00E+00	6.22E-01	1.47E-02	6.58E-02	8.05E-02	1.47E+00	6.35E+00	5.5E-02	1.3E-02
IRON	1.50E+04	1.50E+02	2.20E+02	1.59E+01	2.36E+02	1.00E+02	1.00E+03	2.4E+00	2.4E-01
LEAD	4.10E+01	2.13E+00	6.03E-01	2.25E-01	8.28E-01	1.63E+00	4.46E+01	5.1E-01	1.9E-02
MERCURY	3.00E-01	1.50E+00	4.41E-03	1.59E-01	1.63E-01	6.40E-03	6.40E-02	2.5E+01	2.5E+00
SELENIUM	3.10E+00	1.77E+00	4.56E-02	1.87E-01	2.33E-01	2.90E-01	8.19E-01	8.0E-01	2.8E-01
THALLIUM	9.20E-01	3.68E-03	1.35E-02	3.89E-04	1.39E-02	NV	NV	NV	NV
VANADIUM	5.42E+01	2.63E-01	7.97E-01	2.78E-02	8.24E-01	3.44E-01	1.69E+00	2.4E+00	4.9E-01
ZINC	5.10E+01	4.27E+01	7.50E-01	4.51E+00	5.26E+00	6.61E+01	1.71E+02	8.0E-02	3.1E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.54E-01	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.63E-02	kg/day	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	2.26E-03	kg/day	Cv = Contaminant concentration in vegetation	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	Assume 100% on site		Cs = Contaminant concentration in soil	NV- Value Not Available/Not Able to be Calculated
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (vegetation)	
			H=CA/HR (Assume = to 1)	

APPENDIX K-3

SHORT-TAILED SHREW - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
ACENAPHTHENE	5.20E-01	7.64E-01	1.66E-03	8.16E-02	8.32E-02	6.56E+01	3.56E+02	1.3E-03	2.3E-04
ACENAPHTHYLENE	3.00E-01	6.87E+00	9.60E-04	7.33E-01	7.34E-01	6.56E+01	3.56E+02	1.1E-02	2.1E-03
ANTHRACENE	1.90E+00	4.60E+00	6.08E-03	4.91E-01	4.97E-01	6.56E+01	3.56E+02	7.6E-03	1.4E-03
BENZO(A)ANTHRACENE	5.80E+00	9.22E+00	1.86E-02	9.84E-01	1.00E+00	6.15E-01	3.84E+01	1.6E+00	2.6E-02
BENZO(A)PYRENE	5.20E+00	6.92E+00	1.66E-02	7.38E-01	7.55E-01	6.15E-01	3.84E+01	1.2E+00	2.0E-02
BENZO(B)FLUORANTHENE	5.10E+00	1.33E+01	1.63E-02	1.41E+00	1.43E+00	6.15E-01	3.84E+01	2.3E+00	3.7E-02
BENZO(G,H,I)PERYLENE	3.10E+00	9.11E+00	9.92E-03	9.72E-01	9.82E-01	6.15E-01	3.84E+01	1.6E+00	2.6E-02
BENZO(K)FLUORANTHENE	1.80E+00	4.68E+00	5.76E-03	4.99E-01	5.05E-01	6.15E-01	3.84E+01	8.2E-01	1.3E-02
BUTYL BENZYL PHTHALATE	2.50E-01	2.50E-01	8.00E-04	2.67E-02	2.75E-02	1.59E+01	4.70E+01	1.7E-03	5.8E-04
CHRYSENE	6.20E+00	1.42E+01	1.98E-02	1.51E+00	1.53E+00	6.15E-01	3.84E+01	2.5E+00	4.0E-02
DIBENZO(A,H)ANTHRACENE	8.50E-01	1.96E+00	2.72E-03	2.09E-01	2.12E-01	6.15E-01	3.84E+01	3.5E-01	5.5E-03
FLUORANTHENE	8.80E+00	2.68E+01	2.82E-02	2.85E+00	2.88E+00	6.56E+01	3.56E+02	4.4E-02	8.1E-03
FLUORENE	9.10E-01	8.71E+00	2.91E-03	9.29E-01	9.32E-01	6.56E+01	3.56E+02	1.4E-02	2.6E-03
INDENO(1,2,3-CD)PYRENE	2.40E+00	6.86E+00	7.68E-03	7.32E-01	7.40E-01	6.15E-01	3.84E+01	1.2E+00	1.9E-02
NAPHTHALENE	5.60E-01	2.46E+00	1.79E-03	2.63E-01	2.65E-01	6.56E+01	3.56E+02	4.0E-03	7.4E-04
PHENANTHRENE	7.90E+00	1.36E+01	2.53E-02	1.45E+00	1.47E+00	6.56E+01	3.56E+02	2.2E-02	4.1E-03
PYRENE	1.30E+01	2.28E+01	4.16E-02	2.43E+00	2.47E+00	6.15E-01	3.84E+01	4.0E+00	6.4E-02
PCBs									
AROCLOR-1260	1.20E+01	1.91E+02	3.84E-02	2.04E+01	2.04E+01	6.80E-02	6.80E-01	3.0E+02	3.0E+01
Inorganics									
ANTIMONY	1.20E+00	4.50E+00	3.84E-03	4.80E-01	4.84E-01	5.90E-02	2.76E+00	8.2E+00	1.8E-01
CADMIUM	1.00E+00	8.28E+00	3.20E-03	8.84E-01	8.87E-01	7.70E-01	6.90E+00	1.2E+00	1.3E-01
IRON	1.50E+04	1.50E+04	4.80E+01	1.60E+03	1.65E+03	5.00E+01	5.00E+02	3.3E+01	3.3E+00
LEAD	4.10E+01	1.61E+01	1.31E-01	1.72E+00	1.85E+00	4.70E+00	1.86E+02	3.9E-01	9.9E-03
MERCURY	3.00E-01	7.21E-01	9.60E-04	7.69E-02	7.79E-02	3.20E-02	1.60E-01	2.4E+00	4.9E-01
SELENIUM	3.10E+00	2.13E+00	9.92E-03	2.27E-01	2.37E-01	1.43E-01	6.61E-01	1.7E+00	3.6E-01
THALLIUM	9.20E-01	9.20E-01	2.94E-03	9.82E-02	1.01E-01	7.40E-03	7.40E-02	1.4E+01	1.4E+00
VANADIUM	5.42E+01	2.28E+00	1.73E-01	2.43E-01	4.16E-01	4.16E+00	9.44E+00	1.0E-01	4.4E-02
ZINC	5.10E+01	3.11E+02	1.63E-01	3.31E+01	3.33E+01	7.54E+01	2.98E+02	4.4E-01	1.1E-01

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.50E-02	kg
Food Ingestion Rate = (If)	1.60E-03	kg/day
Soil Ingestion Rate = (Is)	4.80E-05	
Home Range = (HR)	Assume 100% on site	
Contaminated Area = (CA)	Assume equal to home range	

Dose (soil) = (Cs * Is)(H)/BW
Dose (vegetation) = (Cv * If)(H)/BW
Ci = Contaminant concentration in invertebrate
Total Dose = Dose (soil) + Dose (vegetation)
Total Dose = Dose (soil) + Dose (invertebrate)
H=CA/HR (Assume = to 1)

Conc = Concentration
LOAEL = Lowest Observed Adverse Effects Concentration
NOAEL = No Observed Adverse Effects Concentration
NV- Value Not Available/Not Able to be Calculated

APPENDIX K-3

AMERICAN ROBIN - CONSERVATIVE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Max Soil Conc. (mg/kg)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
ACENAPHTHENE	5.20E-01	7.64E-01	1.38E-02	1.23E-01	1.37E-01	2.00E+00	2.00E+01	6.9E-02	6.9E-03
ACENAPHTHYLENE	3.00E-01	6.87E+00	7.94E-03	1.11E+00	1.12E+00	2.00E+00	2.00E+01	5.6E-01	5.6E-02
ANTHRACENE	1.90E+00	4.60E+00	5.03E-02	7.42E-01	7.92E-01	2.00E+00	2.00E+01	4.0E-01	4.0E-02
BENZO(A)ANTHRACENE	5.80E+00	9.22E+00	1.54E-01	1.49E+00	1.64E+00	2.00E+00	2.00E+01	8.2E-01	8.2E-02
BENZO(A)PYRENE	5.20E+00	6.92E+00	1.38E-01	1.12E+00	1.25E+00	2.00E+00	2.00E+01	6.3E-01	6.3E-02
BENZO(B)FLUORANTHENE	5.10E+00	1.33E+01	1.35E-01	2.14E+00	2.27E+00	2.00E+00	2.00E+01	1.1E+00	1.1E-01
BENZO(G,H,I)PERYLENE	3.10E+00	9.11E+00	8.20E-02	1.47E+00	1.55E+00	2.00E+00	2.00E+01	7.8E-01	7.8E-02
BENZO(K)FLUORANTHENE	1.80E+00	4.68E+00	4.76E-02	7.55E-01	8.03E-01	2.00E+00	2.00E+01	4.0E-01	4.0E-02
BUTYL BENZYL PHTHALATE	2.50E-01	2.50E-01	6.62E-03	4.03E-02	4.70E-02	NV	NV	NV	NV
CHRYSENE	6.20E+00	1.42E+01	1.64E-01	2.29E+00	2.46E+00	2.00E+00	2.00E+01	1.2E+00	1.2E-01
DIBENZO(A,H)ANTHRACENE	8.50E-01	1.96E+00	2.25E-02	3.17E-01	3.39E-01	2.00E+00	2.00E+01	1.7E-01	1.7E-02
FLUORANTHENE	8.80E+00	2.68E+01	2.33E-01	4.32E+00	4.55E+00	2.00E+00	2.00E+01	2.3E+00	2.3E-01
FLUORENE	9.10E-01	8.71E+00	2.41E-02	1.41E+00	1.43E+00	2.00E+00	2.00E+01	7.1E-01	7.1E-02
INDENO(1,2,3-CD)PYRENE	2.40E+00	6.86E+00	6.35E-02	1.11E+00	1.17E+00	2.00E+00	2.00E+01	5.9E-01	5.9E-02
NAPHTHALENE	5.60E-01	2.46E+00	1.48E-02	3.98E-01	4.12E-01	2.00E+00	2.00E+01	2.1E-01	2.1E-02
PHENANTHRENE	7.90E+00	1.36E+01	2.09E-01	2.19E+00	2.40E+00	2.00E+00	2.00E+01	1.2E+00	1.2E-01
PYRENE	1.30E+01	2.28E+01	3.44E-01	3.67E+00	4.02E+00	2.00E+00	2.00E+01	2.0E+00	2.0E-01
PCBs									
AROCLOR-1260	1.20E+01	1.91E+02	3.18E-01	3.08E+01	3.11E+01	1.80E-01	1.80E+00	1.7E+02	1.7E+01
Inorganics									
ANTIMONY	1.20E+00	4.50E+00	3.18E-02	7.26E-01	7.58E-01	NV	NV	NV	NV
CADMIUM	1.00E+00	8.28E+00	2.65E-02	1.34E+00	1.36E+00	1.47E+00	6.35E+00	9.3E-01	2.1E-01
IRON	1.50E+04	1.50E+04	3.97E+02	2.42E+03	2.82E+03	1.00E+02	1.00E+03	2.8E+01	2.8E+00
LEAD	4.10E+01	1.61E+01	1.09E+00	2.60E+00	3.68E+00	1.63E+00	4.46E+01	2.3E+00	8.3E-02
MERCURY	3.00E-01	7.21E-01	7.94E-03	1.16E-01	1.24E-01	6.40E-03	6.40E-02	1.9E+01	1.9E+00
SELENIUM	3.10E+00	2.13E+00	8.20E-02	3.43E-01	4.25E-01	2.90E-01	8.19E-01	1.5E+00	5.2E-01
THALLIUM	9.20E-01	9.20E-01	2.43E-02	1.48E-01	1.73E-01	NV	NV	NV	NV
VANADIUM	5.42E+01	2.28E+00	1.43E+00	3.67E-01	1.80E+00	3.44E-01	1.69E+00	5.2E+00	1.1E+00
ZINC	5.10E+01	3.11E+02	1.35E+00	5.01E+01	5.15E+01	6.61E+01	1.71E+02	7.8E-01	3.0E-01

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	7.73E-02	kg	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.25E-02	kg/day	Dose (invertebrate) = (Ci * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	2.05E-03	kg/day	Ci = Contaminant concentration in invertebrate	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	Assume 100% on site		Cs = Contaminant concentration in soil	NV- Value Not Available/Not Able to be Calculated
Contaminated Area = (CA)	Assume equal to home range		Total Dose = Dose (soil) + Dose (vegetation)	
			H=CA/HR (Assume = to 1)	

APPENDIX K-3

MEADOW VOLE - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
BENZO(A)ANTHRACENE	9.05E-01	6.28E-02	5.29E-04	3.06E-03	3.59E-03	6.15E-01	3.84E+01	5.84E-03	9.35E-05
BENZO(A)PYRENE	8.59E-01	1.10E-01	5.02E-04	5.34E-03	5.85E-03	6.15E-01	3.84E+01	9.51E-03	1.52E-04
BENZO(B)FLUORANTHENE	9.32E-01	2.89E-01	5.45E-04	1.41E-02	1.46E-02	6.15E-01	3.84E+01	2.38E-02	3.81E-04
BENZO(G,H,I)PERYLENE	5.41E-01	1.90E-01	3.16E-04	9.27E-03	9.59E-03	6.15E-01	3.84E+01	1.56E-02	2.50E-04
CHRYSENE	9.33E-01	6.40E-02	5.45E-04	3.12E-03	3.66E-03	6.15E-01	3.84E+01	5.95E-03	9.54E-05
FLUORANTHENE	1.56E+00	7.80E-01	9.12E-04	3.80E-02	3.89E-02	6.56E+01	3.56E+02	5.93E-04	1.09E-04
INDENO(1,2,3-CD)PYRENE	4.45E-01	4.89E-02	2.60E-04	2.38E-03	2.64E-03	6.15E-01	3.84E+01	4.30E-03	6.89E-05
PHENANTHRENE	9.69E-01	8.30E-01	5.66E-04	4.04E-02	4.10E-02	6.56E+01	3.56E+02	6.25E-04	1.15E-04
PYRENE	1.75E+00	1.26E+00	1.02E-03	6.14E-02	6.24E-02	6.15E-01	3.84E+01	1.02E-01	1.63E-03
PCBs									
AROCLOR-1260	9.21E-01	5.66E-04	5.38E-04	2.76E-05	5.66E-04	6.80E-02	6.80E-01	8.32E-03	8.32E-04
Inorganics									
ANTIMONY	3.05E-01	1.29E-02	1.78E-04	6.31E-04	8.09E-04	5.90E-02	2.76E+00	1.37E-02	2.93E-04
CADMIUM	9.95E-02	1.76E-01	5.82E-05	8.60E-03	8.65E-03	7.70E-01	6.90E+00	1.12E-02	1.25E-03
IRON	8.24E+03	8.24E+01	4.82E+00	4.01E+00	8.83E+00	5.00E+01	5.00E+02	1.77E-01	1.77E-02
LEAD	1.30E+01	1.12E+00	7.63E-03	5.45E-02	6.22E-02	4.70E+00	1.86E+02	1.32E-02	3.33E-04
MERCURY	6.08E-02	3.96E-02	3.55E-05	1.93E-03	1.97E-03	3.20E-02	1.60E-01	6.14E-02	1.23E-02
SELENIUM	5.01E-01	2.37E-01	2.93E-04	1.15E-02	1.18E-02	1.43E-01	6.61E-01	8.27E-02	1.79E-02
THALLIUM	2.11E-01	8.42E-04	1.23E-04	4.10E-05	1.64E-04	7.40E-03	7.40E-02	2.22E-02	2.22E-03
VANADIUM	2.22E+01	1.07E-01	1.30E-02	5.24E-03	1.82E-02	4.16E+00	9.44E+00	4.37E-03	1.93E-03

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	3.58E-02	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.74E-03	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	2.09E-05	Cv = Contaminant concentration in vegetation	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	6.59E-02	Cs = Contaminant concentration in soil	NV- Value Not Available/Not Able to be Calculated
Contaminated Area = (CA)	Assume equal to 1	Total Dose = Dose (soil) + Dose (vegetation)	
		H=CA/HR (Assume = to 1)	

APPENDIX K-3

BOBWHITE QUAIL - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Vegetation Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Veget.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
BENZO(A)ANTHRACENE	9.05E-01	6.28E-02	4.29E-03	4.89E-03	9.18E-03	2.00E+00	2.00E+01	4.6E-03	4.6E-04
BENZO(A)PYRENE	8.59E-01	1.10E-01	4.07E-03	8.53E-03	1.26E-02	2.00E+00	2.00E+01	6.3E-03	6.3E-04
BENZO(B)FLUORANTHENE	9.32E-01	2.89E-01	4.42E-03	2.25E-02	2.69E-02	2.00E+00	2.00E+01	1.3E-02	1.3E-03
BENZO(G,H,I)PERYLENE	5.41E-01	1.90E-01	2.56E-03	1.48E-02	1.74E-02	2.00E+00	2.00E+01	8.7E-03	8.7E-04
CHRYSENE	9.33E-01	6.40E-02	4.42E-03	4.97E-03	9.40E-03	2.00E+00	2.00E+01	4.7E-03	4.7E-04
FLUORANTHENE	1.56E+00	7.80E-01	7.40E-03	6.06E-02	6.80E-02	2.00E+00	2.00E+01	3.4E-02	3.4E-03
INDENO(1,2,3-CD)PYRENE	4.45E-01	4.89E-02	2.11E-03	3.81E-03	5.92E-03	2.00E+00	2.00E+01	3.0E-03	3.0E-04
PHENANTHRENE	9.69E-01	8.30E-01	4.60E-03	6.45E-02	6.91E-02	2.00E+00	2.00E+01	3.5E-02	3.5E-03
PYRENE	1.75E+00	1.26E+00	8.30E-03	9.80E-02	1.06E-01	2.00E+00	2.00E+01	5.3E-02	5.3E-03
PCBs									
AROCLOR-1260	9.21E-01	5.66E-04	4.37E-03	4.40E-05	4.41E-03	1.80E-01	1.80E+00	2.5E-02	2.5E-03
Inorganics									
ANTIMONY	3.05E-01	1.29E-02	1.45E-03	1.01E-03	2.45E-03	NV	NV	NV	NV
CADMIUM	9.95E-02	1.76E-01	4.72E-04	1.37E-02	1.42E-02	1.47E+00	6.35E+00	9.7E-03	2.2E-03
IRON	8.24E+03	8.24E+01	3.91E+01	6.41E+00	4.55E+01	1.00E+02	1.00E+03	4.5E-01	4.5E-02
LEAD	1.30E+01	1.12E+00	6.19E-02	8.70E-02	1.49E-01	1.63E+00	4.46E+01	9.1E-02	3.3E-03
MERCURY	6.08E-02	3.96E-02	2.88E-04	3.08E-03	3.37E-03	6.40E-03	6.40E-02	5.3E-01	5.3E-02
SELENIUM	5.01E-01	2.37E-01	2.37E-03	1.84E-02	2.08E-02	2.90E-01	8.19E-01	7.2E-02	2.5E-02
THALLIUM	2.11E-01	8.42E-04	9.99E-04	6.55E-05	1.06E-03	NV	NV	NV	NV
VANADIUM	2.22E+01	1.07E-01	1.05E-01	8.35E-03	1.13E-01	3.44E-01	1.69E+00	3.3E-01	6.7E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.75E-01	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.36E-02	Dose (vegetation) = (Cv * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	8.30E-04	Cv = Contaminant concentration in vegetation	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	1.88E+01	Cs = Contaminant concentration in soil	NV- Value Not Available/Not Able to be Calculated
Contaminated Area = (CA)	Assume equal to 1	Total Dose = Dose (soil) + Dose (vegetation)	
		H=CA/HR (Assume = to 1)	

APPENDIX K-3

SHORT-TAILED SHREW - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
BENZO(A)ANTHRACENE	9.05E-01	1.44E+00	7.25E-04	1.28E-01	1.29E-01	6.15E-01	3.84E+01	2.1E-01	3.4E-03
BENZO(A)PYRENE	8.59E-01	1.14E+00	6.88E-04	1.02E-01	1.02E-01	6.15E-01	3.84E+01	1.7E-01	2.7E-03
BENZO(B)FLUORANTHENE	9.32E-01	2.42E+00	7.47E-04	2.16E-01	2.16E-01	6.15E-01	3.84E+01	3.5E-01	5.6E-03
BENZO(G,H,I)PERYLENE	5.41E-01	1.59E+00	4.33E-04	1.41E-01	1.42E-01	6.15E-01	3.84E+01	2.3E-01	3.7E-03
CHRYSENE	9.33E-01	2.14E+00	7.47E-04	1.90E-01	1.91E-01	6.15E-01	3.84E+01	3.1E-01	5.0E-03
FLUORANTHENE	1.56E+00	4.74E+00	1.25E-03	4.22E-01	4.23E-01	6.56E+01	3.56E+02	6.5E-03	1.2E-03
INDENO(1,2,3-CD)PYRENE	4.45E-01	1.27E+00	3.56E-04	1.13E-01	1.14E-01	6.15E-01	3.84E+01	1.8E-01	3.0E-03
PHENANTHRENE	9.69E-01	1.67E+00	7.76E-04	1.48E-01	1.49E-01	6.56E+01	3.56E+02	2.3E-03	4.2E-04
PYRENE	1.75E+00	3.06E+00	1.40E-03	2.73E-01	2.74E-01	6.15E-01	3.84E+01	4.5E-01	7.1E-03
PCBs									
AROCLOR-1260	9.21E-01	6.14E+00	7.37E-04	5.46E-01	5.47E-01	6.80E-02	6.80E-01	8.0E+00	8.0E-01
Inorganics									
ANTIMONY	3.05E-01	3.05E-01	2.44E-04	2.71E-02	2.74E-02	5.90E-02	2.76E+00	4.6E-01	9.9E-03
CADMIUM	9.95E-02	1.32E+00	7.97E-05	1.18E-01	1.18E-01	7.70E-01	6.90E+00	1.5E-01	1.7E-02
IRON	8.24E+03	8.24E+03	6.60E+00	7.33E+02	7.40E+02	5.00E+01	5.00E+02	1.5E+01	1.5E+00
LEAD	1.30E+01	6.39E+00	1.04E-02	5.69E-01	5.79E-01	4.70E+00	1.86E+02	1.2E-01	3.1E-03
MERCURY	6.08E-02	4.21E-01	4.87E-05	3.75E-02	3.75E-02	3.20E-02	1.60E-01	1.2E+00	2.3E-01
SELENIUM	5.01E-01	5.59E-01	4.01E-04	4.97E-02	5.01E-02	1.43E-01	6.61E-01	3.5E-01	7.6E-02
THALLIUM	2.11E-01	2.11E-01	1.69E-04	1.87E-02	1.89E-02	7.40E-03	7.40E-02	2.6E+00	2.6E-01
VANADIUM	2.22E+01	9.31E-01	1.77E-02	8.28E-02	1.01E-01	4.16E+00	9.44E+00	2.4E-02	1.1E-02

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	1.61E-02	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.43E-03	Dose (invertebrate) = (Ci * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	1.29E-05	Ci = Contaminant concentration in invertebrate	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	9.70E-01	Total Dose = Dose (soil) + Dose (vegetation)	NV- Value Not Available/Not Able to be Calculated
	Assume equal to 1	Total Dose = Dose (soil) + Dose (invertebrate)	
		H=CA/HR (Assume = to 1)	

APPENDIX K-3

AMERICAN ROBIN - AVERAGE INPUTS
TERRESTRIAL WILDLIFE MODEL ECOLOGICAL EFFECTS QUOTIENT CALCULATION
GREATER STRAWBERRY POINT - REC 11, LOCKHEED MARTIN, MARTIN STATE AIRPORT
MIDDLE RIVER, MARYLAND

Chemical	Avg Soil Conc. (mg/kg)	Invertebrate Conc. (mg/kg)	Dose (mg/kg/d) from: Soil	Dose (mg/kg/d) from: Invert.	Total Dose (mg/kg/d)	NOAEL (mg/kg/d)	LOAEL (mg/kg/d)	Hazard Quotients NOAEL	Hazard Quotients LOAEL
Semivolatile Organics									
BENZO(A)ANTHRACENE	9.05E-01	1.44E+00	8.56E-03	2.13E-01	2.21E-01	2.00E+00	2.00E+01	1.1E-01	1.1E-02
BENZO(A)PYRENE	8.59E-01	1.14E+00	8.12E-03	1.69E-01	1.77E-01	2.00E+00	2.00E+01	8.8E-02	8.8E-03
BENZO(B)FLUORANTHENE	9.32E-01	2.42E+00	8.81E-03	3.58E-01	3.67E-01	2.00E+00	2.00E+01	1.8E-01	1.8E-02
BENZO(G,H,I)PERYLENE	5.41E-01	1.59E+00	5.11E-03	2.35E-01	2.40E-01	2.00E+00	2.00E+01	1.2E-01	1.2E-02
CHRYSENE	9.33E-01	2.14E+00	8.82E-03	3.16E-01	3.24E-01	2.00E+00	2.00E+01	1.6E-01	1.6E-02
FLUORANTHENE	1.56E+00	4.74E+00	1.48E-02	7.01E-01	7.15E-01	2.00E+00	2.00E+01	3.6E-01	3.6E-02
INDENO(1,2,3-CD)PYRENE	4.45E-01	1.27E+00	4.21E-03	1.88E-01	1.92E-01	2.00E+00	2.00E+01	9.6E-02	9.6E-03
PHENANTHRENE	9.69E-01	1.67E+00	9.16E-03	2.46E-01	2.55E-01	2.00E+00	2.00E+01	1.3E-01	1.3E-02
PYRENE	1.75E+00	3.06E+00	1.66E-02	4.53E-01	4.69E-01	2.00E+00	2.00E+01	2.3E-01	2.3E-02
PCBs									
AROCLOR-1260	9.21E-01	6.14E+00	8.71E-03	9.07E-01	9.16E-01	1.80E-01	1.80E+00	5.1E+00	5.1E-01
Inorganics									
ANTIMONY	3.05E-01	3.05E-01	2.88E-03	4.50E-02	4.79E-02	NV	NV	NV	NV
CADMIUM	9.95E-02	1.32E+00	9.41E-04	1.95E-01	1.96E-01	1.47E+00	6.35E+00	1.3E-01	3.1E-02
IRON	8.24E+03	8.24E+03	7.79E+01	1.22E+03	1.30E+03	1.00E+02	1.00E+03	1.3E+01	1.3E+00
LEAD	1.30E+01	6.39E+00	1.23E-01	9.44E-01	1.07E+00	1.63E+00	4.46E+01	6.5E-01	2.4E-02
MERCURY	6.08E-02	4.21E-01	5.75E-04	6.22E-02	6.28E-02	6.40E-03	6.40E-02	9.8E+00	9.8E-01
SELENIUM	5.01E-01	5.59E-01	4.73E-03	8.25E-02	8.73E-02	2.90E-01	8.19E-01	3.0E-01	1.1E-01
THALLIUM	2.11E-01	2.11E-01	1.99E-03	3.11E-02	3.31E-02	NV	NV	NV	NV
VANADIUM	2.22E+01	9.31E-01	2.09E-01	1.37E-01	3.47E-01	3.44E-01	1.69E+00	1.0E+00	2.1E-01

Surface water samples were not collected so this exposure pathway is not included in the food chain model.
Cells are shaded if the value is greater than 1.0

Body Weight = (BW)	8.04E-02	Dose (soil) = (Cs * Is)(H)/BW	Conc = Concentration
Food Ingestion Rate = (If)	1.19E-02	Dose (invertebrate) = (Ci * If)(H)/BW	LOAEL = Lowest Observed Adverse Effects Concentration
Soil Ingestion Rate = (Is)	7.60E-04	Ci = Contaminant concentration in invertebrate	NOAEL = No Observed Adverse Effects Concentration
Home Range = (HR)	6.10E-01	Cs = Contaminant concentration in soil	NV- Value Not Available/Not Able to be Calculated
Contaminated Area = (CA)	Assume equal to 1	Total Dose = Dose (soil) + Dose (vegetation)	
		H=CA/HR (Assume = to 1)	